Dragages -China Harbour-VSL JV

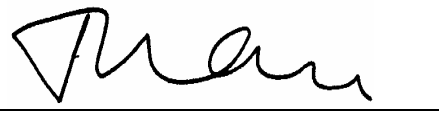
Contract HY/2011/09

Hong Kong-Zhuhai-Macao Bridge

Hong Kong Link Road-Section between HKSAR Boundary and Scenic Hill

Baseline Environmental Monitoring Report

June 2013
(Version 6.0)

Certified By 

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REMARKS:

The information supplied and contained within this report is, to the best of our knowledge, correct at the time of printing.

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EXECUTIVE SUMMARY

1. This Baseline Environmental Monitoring Report is prepared by Cinotech Consultants Ltd. for the project "Contract No. HY/2011/09 – Hong Kong-Zhuhai-Macao Bridge Hong Kong Link Road – Section between HKSAR Boundary and Scenic Hill" (hereinafter called the "Contract").

2. According to the Environmental Monitoring and Audit Manual for Hong Kong Link Road (EM&A Manual), the baseline air quality, noise, water quality and ecological (Chinese White Dolphin Monitoring) monitoring at the designated monitoring stations as required in EM&A Manual have already been conducted in 2011, under Agreement No. CE 35/2011 (EP) – Baseline Environmental Monitoring for Hong Kong – Zhuhai – Macao Bridge Hong Kong Bridge Hong Kong Projects – Investigation prior to the commencement of Contract.

3. There are a total of two air quality monitoring stations, two noise monitoring station and fourteen water quality monitoring stations and one survey area (West Lantau) for line transect monitoring for the Contract. As these environmental monitoring locations (except water quality monitoring station, SRA) were also covered in the baseline environmental monitoring in 2011. The baseline monitoring data in 2011 are considered suitable to be adopted for the Contract.

4. In addition, the baseline for underwater noise and dolphin north-south movement were conducted for the Contract in accordance with the EM&A Manual. Baseline for dolphin acoustic behaviour monitoring was also conducted. Baseline water quality monitoring at additional monitoring station (SRA) was carried out according to Supporting Document for Variations of EP (EP-352/2009).

5. Therefore, this report presents the baseline environmental monitoring works conducted in 2011, baseline monitoring results for underwater noise, dolphin north-south movement, dolphin acoustic behaviour and baseline water quality monitoring results at SRA.

6. The baseline environmental monitoring works for the parameters of 1-hour and 24-hour Total Suspended Particulates (TSP), noise, water quality conducted at each monitoring stations and ecology (Chinese White Dolphin Monitoring) under the Contract are presented in **Table I to Table IV** and the baseline environmental monitoring works for underwater noise, dolphin north-south movement and dolphin acoustic behaviour are presented in Section 11 to 13.

Air Quality

Table I Baseline Air Quality Monitoring Period

Designated Monitoring Stations under Contract	Baseline Monitoring Period
AMS 1 - Sha Lo Wan	18/10/2011 – 31/10/2011
AMS 4 - San Tau	18/10/2011 – 31/10/2011

7. During the monitoring, there was no major dust generating activities undertaken in the vicinity of the monitoring stations. Data collected was reviewed and analyzed to determine the Action and Limit Levels for air quality during impact monitoring throughout the construction of the Contract. Details of the methodology, locations and results are presented in the report.

Noise

Table II Baseline Noise Monitoring Period

Designated Monitoring Stations under Contract	Baseline Monitoring Period
NMS 1 - Sha Lo Wan	18/10/2011 – 1/11/2011
NMS 4 - San Tau	18/10/2011 – 1/11/2011

8. Monitoring data collected was reviewed and analyzed. Details of the locations and results are presented in this report. The baseline noise monitoring data was processed according to the following periods:

- Daytime: 0700-1900 hrs on normal weekdays
- Evening-time: 1900-2300 hrs
- Holiday-time: 0700-1900 hrs on holidays
- Night-time: 2300-0700 hrs of next day

Water Quality

Table III Baseline Water Quality Monitoring Period

Designated Monitoring Stations under Contract	Parameters, unit	Baseline Monitoring Period
14 monitoring stations: IS1, IS2, IS3, IS4, SR1, SR2, SR3, SR6, ***SRA**, CS1, CS2, ST1, ST2, ST3	• Temperature(°C) • pH(pH unit) • turbidity (NTU) • water depth (m) • salinity (ppt) • dissolved oxygen (DO) (mg/L and % of saturation) • suspended solids (SS) (mg/L)	6/10/2011 – 31/10/2011 ***SRA:** 2/11/2012 – 2/12/2012 (3 days per week, at mid-flood and mid-ebb tides, for a period of 4 weeks prior to the commencement of the marine works)

* Additional monitoring points from EM&A Manual

9. The data was processed, reviewed and analyzed to establish the Action and Limit Levels for dissolved oxygen, turbidity and suspended solids for impact monitoring throughout the construction of the Contract.

Dolphin Monitoring (Line-transect Vessel Surveys)

Table IV Baseline Dolphin Monitoring Period

Date of Baseline Dolphin Monitoring		Survey Area
1	05/09/2011	W LANTAU + NW LANTAU
2	07/09/2011	NW LANTAU + NE LANTAU
3	16/09/2011	NW LANTAU + NE LANTAU
4	23/09/2011	W LANTAU + NW LANTAU
5	06/10/2011	NE LANTAU + NW LANTAU
6	10/10/2011	NW LANTAU + NE LANTAU
7	13/10/2011	NE LANTAU
8	17/10/2011	W LANTAU + NW LANTAU
9	28/10/2011	NW LANTAU + W LANTAU
10	01/11/2011	NW LANTAU + NE LANTAU
11	02/11/2011	W LANTAU + NW LANTAU
12	05/11/2011	NW LANTAU + NE LANTAU
13	06/11/2011	NE LANTAU
14	07/11/2011	NW LANTAU + W LANTAU

* NW Lantau = Northwest Lantau Survey Area, NE Lantau = Northeast Lantau Survey Area, W Lantau = West Lantau

10. Summary of findings are presented in Section 6 and details of the methodology, locations and results can be referred to the Baseline Monitoring Report for HY/2010/02 Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities – Reclamation Works (HKBCF).

Underwater Noise Monitoring

11. Baseline underwater noise monitoring was conducted from 24th November 2012 to 22nd December 2012 for 28 continuous days at a monitoring station near one of the first three bored piling sites. Summary of findings are presented in Section 6 and details of the methodology, locations and results can be referred to the Baseline Underwater Noise Monitoring Report in **Appendix E**.

Dolphin North-South Movement Monitoring

12. Baseline land-based dolphin behaviour and movement monitoring was conducted from 29th December 2012 to 30th January 2013 using theodolite tracking technique at Sham Wat station. Summary of findings are presented in Section 7 and details of the methodology, locations and results can be referred to the Baseline Land-based Dolphin Behaviour and Movement Monitoring Report in **Appendix F**.

Dolphin Acoustic Behaviour Monitoring

13. Baseline dolphin acoustic behaviour monitoring was conducted from 15th January to 22nd February 2013. The dolphin acoustic activities measured using both acoustic survey and passive acoustic monitoring methods. Summary of findings are presented in Section 8 and details of the methodology, locations and results can be referred to the Baseline Dolphin Acoustic Behaviour Monitoring Report in **Appendix H**.

1 INTRODUCTION

Background

1.1 The proposed Hong Kong - Zhuhai - Macao Bridge Hong Kong Link Road (HKLR) is 12km long connecting the Hong Kong-Zhuhai-Macao Bridge (HZMB) at the HKSAR Boundary with the Hong Kong Boundary Crossing Facilities (HKBCF) situated at the north eastern waters of the Hong Kong International Airport, opening a new and direct connection route between Hong Kong, Macao and the Western Pearl River Delta.

1.2 The HKLR comprises a 9.4km long viaduct section from the HKSAR boundary to Scenic Hill on the Airport Island; a 1km tunnel section to the reclamation formed along the east coast of the Airport Island and a 1.6km long at-grade road section on the reclamation connecting to the HKBCF. The tunnel section of HKLR will pass under Scenic Hill, Airport Road and Airport Railway to minimize the environmental and visual impacts to Tung Chung residents.

1.3 An application (No ESB-110/2003) for an Environmental Impact Assessment (EIA) Study Brief under Section 5(1) of the Environmental Impact Assessment Ordinance (EIAO) was submitted by Highways Department (the Project Proponent) on 8 October 2003 with a Project Profile (No. No. PP-201/2003) for the Hong Kong - Zhuhai - Macao Bridge Hong Kong Section and North Lantau Highway Connection. The Hong Kong - Zhuhai - Macao Bridge Hong Kong Section and North Lantau Highway Connection has subsequently been renamed as HKLR. EPD issued an EIA Study Brief (No: ESB-110/2003) in November 2003 to the Project Proponent to carry out an EIA study.

1.4 An EIA Study (Reg. No. AEIAR-144/2009) has been undertaken to provide information on nature and extent of environmental impacts arising from the construction and operation of HKLR. The Environmental Permit was issued on 4 November 2009 (Permit No. EP-352/2009). Pursuant to Section 13 of the EIAO, the Director of Environmental Protection amends the Environmental Permit (No. EP-352/2009) based on the Application No. VEP-339/2011 and the environmental Permit (Permit No. EP-352/2009/A) was issue on 9 November 2011 for HKLR to the Highways Department as the Permit Holder.

1.5 The Hong Kong Link Road project has been separated into two contracts. They are Contract No. HY/2011/03 Hong Kong-Zhuhai-Macao Bridge Hong Kong Link Road-Section between Scenic Hill and Hong Kong Boundary Crossing Facilities (hereafter referred to as the Contract) and Contract No. HY/2011/09 Hong Kong-Zhuhai-Macao Bridge Hong Kong Link Road-Section between HKSAR Boundary and Scenic Hill. The split of environmental monitoring and audit works for these two contracts have been clarified in Environmental Project Office's letter ref.: HYDHZMBEEM00_0_0424L.12 which was sent to Environmental Protection Department on 17 October 2012.

1.6 Dragages -China Harbour-VSL JV (hereinafter called "the Contractor") was awarded as the main contractor of the project "Contract No. HY/2011/09 – Hong Kong-Zhuhai-

Macao Bridge Hong Kong Link Road – Section between HKSAR Boundary and Scenic Hill" (hereinafter called the "Contract") and Cinotech Consultants Limited was commissioned by the Contractor as the Environmental Team of the Contract in accordance with EP Conditions 2.1. **Figure 1** shows the layout of the Contract and the scope of the Contract works comprises the following major items:

- a dual 3-lane carriageway in the form of viaduct from the HKSAR boundary (connecting with the HZMB Main Bridge) to the Scenic Hill (connecting with the tunnel under separate Contract No. HY/2011/03), of approximately 9.4km in length with a hard shoulder for each bound of carriageway and a utilities trough on the outer edge of each bound of viaducts;
- a grade-separated turnaround facility located near San Shek Wan, composed of sliproads in the form of viaduct with single-lane carriageway bifurcated from the HKLR mainline with an elevated junction above the mainline;
- provision of ancillary facilities including, but not limited to, meteorological enhancement measures including the provisioning of anemometers and modification of the wind profiler station at hillside of Sha Lo Wan, provisioning of a compensatory marine radar, and provisioning of security systems; and
- associated civil, structural, geotechnical, marine, environmental protection, landscaping, drainage and highways electrical and mechanical (E&M) works, street lightings, traffic aids and sign gantries, marine navigational aids, ship impact protection system, water mains and fire hydrants, lightning protection system, structural health monitoring and maintenance management system (SHM&MMS), supervisory control and data acquisition (SCADA) system, as well as operation and maintenance provisions of viaducts, provisioning of facilities for installation of traffic control and surveillance system (TCSS), provisioning of facilities for installation of telecommunication cables/equipments and reprovisioning works of affected existing facilities/utilities.

1.7 The scope of the EM&A monitoring works for this Contract follows the demarcation of EM&A works amongst HZMB projects as set out in ENPO's letter dated 17 October 2012.

1.8 To facilitate early commencement of the HKBCF reclamation works and the TM-CLKL advance Southern Landfall reclamation works, baseline environmental monitoring works for the air quality, noise, water quality and ecology (Chinese White Dolphin Monitoring) was conducted in 2011 according to the requirements in the Environmental Monitoring and Audit (EM&A) Documents as described in **Table 1.1**.

Table 1.1 Summary of EM&A Documents

Projects	EM&A Documents
HKLR	➢ EIA Report (Register No.: AEIAR-144/2009) ➢ Environmental Permits (EPs): • EP-352/2009 ➢ Revised EM&A Manual for the HKLR (Date of Report: 16 December 2011)
HKBCF	➢ EIA Report (Register No.: AEIAR-145/2009) ➢ Environmental Permits (EPs): • EP-353/2009 • EP-353/2009/A • EP-353/2009/B ➢ Supporting Information for Application for Variation of Environmental Permit for HKBCF (EP 353/2009), the Supporting Information for Application for Variation of Environmental Permit for HKBCF (EP 353/2009A) ➢ Revised EM&A Manual for the HKBCF (Date of Report: 16 December 2011)
TM-CLKL	➢ EIA Report (Register No.: AEIAR-146/2009) ➢ Environmental Permits (EPs): • EP-354/2009 • EP-354/2009/A ➢ Supporting Information for Application for Variation of Environmental Permit for TM-CLKL (EP 354/2009) ➢ Revised EM&A Manual for the TM-CLKL (Date of Report: 16 December 2011)

1.9 A Baseline Environmental Monitoring Report (Version C) for Hong Kong-Zhuhai-Macao Bridge Hong Kong Projects – Investigation (hereafter referred to as "BEMR") under Agreement No. CE 35/2011 (EP) was prepared in 2011 to fulfill environmental permit conditions for HKBCF (including TM-CLKL southern landfall) project. The BEMR was submitted under HY/2010/02 Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities – Reclamation Works which is available from the website of Environmental Project Office (ENPO) for the Hong Kong-Zhuhai-Macao Bridge Hong Kong Link Road (HKLR), Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities (HKBCF), & Tuen Mun-Chek Lap Kok Link (TM-CLKL):

http://www.hzmbenpo.com/

1.10 This Baseline Environmental Monitoring Report is prepared by Cinotech to fulfill the baseline monitoring requirements according to the EM&A Documents for HKLR for commencing the construction of the Contract.

Purpose of the Report

1.11 The baseline monitoring data collected in 2011 are considered suitable to be adopted for the Contract based on the following reasons:

- To avoid the establishment of two sets of environmental monitoring results at the same monitoring stations including the Action and Limit Levels for air quality and water quality; and
- The baseline environmental monitoring results collected in 2011 are more representative to show the ambient condition before the commencement of the Contract as HKBCF reclamation works and the TM-CLKL advance Southern Landfall reclamation works have been commenced.

1.12 This report presents the baseline environmental monitoring works for the air quality, noise, water quality and ecology (Chinese White Dolphin Monitoring) extracted from the baseline environmental report in 2011, baseline monitoring works for underwater noise, dolphin north-south movement, dolphin acoustic behaviour and baseline water quality monitoring works at SRA. These baseline levels will be used as the basis for compliance check during the impact monitoring in construction stage of the Contract. This Report presents the locations, equipment, period, methodology, results and observations for the air quality and noise monitoring during the baseline period.

Structure of the Baseline Monitoring Report

1.13 The structure of the Report is summarized as follows:

Section 1: Introduction, purpose, background and the structure of the report.

Section 2: Air Quality, which describes the baseline air quality monitoring.

Section 3: Noise, which describes the baseline noise monitoring.

Section 4: Water Quality, which describes the baseline water quality monitoring.

Section 5: Dolphin Monitoring (line-transect vessel surveys), which describes the baseline results for line-transect vessel surveys.

Section 6: Underwater Noise, which describes the underwater noise monitoring.

Section 7: Dolphin North-South Movement, which describes the dolphin north-south movement monitoring.

Section 8: Conclusions

2 AIR QUALITY

Monitoring Requirement

2.1 According to the EM&A Documents for HKLR listed in Table 1.1, baseline air quality monitoring shall be carried out for a period of fourteen days, in terms of 1-hour and 24-hour Total Suspended Particulates (TSP) at all the monitoring locations. Monitoring of 1-hour TSP shall be carried out at least three times per day while that of 24-hour TSP shall be conducted daily for 14 consecutive days.

Monitoring Locations

2.2 Baseline air quality monitoring was conducted at the two monitoring stations under the Contract, as shown in **Figure 2**. **Table 2.1** describes the locations of the air quality monitoring stations.

Table 2.1 Location for Air Quality Monitoring Locations

Monitoring Stations	Location
AMS 1	Sha Lo Wan
AMS 4	San Tau

Monitoring Equipment

2.3 High Volume Samplers (HVS) were used to carry out 24-hour TSP monitoring. Direct reading dust meter were also used to measure 1-hour average TSP levels. The 1-hour sampling was determined periodically by HVS to check the validity and accuracy of the results measured by direct reading method.

2.4 Wind data monitoring equipment was set at Rooftop of Village Office at San Tau for logging wind speed and wind direction such that the wind sensors are clear of obstructions or turbulence caused by building. The wind data monitoring equipment is re-calibrated at least once every six months and the wind directions are divided into 16 sectors of 22.5 degrees each. The location is shown in **Figure 2**.

2.5 The equipment used in the baseline air quality monitoring programme and copies of the calibration certificates for the equipment can be referred to the Baseline Environmental Monitoring Report for HKBCF.

Monitoring Parameters, Frequency and Duration

2.6 **Table 2.2** summarizes the monitoring parameters, monitoring period and frequencies of baseline air quality monitoring.

Table 2.2 Frequency and Parameters of Air Quality Monitoring

Monitoring Station	Location for Measurement	Parameter	Period	Frequency
AMS 1	Area in front of No. 9 Sha Lo Wan	1-hour TSP	0700-1900	3 times/day
AMS 4	San Tau (Rooftop of Village Office)	24-hour TSP	24 hours	Daily

Monitoring Methodology and Quality Assurance / Quality Control (QA/QC) Procedure

2.7 Weather data was recorded during the baseline period can be referred to the Baseline Environmental Monitoring Report for HKBCF. The air temperature, precipitation and the relative humidity data was obtained from Hong Kong Observatory where the wind speed and wind direction were recorded by the installed Wind Anemometer. The general weather conditions (i.e. sunny, cloudy or rainy) were recorded by the field staff's observation on the monitoring days.

24 hour TSP and RSP Air Quality Monitoring

Instrumentation

2.8 High volume Samplers (HVS) completed with appropriate sampling inlets were employed for air quality monitoring. Each sampler was composed of a motor, a filter holder, a flow controller and a sampling inlet and its performance specification complies with that required by USEPA Standard Title 40, Code of Federation Regulations Chapter 1 (Part 50).

HVS Installation

2.9 The following guidelines were adopted during the installation of HVS:

- Sufficient support was provided to secure the samplers against gusty wind.
- No two samplers were placed less than 2 meters apart.
- The distance between the sampler and an obstacle, such as buildings, was at least twice the height that the obstacle protrudes above the sampler.
- A minimum of 2 meters of separation from walls, parapets and penthouses was required for rooftop samples.
- A minimum of 2 meters separation from any supporting structure, measured horizontally was required.
- No furnaces or incineration flues were nearby.

- Airflow around the sampler was unrestricted.
- The samplers were more than 20 meters from the drip line.
- Any wire fence and gate, to protect the sampler, should not cause any obstruction during monitoring.

Filters Preparation

2.10 Fiberglass filters were used [Note: these filters have a collection efficiency of larger than 99% for particles of 0.3μm diameter]. A HOKLAS accredited laboratory, Wellab Ltd., was responsible for the preparation of 24-hr conditioned and pre-weighed filter papers for Cinotech's monitoring team.

2.11 All filters, which were prepared by Wellab Ltd., were equilibrated in the conditioning environment for 24 hours before weighing. The conditioning environment temperature was around 25 °C and not variable by more than ±3 °C; the relative humidity (RH) was < 50% and not variable by more than ±5%. A convenient working RH was 40%.

2.12 Wellab Ltd. has a comprehensive quality assurance and quality control programmes.

Operating/Analytical Procedures

2.13 Operating/analytical procedures for the air quality monitoring were highlighted as follows:

- Prior to the commencement of the dust sampling, the flow rate of the HVS was properly set (between 1.1 m^3/min. and 1.4 m^3/min.) in accordance with the manufacturer's instruction to within the range recommended in USEPA Standard Title 40, CFR Part 50.
- The power supply was checked to ensure the sampler worked properly.
- On sampling, the sampler was operated for 5 minutes to establish thermal equilibrium before placing any filter media at the designated air quality monitoring station.
- The filter holding frame was then removed by loosening the four nuts and carefully a weighted and conditioned filter was centered with the stamped number upwards, on a supporting screen.
- The filter was aligned on the screen so that the gasket formed an airtight seal on the outer edges of the filter. Then the filter holding frame was tightened to the filter holder with swing bolts. The applied pressure should be sufficient to avoid air leakage at the edges.
- The shelter lid was closed and secured with the aluminum strip.
- The timer was then programmed. Information was recorded on the record sheet, which included the starting time, the weather condition and the filter number (the initial weight of the filter paper can be found out by using the filter number).
- After sampling, the filter was removed and sent to the Wellab Ltd. for weighing. The elapsed time was also recorded.
- Before weighing, all filters were equilibrated in a conditioning environment for 24

hours. The conditioning environment temperature should be between 25°C and 30°C and not vary by more than ±3°C; the relative humidity (RH) should be < 50% and not vary by more than ±5%. A convenient working RH is 40%. Weighing results were returned to Cinotech for further analysis of TSP concentrations collected by each filter.

Maintenance/Calibration

2.14 The following maintenance/calibration was required for the HVS:

- The high volume motors and their accessories were properly maintained. Appropriate maintenance such as routine motor brushes replacement and electrical wiring checking were made to ensure that the equipment and necessary power supply are in good working condition.
- All HVS were calibrated (five point calibration) using Calibration Kit prior to the commencement of the baseline monitoring and thereafter at bi-monthly intervals.

1 hour TSP Air Quality Monitoring

Measuring Procedures

2.15 The measuring procedures of the 1-hour dust meter are in accordance with the Manufacturer's Instruction Manual as follows:

- The 1-hour dust meter is placed at least 1.3 meters above ground.
- Set POWER to "ON" and make sure that the battery level was not flash or in low level.
- Allow the instrument to stand for about 3 minutes and then the cap of the air sampling inlet has been released.
- Push the knob at MEASURE position.
- Set time/mode setting to [BG] by pushing the time setting switch. Then, start the background measurement by pushing the start/stop switch once. It will take 6 sec. to complete the background measurement.
- Push the time setting switch to change the time setting display to [MANUAL] at the bottom left of the liquid crystal display. Finally, push the start/stop switch to stop the measuring after 1 hour sampling.
- Information such as sampling date, time, count value and site condition were recorded during the monitoring period.

Maintenance/Calibration

2.16 The following maintenance/calibration is required for the 1-hour dust meter;

- Check and calibrate the meter by HVS to check the validity and accuracy of the results measured by direct reading method at 2-month intervals throughout all stages of the air quality monitoring.

Results and Observations

Results

2.17 Baseline air quality monitoring was conducted at two monitoring stations, namely AMS1 - Sha Lo Wan and AMS4 - San Tau in the period between 18th October 2011 and 31st October 2011. The detailed monitoring schedule is shown in **Appendix A**.

2.18 The monitoring data are summarized in **Tables 2.3 and 2.4**. All monitoring data and graphical presentations of 1-hour and 24-hour TSP can be referred to **Appendix G** and the Baseline Environmental Monitoring Report for HKBCF respectively**.** Detailed weather conditions during the baseline monitoring period are shown in **Appendix B**.

Table 2.3 Summary of Baseline 1-hour TSP Monitoring Results

Monitoring Station	Average TSP Concentration, µg/m^3 (Range)
AMS1 - Sha Lo Wan	202.2 (67.6 – 353.5)
AMS4 - San Tau	157.1 (55.7 – 264.6)

Table 2.4 Summary of Baseline 24-hour TSP Monitoring Results

Monitoring Station	Average TSP Concentration, µg/m^3 (Range)
AMS1 - Sha Lo Wan	62.2 (39.0 – 87.8)
AMS4 - San Tau	62.4 (33.5 – 124.0)

Observations

2.19 The weather was generally sunny and fine during the baseline monitoring period.

2.20 During the baseline air quality monitoring period, the influencing factors which may affect the results are summarized in **Table 2.5**:

Table 2.5 Influencing Factors at Dust Monitoring Stations

Monitoring Station	Influencing Factors
AMS 1	Shallow sand beach nearby
AMS 4	N/A

Action and Limit Levels

2.21 The Action and Limit Levels have been set in accordance with the EM&A Documents for HKLR, which are summarized in **Table 2.6**.

Table 2.6 Guidelines for Establishing Action and Limit Levels for Air Quality

Parameters	Action Level	Limit Level
1-hour TSP Level in $\mu g/m^3$	For baseline level $\leq 384\mu g/m^3$, Action level = (Baseline level * 1.3 + Limit level)/2 For baseline level > $384\mu g/m^3$, Action level = Limit level	500
24-hour TSP Level in $\mu g/m^3$	For baseline level $\leq 200\mu g/m^3$, Action level = (Baseline level * 1.3 + Limit level)/2 For baseline level > $200\mu g/m^3$, Action level = Limit level	260

2.22 Following the above guidelines, the Action and Limit Levels for air quality impact monitoring have been set, as presented in **Tables 2.7** and **2.8**.

Table 2.7 Action and Limit Levels for 1-hour TSP

Location	Action Level, $\mu g/m^3$	Limit Level, $\mu g/m^3$
AMS1	381	500
AMS4	352	

Table 2.8 Action and Limit Levels for 24-hour TSP

Location	Action Level, $\mu g/m^3$	Limit Level, $\mu g/m^3$
AMS1	170	260
AMS4	171	

3 NOISE

Monitoring Requirement

3.1 According to the EM&A Documents for HKLR listed in Table 1.1, baseline noise monitoring shall be carried out for a period of fourteen days at all the monitoring locations.

3.2 The noise levels shall be measured in terms of the A-weighted equivalent continuous sound pressure level (Leq).

3.3 Logger function check and calibration was carried out according to manufacturer's recommendations. The equipment was checked and inspected not less than once every two days after the set up at each monitoring station.

Monitoring Locations

3.4 Baseline noise monitoring was conducted at the two monitoring stations under the Contract, as shown in **Figure 2**. **Table 3.1** describes the locations of the noise monitoring stations.

Table 3.1 Location for Noise Monitoring Stations

Monitoring Stations	Location
NMS 1	Sha Lo Wan
NMS 4	San Tau

Monitoring Equipment

3.5 Integrating Sound Level Meter was used for noise monitoring. The meter is a Type 1 sound level meter capable of giving a continuous readout of the noise level readings including equivalent continuous sound pressure level (Leq) and percentile sound pressure level (Lx) and also complied with International Electrotechnical Commission Publications 651:1979 (Type 1) and 804:1985 (Type 1) specifications. The noise monitoring equipment being used and copies of the calibration certificates for the sound level meter and calibrator can be referred to the Baseline Environmental Monitoring Report for HKBCF..

Monitoring Parameters, Frequency and Duration

3.6 In accordance with the EM&A Documents, baseline noise for the A-weighted levels L_{eq}, L_{10} and L_{90} was recorded. Data obtained from the baseline noise monitoring was processed and presented according to the following periods:

- Daytime: 0700-1900 hrs on normal weekdays
- Evening-time: 1900-2300 hrs
- Holiday-time: 0700-1900 hrs on holidays
- Night-time: 2300-0700 hrs of next day

3.7 The frequency and parameters of noise measurement are presented in **Table 3.2.**

Table 3.2 Frequency and Parameters of Noise Monitoring

Monitoring Stations	Location for Measurement	Time Period	Duration, min	Parameter
NMS 1	Area in front of No. 12 Sha Lo Wan	Daytime on normal weekdays (0700-1900 hrs)	30 min	L_{eq}, L_{10} & L_{90}
		Evening time on all days (1900-2300 hrs) and Holidays (including Sundays) during daytime and evening (0700-1900 hrs) All days during the night-time (2300-0700 hrs)	5 min	
NMS 4	San Tau (Rooftop of Village Office)			

Monitoring Methodology and QA/QC Procedures

3.8 **Table 3.3** summarizes the types of measurement undertaken in the two monitoring stations.

Table 3.3 Type of Measurement

Monitoring Station	Measurement
NMS 1	Free Field measurement
NMS 4	Free Field measurement

3.9 Weather data was recorded during the baseline period and is presented in **Appendix B**. The air temperature, precipitation and the relative humidity data was obtained from Hong Kong Observatory where the wind speed and wind direction were recorded by the installed Wind Anemometer. The general weather conditions (i.e. sunny, cloudy or rainy) were recorded by the field staff's observation on the monitoring days.

Field Monitoring

3.10 The monitoring procedures are as follows:

- The microphone head of the head level meter was normally positioned 1m exterior of the noise sensitive facade and lowered sufficiently so that the building's external wall acts as a reflecting surface.
- For free field measurement, the meter was positioned away from any nearby reflective surfaces. All records for free field noise levels will be adjusted with a correction of +3 dB(A).
- The battery condition was checked to ensure good functioning of the meter.
- Parameters such as frequency weighting, the time weighting and the measurement time were set as follows:

  - frequency weighting : A
  - time weighting : Fast
  - measurement time : 5 minutes ($L_{eq\ (30\text{-}min)}$ would be determined for daytime noise by calculating the logarithmic average of six $L_{eq\ (5min)}$ data.)

- Prior to and after noise measurement, the meter was calibrated using the calibrator for 94.0 dB at 1000 Hz. If the difference in the calibration level before and after measurement is more than 1.0 dB, the measurement was considered invalid and repeat of noise measurement was required after re-calibration or repair of the equipment.
- Noise monitoring was carried out continuously for 24 hours during the 14 days baseline monitoring period. Monitoring data was recorded and stored automatically within the sound level meter system. At the end of the monitoring period, noise levels in term of L_{eq}, L_{90} and L_{10} were recorded. In addition, site conditions and noise sources were recorded when the equipment were checked and inspected every two days.
- All the monitoring data within the sound level meter system was downloaded through the computer software, and all these data was checked and reviewed within the computer.

Maintenance and Calibration

3.11 Maintenance and Calibration procedures were as follows:

- The microphone head of the sound level meter and calibrator were cleaned with a soft cloth at quarterly intervals.

- The sound level meter and calibrator were checked and calibrated at yearly intervals.
- Immediately prior to and following each noise measurement the accuracy of the sound level meter shall be checked using an acoustic calibrator generating a known sound pressure level at a known frequency. Measurements may be accepted as valid only if the calibration levels from before and after the noise measurement agree to within 1.0 dB.

Results and Observations

Results

3.12 Baseline noise monitoring was conducted at the six monitoring station in the period between 18th October 2011 and 1st November 2011. The monitoring schedule is shown in **Appendix A**.

3.13 The baseline noise monitoring results are summarized in **Table 3.4** to **3.6**. All baseline noise monitoring results and graphical presentations of the data can be referred to **Appendix G** and the Baseline Environmental Monitoring Report for HKBCF respectively. Weather conditions recorded during the baseline monitoring period are shown in **Appendix B**.

Table 3.4 Summary of Daytime Noise Monitoring Results (Normal Weekdays)

Daytime 0700-1900 hrs on normal weekdays	**Range of Noise Level, dB(A)**								
	$L_{eq\ (30\ min)}$			$L_{10\ (5\ min)}$			$L_{90\ (5\ min)}$		
	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min
NMS 1	66.9	77.2	48.9	69.6	85.0	46.6	52.7	77.2	38.3
NMS 4	56.0	70.9	49.1	57.7	82.1	47.1	52.1	57.1	42.9

Table 3.5 Summary of Evening-Time & Daytime (Holidays) Noise Monitoring Results

Evening-time 1900-2300 hrs on all days & Daytime 0700-1900 hrs on holidays	Range of Noise Level, dB(A)								
	$L_{eq\ (5\ min)}$			$L_{10\ (5\ min)}$			$L_{90\ (5\ min)}$		
	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min
NMS 1	67.1	79.2	42.0	70.6	84.0	44.8	52.9	76.2	35.5
NMS 4	56.2	66.5	48.0	58.2	70.4	50.3	52.9	56.4	44.3

Table 3.6 Summary of Night-Time Noise Monitoring Results

Night-time 2300-0700 hrs of the next day	Range of Noise Level, dB(A)								
	$L_{eq\ (5\ min)}$			$L_{10\ (5\ min)}$			$L_{90\ (5\ min)}$		
	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min
NMS 1	59.3	82.7	40.5	62.2	89.4	42.4	49.3	71.7	37.0
NMS 4	54.6	66.8	42.7	56.0	65.3	44.3	52.4	56.8	41.0

Observations

3.14 The weather was generally sunny and fine during the baseline monitoring periods.

3.15 During the baseline noise monitoring period, the influencing factors which may affect the results are summarized in **Table 3.7**:

Table 3.7 Influencing Factors at Noise Monitoring Stations

Monitoring Station	Influencing Factors
NMS 1	Air traffic noise
NMS 4	Insect and bird calling

Action and Limit Levels

3.16 The Action and Limit Levels were established in accordance with the EM&A Documents for HKLR. The baseline noise level shall be referenced during the compliance check in the impact noise monitoring period. **Table 3.8** presents the Action and Limit Levels for construction noise.

Table 3.8 Action Limit Levels for Noise during Construction Period

Time Period	Action Level	Limit Level
0700-1900 hrs on normal weekdays	When one documented complaint is received	75 dB(A) *

Noted: If works are to be carried during restricted hours, the conditions stipulated in the construction noise permit issued by the Noise Control Authority have to be followed.
(*) reduce to 70 dB(A) for schools and 65 dB(A) during school examination periods.

4 WATER QUALITY

Monitoring Requirement

4.1 According to the EM&A Documents for HKLR, baseline water quality monitoring shall be carried out three times per week for a period of 4 weeks at all the monitoring locations prior to the commencement of marine works. The interval between two sets of monitoring will not be less than 36 hours.

4.2 Replicate in-situ measurements and samples collected from each independent sampling event shall be collected to ensure a robust statistically interpretable database.

4.3 Baseline water quality monitoring was conducted three times per week for four consecutive weeks prior to the commencement of marine works. Monitoring took place two times per monitoring day during mid ebb (within $\pm$ 1.75 hours of the predicted time) and mid flood tides (within $\pm$ 1.75 hours of the predicted time) at three depths (i.e. 1m below surface, mid-depth and 1m above seabed, except where the water depth less than 6m, mid-depth station may be omitted. Should the water depth be less than 3m, only the mid-depth station was monitored) Dissolved oxygen, Suspended solids (SS), turbidity, pH, salinity and temperature were monitored in accordance with the requirements set out in the EM&A Documents.

Monitoring Locations

4.4 Baseline water quality monitoring was conducted at 14 monitoring stations under the Contract which are summarized in **Table 4.1**. The monitoring station is also shown in **Figure 3.**

Table 4.1 Location for Marine Water Quality Monitoring Locations

Monitoring Stations	Coordinates	
	Easting	Northing
IS1	803474	815060
IS2	804851	815715
IS3	806502	815743
IS4	807008	816986
CS1	801784	812711
CS2	805849	818780
SR1	803126	812379
SR2	807856	816953
SR3	810525	816456
SR6	805837	821818
ST1	802677	816006
ST2	804055	818840
ST3	800667	810126
SRA	809872	817152

Monitoring Equipment

Dissolved Oxygen (DO) and Temperature Measuring Equipment

4.5 The instrument for measuring dissolved oxygen and temperature was portable and weatherproof complete with cable, sensor, comprehensive operation manuals and use DC power source. It was capable of measuring:

- a dissolved oxygen level in the range of 0-20 mg/L and 0-200% saturation; and
- a temperature of 0-45 degree Celsius.

4.6 It has a membrane electrode with automatic temperature compensation complete with a cable.

4.7 Sufficient stocks of spare electrodes and cables were available for replacement where necessary.

4.8 Salinity compensation was built-in in the DO equipment.

Turbidity

4.9 Turbidity was measured in situ by the nephelometric method. The instrument was portable and weatherproof using a DC power source complete with cable, sensor and comprehensive operation manuals. The equipment was capable of measuring turbidity between 0-1000 NTU. The probe cable was not less than 25m in length. The meter was calibrated in order to establish the relationship between NTU units and the levels of suspended solids. The turbidity measurement was carried out on split water sample collected from the same depths of suspended solids samples.

Sampler

4.10 A water sampler, consisting of a transparent PVC or glass cylinder of a capacity of not less than two litres which can be effectively sealed with cups at both ends was used. The water sampler has a positive latching system to keep it open and prevent premature closure until released by a messenger when the sampler was at the selected water depth.

Water Depth Detector

4.11 A portable, battery-operated echo sounder was used for the determination of water depth at each designated monitoring station.

pH

4.12 The instrument was consisting of a potentiometer, a glass electrode, a reference electrode and a temperature-compensating device. It was readable to 0.1pH in a range of 0 to 14. Standard buffer solutions of at least pH 7 and pH 10 were used for calibration of the instrument before and after use.

Salinity

4.13 A portable salinometer capable of recording salinity within the range of 0-40 ppt was used for salinity measurements.

Monitoring Position Equipment

4.14 A hand held Global Positioning System (GPS) / Leica GS15 GNSS receiver professional (GNSS) was used during water quality monitoring to ensure the monitoring vessel is at the correct location before taking measurements.

Sample Container and Storage

4.15 Following collection, water samples for laboratory analysis were stored in high density polythene bottles (250ml/1L) with no preservatives added, packed in ice (cooled to 4°C without being frozen) and kept in dark during both on-site temporary storage and shipment to the testing laboratory. The samples were delivered to the laboratory as soon as possible and the laboratory determination works were started within 24 hours after collection of the water samples. Sufficient volume of samples was collected to achieve the detection limit.

Calibration of In Situ Instruments

4.16 All in situ monitoring instruments were checked, calibrated and certified by a laboratory accredited under HOKLAS or other international accreditation scheme before use, and subsequently re-calibrated at 3 monthly intervals throughout all stages of the water quality monitoring programme. Responses of sensors and electrodes were checked with certified standard solutions before each use. Wet bulb calibration for a DO meter was carried out before measurement at each monitoring event.

4.17 For the on site calibration of field equipment (Multi-parameter Water Quality System), the BS 1427:2009, "Guide to on-site test methods for the analysis of waters" was observed.

4.18 Sufficient stocks of spare parts were maintained for replacements when necessary. Backup monitoring equipment was also being made available so that monitoring can proceed uninterrupted even when some equipment was under maintenance, calibration, etc.

Monitoring Equipment

4.19 The equipment used in the baseline water quality monitoring program in 2011 and copies of the calibration certificates for baseline water quality monitoring program in 2011 can be referred to Baseline Environmental Monitoring Report for HKBCF.

4.20 The equipment used for baseline water quality monitoring at SRA is shown in **Table 4.2** and copies of the calibration certificates is shown in **Appendix D**. All the monitoring equipment complied with the requirements set out in the EM&A Documents for HKLR.

Table 4.2 Water Quality Monitoring Equipment at SRA

Equipment	Model and Make	Qty.
Water Sampler	Kahlsico Water-Bottle Model 135DW 150	1
Multi-parameter Water Quality System	YSI 6820-C-M	2
Monitoring Position Equipment	Leica GS15 GNSS receiver professional (GNSS)	1

Monitoring Parameters, Frequency

4.21 **Table 4.3** summarizes the monitoring parameters, monitoring period and frequencies of the water quality monitoring.

Table 4.3 Water Quality Monitoring Parameters and Frequency

Monitoring Stations	Parameters, unit	Depth	Frequency
IS1, IS2, IS3 IS4, CS1, CS2, SR1, SR2, SR3, SR6, ST1, ST2, ST3, *SRA	• Temperature(°C) • pH(pH unit) • turbidity (NTU) • water depth (m) • salinity (ppt) • dissolved oxygen (DO) (mg/L and % of saturation) • suspended solids (SS) (mg/L)	• 3 water depths: 1m below sea surface, mid-depth and 1m above sea bed. • If the water depth is less than 3m, mid-depth sampling only. • If water depth less than 6m, mid-depth may be omitted.	• Baseline monitoring: 3 days per week, at mid-flood and mid-ebb tides, for a period of 4 weeks prior to the commencement of the marine works

* Additional monitoring points from EM&A Manual

4.22 Monitoring location/position, time, water depth, sampling depth, tidal stages, weather conditions and any special phenomena or work underway nearby shall also be recorded.

Monitoring Methodology

Instrumentation

4.23 A multi-parameter meters (Model YSI 6820-C-M /YSI 6920) were used to measure DO, turbidity, salinity, pH and temperature.

Operating/Analytical Procedures

4.24 At each measurement, two consecutive measurements of DO concentration, DO saturation, salinity, turbidity, pH and temperature were taken. The probes were retrieved out of the water after the first measurement and then re-deployed for the second measurement. Where the difference in the value between the first and second readings of each set was more than 25% of the value of the first reading, the reading was discarded and further readings were taken.

Laboratory Analytical Methods

4.25 The testing of all parameters was conducted by Wellab Ltd. (HOKLAS Registration No.083) for the water samples collected in 2011 and the testing of all parameters for water samples at SRA was conducted by CMA Testing and Certification Laboratories (HOKLAS Registration No.004) and comprehensive quality assurance and control procedures in place in order to ensure quality and consistency in results. The testing method, reporting limit and detection limit are provided in **Table 4.4**.

Table 4.4 Methods for Laboratory Analysis for Water Samples

Determinant	Instrumentation	Analytical Method	Detection Limit
Suspended Solid (SS)	Weighing	Wellab Ltd.: APHA 17e 2540D CMA: APHA 21e 2540D	0.5 mg/L

QA/QC Requirements

Decontamination Procedures

4.26 Water sampling equipment used during the course of the monitoring programme was decontaminated by manual washing and rinsed clean seawater/distilled water after each sampling event. All disposal equipment was discarded after sampling.

Sampling Management and Supervision

4.27 All sampling bottles were labelled with the sample I.D (including the indication of sampling station and tidal stage e.g. IS1_me_a), laboratory number and sampling date. Water samples were dispatched to the testing laboratory for analysis as soon as possible after the sampling. All samples were stored in a cool box and kept at less than 4°C but without frozen. (Please refer to Photo 1a and 1b) All water samples were handled under chain of custody protocols and relinquished to the laboratory representatives at locations specified by the laboratory.

Photo 1a - All samples were stored in a cool box with ice

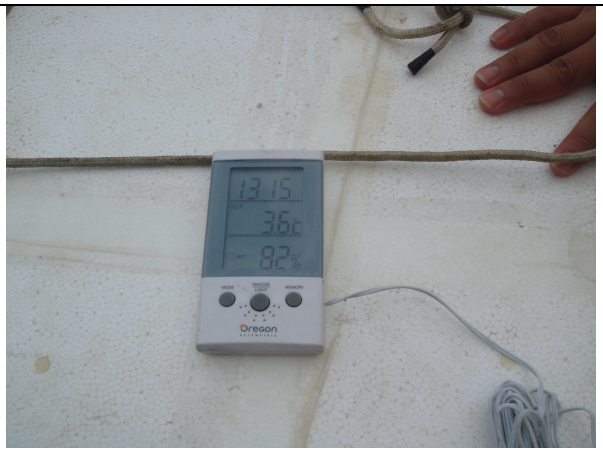


Photo 1b - All samples were kept at less than 4°C

4.28 The laboratory determination works were started within 24 hours after collection of the water samples.

Quality Control Measures for Sample Testing

4.29 The samples testing were performed by Wellab Ltd / CMA Testing and Certification Laboratories.

4.30 The following quality control programme was performed by the Wellab Ltd for every batch of 20 samples:

- ✧ One method blank; and
- ✧ One set of quality control (QC) samples (including method QC and sample duplicate).

4.31 The following quality control programme was performed by the CMA Testing and Certification Laboratories for every batch of 12 samples:

- ✧ One set of quality control (QC) samples.

Maintenance and Calibration

4.32 Before each round of monitoring, a zero check in distilled water was performed with the turbidity probe of YSI 6820-C-M /YSI 6920. The probe was then calibrated with a solution of known NTU.

4.33 QA/QC procedures are available for the SS analyzed in the HOKLAS-accredited laboratory, WELLAB Ltd which can be referred to Baseline Environmental Monitoring Report for HKBCF.

4.34 QA/QC procedures are available for the SS analyzed in the HOKLAS-accredited laboratory, CMA Testing and Certification Laboratory which is shown in **Appendix C**.

Results and Observations

Results

4.35 Baseline water quality monitoring at 13 monitoring stations was conducted between 6th and 31st October 2011. The monitoring results and graphical presentation of water quality at the monitoring stations can be referred to **Appendix G** and the Baseline Environmental Monitoring Report for HKBCF respectively.

4.36 Baseline water quality monitoring at SRA was conducted between 8th November 2012 and 2nd December 2012. The monitoring results, graphical presentation and laboratory testing report of water quality at SRA are shown in **Appendix C**.

4.37 Detailed weather conditions at the monitoring locations during the baseline monitoring period are shown in **Appendix B**. The detailed monitoring schedule is shown in **Appendix A**.

Observations

4.38 During the baseline monitoring period, no marine construction works in the area (vicinity of all monitoring stations) was noted. Thus, there was no observable pollution source identified in the vicinity of all monitoring stations during the baseline monitoring programme.

4.39 Measurements and water sampling were conducted according to the instructions as stated in the EM&A Documents for HKLR that listed in **Table 4.3**.

4.40 Since no observable pollution activity was identified for all stations during sampling, the baseline monitoring results are considered representative of the ambient water quality levels.

Action and Limit Levels

4.41 The Action and Limit levels for DO, SS and turbidity have been set in compliance with the requirements set out in the EM&A Documents, which are summarized in **Table 4.5**.

Table 4.5 Action and Limit Levels for Water Quality

Parameter (unit)	Water Depth	Action Level	Limit Level
Dissolved Oxygen (mg/L) (surface, middle, bottom)	Surface and Middle	5%-ile of baseline data	4 mg/L except 5mg/L for FCZ or 1%-ile of baseline data
	Bottom	5%-ile of baseline data	2 mg/L or 1%-ile of baseline data
Turbidity (NTU)	Depth average	95%-ile of baseline data or 120% of upstream control station's turbidity at the same tide of the same day	99%-ile of baseline or 130% of turbidity at the upstream control station at the same tide of same day
Suspended Solids (mg/L)	Depth average	95%-ile of baseline data or 120% of upstream control station's SS at the same tide of the same day	99%-ile of baseline or 130% of SS at the upstream control station at the same tide of same day and 10mg/L for WSD Seawater Intakes

Note:
(1) Depth-averaged is calculated by taking the arithmetic means of reading of all three depths
(2) For DO, non-compliance of the water quality limit occurs when monitoring result is lower that the limit.
(3) For SS & turbidity non-compliance of the water quality limits occur when monitoring result is higher than the limits.
(4) All the figures given in the table are used for reference only and the EPD may amend the figures whenever it is considered as necessary.

4.42 The calculated Action and Limit levels are shown in **Table 4.6**.

Table 4.6 Calculated Action and Limit Levels for Water Quality

Parameter (unit)	Water Depth	Action Level	Limit Level
Dissolved Oxygen (mg/L) (surface, middle, bottom)	Surface and Middle	***5.0***	***4.2*** except 5 for FCZ
	Bottom	***4.7***	***3.6***
Turbidity (NTU)	Depth average	***27.5*** or 120% of upstream control station's turbidity at the same tide of the same day	***47.0*** or 130% of turbidity at the upstream control station at the same tide of same day
Suspended Solids (mg/L)	Depth average	***23.5*** or 120% of upstream control station's SS at the same tide of the same day	***34.4*** or 130% of SS at the upstream control station at the same tide of same day and 10mg/L for WSD Seawater Intakes

Note:
(1) Depth-averaged is calculated by taking the arithmetic means of reading of all three depths
(2) For DO, non-compliance of the water quality limit occurs when monitoring result is lower that the limit.
(3) For SS & turbidity non-compliance of the water quality limits occur when monitoring result is higher than the limits.
(4) All the figures given in the table are used for reference only and the EPD may amend the figures whenever it is considered as necessary.
(5) The 1%-ile of baseline data for dissolved oxygen (surface and middle) and dissolved oxygen (bottom) are 4.2mg/L and 3.6mg/L respectively.

4.43 The Action and Limit levels for DO, SS and turbidity have been further updated according to the Proposal for changing Action and Limit Levels for water quality monitoring which was submitted to EPD on 15 March 2013. No objection was received from EPD according to the letter (ref. (10) in Ax(3) to EP2/G/A/129pt.4) dated 25 March 2013. Therefore, the updated Action and Limit Levels for water quality monitoring was used for comparison starting from 25 March 2013, which are summarized in **Table 4.7**.

Table 4.7 Updated Action and Limit Levels for Water Quality

Parameter (unit)	Water Depth	Action Level	Limit Level
Dissolved Oxygen (mg/L) (surface, middle, bottom)	Surface and Middle	***5.0***	***4.2*** except 5 for FCZ
	Bottom	***4.7***	***3.6***
Turbidity (NTU)	Depth average	***27.5*** and 120% of upstream control station's turbidity at the same tide of the same day	***47.0*** and 130% of turbidity at the upstream control station at the same tide of same day
Suspended Solids (mg/L)	Depth average	***23.5*** and 120% of upstream control station's SS at the same tide of the same day	***34.4*** and 130% of SS at the upstream control station at the same tide of same day and 10mg/L for WSD Seawater Intakes

Note:
(1) Depth-averaged is calculated by taking the arithmetic means of reading of all three depths
(2) For DO, non-compliance of the water quality limit occurs when monitoring result is lower that the limit.
(3) For SS & turbidity non-compliance of the water quality limits occur when monitoring result is higher than the limits.
(4) All the figures given in the table are used for reference only and the EPD may amend the figures whenever it is considered as necessary.
(5) The 1%-ile of baseline data for dissolved oxygen (surface and middle) and dissolved oxygen (bottom) are 4.2mg/L and 3.6mg/L respectively.

5 DOLPHIN MONITORING (LINE-TRANSECT VESSEL SURVEYS)

5.1 The baseline dolphin monitoring was carried out under Chinese White Dolphin (CWD) Service Contract No. HY/2011/02 for a period of three months prior to the commencement of works and agreed with AFCD.

5.2 The baseline line-transect vessel surveys for dolphin monitoring were conducted in September, October and November 2011 as shown in **Table 5.1** and the location of dolphin transect survey is shown in **Figure 4.**

Table 5.1 Date of Baseline Dolphin Monitoring

No.	Date	Location
1	05/09/2011	W LANTAU + NW LANTAU
2	07/09/2011	NW LANTAU + NE LANTAU
3	16/09/2011	NW LANTAU + NE LANTAU
4	23/09/2011	W LANTAU + NW LANTAU
5	06/10/2011	NE LANTAU + NW LANTAU
6	10/10/2011	NW LANTAU + NE LANTAU
7	13/10/2011	NE LANTAU
8	17/10/2011	W LANTAU + NW LANTAU
9	28/10/2011	NW LANTAU + W LANTAU
10	01/11/2011	NW LANTAU + NE LANTAU
11	02/11/2011	W LANTAU + NW LANTAU
12	05/11/2011	NW LANTAU + NE LANTAU
13	06/11/2011	NE LANTAU
14	07/11/2011	NW LANTAU + W LANTAU

* NW Lantau = Northwest Lantau Survey Area, NE Lantau = Northeast Lantau Survey Area, W Lantau = West Lantau

5.3 In total, 112 groups of Chinese White Dolphins, numbering 413 individuals, were observed during the three-month survey within all survey areas. Most were sighted in the West Lantau (WL) and Northwest Lantau (NWL) regions.

5.4 Considering the West Lantau area only, which is the survey area of concern under this Contract, the numbers of dolphin sighted during the baseline monitoring period were 49 dolphins (14 groups) in September 2011, 45 dolphins (12 groups) in October 2011, and 73 dolphins (20 groups) in November 2011.

5.5 Major findings along and near the future alignments of HKLR and TM-CLKL as well as the reclamation site of HKBCF (collectively called “the Site” below) are summarized as follows:

- Dolphins were sighted but not in high concentration near the Site. The number of dolphins sighted near the site: three groups sighted near HKBCF, nine groups sighted

near HKLR and one group near TMCLKL (Figure 2 & 3 of Appendix G)

- Number of dolphin groups with large aggregation: one group near HKBCF, one group near TMCLKL and five groups near HKLR (Figure 5 of Appendix G)
- Grids with moderate to high dolphin density near site: one grid near HKBCF, two grids along TMCLKL and and two grids along HKLR (Figure 6-7 of Appendix G)
- Number of mother-calf pairs near alignments of HKLR and TMCLKL: one pair near HKBCF, and three pairs near HKLR (Figure 8 of Appendix G)
- Number of feeding activities sighted along and near the site: two groups near HKBCF, and one group along HKLR (Figure 9 of Appendix G)
- Two fishing boat-associated sightings were made near the Site (Figure 9 of Appendix G)

5.6 Through photo-identification work, 96 individuals were identified from 182 sightings. Some were sighted over three times during the three-month survey, indicating their frequent use of Hong Kong waters. Many of them were year-round residents and some were accompanied by calves. Ranging pattern developed showed that most of the dolphins ranged across the three survey areas including the proposed HZMB work areas.

Action and Limit Level

5.7 The Action and Limit levels for dolphin monitoring which are summarized in **Table 5.2**.

Table 5.2 Action and Limit Levels for Dolphin Impact Monitoring

	West Lantau
Action Level	STG < 60% of baseline & ANI < 60% of baseline
Limit Level	STG < 45% of baseline & ANI < 45% of baseline

Remarks:

1. STG means quarterly encounter rate of number of dolphin sightings.
2. ANI means quarterly encounter rate of total number of dolphins.

5.8 The calculated Action and Limit levels are shown in **Table 5.3**.

Table 5.3 Calculated Action and Limit Levels for Dolphin Impact Monitoring

	West Lantau
Action Level	STG < 9.86 & ANI < 36.30
Limit Level	STG < 7.40 & ANI < 27.23

Remarks:

1. STG means quarterly encounter rate of number of dolphin sightings.

2. ANI means quarterly encounter rate of total number of dolphins.
3. Baseline value: 16.44 for ER(STG) and 60.50 for ER(ANI)

Event and Action Plan

5.9 Further monitoring should be conducted during the construction and post-construction phase to identify any potential impact caused by the HZMB project. The event and action plan for dolphin monitoring is presented in **Table 5.4**.

Table 5.4 Event/Action Plan for Dolphin Monitoring

Event	ET Leader	IEC	ER / SOR	Contractor
Action Level	1. Repeat statistical data analysis to confirm findings. 2. Review all available and relevant data, including raw data and statistical analysis results of other parameters covered in the EM&A, to ascertain if differences are as a result of natural variation or previously observed seasonal differences. 3. Identify source(s) of impact. 4. Inform the IEC, ER/SOR and Contractor, 5. Check monitoring data. 6. Review to ensure all the dolphin protective measure are fully and properly implemented and advise on additional measures if necessary.	1. Check monitoring data submitted by ET and Contractor. 2. Discuss monitoring results and findings with the ET and the Contractor.	1. Discuss monitoring data with the IEC and any other measures proposed by the ET. 2. If ER/SOR is satisfied with the proposal of any other measures, ER/SOR to signify the agreement in writing on the measures to be implemented.	1. Inform the ER/SOR and confirm notification of the non-compliance in writing. 2. Discuss with the ET and the IEC to propose measures to the IEC and the ER/SOR. 3. Implement the agreed measures.

Event	ET Leader	IEC	ER / SOR	Contractor
Limit Level	1. Repeat statistical data analysis to confirm findings. 2. Review all available and relevant data, including raw data and statistical analysis results of other parameters covered in the EM&A, to ascertain if differences are as a result of natural variation or previously observed seasonal differences. 3. Identify source(s) of impact. 4. Inform the IEC, ER/SOR and Contractor of findings, 5. Check monitoring data. 6. Repeat reviewing to ensure all the dolphin protective measure are fully and properly implemented and advise on additional measures if necessary. 7. If the ET proves that the source of impact is caused by any of the construction activity by the works contract, the ET to arrange a meeting to discuss with IEC, ER/SOR and Contractor for necessity of additional dolphin monitoring, and/or any other potential mitigation measures (eg,	1. Check monitoring data submitted by ET and Contractor; 2. Discuss monitoring results and findings with the ET and the Contractor; 3. Attend the meeting to discuss with ET, ER/SOR and Contractor the necessity of additional dolphin monitoring and other potential mitigation measures. 4. Review proposals for additional monitoring and any other mitigation measures submitted by ET and Contractor, and advise ER/SOR of the results and findings accordingly. 5. Supervise / Audit the implementation of additional monitoring and/or any other mitigation measures, and advise ER/SOR of the results and findings accordingly.	1. Attend the meeting to discuss with ET, IEC and Contractor the necessity of additional dolphin monitoring and any other potential mitigation measures. 2. If ER/SOR is satisfied with proposals for additional dolphin monitoring and/or any other mitigation measures submitted by the ET and Contractor and verified by the IEC, ER/SOR to signify the agreement in writing on such proposals and any other mitigation measures. 3. Supervise the implementation of additional monitoring and/or any other mitigation measures.	1. Inform the ER/SOR and confirm notification of the non-compliance in writing; 2. Attend the meeting to discuss with ET, IEC and ER/SOR the necessity of additional dolphin monitoring and any other potential mitigation measures. 3. Jointly submit with ET to IEC a proposal of additional dolphin monitoring and/or any other mitigation measures when necessary. 4. Implement the agreed additional dolphin monitoring and/or any other mitigation measures.

	consider to modify the perimeter silt curtain or consider to control/temporarily stop relevant construction activities…etc), and submit to the IEC a proposal of additional dolphin monitoring and/or mitigation measures where necessary.			

5.10 Detailed findings were reported in the Baseline Monitoring Report for Baseline Chinese White Dolphin Monitoring for Hong Kong-Zhuhai-Macao Bridge Hong Kong Projects submitted by Hong Kong Cetacean Research Project under Contract No. HY/2011/02 and can be referred to **Appendix G.**

6 UNDERWATER NOISE MONITORING

6.1 Baseline underwater noise measurements were conducted from 24th November 2012 to 22nd December 2012 for 28 continuous days at 100m distance from one of the first three piling sites (monitoring station R2) as shown in **Figure 5**.

6.2 Major components affecting the background noise level are the noise generated from sea flow and the noise from marine traffic. The noise levels could be increased significantly by strong sea flow and wave action.

6.3 Noise other than sea flow and marine traffic are also clearly audible in several sound recordings. The duration and nature of these sounds (a minute to several minutes) are generally consistent with the noise expected from passing vessels. This noise might have been due to the marine work far away. Vessels can be clearly heard in some of the recordings listened to.

6.4 Although there are some possible influencing factors affecting the baseline condition, the measured data do represent the actual environment in this region. The values reported for the baseline noise level are all well below the Action Threshold of 170dB re 1μPa RMS proposed in the underwater noise monitoring proposal. **Table 6.1** summarized the hourly average RMS sound pressure level for the 28 days monitoring period.

6.5 Given the high levels of variation in received noise levels, the selection of a baseline for comparison with future data collection during construction should be done with care. Hourly RMS SPL is provided in this monitoring report that could be used to compare with the impact monitoring data on hour to hour basis.

6.6 Selection of the monitoring frequency band is also critical. Results plotted in **Figure 4-4** and **Figure 4-5** of the Baseline Underwater Noise Monitoring Report in **Appendix E** show a 15dB difference between a frequency band starting at 10Hz and one starting at 70Hz.

6.7 Power Spectral Density measurements (Figure 4-9 in **Appendix E**) show levels in excess of 120dB re 1 μPa^2/Hz at 10Hz and around 80dB re 1 μPa^2/Hz at 1kHz. These levels are similar to the higher SPL levels reported by Wenz (1962) (in Urick, 1975).

Event and Action Plan

6.8 Acoustic data will be processed in real time on the PAMBuoy, and all of the data presented in this report can be viewed in real time by connecting a PC based monitoring station with cable. This would enable real-time mitigation, with operators responding to increases in noise levels above 170 and 180 dB re1μPa in 1 second average as stipulated

in the Event Action Plan (**Table 6.2**). Details can be referred as follows:

(a) If the 1 second RMS sound pressure level re 1μPa exceeds the Action Level, the ET will give signals to the Contractor to review the piling sequence or method in order to reduce the underwater noise levels to no higher than 170 dB. At the same time, a protection zone of 50m radius will be set if the underwater noise level measured is between 171 to 174 dB. The zone will be enlarged to 100m radius if the underwater noise level is between 175 to 179 dB. If dolphin is found within the protection zone, the construction work will stop and can only commence after confirming that no dolphin is present for 30 minutes. A scanning staff from the Contractor will scan the surrounding area near the bored piling site.

(b) If the measured underwater noise level cannot be reduced to below 170 dB within half an hour, the ET will give signals to the Contractor to stop the activities. The Contractor should not be allowed to resume the works unless the Contractor can come up with an alternative method or sequence agreeable to the Engineer that would generate noise no higher than 170 dB.

(c) If the measured noise level exceeds 180 dB, the ET will give signals to the Contractor to stop the activities immediately. Again, the Contractor should not be allowed to resume the works unless the Contractor can come up with an alternative method or sequence agreeable to the Engineer that would generate noise no higher than 170 dB.

6.9 Detailed methodology, results and discussion can be found in the Baseline Underwater Noise Monitoring Report in **Appendix E**.

Table 6.1 The Hourly Average Baseline Monitoring Results, dB re 1μPa_{rms}

Hour	SPL dB re 1μPa_{rms}	Hour	SPL dB re 1μPa_{rms}	Hour	SPL dB re 1μPa_{rms}	Hour	SPL dB re 1μPa_{rms}
00	137.0	06	131.5	12	138.5	18	143.5
01	138.0	07	134.0	13	138.2	19	144.8
02	138.5	08	136.5	14	137.5	20	144.5
03	138.2	09	137.0	15	137.1	21	142.0
04	138.0	10	136.5	16	142.0	22	138.4
05	130.5	11	138.0	17	142.8	23	138.5

Table 6.2 Event/Action Plan for Underwater Noise Monitoring

Event	Action			
	ET Leader	**IEC**	**ER**	**Contractor**
Action level triggered	1. Inform the IEC, ER and Contractor; 2. Advise Contractor of dolphin protection zone coverage. 3. Continue to monitor underwater noise level.	1. Check monitoring data submitted by ET.	1. Inform Contractor.	1. Review the piling sequence or method; 2. Implement the mitigation measure to lower the underwater noise level to below action limit within 30 minutes; 3. Implement protection zone. 4. Closely liaise with the ET on the progress.
Limit level triggered	1. Instruct the Contractor to stop construction work; 2. Inform the IEC and ER; 3. Discuss with IEC, ER and Contractor on noise reduction proposal; 4. Assess effectiveness of Contractor's proposal and keep IEC and ER informed.	1. Check monitoring data submitted by ET. 2. Discuss amongst ER, ET and Contractor on the potential remedial actions.	1. Review the proposal by Contractor; 2. Make agreement on the measures to be implemented.	1. Stop construction work 2. Inform the ER 3. Review the piling sequence or method in order to reduce the underwater noise levels to no higher than 170 dB. 4. Submit noise reduction proposal to the ER for endorsement. 5. Implement the agreed measures. 6. Re-submit proposals if problem still not under control; 7. Stop the relevant portion of works as determined by the ER until the exceedance is abated

7 DOLPHIN NORTH-SOUTH MOVEMENT

7.1 A total of 180 hours and 51 minutes were spent during the 30 days of theodolite tracking effort at Sham Wat Station (**Figure 6**) to examine dolphin movement and behaviour from December 29, 2012 through January 30, 2013. 90.2% of effort was conducted in favourable weather condition.

7.2 Dolphins were successfully tracked from shore on 15 of 30 days of effort, and a total of 89 dolphin groups were tracked. In addition, 12 dolphin group tracks on six days of successful tracking between April 2011 and August 2012 (collected by HKCRP outside the baseline monitoring period) was included in the data analysis to augment the data set. These historical data were collected in the same manner as those collected in the 30-day baseline period, and the pooling of both sets of data can increase the sample size for statistical analysis during the baseline phase and is beneficial to understand and quantify any responses during construction.

7.3 Major findings from the analysis of the above data are summarized as follows:

- Dolphin behaviour and movement change dependent upon natural (time of day, size of group) and anthropogenic (vessel presence) factors
- Dolphins swim faster along a straighter path and breathe less frequently when multiple vessels are present at one time than when no vessels are present. This can be understood as a single snapshot in time: if there are more boats present when the snapshot is taken, the dolphins are likely to be swimming faster.
- As the number and variety of vessels encountered during a track increases, dolphins swim slower, make more turns, and breathe more frequently. This can be understood as a longer period of time instead of a snapshot moment: as the sum total of boats that interact with the dolphins increase over time, the dolphins swim more slowly.
- Dolphins change aspects of their behaviours relative to vessels
- Dolphins are more likely to feed in the presence of fishing vessels. If feeding behaviour is assisted by vessel presence (particularly the presence of fishing vessels), it is possible that the presence of multiple vessels inhibits this process.
- It is possible that vessel noise from multiple vessels exceeds a threshold tolerance level for the dolphins, and bored piling and related vessel activity during construction has the potential to have the same effect.
- The numerical summary of the monitoring results is presented in **Tables 7.1** and **7.2**.

Table 7.1 Values of all response variables in the presence and absence of vessels by time of day, size of group, and maximum number of vessels present

	Speed (km/hr)	Reorientation rate (degrees/surfacing)	Linearity	Inter-breath interval (sec)
Vessels absent	3.60	50.3	0.618	51.2
Morning	3.46	45.4	0.676	53.9
Afternoon	3.80	57.2	0.536	47.3
Individual	3.39	46.9	0.733	57.2
Group	3.91	55.2	0.455	42.6
Vessels present	3.77	50.5	0.577	43.3
Morning	3.74	49.9	0.606	45.0
Afternoon	3.93	52.7	0.454	36.2
Individual	3.42	50.8	0.542	45.0
Group	4.26	50.0	0.625	41.1
1 vessel	3.91	48.8	0.572	36.9
2 vessels	3.74	55.8	0.559	53.6
3 vessels	4.26	45.8	0.689	62.5

Table 7.2 Proportion of time spent in each behavioural state in the absence and presence of vessels within 500 m

Behavioural state	Vessels absent	Vessels present	z-value	p-value
Feeding	**0.23**	**0.44**	**-2.882**	**0.004**
Milling	0.20	0.21	-0.164	0.870
Resting	0.08	0.03	1.593	0.111
Travelling	**0.48**	**0.32**	**2.202**	**0.028**

Results and significance of the z-test for two proportions indicate if behaviour significantly changes when vessels are present. Significant differences are indicated by bold text.

Event and Action Plan

7.4 It is proposed to take all baseline data into account, including times with no apparent anthropogenic activities near the dolphins, various vessel activities, and time of day and other variables for formulating the Action and Limit Levels of the Event and Action Plan:

- Departures of any the response variables between baseline and construction phases with a 20% difference should trigger the Action Level.
- Departures of any of the response variables between baseline and construction phases

with a 40% difference should trigger the Limit Level and immediate action will be required. Such evaluation should be conducted shortly after the 30-day construction monitoring period.

- The abovementioned percentage reduction approach to set the Action and Limit Levels has taken into consideration of the influencing factors (e.g. time of the day, group size, vessel activities) that may affect the baseline condition on dolphin movement and behaviour.
- The detailed Event and Action Plan is presented in **Table 7.3**.

Table 7.3 Event and Action Plan on Dolphin Movement and Behaviour

EVENT	ACTION			
	ET Leader	**IEC**	**SO**	**Contractor**
Action Level With the numerical values presented in Tables 7.1-7.2, any of the response variable for dolphin movement patterns (speed, inter-breath interval, reorientation rate & linearity) and behaviour (proportion of time spent in each behavioural state) recorded in the construction phase monitoring is **20% higher or lower** than that recorded in the baseline monitoring, action level should be triggered	1. Repeat statistical data analysis to confirm findings; 2. Review all available and relevant data to ascertain if differences are as a result of natural variation or seasonal differences; 3. Identify source(s) of impact; 4. Inform the IEC, SO and Contractor; 5. Check monitoring data; 6. Carry out audit to ensure all dolphin protective measures are implemented fully and additional measures be proposed if necessary	1. Check monitoring data submitted by ET and Contractor; 2. Discuss monitoring with the ET and the Contractor;	1. Discuss with the IEC the repeat monitoring and any other measures proposed by the ET; 2. Make agreement on measures to be implemented .	1. Inform the SO and confirm notification of the non-compliance in writing; 2. Discuss with the ET and the IEC and propose measures to the IEC and the SO; 3. Implement the agreed measures.
Limit Level With the numerical values presented in Tables 7.1-7.2, any of the response variable for dolphin movement patterns (speed, inter-breath interval, reorientation rate	1. Repeat statistical data analysis to confirm findings; 2. Review all available and relevant data to ascertain if differences are as a result of natural variation or seasonal	1. Check monitoring data submitted by ET and Contractor; 2. Discuss	1. Discuss with the IEC the repeat monitoring and any other	1. Inform the SO and confirm notification of the non-compliance in writing;

& linearity) and behaviour (proportion of time spent in each behavioural state) recorded in the construction phase monitoring is **40% higher or lower** than that recorded in the baseline monitoring, limit level should be triggered	differences; 3. Identify source(s) of impact; 4. Inform the IEC, SO and Contractor; 5. Check monitoring data; 6. Carry out audit to ensure all dolphin protective measures are implemented fully and additional measures be proposed if necessary 7. Discuss additional dolphin monitoring and any other potential mitigation measures (e.g. consider to temporarily stop relevant portion of construction activity) with the IEC and Contractor.	monitoring with the ET and the Contractor; 3. Review proposals for additional monitoring and any other measures submitted by the Contractor and advise ER accordingly.	measures proposed by the ET; 2. Make agreement on measures to be implemented.	2. Discuss with the ET and the IEC and propose measures to the IEC and the SO; 3. Implement the agreed measures.

Abbreviations: ET – Environmental Team, IEC – Independent Environmental Checker, SO – Supervising Officer

7.5 Detailed methodology, results and discussion can be found in the Land-based Dolphin Behaviour and Movement Monitoring Baseline Monitoring Report in **Appendix F**.

8 DOLPHIN ACOUSTIC BEHAVIOUR

8.1 Thirty days of acoustic monitoring surveys were conducted between 15 January and 22 February 2013 for the baseline period. During this period, 1,885 km of survey effort were conducted to search for dolphins in the western and northwestern waters of Lantau. A total of 196 groups, numbering 694 dolphins, were sighted during these surveys, and 238 sound samples were taken from some of these dolphin groups.

8.2 The data obtained during the initial phase provide a pre-construction baseline for measuring the potential consequences of construction activities on dolphin behaviour. The dolphin acoustic activities measured using both acoustic survey and passive acoustic monitoring methods provide quantitative metrics against which to measure any changes in the behaviour or occurrence of dolphins near the bridge construction area once construction has begun.

8.3 Major findings from the analysis of the above data are summarized as follows:

- The calibrated hydrophone data showed a general increase in whistles and clicks by group size, and most of these sounds occurred during socializing.
- The EAR(ecological acoustic recorders) data showed a lull in recorded dolphin sounds in mid-month and a tendency for some changes in diel sound (or dolphin occurrence) structure.
- Acoustic activity levels increased with group size and were highest during socializing periods. Larger groups have more animals that can contribute signals to recordings and it is common for dolphins to be more vocally active during periods of socializing.
- The EAR data indicate that dolphin acoustic activity is greater at site Fan Lau than at bridge alignment area. In addition, the average number of daily encounters and the duration of encounters were greater at site Fan Lau than at bridge alignment area. More dolphin activity was recorded at Fan Lau despite the higher ambient noise levels occurring there compared to bridge alignment area.
- Bridge alignment exhibited a diel pattern of activity while the control site (Fan Lau) did not, suggesting a differential pattern of habitat use.
- The numerical summary of the monitoring results is presented in **Tables 8.1**.

Table 8.1 Values of the two response variables of dolphin acoustic behaviour collected by calibrated hydrophone (average clicks and whistles per minutes) by size of group, behavioural state and time of day

	Average clicks per minute (± s.d.)	Average whistles per minute (± s.d.)
Group Size		
1 dolphins	62.19 ± 77.73 (n=20)	0.21 ± 1.49 (n=20)
2-6 dolphins	54.03 ± 179.32 (n=125)	0.56 ± 1.70 (n=12)
6-9 dolphins	118.00 ± 310.31 (n=37)	1.58 ± 4.63 (n=37)
10+ dolphins	289.33 ± 140.58 (n=35)	2.74 ± 1.99 (n=35)
Behavioural State		
Feeding	30.95 ± 69.90 (n=28)	0.62 ± 1.33 (n=28)
Milling	71.29 ± 205.44 (n=138)	0.66 ± 1.85 (n=138)
Socializing	287.48 ± 326.22 (n=25)	3.78 ± 4.14 (n=25)
Traveling	13.16 ± 208.94 (n=11)	0.25 ± 1.48 (n=11)
Resting	0.10 ± 70.35 (n=5)	0.13 ± 1.43 (n=5)
Time of day		
09:00-10:59	38.14 ± 69.90 (n=28)	0.70 ± 1.33 (n=28)
11:00-12:59	79.97 ± 144.51 (n=93)	0.68 ± 1.86 (n=93)
13:00-14:59	159.41 ± 303.43 (n=61)	1.74 ± 3.80 (n=61)
15:00-16:59	65.40 ± 140.58 (n=35)	1.16 ± 1.99 (n=35)

Event and Action Plan

- It is proposed that to take the response variables (clicking and whistling rates; and the hours in peak occurrence at the two EAR sites) into account for formulating the Action and Limit Levels of the Event and Action Plan:
- Departures of any of these variables between baseline and construction phases with a 20% difference will be of concern and should trigger the Action Level.
- Departures of any of these variables between baseline and construction phases with a 40% difference should trigger the Limit Level and immediate action will be required.
- A shift of 3 hours or more in peak occurrence at the bridge alignment area should trigger the Action Level.
- A shift of 6 hours or more in peak occurrence at the bridge alignment area should trigger the Limit Level.
- However, if there is a shift in peak occurrence in both sites (Fan Lau and bridge alignment area), the action or limit level should not be triggered, as the change in peak

occurrence does not only occur at the site of impact but also at the control site (Fan Lau), and the changes in peak occurrences of dolphins at both sites may not be directly to the HKLR09 construction works.

- The detailed Event and Action Plan is presented in **Table 8.2**.

Table 8.2 Event and Action Plan on Dolphin Movement and Behaviour

EVENT	ACTION			
	ET Leader	**IEC**	**SO**	**Contractor**
Action Level With the numerical values presented in Table 1, when any of the response variable for dolphin acoustic behaviour recorded in the construction phase monitoring is **20% lower or higher** than that recorded in the baseline monitoring, or when there is a shift of **3 hours or more** in peak occurrence at B2 Site (i.e. 00:00 – 01:00), the action level should be triggered	1. Repeat statistical data analysis to confirm findings; 2. Review all available and relevant data to ascertain if differences are as a result of natural variation or seasonal differences; 3. Identify source(s) of impact; 4. Inform the IEC, SO and Contractor; 5. Check monitoring data; 6. Carry out audit to ensure all dolphin protective measures are implemented fully and additional measures be proposed if necessary	1. Check monitoring data submitted by ET and Contractor; 2. Discuss monitoring with the ET and the Contractor;	1. Discuss with the IEC the repeat monitoring and any other measures proposed by the ET; 2. Make agreement on measures to be implemented.	1. Inform the SO and confirm notification of the non-compliance in writing; 2. Discuss with the ET and the IEC and propose measures to the IEC and the SO; 3. Implement the agreed measures.
Limit Level With the numerical values presented in Table 1, when any of the response variable for dolphin acoustic behaviour recorded in the construction phase monitoring is **40% lower or higher** than that recorded in the baseline monitoring, or when there is a shift of **6 hours or more** in peak occurrence at B2 Site (i.e. 00:00 – 01:00), the limit level should be triggered	1. Repeat statistical data analysis to confirm findings; 2. Review all available and relevant data to ascertain if differences are as a result of natural variation or seasonal differences; 3. Identify source(s) of impact; 4. Inform the IEC, SO and Contractor; 5. Check monitoring data; 6. Carry out audit to ensure all dolphin protective measures are implemented fully and additional measures be proposed if necessary	1. Check monitoring data submitted by ET and Contractor; 2. Discuss monitoring with the ET and the Contractor; 3. Review proposals for additional monitoring and any other measures	1. Discuss with the IEC the repeat monitoring and any other measures proposed by the ET; 2. Make agreement on measures to be implemented.	1. Inform the SO and confirm notification of the non-compliance in writing; 2. Discuss with the ET and the IEC and propose measures to the IEC and the SO; 3. Implement the agreed measures.

	7. Discuss additional dolphin monitoring and any other potential mitigation measures (e.g. consider to temporarily stop relevant portion of construction activity) with the IEC and Contractor.	submitted by the Contractor and advise ER accordingly.		

Abbreviations: ET – Environmental Team, IEC – Independent Environmental Checker, SO – Supervising Officer

8.4 Detailed methodology, results and discussion can be found in the Dolphin Acoustic Behaviour Baseline Monitoring Report in **Appendix H**.

9 COMMENTS AND CONCLUSIONS

9.1 As mentioned in executive summary, the baseline environmental monitoring results (air quality, noise, water quality and Chinese White Dolphin Monitoring) collected in 2011 was adopted for the contract

9.2 The baseline environmental monitoring was carried out in accordance with the EM&A Documents for HKLR, in respect of the methodology, equipment, location and monitoring parameters.

9.3 The baseline air quality (1-hour and 24-hour TSP levels) monitoring was conducted at two monitoring locations (AMS1 - Sha Lo Wan and AMS4 - San Tau) between 18th October 2011 and 31st October 2011. During the monitoring, some influencing factors (e.g. road traffic dust) may be affected the baseline dust monitoring results in the vicinity of the monitoring stations. The baseline air quality monitoring results are considered representative to the ambient air quality conditions of the respective sensitive receivers. The Action and Limit Levels for the air quality were established based on the baseline monitoring results.

9.4 Baseline noise monitoring was conducted at two monitoring stations (NMS1 - Sha Lo Wan and NMS4 - San Tau) between 18th October 2011 and 1st November 2011. The major noise sources identified at the monitoring stations are the noise from air traffic, road traffic, insect and bird calling. The baseline monitoring results are considered representative to the ambient noise level at all monitoring stations except at NMS3 as the construction activities (piling works) were operated from other construction site in vicinity of monitoring station.

9.5 Baseline water quality monitoring was conducted at 13 monitoring stations (IS1, IS2, IS3, IS4, CS1, CS2, SR1, SR2, SR3, SR6, ST1, ST2 & ST3) between 6th October 2011 and 31st October 2011. Baseline water quality monitoring was conducted at SRA between 8th November 2012 and 2nd December 2012. No observable pollution source was observed at the monitoring stations. Since no observable pollution activity was identified for all stations during sampling, the baseline monitoring results are considered representative of the ambient water quality levels.

9.6 Baseline Chinese White Dolphin monitoring (Line-transect Vessel Surveys) was conducted in the three survey areas (Northeast Lantau, Northwest Lantau, West Lantau) from September to November 2011 through another contract. Dolphin sightings, distribution, encounter rate, group size, habitat use, mother-calf pairs and behaviour were reported in the full baseline monitoring report. Photo-identification and range estimation of identified individuals were also made.

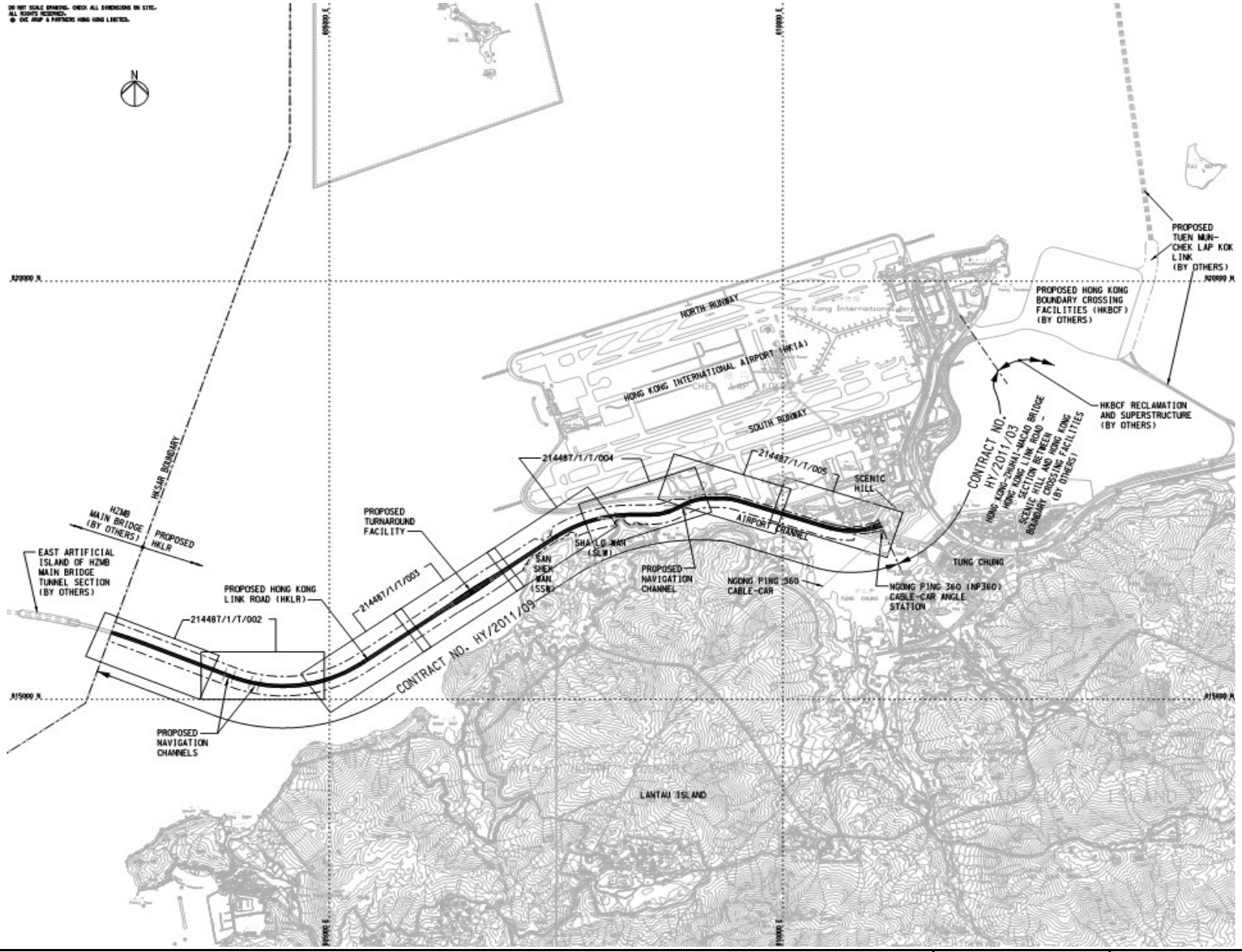
9.7 28-day Baseline Underwater Noise monitoring was conducted at 100m distance from one of the first three piling sites between November and December 2012. Major components

affecting the background noise level are the noise generated from sea flow and the noise from marine traffic. Underwater noise sources other than sea flow and marine traffic may be from marine work conducted far away. Underwater noise recorded during the baseline monitoring was smaller than the action and limit levels proposed in the baseline underwater noise monitoring proposal.

9.8 Baseline dolphin north-south movement monitoring was carried out from 29 December 2012 to 30 January 2013 using theodolite tracking technique. Dolphin behaviour and movement change dependent upon natural (time of day, size of group) and anthropogenic (vessel presence) factors. It is proposed to take all baseline data into account, including times with no apparent anthropogenic activities near the dolphins, various vessel activities, and time of day and other variables for formulating the Action and Limit Levels of the Event Action Plan.

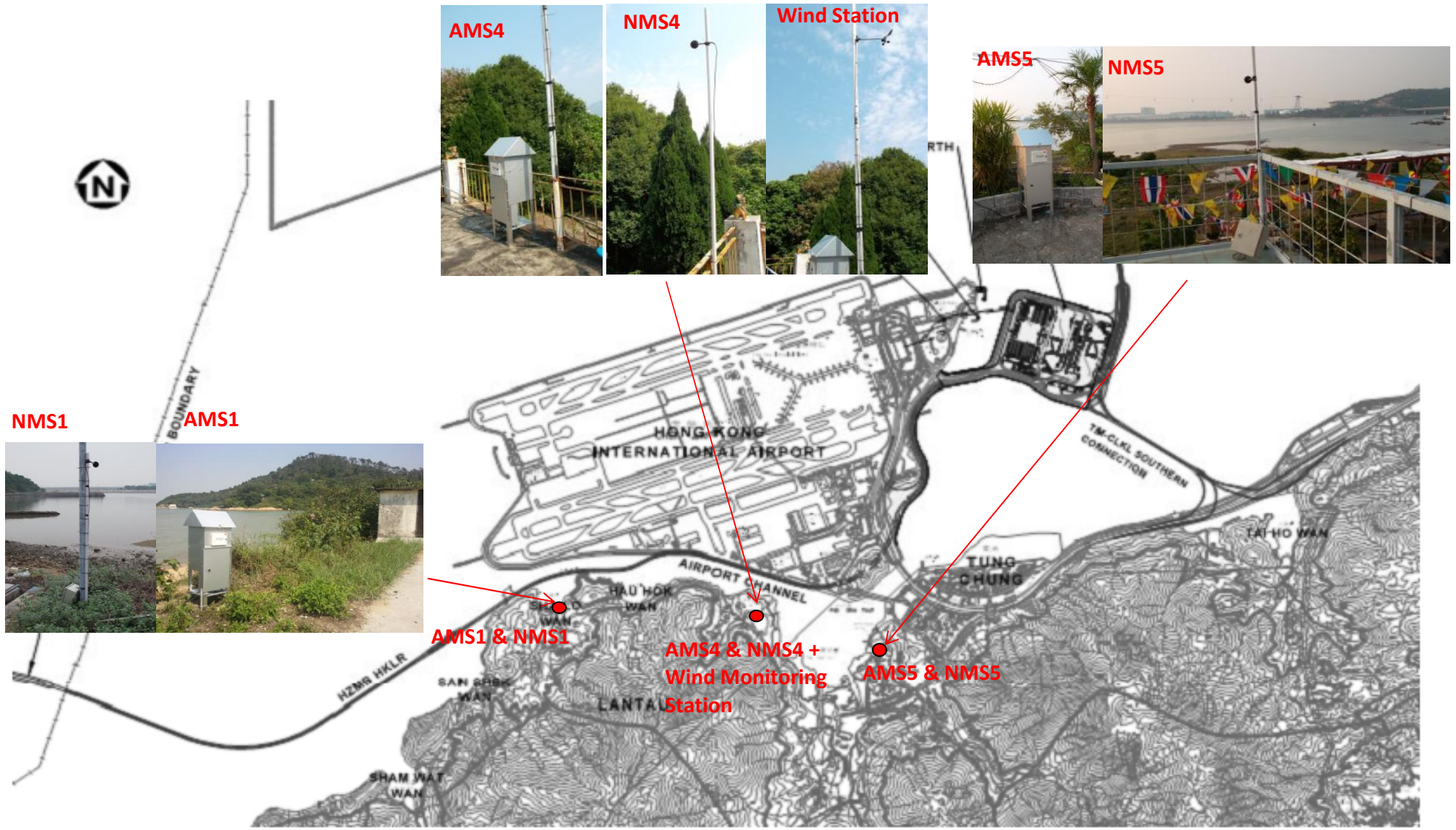
9.9 Baseline acoustic behaviour monitoring surveys were conducted between 15 January and 22 February 2013. The dolphin acoustic activities measured using both acoustic survey and passive acoustic monitoring methods. It is proposed that to take the response variables (clicking and whistling rates; and the hours in peak occurrence at the two EAR sites) into account for formulating the Action and Limit Levels of the Event and Action Plan.

FIGURES



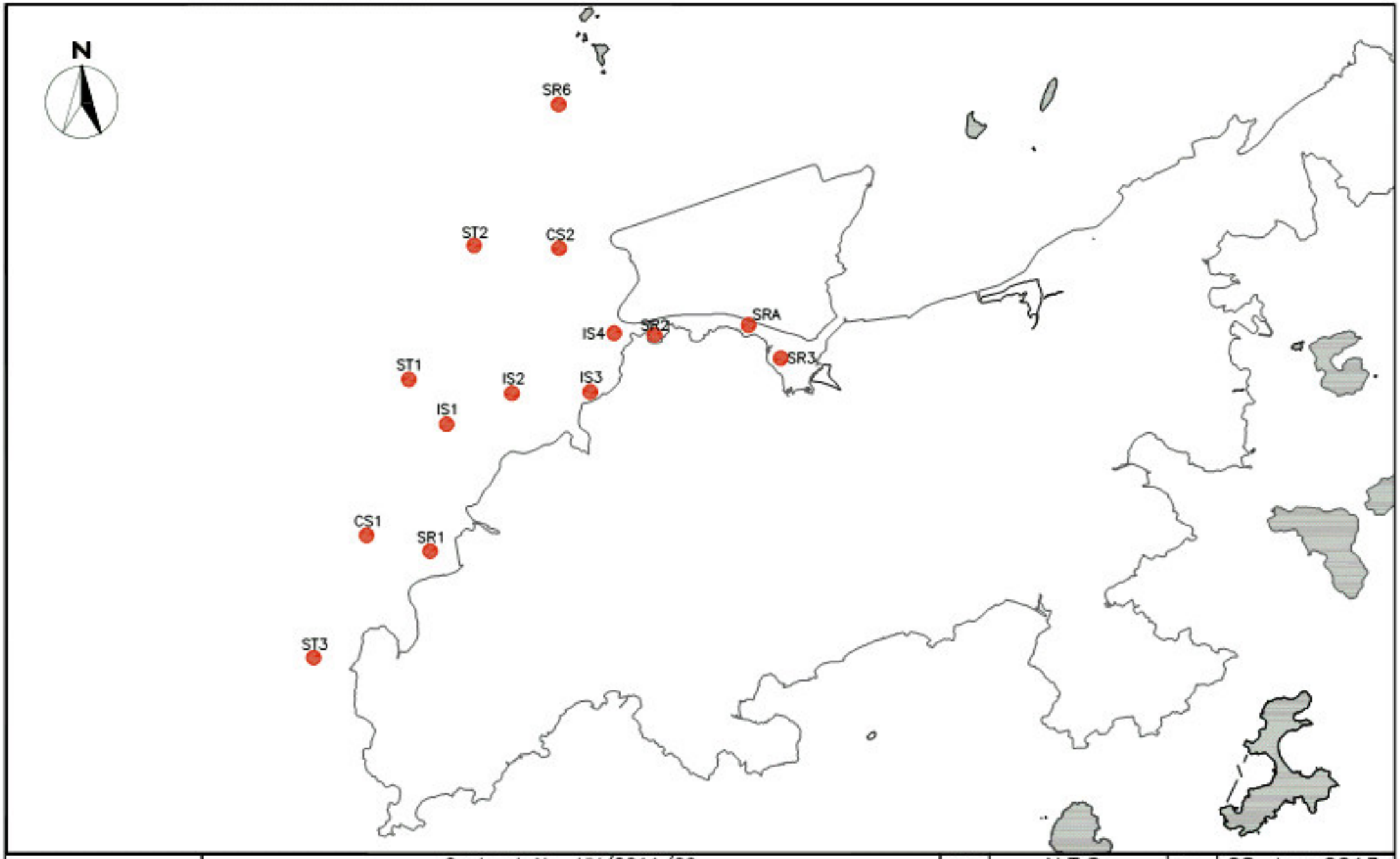
Title	Contract No. HY/2011/09 Hong Kong-Zhuhai-Macao Bridge Hong Kong Link Road – Section between HKSAR Boundary and Scenic Hill Site Layout Plan	Scale: N.T.S Date: Aug-12	Proposa No. MA12014 Figure 1

CINOTECH



Title	Contract No. HY/2011/09 Hong Kong-Zhuhai-Macao Bridge Hong Kong Link Road – Section between HKSAR Boundary and Scenic Hill Locations of Air Quality and Noise Monitoring Stations	Scale: N.T.S Date: Jan-13	Proposa No. MA12014 Figure: 2

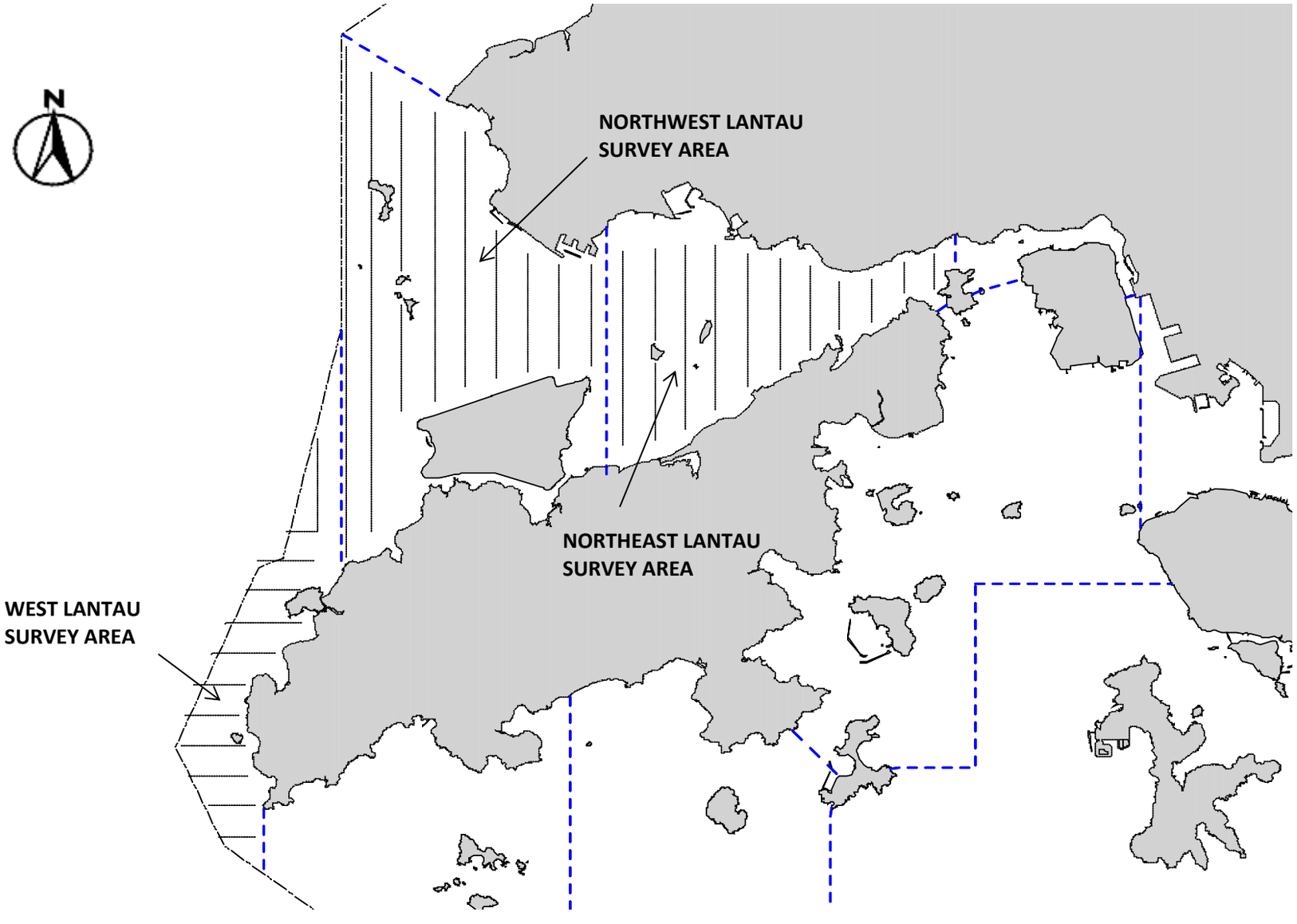
CINOTECH



CINOTECH
Cinotech Consultants Limited

Contract No. HY/2011/09
Hong Kong–Zhuhai–Macao Bridge Hong Kong Link Road – Section Between HKSAR Boundary and Scenic Hill
Locations of Marine Water Quality Monitoring Stations

SCALE	N.T.S	DATE	28 Jan 2013
CHECK	PC	DRAWN	IT
PROJECT NO.	MA12014	FIGURE NO.	3
		REV	–



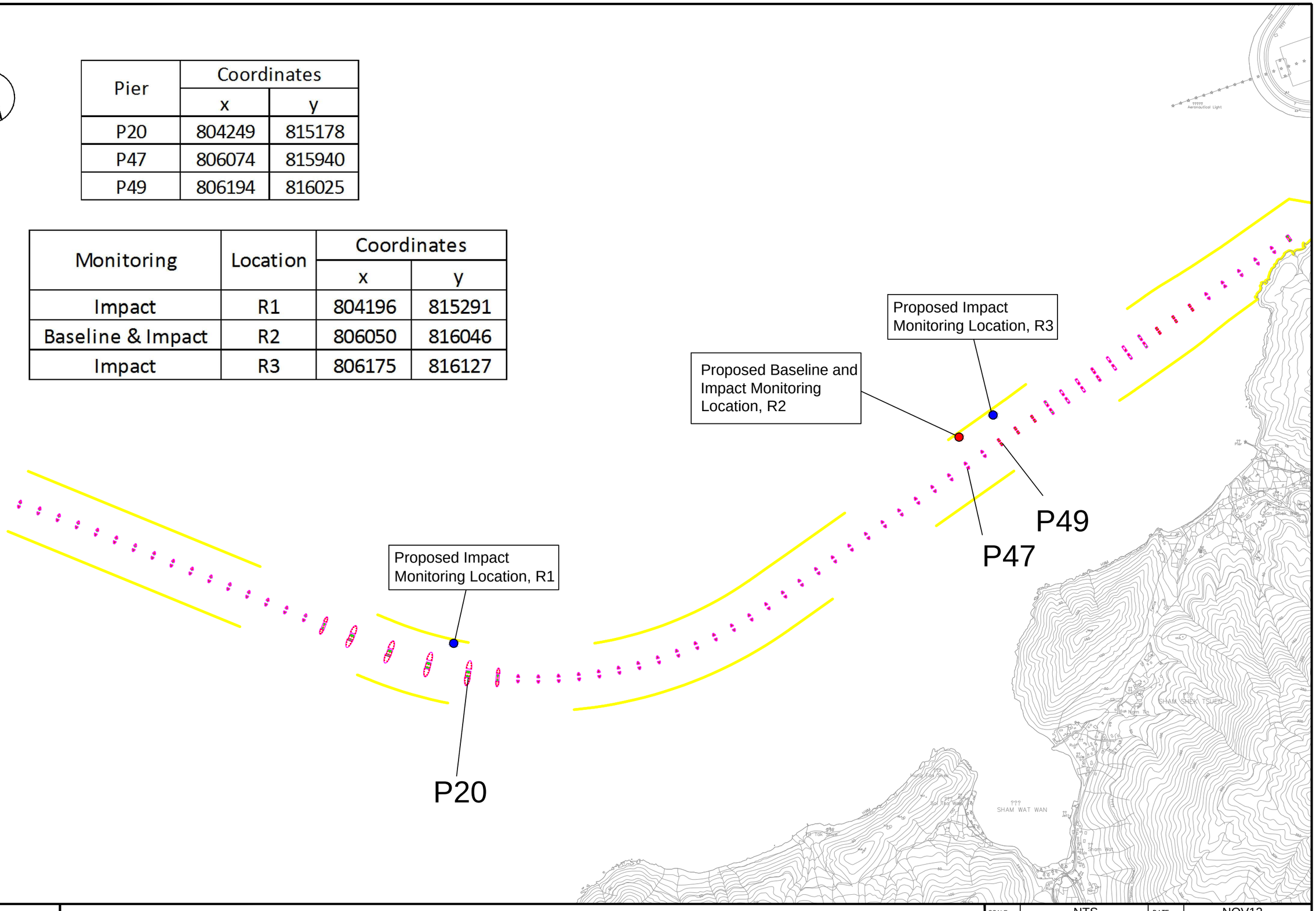
Title		Scale	Project
Contract No. HY/2011/09 Hong Kong-Zhuhai-Macao Bridge Hong Kong Link Road – Section between HKSAR Boundary and Scenic Hill Location of Dolphin Transect Survey		N.T.S	No. MA12014
		Date Jan-13	Figure 4

CINOTECH

N

Pier	Coordinates	
	x	y
P20	804249	815178
P47	806074	815940
P49	806194	816025

Monitoring	Location	Coordinates	
		x	y
Impact	R1	804196	815291
Baseline & Impact	R2	806050	816046
Impact	R3	806175	816127



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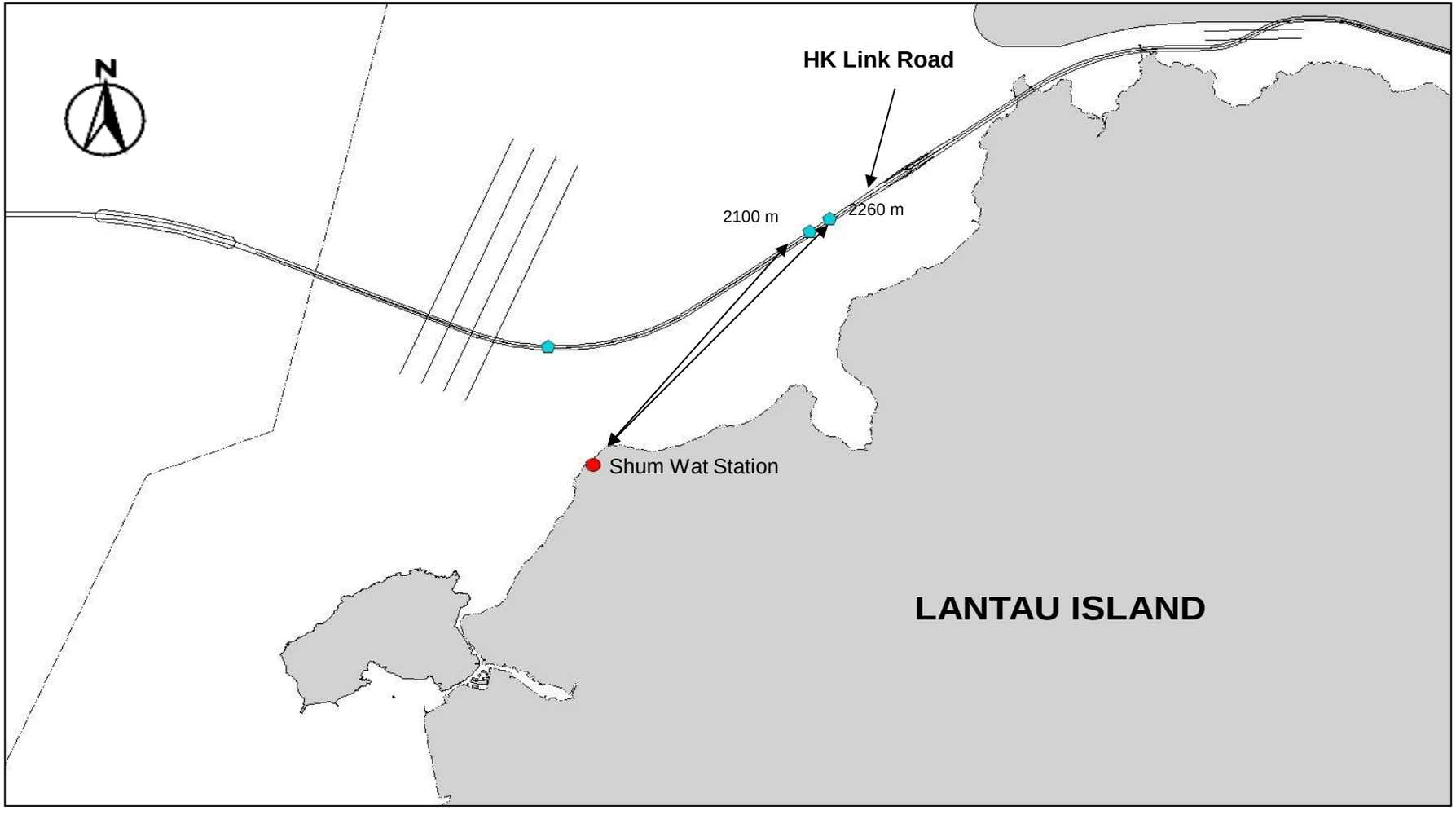
Cinotech Consultants Limited

Contract No. HY/2011/09 Hong Kong Link Road - Section between HKSAR Boundary & Scenic Hill

Location of Underwater Noise Monitoring Station

SCALE	NTS	DATE	NOV12
CHECK	BC	DRAWN	KL
JOB No.	MA12014	DRAWING No. 5	REV -



Title	Contract No. HY/2011/09 Hong Kong-Zhuhai-Macao Bridge Hong Kong Link Road – Section between HKSAR Boundary and Scenic Hill Location of Land-based Dolphin Behaviour and Movement Monitoring Station	Scale: N.T.S Date: Feb-13	Project No.: MA12014 Figure: 6

CINOTECH

APPENDIX A
BASELINE AIR QUALITY, NOISE, WATER QUALITY, UNDERWATER NOISE AND LAND-BASED DOLPHIN BEHAVIOUR AND MOVEMENT MONITORING SCHEDULE

Agreement No. CE 35/2011 (EP)
Baseline Environmental Monitoring for Hong Kong - Zhuhai - Macao Bridge Hong Kong Projects - Investigation
Baseline Air Quality and Noise Monitoring Schedule for October and November 2011

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1-Sep	2-Sep	**1-Oct**
2-Oct	3-Oct	4-Oct	**5-Oct**	6-Oct	7-Oct	8-Oct
9-Oct	10-Oct	11-Oct	12-Oct	13-Oct	14-Oct	15-Oct
16-Oct	17-Oct	18-Oct	19-Oct	20-Oct	21-Oct	22-Oct
		1 hr TSP x 3 24 hrs TSP Noise	1 hr TSP x 3 24 hrs TSP Noise	1 hr TSP x 3 24 hrs TSP Noise	1 hr TSP x 3 24 hrs TSP Noise	1 hr TSP x 3 24 hrs TSP Noise
23-Oct	24-Oct	25-Oct	26-Oct	27-Oct	28-Oct	29-Oct
1 hr TSP x 3 24 hrs TSP Noise	1 hr TSP x 3 24 hrs TSP Noise	1 hr TSP x 3 24 hrs TSP Noise	1 hr TSP x 3 24 hrs TSP Noise	1 hr TSP x 3 24 hrs TSP Noise	1 hr TSP x 3 24 hrs TSP Noise	1 hr TSP x 3 24 hrs TSP Noise
30-Oct	31-Oct	1-Nov	2-Nov			
1 hr TSP x 3 24 hrs TSP Noise	1 hr TSP x 3 24 hrs TSP Noise	Noise				

The schedule may be changed due to unforeseen circumstances (adverse weather, etc)

Air Quality Monitoring Stations
AMS1 - Sha Lo Wan
AMS4 - San Tau

Noise Monitoring Stations
NMS1 - Sha Lo Wan
NMS4 - San Tau

Agreement No. CE 35/2011 (EP)
Baseline Environmental Monitoring for Hong Kong - Zhuhai - Macao Bridge Hong Kong Projects - Investigation
Baseline Water Quality Monitoring Schedule for September 2011 & October 2011

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1-Sep	2-Sep	**1-Oct**
2-Oct	3-Oct	4-Oct	**5-Oct**	6-Oct	7-Oct	8-Oct
				Mid-Ebb 08:21 Start Time 06:36 End Time 10:06 **Mid-Flood** 16:13 Start Time 14:28 End Time 17:58		**Mid-Ebb** 10:21 Start Time 08:36 End Time 12:06 **Mid-Flood** 17:15 Start Time 15:30 End Time 19:00
9-Oct	10-Oct	11-Oct	12-Oct	13-Oct	14-Oct	15-Oct
	Mid-Ebb 11:45 Start Time 10:00 End Time 13:30 **Mid-Flood** 18:00 Start Time 16:16 End Time 19:46		**Mid-Ebb** 12:53 Start Time 11:08 End Time 14:38 **Mid-Flood** 18:47 Start Time 17:02 End Time 20:32		**Mid-Flood** 08:09 Start Time 06:24 End Time 09:54 **Mid-Ebb** 13:52 Start Time 12:07 End Time 15:37	
16-Oct	17-Oct	18-Oct	19-Oct	20-Oct	21-Oct	22-Oct
Mid-Flood 09:27 Start Time 07:42 End Time 11:12 **Mid-Ebb** 14:52 Start Time 13:07 End Time 16:37		**Mid-Flood** 11:12 Start Time 09:27 End Time 12:57 **Mid-Ebb** 16:09 Start Time 14:24 End Time 17:54				**Mid-Ebb** 08:18 Start Time 06:33 End Time 10:03 **Mid-Flood** 15:41 Start Time 13:56 End Time 17:26
23-Oct	24-Oct	25-Oct	26-Oct	27-Oct	28-Oct	29-Oct
		Mid-Ebb 11:25 Start Time 09:40 End Time 13:10 **Mid-Flood** 17:28 Start Time 15:43 End Time 19:13		**Mid-Flood** 07:06 Start Time 05:21 End Time 08:51 **Mid-Ebb** 13:04 Start Time 11:19 End Time 14:49		**Mid-Flood** 08:53 Start Time 07:08 End Time 10:38 **Mid-Ebb** 14:40 Start Time 12:55 End Time 16:25
30-Oct	31-Oct					
	Mid-Flood 10:52 Start Time 09:07 End Time 12:37 **Mid-Ebb** 16:28 Start Time 14:43 End Time 18:13					

The schedule may be changed due to unforeseen circumstances (adverse weather, etc)

Remark: Reference was made to the tidal information at Tai O of Hong Kong Observatory

Agreement No. CE 35/2011 (EP)
Baseline Environmental Monitoring for Hong Kong - Zhuhai - Macao Bridge Hong Kong Projects - Investigation
Baseline Water Quality Monitoring Schedule for September 2011 & October 2011

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1-Oct
2-Oct	3-Oct	4-Oct	**5-Oct**	6-Oct	7-Oct	8-Oct
				Mid-Ebb 08:43 Start Time 06:58 End Time 10:28 **Mid-Flood** 16:33 Start Time 14:48 End Time 18:18		**Mid-Ebb** 10:38 Start Time 08:53 End Time 12:23 **Mid-Flood** 17:34 Start Time 15:49 End Time 19:19
9-Oct	10-Oct	11-Oct	12-Oct	13-Oct	14-Oct	15-Oct
	Mid-Ebb 11:55 Start Time 10:10 End Time 13:40 **Mid-Flood** 18:15 Start Time 16:30 End Time 20:00		**Mid-Ebb** 12:58 Start Time 11:13 End Time 14:43 **Mid-Flood** 18:54 Start Time 17:09 End Time 20:39		**Mid-Flood** 08:22 Start Time 06:37 End Time 10:07 **Mid-Ebb** 14:00 Start Time 12:15 End Time 15:45	
16-Oct	17-Oct	18-Oct	19-Oct	20-Oct	21-Oct	22-Oct
Mid-Flood 09:44 Start Time 07:59 End Time 11:29 **Mid-Ebb** 15:04 Start Time 13:19 End Time 16:49		**Mid-Flood** 11:34 Start Time 09:49 End Time 13:19 **Mid-Ebb** 16:20 Start Time 14:35 End Time 18:05				**Mid-Ebb** 08:37 Start Time 06:52 End Time 10:22 **Mid-Flood** 15:59 Start Time 14:14 End Time 17:44
23-Oct	24-Oct	25-Oct	26-Oct	27-Oct	28-Oct	29-Oct
		Mid-Ebb 11:29 Start Time 09:44 End Time 13:14 **Mid-Flood** 17:33 Start Time 15:48 End Time 19:18		**Mid-Flood** 07:17 Start Time 05:32 End Time 09:02 **Mid-Ebb** 13:08 Start Time 11:23 End Time 14:53		**Mid-Flood** 09:13 Start Time 07:28 End Time 10:58 **Mid-Ebb** 14:47 Start Time 13:02 End Time 16:32
30-Oct	31-Oct					
	Mid-Flood 11:07 Start Time 09:22 End Time 12:52 **Mid-Ebb** 16:23 Start Time 14:38 End Time 18:08					

The schedule may be changed due to unforeseen circumstances (adverse weather, etc)

Remark: Reference was made to the tidal information at Chek Lap Kok of Hong Kong Observatory

Contract HY/2011/09 Hong Kong-Zhuhai-Macao Bridge Hong Kong Link Road-Section between HKSAR Boundary and Scenic Hill
Baseline Water Quality Monitoring at SRA in November 2012

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1-Nov	2-Nov	3-Nov
4-Nov	5-Nov	6-Nov	7-Nov	8-Nov	9-Nov	10-Nov
				Water Quality Monitoring Mid-Ebb 07:00 Mid-Flood 15:00		Water Quality Monitoring Mid-Ebb 09:40 Mid-Flood 16:07
11-Nov	12-Nov	13-Nov	14-Nov	15-Nov	16-Nov	17-Nov
	Water Quality Monitoring Mid-Ebb 11:28 Mid-Flood 17:16		Water Quality Monitoring Mid-Ebb 13:11 Mid-Flood 18:30		Water Quality Monitoring Mid-Flood 09:20 Mid-Ebb 14:50	
18-Nov	19-Nov	20-Nov	21-Nov	22-Nov	23-Nov	24-Nov
	Water Quality Monitoring Mid-Flood 12:11 Mid-Ebb 17:38		Water Quality Monitoring Mid-Ebb 06:28 Mid-Flood 14:22		Water Quality Monitoring Mid-Ebb 09:00 Mid-Flood 15:47	
25-Nov	26-Nov	27-Nov	28-Nov	29-Nov	30-Nov	
	Water Quality Monitoring Mid-Ebb 11:32 Mid-Flood 17:12		Water Quality Monitoring Mid-Ebb 12:46 Mid-Flood 18:04		Water Quality Monitoring Mid-Flood 08:41 Mid-Ebb 13:52	

Contract HY/2011/09 Hong Kong-Zhuhai-Macao Bridge Hong Kong Link Road-Section between HKSAR Boundary and Scenic Hill
Baseline Water Quality Monitoring at SRA in December 2012

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1-Dec
2-Dec	3-Dec	4-Dec	5-Dec	6-Dec	7-Dec	8-Dec
Water Quality Monitoring Mid-Flood 09:53 Mid-Ebb 14:59						
9-Dec	10-Dec	11-Dec	12-Dec	13-Dec	14-Dec	15-Dec
16-Dec	17-Dec	18-Dec	19-Dec	20-Dec	21-Dec	22-Dec
23-Dec	24-Dec	25-Dec	26-Dec	27-Dec	28-Dec	29-Dec

Contract HY/2011/09 Hong Kong-Zhuhai-Macao Bridge Hong Kong Link Road-Section between HKSAR Boundary and Scenic Hill

Baseline Underwater Noise Monitoring in November 2012

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1-Nov	2-Nov	3-Nov
4-Nov	5-Nov	6-Nov	7-Nov	8-Nov	9-Nov	10-Nov
11-Nov	12-Nov	13-Nov	14-Nov	15-Nov	16-Nov	17-Nov
18-Nov	19-Nov	20-Nov	21-Nov	22-Nov	23-Nov	24-Nov
						Baseline Underwater Noise Monitoirng
25-Nov	26-Nov	27-Nov	28-Nov	29-Nov	30-Nov	
Baseline Underwater Noise Monitoirng	Baseline Underwater Noise Monitoirng	Baseline Underwater Noise Monitoirng	Baseline Underwater Noise Monitoirng	Baseline Underwater Noise Monitoirng	Baseline Underwater Noise Monitoirng	

Contract HY/2011/09 Hong Kong-Zhuhai-Macao Bridge Hong Kong Link Road-Section between HKSAR Boundary and Scenic Hill
Baseline Underwater Noise Monitoring in December 2012

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1-Dec
						Baseline Underwater Noise Monitoirng
2-Dec	3-Dec	4-Dec	5-Dec	6-Dec	7-Dec	8-Dec
Baseline Underwater Noise Monitoirng	Baseline Underwater Noise Monitoirng	Baseline Underwater Noise Monitoirng	Baseline Underwater Noise Monitoirng	Baseline Underwater Noise Monitoirng	Baseline Underwater Noise Monitoirng	Baseline Underwater Noise Monitoirng
9-Dec	10-Dec	11-Dec	12-Dec	13-Dec	14-Dec	15-Dec
Baseline Underwater Noise Monitoirng	Baseline Underwater Noise Monitoirng	Baseline Underwater Noise Monitoirng	Baseline Underwater Noise Monitoirng	Baseline Underwater Noise Monitoirng	Baseline Underwater Noise Monitoirng	Baseline Underwater Noise Monitoirng
16-Dec	17-Dec	18-Dec	19-Dec	20-Dec	21-Dec	22-Dec
Baseline Underwater Noise Monitoirng	Baseline Underwater Noise Monitoirng	Baseline Underwater Noise Monitoirng	Baseline Underwater Noise Monitoirng	Baseline Underwater Noise Monitoirng	Baseline Underwater Noise Monitoirng	Baseline Underwater Noise Monitoirng
23-Dec	24-Dec	25-Dec	26-Dec	27-Dec	28-Dec	29-Dec
30-Dec	31-Dec	1-Jan	2-Jan	3-Jan	4-Jan	5-Jan

Contract HY/2011/09 Hong Kong-Zhuhai-Macao Bridge Hong Kong Link Road-Section between HKSAR Boundary and Scenic Hill
Baseline Land-based Dolphin Behaviour and Movement Monitoring in December 2012

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1-Dec
2-Dec	3-Dec	4-Dec	5-Dec	6-Dec	7-Dec	8-Dec
9-Dec	10-Dec	11-Dec	12-Dec	13-Dec	14-Dec	15-Dec
16-Dec	17-Dec	18-Dec	19-Dec	20-Dec	21-Dec	22-Dec
23-Dec	24-Dec	25-Dec	26-Dec	27-Dec	28-Dec	29-Dec
						Baseline Land-based Dolphin Behaviour and Movement Monitoring
30-Dec	31-Dec					

The schedule may be changed due to unforeseen circumstances (adverse weather, etc)

Contract HY/2011/09 Hong Kong-Zhuhai-Macao Bridge Hong Kong Link Road-Section between HKSAR Boundary and Scenic Hill

Baseline Land-based Dolphin Behaviour and Movement Monitoring in January 2013

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1-Jan	2-Jan	3-Jan	4-Jan	5-Jan
			Baseline Land-based Dolphin Behaviour and Movement Monitoring	Baseline Land-based Dolphin Behaviour and Movement Monitoring	Baseline Land-based Dolphin Behaviour and Movement Monitoring	Baseline Land-based Dolphin Behaviour and Movement Monitoring
6-Jan	7-Jan	8-Jan	9-Jan	10-Jan	11-Jan	12-Jan
Baseline Land-based Dolphin Behaviour and Movement Monitoring	Baseline Land-based Dolphin Behaviour and Movement Monitoring	Baseline Land-based Dolphin Behaviour and Movement Monitoring	Baseline Land-based Dolphin Behaviour and Movement Monitoring	Baseline Land-based Dolphin Behaviour and Movement Monitoring	Baseline Land-based Dolphin Behaviour and Movement Monitoring	Baseline Land-based Dolphin Behaviour and Movement Monitoring
13-Jan	14-Jan	15-Jan	16-Jan	17-Jan	18-Jan	19-Jan
Baseline Land-based Dolphin Behaviour and Movement Monitoring	Baseline Land-based Dolphin Behaviour and Movement Monitoring	Baseline Land-based Dolphin Behaviour and Movement Monitoring	Baseline Land-based Dolphin Behaviour and Movement Monitoring	Baseline Land-based Dolphin Behaviour and Movement Monitoring	Baseline Land-based Dolphin Behaviour and Movement Monitoring	Baseline Land-based Dolphin Behaviour and Movement Monitoring
20-Jan	21-Jan	22-Jan	23-Jan	24-Jan	25-Jan	26-Jan
Baseline Land-based Dolphin Behaviour and Movement Monitoring	Baseline Land-based Dolphin Behaviour and Movement Monitoring	Baseline Land-based Dolphin Behaviour and Movement Monitoring	Baseline Land-based Dolphin Behaviour and Movement Monitoring	Baseline Land-based Dolphin Behaviour and Movement Monitoring	Baseline Land-based Dolphin Behaviour and Movement Monitoring	Baseline Land-based Dolphin Behaviour and Movement Monitoring
27-Jan	28-Jan	29-Jan	30-Jan	31-Jan		
Baseline Land-based Dolphin Behaviour and Movement Monitoring	Baseline Land-based Dolphin Behaviour and Movement Monitoring	Baseline Land-based Dolphin Behaviour and Movement Monitoring	Baseline Land-based Dolphin Behaviour and Movement Monitoring			

The schedule may be changed due to unforeseen circumstances (adverse weather, etc)

APPENDIX B
WEATHER CONDITIONS DURING BASELINE MONITORING PERIOD

APPENDIX B –
WEATHER CONDITIONS DURING THE MONITORING PERIOD

I. General Information

Date	Mean Air Temperature (°C)	Mean Relative Humidity (%)	Precipitation (mm)
6 October 2011	23.3 – 27.9	70 – 85	0.1
8 October 2011	24.6 – 28.8	65 – 83	Trace
10 October 2011	24.4 – 29.0	68 – 96	5.3
12 October 2011	23.6 – 25.1	91 – 99	105.8
14 October 2011	24.3 – 27.1	79 – 98	3.8
16 October 2011	22.9 – 29.6	48 – 77	0
18 October 2011	22.7 – 27.4	61 – 83	0
19 October 2011	22.8 – 26.5	60 – 77	Trace
20 October 2011	21.7 – 27.6	60 – 81	0
21 October 2011	22.4 – 28.9	55 – 86	0
22 October 2011	23.6 – 27.9	63 – 86	0
23 October 2011	23.9 – 27.4	70 – 87	0
24 October 2011	23.1 – 28.9	62 – 88	0
25 October 2011	22.4 – 26.6	72 – 89	0.5
26 October 2011	22.0 – 25.7	69 – 91	0.1
27 October 2011	21.3 – 26.0	65 – 95	1.5
28 October 2011	22.9 – 27.1	61 – 81	Trace
29 October 2011	21.7 – 27.4	60 – 79	0
30 October 2011	22.3 – 27.0	64 – 81	Trace

APPENDIX B –
WEATHER CONDITIONS DURING THE MONITORING PERIOD

I. General Information

Date	Mean Air Temperature (°C)	Mean Relative Humidity (%)	Precipitation (mm)
31 October 2011	23.0 – 27.0	59 – 78	Trace
1 November 2011	22.3 – 27.7	52 – 83	0
2 November 2011	23.3 – 28.9	55 – 84	0
8 November 2012	22.7 – 25.1	78 – 95	1.9
10 November 2012	24.3 – 27.7	81 - 93	0
12 November 2012	20.7 – 23.9	66 - 78	0
14 November 2012	22.2 – 25.6	60 - 86	0
16 November 2012	22.4 – 24.0	79 - 83	Trace
19 November 2012	20.7 – 23.6	67 - 84	0
21 November 2012	21.8 – 23.5	89 - 97	3.0
23 November 2012	19.4 – 26.4	69 - 95	17.7
26 November 2012	16.0 – 23.3	71 – 98	0.6
28 November 2012	17.6 – 20.5	89 – 97	1.1
30 November 2012	20.2 – 22.3	93 - 97	1.9
2 December 2012	16.8 – 20.9	80 - 97	3.2

* The above information was extracted from the daily weather summary by Hong Kong Observatory.

APPENDIX B –
WEATHER CONDITIONS DURING THE MONITORING PERIOD

II. Mean Wind Speed and Wind Direction

Date	Time	Wind Speed m/s	Direction
18-Oct-2011	8:00	1.1	ESE
18-Oct-2011	9:00	1.3	SSE
18-Oct-2011	10:00	1.3	NE
18-Oct-2011	11:00	1.4	SE
18-Oct-2011	12:00	1.8	ESE
18-Oct-2011	13:00	2.0	SE
18-Oct-2011	14:00	2.1	ESE
18-Oct-2011	15:00	2.2	ESE
18-Oct-2011	16:00	2.0	SE
18-Oct-2011	17:00	2.0	ESE
18-Oct-2011	18:00	1.7	SSE
18-Oct-2011	19:00	1.7	ENE
18-Oct-2011	20:00	1.6	SE
18-Oct-2011	21:00	1.3	N
18-Oct-2011	22:00	1.6	SSE
18-Oct-2011	23:00	1.6	WSW
19-Oct-2011	0:00	1.6	ENE
19-Oct-2011	1:00	1	E
19-Oct-2011	2:00	1	ESE
19-Oct-2011	3:00	1	ESE
19-Oct-2011	4:00	1	ESE
19-Oct-2011	5:00	1.1	ESE
19-Oct-2011	6:00	1.0	ESE
19-Oct-2011	7:00	0.8	ESE
19-Oct-2011	8:00	1.0	SE
19-Oct-2011	9:00	1.3	SSE
19-Oct-2011	10:00	1.6	SSE
19-Oct-2011	11:00	1.8	NE
19-Oct-2011	12:00	2.2	ENE
19-Oct-2011	13:00	2.0	ENE
19-Oct-2011	14:00	2.2	ENE
19-Oct-2011	15:00	2.1	SSE
19-Oct-2011	16:00	1.9	SSE
19-Oct-2011	17:00	1.9	NE
19-Oct-2011	18:00	1.8	N

II. Mean Wind Speed and Wind Direction

19-Oct-2011	19:00	1.4	SSE
19-Oct-2011	20:00	1	SE
19-Oct-2011	21:00	2	SSE
19-Oct-2011	22:00	2	ESE
19-Oct-2011	23:00	1.4	SE
20-Oct-2011	0:00	1.6	S
20-Oct-2011	1:00	1.7	SSE
20-Oct-2011	2:00	1.3	SSE
20-Oct-2011	3:00	1.2	E
20-Oct-2011	4:00	1	SSE
20-Oct-2011	5:00	1.3	SSE
20-Oct-2011	6:00	1.1	SE
20-Oct-2011	7:00	1.1	E
20-Oct-2011	8:00	1.2	SSE
20-Oct-2011	9:00	1.6	SE
20-Oct-2011	10:00	1.8	ENE
20-Oct-2011	11:00	1.5	ENE
20-Oct-2011	12:00	1.7	NE
20-Oct-2011	13:00	1.8	ESE
20-Oct-2011	14:00	2.0	ESE
20-Oct-2011	15:00	2.0	ESE
20-Oct-2011	16:00	1.9	SSE
20-Oct-2011	17:00	2.0	ESE
20-Oct-2011	18:00	1.8	SE
20-Oct-2011	19:00	1.5	SE
20-Oct-2011	20:00	1.6	SE
20-Oct-2011	21:00	1.8	S
20-Oct-2011	22:00	1.7	ESE
20-Oct-2011	23:00	1.8	SE
21-Oct-2011	0:00	2.6	SE
21-Oct-2011	1:00	2.9	ESE
21-Oct-2011	2:00	2.7	ESE
21-Oct-2011	3:00	2.7	SE
21-Oct-2011	4:00	2.5	SSE
21-Oct-2011	5:00	2.5	SSE
21-Oct-2011	6:00	2.6	SSE

II. Mean Wind Speed and Wind Direction

21-Oct-2011	7:00	2.2	ESE
21-Oct-2011	8:00	2.8	WNW
21-Oct-2011	9:00	3.0	WNW
21-Oct-2011	10:00	2.8	WNW
21-Oct-2011	11:00	3.2	WNW
21-Oct-2011	12:00	3.3	SW
21-Oct-2011	13:00	3.3	WSW
21-Oct-2011	14:00	3.0	W
21-Oct-2011	15:00	3.1	W
21-Oct-2011	16:00	2.9	WNW
21-Oct-2011	17:00	2.7	SSW
21-Oct-2011	18:00	2.1	WNW
21-Oct-2011	19:00	1.9	WSW
21-Oct-2011	20:00	2.0	SSE
21-Oct-2011	21:00	1.8	SSW
21-Oct-2011	22:00	2.1	NE
21-Oct-2011	23:00	2.0	E
22-Oct-2011	0:00	1.8	SE
22-Oct-2011	1:00	2.1	SSE
22-Oct-2011	2:00	2.3	ENE
22-Oct-2011	3:00	2.4	SE
22-Oct-2011	4:00	2.4	WNW
22-Oct-2011	5:00	2.3	SW
22-Oct-2011	6:00	1.9	S
22-Oct-2011	7:00	1.9	W
22-Oct-2011	8:00	2.3	SW
22-Oct-2011	9:00	2.7	ESE
22-Oct-2011	10:00	3.0	WNW
22-Oct-2011	11:00	2.6	SE
22-Oct-2011	12:00	3.2	S
22-Oct-2011	13:00	3.5	ENE
22-Oct-2011	14:00	3.1	SE
22-Oct-2011	15:00	3.0	ENE
22-Oct-2011	16:00	3.0	ENE
22-Oct-2011	17:00	2.7	SE
22-Oct-2011	18:00	2.1	SE

II. Mean Wind Speed and Wind Direction

22-Oct-2011	19:00	1.7	E
22-Oct-2011	20:00	1.8	NE
22-Oct-2011	21:00	1.7	E
22-Oct-2011	22:00	1.8	NNW
22-Oct-2011	23:00	1.7	E
23-Oct-2011	0:00	2.3	E
23-Oct-2011	1:00	2.2	E
23-Oct-2011	2:00	2.0	ESE
23-Oct-2011	3:00	2.0	SE
23-Oct-2011	4:00	2.2	SE
23-Oct-2011	5:00	2.1	SSE
23-Oct-2011	6:00	2.2	SSW
23-Oct-2011	7:00	2.0	SE
23-Oct-2011	8:00	1.9	ESE
23-Oct-2011	9:00	2.3	SSE
23-Oct-2011	10:00	2.3	SSE
23-Oct-2011	11:00	2.7	SE
23-Oct-2011	12:00	2.3	S
23-Oct-2011	13:00	2.6	SE
23-Oct-2011	14:00	2.4	SSE
23-Oct-2011	15:00	2.3	NE
23-Oct-2011	16:00	2.3	ESE
23-Oct-2011	17:00	2.4	ESE
23-Oct-2011	18:00	2.2	SW
23-Oct-2011	19:00	1.9	N
23-Oct-2011	20:00	2.0	W
23-Oct-2011	21:00	1.5	SW
23-Oct-2011	22:00	1.2	ENE
23-Oct-2011	23:00	1.3	SW
24-Oct-2011	0:00	1.5	WNW
24-Oct-2011	1:00	1.4	SW
24-Oct-2011	2:00	1.2	SSW
24-Oct-2011	3:00	1.2	E
24-Oct-2011	4:00	1.3	SSW
24-Oct-2011	5:00	1.5	WSW
24-Oct-2011	6:00	1.3	N

II. Mean Wind Speed and Wind Direction

24-Oct-2011	7:00	1.1	NE
24-Oct-2011	8:00	1.3	N
24-Oct-2011	9:00	1.7	ENE
24-Oct-2011	10:00	2.2	NNE
24-Oct-2011	11:00	2.1	NNE
24-Oct-2011	12:00	2.8	NNE
24-Oct-2011	13:00	2.6	N
24-Oct-2011	14:00	2.5	NNE
24-Oct-2011	15:00	2.4	W
24-Oct-2011	16:00	2.4	SW
24-Oct-2011	17:00	2.3	W
24-Oct-2011	18:00	1.9	WSW
24-Oct-2011	19:00	1.5	S
24-Oct-2011	20:00	1.2	NNE
24-Oct-2011	21:00	1.5	NNE
24-Oct-2011	22:00	1.4	NNE
24-Oct-2011	23:00	1.5	NE
25-Oct-2011	0:00	1.0	ENE
25-Oct-2011	1:00	0.9	SSE
25-Oct-2011	2:00	0.8	NNE
25-Oct-2011	3:00	0.8	NE
25-Oct-2011	4:00	0.6	ENE
25-Oct-2011	5:00	0.6	NNE
25-Oct-2011	6:00	1.0	SE
25-Oct-2011	7:00	1.3	SSE
25-Oct-2011	8:00	1.3	SSE
25-Oct-2011	9:00	1.5	ESE
25-Oct-2011	10:00	1.8	SE
25-Oct-2011	11:00	2.0	SE
25-Oct-2011	12:00	2.2	SE
25-Oct-2011	13:00	2.3	SSE
25-Oct-2011	14:00	2.4	ESE
25-Oct-2011	15:00	2.5	ESE
25-Oct-2011	16:00	2.0	ESE
25-Oct-2011	17:00	1.9	ESE
25-Oct-2011	18:00	1.6	SSE

II. Mean Wind Speed and Wind Direction

25-Oct-2011	19:00	1.4	ESE
25-Oct-2011	20:00	1.3	ENE
25-Oct-2011	21:00	1.6	E
25-Oct-2011	22:00	1.4	NNE
25-Oct-2011	23:00	1.4	NNE
26-Oct-2011	0:00	1.1	SE
26-Oct-2011	1:00	1.0	SSE
26-Oct-2011	2:00	1.1	ESE
26-Oct-2011	3:00	1.1	ESE
26-Oct-2011	4:00	1.1	SE
26-Oct-2011	5:00	1.0	ESE
26-Oct-2011	6:00	1.0	SSE
26-Oct-2011	7:00	1.4	SSE
26-Oct-2011	8:00	1.4	SSE
26-Oct-2011	9:00	1.9	SSE
26-Oct-2011	10:00	2.3	ESE
26-Oct-2011	11:00	2.4	E
26-Oct-2011	12:00	2.2	ESE
26-Oct-2011	13:00	2.3	SSE
26-Oct-2011	14:00	1.9	WNW
26-Oct-2011	15:00	2.3	E
26-Oct-2011	16:00	2.3	ENE
26-Oct-2011	17:00	1.9	NE
26-Oct-2011	18:00	1.7	NE
26-Oct-2011	19:00	1.6	NNE
26-Oct-2011	20:00	1.4	WNW
26-Oct-2011	21:00	1.3	NNE
26-Oct-2011	22:00	1.4	ENE
26-Oct-2011	23:00	1.2	WSW
27-Oct-2011	0:00	1.1	WSW
27-Oct-2011	1:00	0.9	SW
27-Oct-2011	2:00	0.9	SSW
27-Oct-2011	3:00	0.9	NNW
27-Oct-2011	4:00	0.9	SSW
27-Oct-2011	5:00	0.8	WNW
27-Oct-2011	6:00	0.9	NNE

II. Mean Wind Speed and Wind Direction

27-Oct-2011	7:00	1.0	E
27-Oct-2011	8:00	1.2	E
27-Oct-2011	9:00	1.6	ENE
27-Oct-2011	10:00	1.7	E
27-Oct-2011	11:00	2.0	NE
27-Oct-2011	12:00	2.1	NE
27-Oct-2011	13:00	2.3	ENE
27-Oct-2011	14:00	2.5	NE
27-Oct-2011	15:00	2.1	NE
27-Oct-2011	16:00	2.1	E
27-Oct-2011	17:00	2.2	E
27-Oct-2011	18:00	1.8	E
27-Oct-2011	19:00	1.6	E
27-Oct-2011	20:00	1.7	ENE
27-Oct-2011	21:00	1.2	ENE
27-Oct-2011	22:00	1.7	ENE
27-Oct-2011	23:00	1.4	ESE
28-Oct-2011	0:00	1.7	NE
28-Oct-2011	1:00	1.7	ESE
28-Oct-2011	2:00	1.6	ENE
28-Oct-2011	3:00	1.4	ENE
28-Oct-2011	4:00	1.2	NNE
28-Oct-2011	5:00	1.2	NE
28-Oct-2011	6:00	1.3	ENE
28-Oct-2011	7:00	1.3	SSE
28-Oct-2011	8:00	1.4	NNE
28-Oct-2011	9:00	2.0	ESE
28-Oct-2011	10:00	1.9	SSE
28-Oct-2011	11:00	2.0	ENE
28-Oct-2011	12:00	2.1	SE
28-Oct-2011	13:00	2.4	SE
28-Oct-2011	14:00	2.5	SW
28-Oct-2011	15:00	2.2	ESE
28-Oct-2011	16:00	2.1	S
28-Oct-2011	17:00	2.2	E
28-Oct-2011	18:00	1.7	NE

II. Mean Wind Speed and Wind Direction

28-Oct-2011	19:00	1.6	NNW
28-Oct-2011	20:00	1.4	NW
28-Oct-2011	21:00	1.4	NNW
28-Oct-2011	22:00	1.4	SE
28-Oct-2011	23:00	1.7	NNE
29-Oct-2011	0:00	1.6	N
29-Oct-2011	1:00	1.5	SE
29-Oct-2011	2:00	1.7	S
29-Oct-2011	3:00	1.8	ESE
29-Oct-2011	4:00	1.9	ESE
29-Oct-2011	5:00	1.8	SE
29-Oct-2011	6:00	1.9	S
29-Oct-2011	7:00	1.8	SE
29-Oct-2011	8:00	2.0	NW
29-Oct-2011	9:00	2.1	NE
29-Oct-2011	10:00	2.4	ENE
29-Oct-2011	11:00	2.7	NE
29-Oct-2011	12:00	3.1	NE
29-Oct-2011	13:00	2.9	N
29-Oct-2011	14:00	2.8	NE
29-Oct-2011	15:00	3.1	NE
29-Oct-2011	16:00	2.9	NE
29-Oct-2011	17:00	2.7	N
29-Oct-2011	18:00	2.6	NE
29-Oct-2011	19:00	2.1	NE
29-Oct-2011	20:00	1.9	ENE
29-Oct-2011	21:00	1.7	NE
29-Oct-2011	22:00	1.8	N
29-Oct-2011	23:00	2.1	NNE
30-Oct-2011	0:00	1.6	ENE
30-Oct-2011	1:00	1.7	NNE
30-Oct-2011	2:00	1.7	NNE
30-Oct-2011	3:00	1.7	NNE
30-Oct-2011	4:00	1.5	E
30-Oct-2011	5:00	1.5	W
30-Oct-2011	6:00	1.5	ENE

II. Mean Wind Speed and Wind Direction

30-Oct-2011	7:00	1.5	NE
30-Oct-2011	8:00	1.8	W
30-Oct-2011	9:00	2.5	NE
30-Oct-2011	10:00	2.5	NE
30-Oct-2011	11:00	2.9	NE
30-Oct-2011	12:00	2.9	W
30-Oct-2011	13:00	2.5	NE
30-Oct-2011	14:00	2.1	NE
30-Oct-2011	15:00	2.2	S
30-Oct-2011	16:00	2.2	SE
30-Oct-2011	17:00	2.0	ESE
30-Oct-2011	18:00	1.8	E
30-Oct-2011	19:00	1.7	E
30-Oct-2011	20:00	1.3	NNW
30-Oct-2011	21:00	1	NNW
30-Oct-2011	22:00	1.0	NNW
30-Oct-2011	23:00	1.1	SSE
31-Oct-2011	0:00	1.0	NNW
31-Oct-2011	1:00	1	E
31-Oct-2011	2:00	1.2	SE
31-Oct-2011	3:00	1	SSE
31-Oct-2011	4:00	1.0	SE
31-Oct-2011	5:00	1	SSE
31-Oct-2011	6:00	1	SSE
31-Oct-2011	7:00	1	SSE
31-Oct-2011	8:00	0.9	ENE
31-Oct-2011	9:00	1.5	ENE
31-Oct-2011	10:00	2.0	NE
31-Oct-2011	11:00	2.3	NE
31-Oct-2011	12:00	2.3	NNE
31-Oct-2011	13:00	2.4	ENE
31-Oct-2011	14:00	2.3	ENE
31-Oct-2011	15:00	2.4	E
31-Oct-2011	16:00	2.5	E
31-Oct-2011	17:00	2.4	ENE
31-Oct-2011	18:00	2.1	NE

II. Mean Wind Speed and Wind Direction

31-Oct-2011	19:00	1.7	SSW
31-Oct-2011	20:00	2	N
31-Oct-2011	21:00	1	W
31-Oct-2011	22:00	1	W
31-Oct-2011	23:00	1	WSW
1-Nov-2011	0:00	1	N
1-Nov-2011	1:00	1	E
1-Nov-2011	2:00	1	S
1-Nov-2011	3:00	1.2	WSW
1-Nov-2011	4:00	1.2	WSW
1-Nov-2011	5:00	1.1	NE
1-Nov-2011	6:00	1.0	SSW
1-Nov-2011	7:00	1.1	SW
1-Nov-2011	8:00	1.5	SW
1-Nov-2011	9:00	1.7	E
1-Nov-2011	10:00	1.8	N
1-Nov-2011	11:00	2.1	NE
1-Nov-2011	12:00	2.2	N
1-Nov-2011	13:00	2.4	N
1-Nov-2011	14:00	2.1	ENE
1-Nov-2011	15:00	2.3	NNE
1-Nov-2011	16:00	1.9	N
1-Nov-2011	17:00	1.8	N
1-Nov-2011	18:00	1.6	ENE
1-Nov-2011	19:00	1.2	ENE
1-Nov-2011	20:00	1.3	E
1-Nov-2011	21:00	1.4	ENE
1-Nov-2011	22:00	1.4	ENE
1-Nov-2011	23:00	1.2	E
2-Nov-2011	0:00	1.7	NE
2-Nov-2011	1:00	1.7	NNE
2-Nov-2011	2:00	1.9	ESE
2-Nov-2011	3:00	1.7	N
2-Nov-2011	4:00	1.7	NE
2-Nov-2011	5:00	1.7	NNE
2-Nov-2011	6:00	1.4	SE

II. Mean Wind Speed and Wind Direction

2-Nov-2011	7:00	1.4	NE
2-Nov-2011	8:00	1.6	NNE
2-Nov-2011	9:00	2.2	E
2-Nov-2011	10:00	2.3	ENE
2-Nov-2011	11:00	2.4	ENE
2-Nov-2011	12:00	2.5	NNE
2-Nov-2011	13:00	2.6	ESE
2-Nov-2011	14:00	2.5	SW
2-Nov-2011	15:00	2.6	WSW
2-Nov-2011	16:00	2.6	N
2-Nov-2011	17:00	2.1	SW
2-Nov-2011	18:00	1.5	ENE
2-Nov-2011	19:00	1.4	NE
2-Nov-2011	20:00	1.4	ENE
2-Nov-2011	21:00	1.7	NNE
2-Nov-2011	22:00	1.4	ENE
2-Nov-2011	23:00	1.2	S

APPENDIX C
BASELINE WATER QUALITY MONITORING RESULTS, GRAPHICAL PRESENTATION OF DATA AND LABORATORY TESTING REPORT FOR SRA

Water Quality Monitoring Results at SRA - Mid-Ebb Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Depth (m)		Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
						Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
8-Nov-12	Cloudy	Calm	08:21	Surface	1	24.6 24.5	24.6	8.2 8.2	8.2	31.8 31.8	31.8	87.5 84.4	86.0	6.1 5.9	6.0	6.0	7.4 8.3	7.9	9.9	7.5 7.5	7.5	7.4
				Middle	4.5	24.6 24.5	24.6	8.2 8.2	8.2	31.8 31.8	31.8	85.7 83.8	84.8	6.0 5.8	5.9		9.8 9.8	9.8		7.5 6.9	7.2	
				Bottom	8	24.6 24.5	24.6	8.2 8.2	8.2	31.8 31.8	31.8	84.6 83.2	83.9	5.9 5.8	5.9	5.9	12.1 12.0	12.1		6.9 8.1	7.5	
10-Nov-12	Sunny	Calm	10:21	Surface	1	24.6 24.6	24.6	8.0 8.0	8.0	26.9 26.8	26.9	99.4 99.5	99.5	7.1 7.1	7.1	7.0	3.4 3.5	3.5	6.0	1.5 3.2	2.4	3.5
				Middle	4.5	24.6 24.6	24.6	8.0 8.0	8.0	27.9 26.5	27.2	95.7 95.5	95.6	6.8 6.8	6.8		5.1 4.8	5.0		2.6 2.3	2.5	
				Bottom	8	24.7 24.7	24.7	8.0 8.0	8.0	25.8 25.8	25.8	94.1 94.1	94.1	6.8 6.8	6.8	6.8	9.7 9.4	9.6		4.9 6.1	5.5	
12-Nov-12	Sunny	Calm	12:43	Surface	1	24.6 24.6	24.6	8.1 8.1	8.1	28.9 29.0	29.0	97.5 96.5	97.0	6.9 6.8	6.9	6.8	6.0 5.8	5.9	8.5	5.9 5.8	5.9	16.4
				Middle	4.5	24.4 24.4	24.4	8.1 8.1	8.1	30.6 30.5	30.6	96.2 94.7	95.5	6.8 6.6	6.7		8.0 7.8	7.9		11.5 12.3	11.9	
				Bottom	8	24.5 24.4	24.5	8.1 8.1	8.1	30.9 30.9	30.9	92.1 92.7	92.4	6.5 6.5	6.5	6.5	11.9 11.6	11.8		34.0 28.6	31.3	
14-Nov-12	Sunny	Calm	12:18	Surface	1	25.0 25.0	25.0	8.1 8.1	8.1	30.2 30.2	30.2	100.4 99.6	100.0	7.0 7.0	7.0	6.9	11.4 10.2	10.8	14.9	6.8 8.0	7.4	7.8
				Middle	4	24.9 24.9	24.9	8.1 8.1	8.1	30.3 30.3	30.3	95.3 94.5	94.9	6.7 6.6	6.7		15.9 15.0	15.5		7.7 8.0	7.9	
				Bottom	7	24.9 24.9	24.9	8.1 8.1	8.1	30.3 30.3	30.3	92.8 92.1	92.5	6.5 6.4	6.5	6.5	18.5 18.3	18.4		8.6 7.6	8.1	
16-Nov-12	Fine	Calm	14:35	Surface	1	24.4 24.4	24.4	8.4 8.4	8.4	30.4 30.4	30.4	105.1 107.2	106.2	7.4 7.5	7.5	7.4	12.7 12.7	12.7	15.5	12.0 12.5	12.3	13.8
				Middle	4.5	24.4 24.4	24.4	8.4 8.4	8.4	30.4 30.4	30.4	102.8 103.4	103.1	7.2 7.3	7.3		14.7 15.5	15.1		13.4 15.0	14.2	
				Bottom	8	24.3 24.3	24.3	8.4 8.4	8.4	30.5 30.5	30.5	112.1 105.1	108.6	7.9 7.4	7.7	7.7	18.6 18.5	18.6		14.5 15.5	15.0	
19-Nov-12	Sunny	Calm	17:44	Surface	1	24.0 24.0	24.0	8.2 8.2	8.2	30.8 30.8	30.8	81.1 80.1	80.6	5.7 5.7	5.7	5.7	7.2 8.4	7.8	13.7	6.7 8.1	7.4	9.9
				Middle	5	23.8 23.8	23.8	8.2 8.2	8.2	30.9 31.0	31.0	80.4 79.4	79.9	5.7 5.6	5.7		9.2 9.9	9.6		8.0 8.7	8.4	
				Bottom	9	23.8 23.8	23.8	8.2 8.2	8.2	31.0 31.0	31.0	79.3 78.5	78.9	5.6 5.6	5.6	5.6	23.5 23.9	23.7		13.8 13.8	13.8	
21-Nov-12	Cloudy	Calm	07:19	Surface	1	23.5 23.5	23.5	8.0 8.0	8.0	30.5 30.6	30.6	92.9 92.0	92.5	6.6 6.6	6.6	6.6	12.8 12.9	12.9	15.5	15.5 12.5	14.0	16.4
				Middle	4.5	23.4 23.4	23.4	8.0 8.0	8.0	30.6 30.6	30.6	91.9 90.5	91.2	6.6 6.5	6.6		15.9 15.5	15.7		17.0 18.0	17.5	
				Bottom	8	23.4 23.4	23.4	8.0 8.0	8.0	30.6 30.7	30.7	90.5 89.6	90.1	6.5 6.4	6.5	6.5	17.7 17.9	17.8		16.7 18.8	17.8	
23-Nov-12	Rainy	Calm	09:34	Surface	1	24.0 24.0	24.0	7.5 7.6	7.6	27.3 27.2	27.3	92.7 92.1	92.4	6.7 6.6	6.7	6.8	8.6 8.1	8.4	8.7	8.3 6.2	7.3	6.7
				Middle	3.5	24.1 24.1	24.1	7.6 7.6	7.6	27.6 27.5	27.6	95.1 96.6	95.9	6.8 6.9	6.9		8.0 8.0	8.0		7.5 6.3	6.9	
				Bottom	6	24.2 24.2	24.2	7.6 7.6	7.6	29.0 29.1	29.1	105.1 107.7	106.4	7.4 7.6	7.5	7.5	9.6 9.8	9.7		5.5 6.2	5.9	

Remarks: *DA: Depth-Averaged

**Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher.

Water Quality Monitoring Results at SRA - Mid-Ebb Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Depth (m)		Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
						Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
26-Nov-12	Sunny	Calm	12:25	Surface	1	23.0 23.0	23.0	8.3 8.4	8.4	31.4 31.4	31.4	105.6 104.2	104.9	7.6 7.5	7.6	7.4	4.8 4.8	4.8	6.3	6.6 6.8	6.7	6.9
				Middle	4	23.2 23.2	23.2	8.7 8.8	8.8	31.6 31.6	31.6	100.3 100.1	100.2	7.2 7.1	7.2		6.2 6.2	6.2		6.6 8.0	7.3	
				Bottom	7	23.2 23.2	23.2	9.0 9.0	9.0	31.8 31.8	31.8	98.7 98.7	98.7	7.0 7.0	7.0	7.0	8.0 7.8	7.9		7.2 6.0	6.6	
28-Nov-12	Sunny	Calm	12:47	Surface	1	22.0 22.0	22.0	8.1 8.1	8.1	31.4 31.4	31.4	94.2 93.8	94.0	6.9 6.8	6.9	6.8	14.6 14.5	14.6	15.9	18.3 11.3	14.8	17.3
				Middle	5	22.1 22.1	22.1	8.2 8.2	8.2	31.6 31.6	31.6	91.3 91.2	91.3	6.6 6.6	6.6		14.1 14.0	14.1		16.7 15.7	16.2	
				Bottom	9	22.2 22.2	22.2	8.2 8.2	8.2	31.8 31.8	31.8	89.5 89.7	89.6	6.5 6.5	6.5	6.5	19.1 19.1	19.1		21.0 20.7	20.9	
30-Nov-12	Cloudy	Calm	14:14	Surface	1	22.0 22.0	22.0	8.2 8.2	8.2	30.3 30.4	30.4	54.9 55.0	55.0	4.0 4.0	4.0	4.0	11.6 12.0	11.8	14.3	12.5 10.0	11.3	14.2
				Middle	4.5	22.0 22.0	22.0	8.2 8.2	8.2	30.4 30.4	30.4	53.7 54.1	53.9	3.9 4.0	4.0		13.6 14.2	13.9		18.7 18.3	18.5	
				Bottom	8	22.0 22.0	22.0	8.2 8.2	8.2	30.4 30.4	30.4	52.0 52.5	52.3	3.8 3.9	3.9	3.9	17.5 16.7	17.1		12.5 12.8	12.7	
2-Dec-12	Cloudy	Calm	14:36	Surface	1	21.8 21.7	21.8	8.1 8.1	8.1	31.4 31.4	31.4	100.2 100.4	100.3	7.3 7.4	7.4	7.3	11.2 10.9	11.1	13.0	8.0 9.0	8.5	11.7
				Middle	4.5	21.6 21.6	21.6	8.1 8.1	8.1	31.5 31.5	31.5	98.2 97.6	97.9	7.2 7.2	7.2		12.3 12.5	12.4		13.3 12.0	12.7	
				Bottom	8	21.6 21.6	21.6	8.2 8.2	8.2	31.6 31.6	31.6	96.5 96.1	96.3	7.1 7.1	7.1	7.1	15.7 15.5	15.6		14.2 13.3	13.8	

Remarks: *DA: Depth-Averaged
**Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher.

Water Quality Monitoring Results at SRA - Mid-Flood Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Depth (m)		Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
						Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
8-Nov-12	Cloudy	Calm	14:34	Surface	1	24.6 24.6	24.6	8.2 8.2	8.2	30.9 30.9	30.9	87.9 84.7	86.3	6.0 5.9	6.0	6.0	7.4 7.6	7.5	11.9	8.3 7.4	7.9	8.6
				Middle	5	24.6 24.5	24.6	8.2 8.2	8.2	31.2 31.2	31.2	84.4 83.3	83.9	5.9 5.8	5.9		10.2 9.5	9.9		9.3 7.7	8.5	
				Bottom	9	24.5 24.5	24.5	8.2 8.2	8.2	31.4 31.4	31.4	82.5 80.8	81.7	5.8 5.6	5.7	5.7	18.9 17.4	18.2		9.9 8.8	9.4	
10-Nov-12	Sunny	Calm	15:45	Surface	1	25.3 25.2	25.3	8.0 8.0	8.0	29.1 28.9	29.0	100.4 100.0	100.2	7.0 7.0	7.0	7.0	7.3 6.9	7.1	7.9	6.5 7.8	7.2	6.5
				Middle	5	25.2 25.2	25.2	8.0 8.0	8.0	28.3 28.3	28.3	99.6 99.4	99.5	7.0 7.0	7.0		7.2 7.5	7.4		5.9 6.9	6.4	
				Bottom	9	25.2 25.2	25.2	8.0 8.0	8.0	28.3 28.3	28.3	98.5 98.4	98.5	6.9 6.9	6.9	6.9	9.5 8.8	9.2		6.2 5.7	6.0	
12-Nov-12	Sunny	Calm	16:36	Surface	1	24.7 24.7	24.7	8.0 8.1	8.1	28.9 28.9	28.9	95.1 96.0	95.6	6.7 6.8	6.8	6.7	7.8 8.5	8.2	11.2	8.2 8.1	8.2	9.4
				Middle	5	24.7 24.7	24.7	8.1 8.1	8.1	29.0 29.1	29.1	93.1 92.8	93.0	6.6 6.5	6.6		11.5 9.6	10.6		11.6 16.2	13.9	
				Bottom	9	24.7 24.7	24.7	8.1 8.1	8.1	29.3 29.3	29.3	89.4 88.9	89.2	6.3 6.3	6.3	6.3	13.6 16.1	14.9		5.7 6.6	6.2	
14-Nov-12	Sunny	Calm	16:31	Surface	1	24.9 24.9	24.9	8.1 8.1	8.1	30.2 30.2	30.2	92.2 92.5	92.4	6.4 6.5	6.5	6.5	11.0 10.8	10.9	14.4	8.8 9.2	9.0	11.3
				Middle	5	24.8 24.8	24.8	8.1 8.1	8.1	30.3 30.3	30.3	91.4 90.5	91.0	6.4 6.3	6.4		16.0 13.2	14.6		12.4 12.8	12.6	
				Bottom	9	24.8 24.8	24.8	8.1 8.1	8.1	30.3 30.3	30.3	90.0 89.6	89.8	6.3 6.3	6.3	6.3	19.1 16.2	17.7		12.7 11.6	12.2	
16-Nov-12	Fine	Calm	09:14	Surface	1	23.7 23.7	23.7	8.3 8.3	8.3	30.8 30.8	30.8	106.5 107.1	106.8	7.6 7.6	7.6	7.7	13.4 13.0	13.2	14.4	14.8 13.3	14.1	14.6
				Middle	5	23.8 23.8	23.8	8.4 8.4	8.4	30.8 30.8	30.8	108.6 108.4	108.5	7.7 7.7	7.7		14.1 14.2	14.2		12.8 16.0	14.4	
				Bottom	9	23.8 23.8	23.8	8.4 8.4	8.4	30.9 30.9	30.9	99.2 101.7	100.5	7.0 7.2	7.1	7.1	15.6 16.1	15.9		13.5 17.0	15.3	
19-Nov-12	Sunny	Calm	12:57	Surface	1	23.5 23.5	23.5	8.1 8.1	8.1	30.2 30.3	30.3	91.9 91.4	91.7	6.6 6.5	6.6	6.6	9.5 9.6	9.6	11.2	14.0 10.5	12.3	14.2
				Middle	5	23.5 23.4	23.5	8.1 8.2	8.2	30.4 30.4	30.4	89.9 90.5	90.2	6.4 6.5	6.5		11.0 10.4	10.7		11.8 12.0	11.9	
				Bottom	9	23.5 23.5	23.5	8.1 8.2	8.2	30.5 30.6	30.6	89.4 89.6	89.5	6.4 6.4	6.4	6.4	12.8 14.0	13.4		14.6 22.0	18.3	
21-Nov-12	Cloudy	Calm	14:25	Surface	1	23.5 23.5	23.5	7.9 7.9	7.9	30.4 30.4	30.4	87.3 86.8	87.1	6.2 6.2	6.2	6.2	11.1 11.7	11.4	11.4	13.3 15.3	14.3	13.0
				Middle	5	23.4 23.4	23.4	7.9 7.9	7.9	30.4 30.4	30.4	84.7 85.3	85.0	6.1 6.1	6.1		10.5 10.2	10.4		12.2 13.7	13.0	
				Bottom	9	23.4 23.4	23.4	7.9 7.9	7.9	30.5 30.5	30.5	82.3 81.7	82.0	5.9 5.8	5.9	5.9	12.3 12.7	12.5		11.5 12.0	11.8	
23-Nov-12	Rainy	Calm	15:33	Surface	1	24.1 24.1	24.1	7.6 7.7	7.7	28.2 28.2	28.2	92.3 86.8	89.6	6.6 6.2	6.4	6.2	12.2 12.4	12.3	14.3	9.3 12.3	10.8	12.6
				Middle	5	24.1 24.1	24.1	7.7 7.7	7.7	28.3 28.3	28.3	83.4 85.0	84.2	5.9 6.0	6.0		14.4 14.2	14.3		11.5 11.7	11.6	
				Bottom	9	24.1 24.1	24.1	7.7 7.7	7.7	28.5 28.5	28.5	82.7 82.6	82.7	5.9 5.9	5.9	5.9	15.6 17.2	16.4		14.8 15.7	15.3	

Remarks: *DA: Depth-Averaged

**Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher.

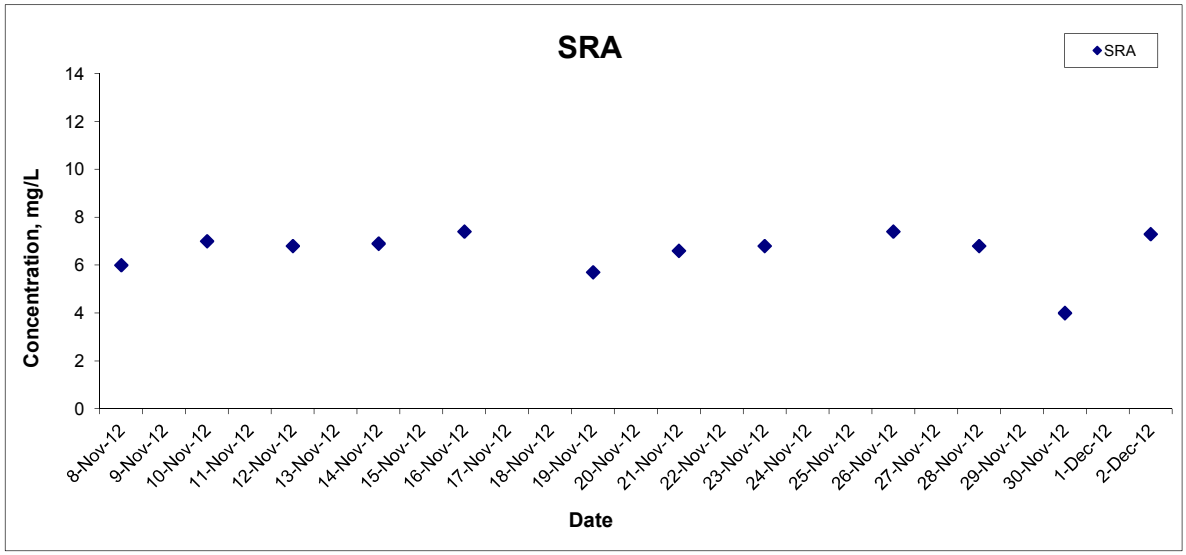
Water Quality Monitoring Results at SRA - Mid-Flood Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Depth (m)		Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
						Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
26-Nov-12	Sunny	Calm	16:54	Surface	1	22.9 23.0	23.0	8.8 8.8	8.8	30.9 30.9	30.9	104.1 100.9	102.5	7.5 7.3	7.4	7.3	12.6 12.5	12.6	13.6	16.3 14.6	15.5	15.3
				Middle	4.5	23.0 23.0	23.0	9.1 9.1	9.1	30.9 31.0	31.0	99.5 98.0	98.8	7.1 7.0	7.1		13.3 13.4	13.4		13.7 14.3	14.0	
				Bottom	8	23.0 23.0	23.0	9.2 9.2	9.2	31.3 31.3	31.3	95.9 95.7	95.8	6.9 6.9	6.9	6.9	15.1 14.7	14.9		16.3 16.3	16.3	
28-Nov-12	Sunny	Calm	17:10	Surface	1	21.6 21.5	21.6	8.1 8.1	8.1	30.6 30.5	30.6	92.7 92.4	92.6	6.8 6.8	6.8	6.7	7.3 7.2	7.3	9.7	8.0 7.8	7.9	10.2
				Middle	5	22.1 22.1	22.1	8.2 8.2	8.2	31.8 31.8	31.8	91.3 91.4	91.4	6.6 6.6	6.6		9.8 9.5	9.7		9.7 8.8	9.3	
				Bottom	9	22.2 22.2	22.2	8.2 8.2	8.2	32.1 32.1	32.1	89.0 89.0	89.0	6.4 6.4	6.4	6.4	12.1 11.9	12.0		14.3 12.7	13.5	
30-Nov-12	Cloudy	Calm	09:45	Surface	1	21.7 21.7	21.7	8.1 8.2	8.2	30.2 30.2	30.2	55.0 54.5	54.8	4.1 4.0	4.1	4.0	11.0 11.5	11.3	12.6	13.3 14.7	14.0	15.0
				Middle	5	21.7 21.7	21.7	8.2 8.2	8.2	30.2 30.2	30.2	52.5 52.3	52.4	3.9 3.9	3.9		11.2 11.9	11.6		12.0 11.5	11.8	
				Bottom	9	21.7 21.7	21.7	8.2 8.2	8.2	30.2 30.2	30.2	51.0 50.6	50.8	3.8 3.7	3.8	3.8	14.8 14.9	14.9		19.3 19.3	19.3	
2-Dec-12	Cloudy	Calm	10:26	Surface	1	21.9 21.9	21.9	8.1 8.2	8.2	31.5 31.5	31.5	98.9 98.2	98.6	7.2 7.2	7.2	7.1	10.8 10.5	10.7	13.7	17.0 12.5	14.8	13.5
				Middle	5	21.8 21.8	21.8	8.1 8.1	8.1	31.6 31.6	31.6	96.5 94.8	95.7	7.1 6.9	7.0		14.6 14.2	14.4		14.0 10.7	12.4	
				Bottom	9	21.7 21.7	21.7	8.1 8.2	8.2	32.0 31.9	32.0	94.1 94.2	94.2	6.9 6.9	6.9	6.9	16.7 15.3	16.0		13.0 13.8	13.4	

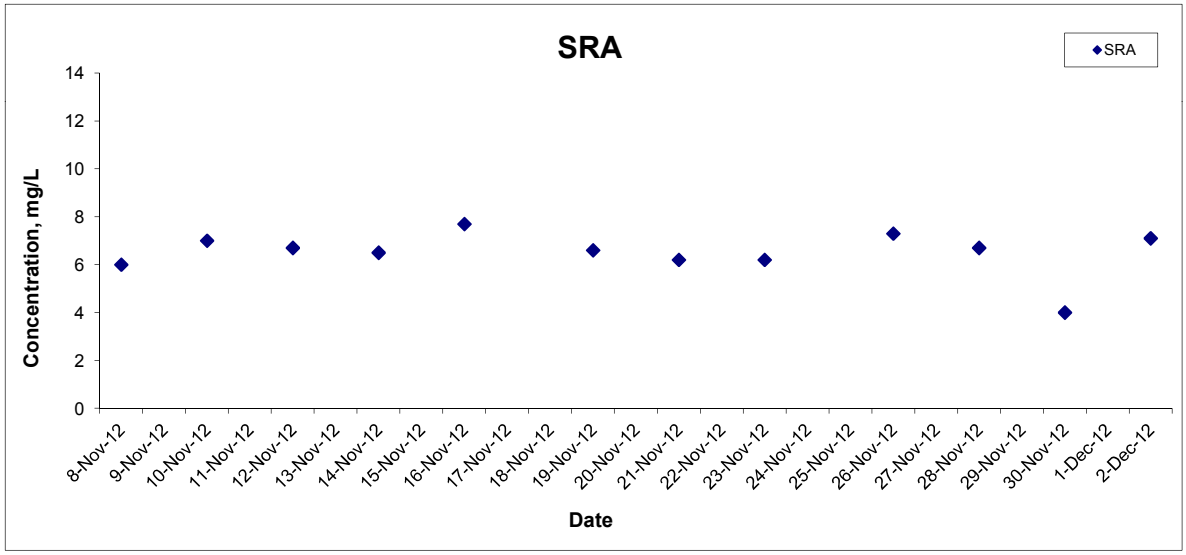
Remarks: *DA: Depth-Averaged

**Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher.

Dissolved Oxygen (Surface & Middle) at Mid-Ebb Tide

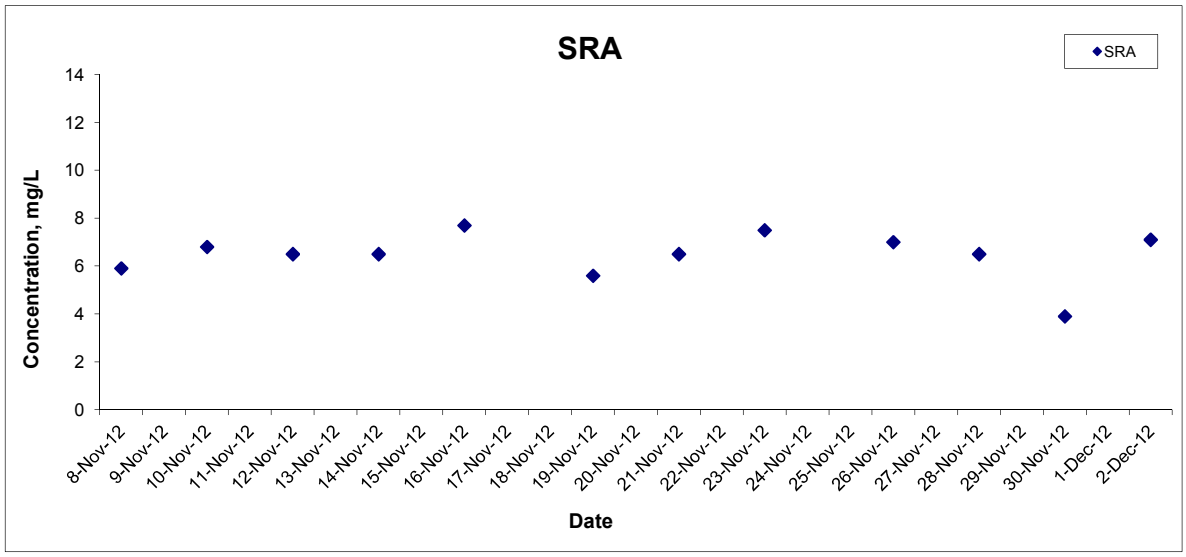


Dissolved Oxygen (Surface & Middle) at Mid-Flood Tide

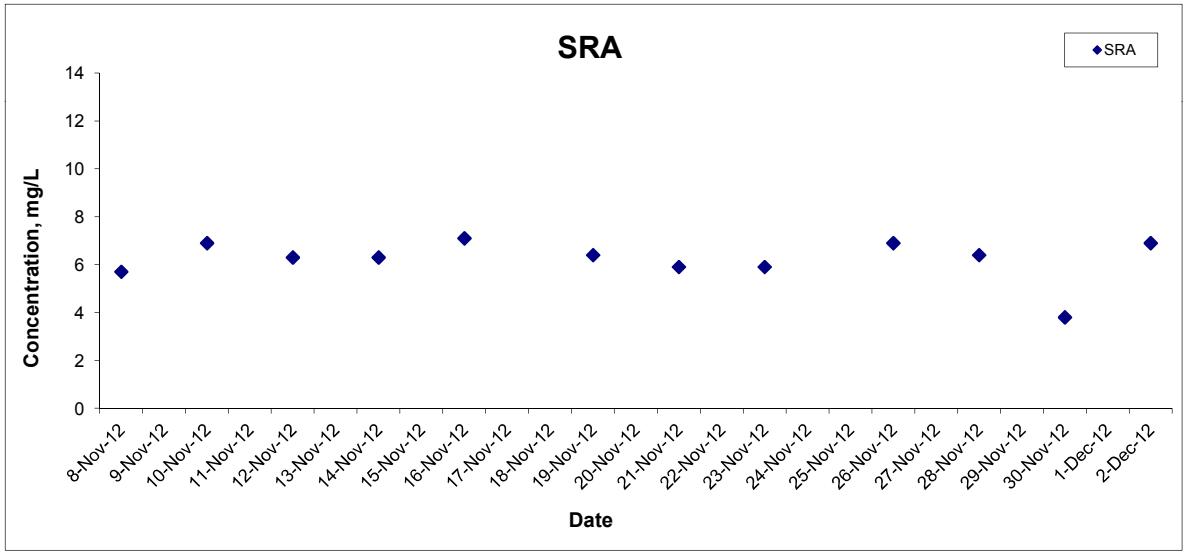


Title		Scale	Project No.	
	Contract No. HY/2011/09 Hong Kong-Zhuhai-Macao Bridge Hong Kong Link Road – Section between HKSAR Boundary and Scenic Hill	N.T.S	MA12014	CINOTECH
	Graphical Presentation of Baseline Water Quality Monitoring Results	Date: Dec 12	Appendix: C	

Dissolved Oxygen (Bottom) at Mid-Ebb Tide

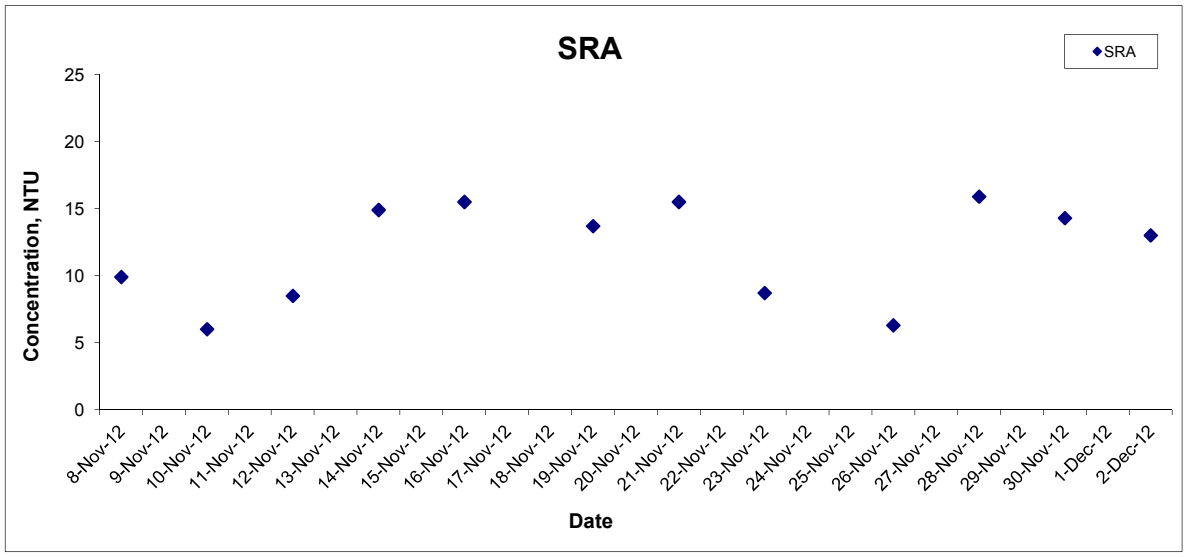


Dissolved Oxygen (Bottom) at Mid-Flood Tide

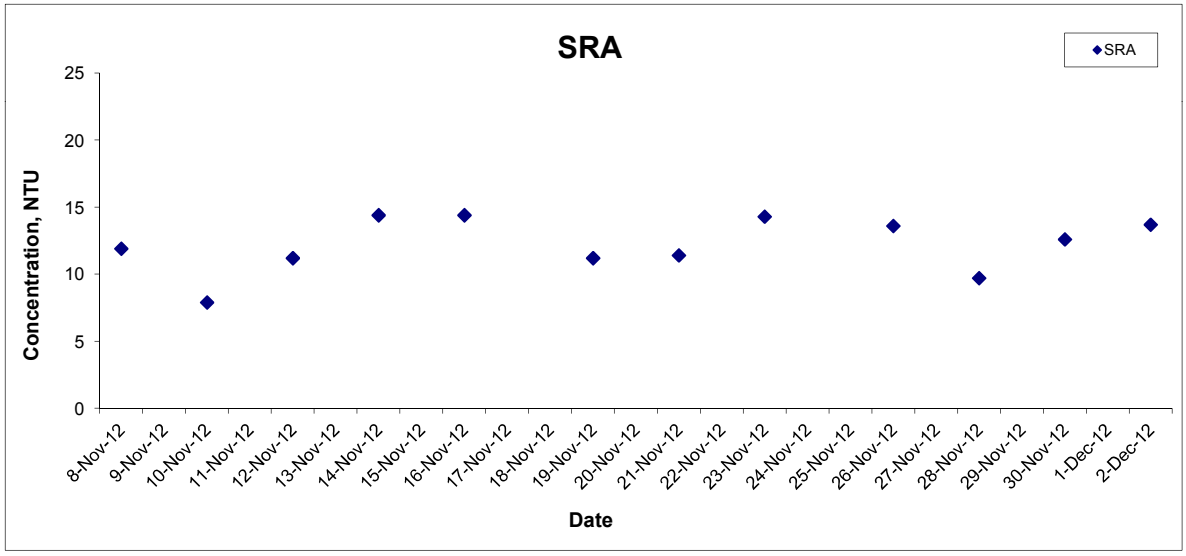


Title		Scale	Project No.	
	Contract No. HY/2011/09 Hong Kong-Zhuhai-Macao Bridge Hong Kong Link Road – Section between HKSAR Boundary and Scenic Hill	N.T.S	MA12014	CINOTECH
	Graphical Presentation of Baseline Water Quality Monitoring Results	Date: Dec 12	Appendix: C	

Turbidity (Depth-averaged) at Mid-Ebb Tide

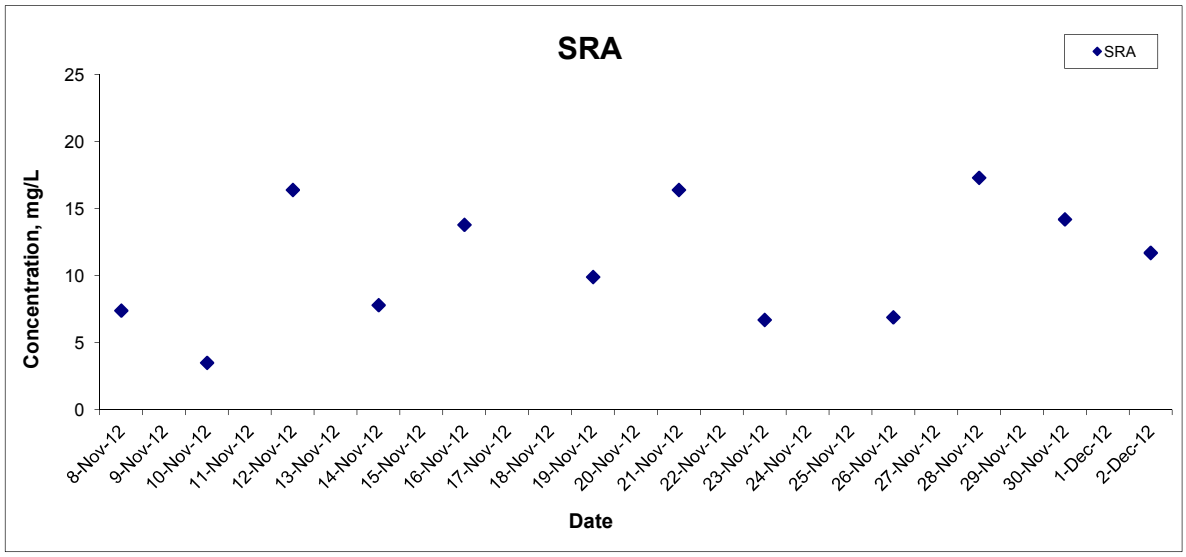


Turbidity (Depth-averaged) at Mid-Flood Tide

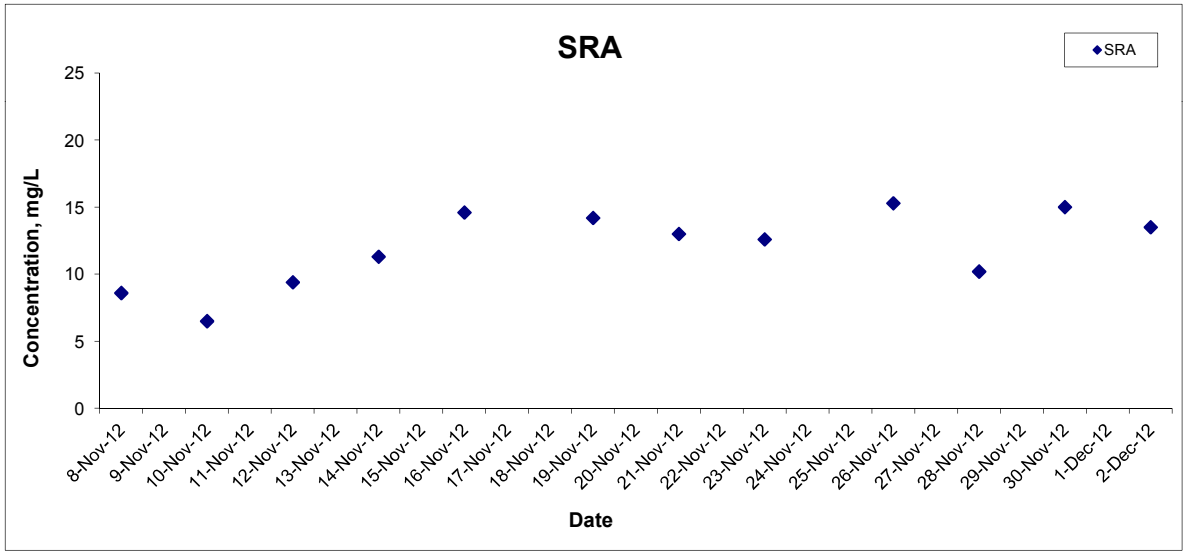


Title	Contract No. HY/2011/09 Hong Kong-Zhuhai-Macao Bridge Hong Kong Link Road – Section between HKSAR Boundary and Scenic Hill Graphical Presentation of Baseline Water Quality Monitoring Results	Scale: N.T.S Date: Dec 12	Project No.: MA12014 Appendix: C	CINOTECH

Suspended Solids (Depth-averaged) at Mid-Ebb Tide



Suspended Solids (Depth-averaged) at Mid-Flood Tide



Title		Scale	Project No.	
	Contract No. HY/2011/09 Hong Kong-Zhuhai-Macao Bridge Hong Kong Link Road – Section between HKSAR Boundary and Scenic Hill	N.T.S	MA12014	CINOTECH
	Graphical Presentation of Baseline Water Quality Monitoring Results	Date: Dec 12	Appendix: C	

CMA Testing and Certification Laboratories
廠商會檢定中心

TEST REPORT

Report No. : AR0008249(1) Date: 08 Feb 2013

Application No. : LP034136(6)

Applicant : DRAGAGES CHINA HARBOUR – VSL JOINT VENTURE
10/F., HALE WEAL INDUSTRIAL BUILDING
22-28 TAI CHUNG ROAD, TSUEN WAN

Sample Description	:	One Hundred and forty-four (144) water samples submitted by applicant stated to be seawater. 144 x 1000mL in plastic bottles of the seawater sample for analysis. Samples were refrigerated during delivery.
Preservation and Storage	:	All samples were preserved as APHA 21ed 1060C.
Sample ID	:	Refer to Sample ID on page 2 to 7.
Date Received	:	Refer to Date Receive on page 2 to 7.
Test Period	:	11 Nov 2012 to 03 Dec 2012.
Test Requested	:	Total Suspended Solids (in saline water)
Test Method	:	APHA 21e 2540 D
Test Result	:	Refer to results on page 2 to 7.
Remark	:	This report supersedes the test report no. AP0063958(9) issued on 16 Jan 2013.

For and on behalf of
CMA Industrial Development Foundation Limited

Authorized Signature : _____

Tang Tsz Wang
Deputy Manager
Environmental Division

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Tel: (852) 2698 8198 Fax: (852) 2695 4177 E-mail: info@cmatcl.com Web Site: http://www.cmatcl.com

TEST REPORT

Report No. : AR0008249(1) Date: 08 Feb 2013

Application No. : LP034136(6)

Test Result :

Sample No.	Receive Date	Sample ID	Sampling Depth	Tide	TSS (Note 3) (mg/L)
LP034136-1	08 Nov 2012	SRA-a	S	Mid-Ebb	7.5
LP034136-2	08 Nov 2012	SRA-a	M	Mid-Ebb	7.5
LP034136-3	08 Nov 2012	SRA-a	B	Mid-Ebb	6.9
LP034136-4	08 Nov 2012	SRA-a	S	Mid-Flood	8.3
LP034136-5	08 Nov 2012	SRA-a	M	Mid-Flood	9.3
LP034136-6	08 Nov 2012	SRA-a	B	Mid-Flood	9.9
LP034136-7	08 Nov 2012	SRA-b	S	Mid-Ebb	7.5
LP034136-8	08 Nov 2012	SRA-b	M	Mid-Ebb	6.9
LP034136-9	08 Nov 2012	SRA-b	B	Mid-Ebb	8.1
LP034136-10	08 Nov 2012	SRA-b	S	Mid-Flood	7.4
LP034136-11	08 Nov 2012	SRA-b	M	Mid-Flood	7.7
LP034136-12	08 Nov 2012	SRA-b	B	Mid-Flood	8.8

Sample No.	Receive Date	Sample ID	Sampling Depth	Tide	TSS (Note 3) (mg/L)
LP034136-13	10 Nov 2012	SRA-a	S	Mid-Ebb	1.5
LP034136-14	10 Nov 2012	SRA-a	M	Mid-Ebb	2.6
LP034136-15	10 Nov 2012	SRA-a	B	Mid-Ebb	4.9
LP034136-16	10 Nov 2012	SRA-a	S	Mid-Flood	6.5
LP034136-17	10 Nov 2012	SRA-a	M	Mid-Flood	5.9
LP034136-18	10 Nov 2012	SRA-a	B	Mid-Flood	6.2
LP034136-19	10 Nov 2012	SRA-b	S	Mid-Ebb	3.2
LP034136-20	10 Nov 2012	SRA-b	M	Mid-Ebb	2.3
LP034136-21	10 Nov 2012	SRA-b	B	Mid-Ebb	6.1
LP034136-22	10 Nov 2012	SRA-b	S	Mid-Flood	7.8
LP034136-23	10 Nov 2012	SRA-b	M	Mid-Flood	6.9
LP034136-24	10 Nov 2012	SRA-b	B	Mid-Flood	5.7

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TEST REPORT

Report No. : AR0008249(1) Date: 08 Feb 2013

Application No. : LP034136(6)

Sample No.	Receive Date	Sample ID	Sampling Depth	Tide	TSS (Note 3) (mg/L)
LP034136-25	12 Nov 2012	SRA-a	S	Mid-Ebb	5.9
LP034136-26	12 Nov 2012	SRA-a	M	Mid-Ebb	11.5
LP034136-27	12 Nov 2012	SRA-a	B	Mid-Ebb	34.0
LP034136-28	12 Nov 2012	SRA-a	S	Mid-Flood	8.2
LP034136-29	12 Nov 2012	SRA-a	M	Mid-Flood	11.6
LP034136-30	12 Nov 2012	SRA-a	B	Mid-Flood	5.7
LP034136-31	12 Nov 2012	SRA-b	S	Mid-Ebb	5.8
LP034136-32	12 Nov 2012	SRA-b	M	Mid-Ebb	12.3
LP034136-33	12 Nov 2012	SRA-b	B	Mid-Ebb	28.6
LP034136-34	12 Nov 2012	SRA-b	S	Mid-Flood	8.1
LP034136-35	12 Nov 2012	SRA-b	M	Mid-Flood	16.2
LP034136-36	12 Nov 2012	SRA-b	B	Mid-Flood	6.6

Sample No.	Receive Date	Sample ID	Sampling Depth	Tide	TSS (Note 3) (mg/L)
LP034136-37	14 Nov 2012	SRA-a	S	Mid-Ebb	6.8
LP034136-38	14 Nov 2012	SRA-a	M	Mid-Ebb	7.7
LP034136-39	14 Nov 2012	SRA-a	B	Mid-Ebb	8.6
LP034136-40	14 Nov 2012	SRA-a	S	Mid-Flood	8.8
LP034136-41	14 Nov 2012	SRA-a	M	Mid-Flood	12.4
LP034136-42	14 Nov 2012	SRA-a	B	Mid-Flood	12.7
LP034136-43	14 Nov 2012	SRA-b	S	Mid-Ebb	8.0
LP034136-44	14 Nov 2012	SRA-b	M	Mid-Ebb	8.0
LP034136-45	14 Nov 2012	SRA-b	B	Mid-Ebb	7.6
LP034136-46	14 Nov 2012	SRA-b	S	Mid-Flood	9.2
LP034136-47	14 Nov 2012	SRA-b	M	Mid-Flood	12.8
LP034136-48	14 Nov 2012	SRA-b	B	Mid-Flood	11.6

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TEST REPORT

Report No. : AR0008249(1) Date: 08 Feb 2013

Application No. : LP034136(6)

Sample No.	Receive Date	Sample ID	Sampling Depth	Tide	TSS (Note 3) (mg/L)
LP034136-49	16 Nov 2012	SRA-a	S	Mid-Ebb	12.0
LP034136-50	16 Nov 2012	SRA-a	M	Mid-Ebb	13.4
LP034136-51	16 Nov 2012	SRA-a	B	Mid-Ebb	14.5
LP034136-52	16 Nov 2012	SRA-a	S	Mid-Flood	14.8
LP034136-53	16 Nov 2012	SRA-a	M	Mid-Flood	12.8
LP034136-54	16 Nov 2012	SRA-a	B	Mid-Flood	13.5
LP034136-55	16 Nov 2012	SRA-b	S	Mid-Ebb	12.5
LP034136-56	16 Nov 2012	SRA-b	M	Mid-Ebb	15.0
LP034136-57	16 Nov 2012	SRA-b	B	Mid-Ebb	15.5
LP034136-58	16 Nov 2012	SRA-b	S	Mid-Flood	13.3
LP034136-59	16 Nov 2012	SRA-b	M	Mid-Flood	16.0
LP034136-60	16 Nov 2012	SRA-b	B	Mid-Flood	17.0

Sample No.	Receive Date	Sample ID	Sampling Depth	Tide	TSS (Note 3) (mg/L)
LP034136-61	19 Nov 2012	SRA-a	S	Mid-Ebb	6.7
LP034136-62	19 Nov 2012	SRA-a	M	Mid-Ebb	8.0
LP034136-63	19 Nov 2012	SRA-a	B	Mid-Ebb	13.8
LP034136-64	19 Nov 2012	SRA-a	S	Mid-Flood	14.0
LP034136-65	19 Nov 2012	SRA-a	M	Mid-Flood	11.8
LP034136-66	19 Nov 2012	SRA-a	B	Mid-Flood	14.6
LP034136-67	19 Nov 2012	SRA-b	S	Mid-Ebb	8.1
LP034136-68	19 Nov 2012	SRA-b	M	Mid-Ebb	8.7
LP034136-69	19 Nov 2012	SRA-b	B	Mid-Ebb	13.8
LP034136-70	19 Nov 2012	SRA-b	S	Mid-Flood	10.5
LP034136-71	19 Nov 2012	SRA-b	M	Mid-Flood	12.0
LP034136-72	19 Nov 2012	SRA-b	B	Mid-Flood	22.0

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TEST REPORT

Report No. : AR0008249(1) Date: 08 Feb 2013

Application No. : LP034136(6)

Sample No.	Receive Date	Sample ID	Sampling Depth	Tide	TSS (Note 3) (mg/L)
LP034136-73	21 Nov 2012	SRA-a	S	Mid-Ebb	15.5
LP034136-74	21 Nov 2012	SRA-a	M	Mid-Ebb	17.0
LP034136-75	21 Nov 2012	SRA-a	B	Mid-Ebb	16.7
LP034136-76	21 Nov 2012	SRA-a	S	Mid-Flood	13.3
LP034136-77	21 Nov 2012	SRA-a	M	Mid-Flood	12.2
LP034136-78	21 Nov 2012	SRA-a	B	Mid-Flood	11.5
LP034136-79	21 Nov 2012	SRA-b	S	Mid-Ebb	12.5
LP034136-80	21 Nov 2012	SRA-b	M	Mid-Ebb	18.0
LP034136-81	21 Nov 2012	SRA-b	B	Mid-Ebb	18.8
LP034136-82	21 Nov 2012	SRA-b	S	Mid-Flood	15.3
LP034136-83	21 Nov 2012	SRA-b	M	Mid-Flood	13.7
LP034136-84	21 Nov 2012	SRA-b	B	Mid-Flood	12.0

Sample No.	Receive Date	Sample ID	Sampling Depth	Tide	TSS (Note 3) (mg/L)
LP034136-85	23 Nov 2012	SRA-a	S	Mid-Ebb	8.3
LP034136-86	23 Nov 2012	SRA-a	M	Mid-Ebb	7.5
LP034136-87	23 Nov 2012	SRA-a	B	Mid-Ebb	5.5
LP034136-88	23 Nov 2012	SRA-a	S	Mid-Flood	9.3
LP034136-89	23 Nov 2012	SRA-a	M	Mid-Flood	11.5
LP034136-90	23 Nov 2012	SRA-a	B	Mid-Flood	14.8
LP034136-91	23 Nov 2012	SRA-b	S	Mid-Ebb	6.2
LP034136-92	23 Nov 2012	SRA-b	M	Mid-Ebb	6.3
LP034136-93	23 Nov 2012	SRA-b	B	Mid-Ebb	6.2
LP034136-94	23 Nov 2012	SRA-b	S	Mid-Flood	12.3
LP034136-95	23 Nov 2012	SRA-b	M	Mid-Flood	11.7
LP034136-96	23 Nov 2012	SRA-b	B	Mid-Flood	15.7

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TEST REPORT

Report No. : AR0008249(1) Date: 08 Feb 2013

Application No. : LP034136(6)

Sample No.	Receive Date	Sample ID	Sampling Depth	Tide	TSS (Note 3) (mg/L)
LP034136-97	26 Nov 2012	SRA-a	S	Mid-Ebb	6.6
LP034136-98	26 Nov 2012	SRA-a	M	Mid-Ebb	6.6
LP034136-99	26 Nov 2012	SRA-a	B	Mid-Ebb	7.2
LP034136-100	26 Nov 2012	SRA-a	S	Mid-Flood	16.3
LP034136-101	26 Nov 2012	SRA-a	M	Mid-Flood	13.7
LP034136-102	26 Nov 2012	SRA-a	B	Mid-Flood	16.3
LP034136-103	26 Nov 2012	SRA-b	S	Mid-Ebb	6.8
LP034136-104	26 Nov 2012	SRA-b	M	Mid-Ebb	8.0
LP034136-105	26 Nov 2012	SRA-b	B	Mid-Ebb	6.0
LP034136-106	26 Nov 2012	SRA-b	S	Mid-Flood	14.6
LP034136-107	26 Nov 2012	SRA-b	M	Mid-Flood	14.3
LP034136-108	26 Nov 2012	SRA-b	B	Mid-Flood	16.3

Sample No.	Receive Date	Sample ID	Sampling Depth	Tide	TSS (Note 3) (mg/L)
LP034136-109	28 Nov 2012	SRA-a	S	Mid-Ebb	18.3
LP034136-110	28 Nov 2012	SRA-a	M	Mid-Ebb	16.7
LP034136-111	28 Nov 2012	SRA-a	B	Mid-Ebb	21.0
LP034136-112	28 Nov 2012	SRA-a	S	Mid-Flood	8.0
LP034136-113	28 Nov 2012	SRA-a	M	Mid-Flood	9.7
LP034136-114	28 Nov 2012	SRA-a	B	Mid-Flood	14.3
LP034136-115	28 Nov 2012	SRA-b	S	Mid-Ebb	11.3
LP034136-116	28 Nov 2012	SRA-b	M	Mid-Ebb	15.7
LP034136-117	28 Nov 2012	SRA-b	B	Mid-Ebb	20.7
LP034136-118	28 Nov 2012	SRA-b	S	Mid-Flood	7.8
LP034136-119	28 Nov 2012	SRA-b	M	Mid-Flood	8.8
LP034136-120	28 Nov 2012	SRA-b	B	Mid-Flood	12.7

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TEST REPORT

Report No. : AR0008249(1) Date: 08 Feb 2013

Application No. : LP034136(6)

Sample No.	Receive Date	Sample ID	Sampling Depth	Tide	TSS (Note 3) (mg/L)
LP034136-121	30 Nov 2012	SRA-a	S	Mid-Ebb	12.5
LP034136-122	30 Nov 2012	SRA-a	M	Mid-Ebb	18.7
LP034136-123	30 Nov 2012	SRA-a	B	Mid-Ebb	12.5
LP034136-124	30 Nov 2012	SRA-a	S	Mid-Flood	13.3
LP034136-125	30 Nov 2012	SRA-a	M	Mid-Flood	12.0
LP034136-126	30 Nov 2012	SRA-a	B	Mid-Flood	19.3
LP034136-127	30 Nov 2012	SRA-b	S	Mid-Ebb	10.0
LP034136-128	30 Nov 2012	SRA-b	M	Mid-Ebb	18.3
LP034136-129	30 Nov 2012	SRA-b	B	Mid-Ebb	12.8
LP034136-130	30 Nov 2012	SRA-b	S	Mid-Flood	14.7
LP034136-131	30 Nov 2012	SRA-b	M	Mid-Flood	11.5
LP034136-132	30 Nov 2012	SRA-b	B	Mid-Flood	19.3

Sample No.	Receive Date	Sample ID	Sampling Depth	Tide	TSS (Note 3) (mg/L)
LP034136-133	02 Dec 2012	SRA-a	S	Mid-Ebb	8.0
LP034136-134	02 Dec 2012	SRA-a	M	Mid-Ebb	13.3
LP034136-135	02 Dec 2012	SRA-a	B	Mid-Ebb	14.2
LP034136-136	02 Dec 2012	SRA-a	S	Mid-Flood	17.0
LP034136-137	02 Dec 2012	SRA-a	M	Mid-Flood	14.0
LP034136-138	02 Dec 2012	SRA-a	B	Mid-Flood	13.0
LP034136-139	02 Dec 2012	SRA-b	S	Mid-Ebb	9.0
LP034136-140	02 Dec 2012	SRA-b	M	Mid-Ebb	12.0
LP034136-141	02 Dec 2012	SRA-b	B	Mid-Ebb	13.3
LP034136-142	02 Dec 2012	SRA-b	S	Mid-Flood	12.5
LP034136-143	02 Dec 2012	SRA-b	M	Mid-Flood	10.7
LP034136-144	02 Dec 2012	SRA-b	B	Mid-Flood	13.8

Note:
1. < denotes less than.
2. mg/L denotes milligram per litre.
3. The result is an estimated value since the reporting limit of TSS is 2.5 mg/L and reporting result is in 1 decimal place.
4. APHA denotes American Public Health Association, Standard Method for the Examination of Water & Wastewater 21ed, 2005.
5. Result may be deviated if sampling, delivery and sample storage conditions are not complied with APHA 21ed 1060C.

***** End of Report *****

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TEST REPORT

Report No. : AR0008249(1) Date: 08 Feb 2013

Application No. : LP034136(6)

Appendix :

QC Results

Application No.	Sample No.	QC (% recovery)
LP034136	1 to 12	100.5
	13 to 24	93.0
	25 to 36	104.5
	37 to 48	97.5
	49 to 60	96.5
	61 to 72	98.5
	73 to 84	97.0
	85 to 96	101.0
	97 to 108	101.5
	109 to 120	101.5
	121 to 132	101.5
	133 to 144	99.0

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APPENDIX D
CALIBRATION CERTIFICATE FOR WATER QUALITY MONITORING EQUIPMENT AT SRA

WELLAB LIMITED
Rms 816, 1516 & 1701, Technology Park,
18 On Lai Street, Shatin, N.T, Hong Kong.
Tel: 2898 7388 Fax: 2898 7076
Website: www.wellab.com.hk

TEST REPORT

APPLICANT: **Cinotech Consultants Limited**
Room 1710, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

ATTN: **Mr. W.K. Tang**

Test Report No.:	C/W/120915-1_v2
Date of Issue:	2012-09-15
Date Received:	2012-09-15
Date Tested:	2012-09-15
Date Completed:	2012-09-15
Next Due Date:	2012-12-14
Page:	1 of 2

Certificate of Calibration

Item for calibration:

Description	: Sonde Environmental Monitoring System
Manufacturer	: YSI
Model No.	: 6820-C-M
Serial No.	: 02D0126AA
Equipment No.	: W.03.01

Test conditions:

Room Temperature	: 25 degree Celsius
Relative Humidity	: 65%

Test Specifications:

Conductivity & Salinity Sensor, Model: 6560, L/N: 11J100025
1. Conductivity performance check with Potassium Chloride standard solution
2. Salinity performance check with Sodium Chloride standard solution

Dissolved Oxygen Sensor, Model: 6562, L/N: 07E100029
1. Performance check against Winkler titration

Turbidity Sensor, Model: 6136, S/N: 11J1000475
1. Calibration check with Formazin standard solution

pH Meter, Model: 6561, L/N: 11H
1. Calibration check with standard pH buffer

Depth Meter
1. Calibration check at 1m water level depth

Methodologies:

1. YSI 6-Series Sonde Environmental Monitoring System Instruction Manual
2. In-house method with reference to APHA and ISO standards
   Conductivity (APHA 20ed 2510), Salinity (APHA 20ed 2520B)
   Dissolved Oxygen (APHA 20ed 4500-OC), Turbidity (APHA 19ed 2130 B)
   pH (APHA 19th 4500-H+ B)

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
Laboratory Manager

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Testing & Research

WELLAB LIMITED
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Website: www.wellab.com.hk

TEST REPORT

Test Report No.:	C/W/120915-1_v2
Date of Issue:	2012-09-15
Date Received:	2012-09-15
Date Tested:	2012-09-15
Date Completed:	2012-09-15
Next Due Date:	2012-12-14

Results:

1. Conductivity performance check

Specific Conductivity, µS/cm		Correction, µS/cm	Acceptable range
Salinity Meter (C1)	Theoretical Value (C2)	D = C1 - C2	
1420	1420	0	1420 ± 20

2. Salinity Performance check

Salinity, ppt		Correction, ppt	Acceptable range
Instrument Reading	Theoretical Value		
30.0	30.0	0.0	30.0 ± 3

3. Dissolved Oxygen check

Oxygen level in water at 20°C	Dissolved Oxygen, mg O_2/L		Correction, mg O_2/L	Acceptable range
	D.O. Meter	Winkler Titration		
Saturated	9.1	9.1	0.0	± 0.2
Half-saturated	5.6	5.6	0.0	± 0.2
Zero	0.0	0.0	0.0	± 0.2

4. Turbidity check

Turbidity value in solution, NTU	Calibration Value, NTU	Correction, NTU	Acceptable range
0.00	0.00	0.00	0.00 ± 0.05
100	100	0	100 ± 5
1000	1000	0	1000 ± 100

5. pH Meter check

Test Parameters	Performance characteristic	Acceptable range
Liquid junction error ΔpH_j , pH unit	0.01	Less than 0.05
Shift on stirring ΔpH_s , pH unit	0.01	Less than 0.02
Noise ΔpH_n , pH unit	0.00	Less than 0.02

6. Depth Meter check

Instrument Reading, m	Calibration Value, m	Correction, m	Acceptable range
1.0	1.00	0.00	1.00 ± 0.05

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Tel: 2898 7388 Fax: 2898 7076
Website: www.wellab.com.hk

TEST REPORT

APPLICANT:	**Cinotech Consultants Limited** **Room 1710, Technology Park,** **18 On Lai Street,** **Shatin, NT, Hong Kong**	Test Report No.:	C/W/121105-1_v2
		Date of Issue:	2012-11-05
		Date Received:	2012-11-05
		Date Tested:	2012-11-05
		Date Completed:	2012-11-05
		Next Due Date:	2013-02-04
ATTN:	**Mr. W.K. Tang**	Page:	1 of 2

Certificate of Calibration

Item for calibration:

Description	: Sonde Environmental Monitoring System
Manufacturer	: YSI
Model No.	: 6820-C-M
Serial No.	: 02D0293AA
Equipment No.	: W.03.02

Test conditions:

Room Temperature	: 24 degree Celsius
Relative Humidity	: 66%

Test Specifications:

Conductivity & Salinity Sensor, Model: 6560, L/N: 12B100106
1. Conductivity performance check with Potassium Chloride standard solution
2. Salinity performance check with Sodium Chloride standard solution

Dissolved Oxygen Sensor, Model: 6562, L/N: 12A100930
1. Performance check against Winkler titration

Turbidity Sensor, Model: 6136, S/N: 12B100900
1. Calibration check with Formazin standard solution

pH Meter, Model: 6561, L/N: 11H
1. Calibration check with standard pH buffer

Depth Meter
1. Calibration check at 1m water level depth

Methodologies:

1. YSI 6-Series Sonde Environmental Monitoring System Instruction Manual
1. In-house method with reference to APHA and ISO standards
   Conductivity (APHA 20ed 2510), Salinity (APHA 20ed 2520B)
   Dissolved Oxygen (APHA 20ed 4500-O C), Turbidity (APHA 19ed 2130 B),
   pH (APHA 19th 4500-H+ B)

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
Laboratory Manager

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TEST REPORT

Test Report No.:	C/W/121105-1_v2
Date of Issue:	2012-11-05
Date Received:	2012-11-05
Date Tested:	2012-11-05
Date Completed:	2012-11-05
Next Due Date:	2013-02-04

Results:

1. Conductivity performance check

Specific Conductivity, µS/cm		Correction, µS/cm	Acceptable range
Salinity Meter (C1)	Theoretical Value (C2)	D = C1 - C2	
1420	1420	0	1420 ± 20

2. Salinity Performance check

Salinity, ppt		Correction, ppt	Acceptable range
Instrument Reading	Theoretical Value		
30.0	30.0	0	30.0 ± 3

3. Dissolved Oxygen check

Oxygen level in water at 20°C	Dissolved Oxygen, mg O_2/L		Correction, mg O_2/L	Acceptable range
	D.O. Meter	Winkler Titration		
Saturated	9.0	9.0	0.0	± 0.2
Half-saturated	5.8	5.8	0.0	± 0.2
Zero	0.0	0.0	0.0	± 0.2

4. Turbidity check

Turbidity value in solution, NTU	Calibration Value, NTU	Correction, NTU	Acceptable range
0.00	0.00	0.00	0.00 ± 0.05
100	100	0	100 ± 5
1000	1000	0	1000 ± 100

5. pH Meter check

Test Parameters	Performance characteristic	Acceptable range
Liquid junction error ΔpH_j , pH unit	0.01	Less than 0.05
Shift on stirring ΔpH_s , pH unit	0.01	Less than 0.02
Noise ΔpH_n , pH unit	0.00	Less than 0.02

6. Depth Meter check

Instrument Reading, m	Calibration Value, m	Correction, m	Acceptable range
1.0	1.00	0.00	1.00 ± 0.05

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APPENDIX E
BASELINE UNDERWATER NOISE MONITORING REPORT

Dragages -China Harbour-VSL JV

Contract HY/2011/09

Hong Kong-Zhuhai-Macao Bridge

Hong Kong Link Road-Section between HKSAR Boundary and Scenic Hill

Baseline Underwater Noise Monitoring

April 2013
(Version 3.0)

REMARKS:

The information supplied and contained within this report is, to the best of our knowledge, correct at the time of printing.

CINOTECH accepts no responsibility for changes made to this report by third parties

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Figure 4-4 Box plot of noise levels in the 70Hz to 100kHz band plotted for each hour of the day for 28 days monitoring period
Figure 4-5 Box plot of One-Third Octave Band RMS Noise Measurements for the Entire Monitoring Period
Figure 4-6a Pressure Spectral Density (PSD) re 1 μPa^2/Hz from 10Hz to 125 kHz for each hour of the day (Hour 00 to Hour 04)
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Figure 4-6e Pressure Spectral Density (PSD) re 1 μPa^2/Hz from 10Hz to 125 kHz for each hour of the day (Hour 16 to Hour 20)
Figure 4-6f Pressure Spectral Density (PSD) re 1 μPa^2/Hz from 10Hz to 125 kHz for each hour of the day (Hour 20 to Hour 24)

Executive Summary

Underwater noise measurement was conducted between 24th November 2012 and 22nd December 2012 for 28 days on a continuous mode at a selected monitoring station. A PAMBuoy data collection module was mounted on a vessel for the measurement. The system was configured to measure noise in real time and to report the measurement data back to shore via a 3G network connection. Two types of noise data were collected i.e.

1. Broad band RMS sound pressure levels in 10 seconds average time between 10Hz and 100kHz
2. One-third octave band levels between the frequency range of 10Hz and 22.5kHz

Also, one-minute sound recordings were collected every 10 minutes.

Most of the recorded SPL vary between 105 and 150 dB re 1μPa_{rms}. Increasing the lower bound of these measurements from 10Hz to 70Hz could reduce the broad band RMS sound level by around 15dB.

Power Spectral Density (PSD) measurements made from the recordings show levels which are consistent with published values for areas of high marine traffic.

The reported noise level from this baseline measurement is 20dB lower than the proposed Action Level of 170dB set for the construction phase. Using a 70Hz to 125kHz bandwidth instead of the 10Hz to 100kHz bandwidth can reduce the broad band baseline RMS level by a further 10dB. It can therefore be concluded that the system can be used to distinguish the future construction noise and the background noise if the measured noise level approaches the Action Level.

1 INTRODUCTION

Background

1.1 The Hong Kong Link Road (HKLR) comprises a 9.4km long viaduct section from the HKSAR boundary to Scenic Hill on the Airport Island; a 1km tunnel section to the reclamation formed along the east coast of the Airport Island and a 1.6km long at-grade road section on the reclamation connecting to the Hong Kong Boundary Crossing Facilities (HKBCF).

1.2 The HKLR is a Designated Project under Schedule 2 of the Environmental Impact Assessment (EIA) Ordinance (Cap. 499). The EIA Report entitled "Hong Kong - Zhuhai - Macao Bridge Hong Kong Link Road" (hereinafter called "approved EIA Report") was approved on 23 October 2009 and the Environmental Permit (EP) was granted on 4 November 2009 with the registration number of EP-352/2009. Subsequently, a Variation of EP (VEP) No. EP-352/2009/A was issued on 9 November 2011 for the change of seawall construction method. An Environmental Monitoring and Audit Manual (Ref:126-01) dated July 2009 (hereinafter called "EM&A Manual") has been prepared in accordance with the requirements stipulated in Annex 21 of the Technical Memorandum on the EIA Process (TM-EIAO).

1.3 The Project Proponent (Highways Department) of HKLR awarded Dragages – China Harbour – VSL JV (the Contractor) as the main contractor of the Project for section between HKSAR Boundary and Scenic Hill (Contract No. HY/2011/09).

1.4 The EM&A Manual requires the following underwater noise monitoring to be carried out:

Clause 10.3 on Monitoring and Audit for Ecology

10.3.3 – Construction-phase underwater noise monitoring. This is to verify the assessment outcome and to collect field data of this construction activity.

Clause 10.4 on Monitoring Locations

10.4.2 – Construction-phase underwater noise monitoring – the actual underwater noise level of bored piling will be monitored during the pile construction in the waters to the west of the Airport for HKLR.

Clause 10.5 on Baseline Monitoring for Ecology

10.5.2 – Baseline for underwater noise shall be established prior to the commencement of the works in the waters to the west of Airport, and agreed with AFCD.

10.5.5 – the ET Leader should seek approval from the IEC, AFCD and EPD on an appropriate methodology and parameters to be recorded. A detailed monitoring plan with specification and detailed methodology will be prepared prior to the baseline monitoring and submitted to AFCD and EPD for approval.

Clause 10.6 on Impact Monitoring for Ecology

10.6.2 – Construction-phase underwater noise monitoring will be constructed for 10 days from the start of the bored piling activities for the first three pier sites during the bored piling process in the first three sits in the waters to the west of Airport.

1.5 This Baseline Underwater Noise Monitoring Report has been prepared by Cinotech Consultants Ltd. in association with Marine Instrumentation Limited to comply with the requirement in Section 10.5.2 of the EM&A Manual. It will be submitted at least two weeks before commencement of construction of the Project.

2 THE BASELINE MONITORING WORK

The Monitoring Location

2.1 Refer to Section 10.6.2 of the EM&A Manual, impact monitoring will be conducted for the first three pier sites during the bored piling process. A baseline monitoring station (R2) has been setup at one of the impact monitoring locations near Pier P47 as shown in **Figure 1**. The location was determined from GPS tracking. The microphone was located at 3m below sea surface which was about mid-depth of the monitoring station.

The Monitoring Schedule

2.2 Baseline monitoring was conducted between 24th November 2012 and 22nd December 2012. The monitoring location (R2) was located to the west of the Airport. To accommodate daily variations within a week, four full weeks (28 days) of monitoring was carried out. The monitoring equipment recorded the underwater noise continuously. The monitoring schedule can be found in **Annex-B**.

3 THE BASELINE MONITORING METHODOLOGY

Monitoring Equipment

3.1 A PAMBuoy data collection module (PAM 004) was mounted on a moored vessel for the noise monitoring. The PAMBuoy module processed data in real time to measure both broad band and one-third octave band noise levels. Sound was also recorded for 1 minute for every 10 minutes for further offline analysis. All underwater sound data were digitized and stored at a minimum sample rate of 200kHz at a resolution of 16 bits. The equipment comprises the following devices and accessories: -

- PAM Core Electronic System in IP65 Enclosure
- Reson TC4014-5 Calibrated Hydrophone (with a linear frequency range of 20 ~250 kHz (+/- 3 dB), sensitivity -180 +/- 3 dB re 1 V/µPa and pre-amplifier gain 18 dB)
- A solid-state data recording medium with USB connection
- 3G/GSM Panel Antenna with wireless modem
- Application software
- Cables, connectors, hatch plates, and other necessary accessories

3.2 The equipment was operated in an autonomous mode, and the broad band and one-third octave band data were sent to shore via the 3G mobile network.

Calibration

3.3 The calibration certificate for the hydrophone used in the study only provides detailed information above 6kHz. This is generally in excellent agreement with the nominal calibration value of -180dB re 1V/µPa. A Pistonphone measurement at 250Hz gives a sensitivity of -180.8dB re 1V/µPa. Since the noise recorded is predominately low frequency, this lower value has been used in all calculations. The calibration report shown compliance with the hydrophone manufactory's specification is provided in **Annex-A** of this appendix.

Monitoring Parameters

3.4 Broad band noise was measured in real time from 10Hz up to 100kHz which is approximately the upper limit of hearing of Chinese White Dolphin (CWD) (Li *et al.*, 2012). Due to signal transfer was weaker on the open sea area, the RMS sound pressure levels were calculated in real time and sent via 3G mobile network as 10-second average. Although this is deviated from the 1-second average recording as stated in the "Proposal for Baseline and Construction-Phase Underwater Noise Monitoring", the final baseline results is in hourly average that is not affected by the data log in 1 second interval or 10 seconds interval. Data transmission during impact phase is changed to direct transfer without using service provider. From the recent monitoring, the transfer performance is satisfactory.

3.5 One-third octave band noise measurements were also made in real time within the frequency range of 10Hz and 22.5kHz. Moreover, sound recordings were made on the system on a schedule of one minute for every 10 minutes at a sample rate of 250kHz. These recordings had been processed to produce updated measurements of noise in the 10Hz to 100kHz band and also in the 70Hz to 100kHz band since the latter better represents the range of CWD hearing. Recordings had also been processed to extract spectral data between 10Hz and 125kHz.

3.6 Based on the above measurement, three types of noise output were made:

1. RMS sound pressure level (dB re 1μPa_{rms}) from 10Hz to 100kHz against time for 28days measurement. Also, RMS SPL in one-third octave band within the range of 10Hz to 22.5kHz were created. The frequencies of the one-third band are based on Class 2 fractional octave filter specification defined in "ANSI, 2004". The lowest and highest central frequency within 10 Hz and 22.5kHz is 12.4 Hz and 20.2kHz respectively covered the range of 11Hz to 22.6kHz. The band numbers and frequencies used in the one-third octave noise is shown in **Table 3-1**.
2. Spectrograms (level vs. frequency vs. time) in typical one minute recoding from 10Hz to 125kHz
3. Pressure Spectral Density (PSD) re 1 μPa^2/Hz for each hour of the day for 28 days from 10Hz to 125kHz

Table 3-1 Band Numbers and Frequencies used in 1/3 Octave Noise Measurement

Band No.	Centre Freq (Hz)	Low Edge (Hz)	Hi Edge (Hz)	Band No.	Centre Freq (Hz)	Low Edge (Hz)	Hi Edge (Hz)
11	12.4	11	13.9	**28**	630	561.2	707.1
12	15.6	13.9	17.5	**29**	793.7	707.1	890.9
13	19.7	17.5	22.1	**30**	1000	890.9	1122.5
14	24.8	22.1	27.8	**31**	1259.9	1122.5	1414.2
15	31.3	27.8	35.1	**32**	1587.4	1414.2	1781.8
16	39.4	35.1	44.2	**33**	2000	1781.8	2244.9
17	49.6	44.2	55.7	**34**	2519.8	2244.9	2828.4
18	62.5	55.7	70.2	**35**	3174.8	2828.4	3563.6
19	78.7	70.2	88.4	**36**	4000	3563.6	4489.8
20	99.2	88.4	111.4	**37**	5039.7	4489.8	5656.9
21	125	111.4	140.3	**38**	6349.6	5656.9	7127.2
22	157.5	140.3	176.8	**39**	8000	7127.2	8979.7

23	198.4	176.8	222.7	**40**	10079.4	8979.7	11313.7
24	250	222.7	280.6	**41**	12699.2	11313.7	14254.4
25	315	280.6	353.6	**42**	16000	14254.4	17959.4
26	396.9	353.6	445.4	**43**	20158.7	17959.4	22627.4
27	500	445.4	561.2				

4 BASELINE UNDERWATER NOISE MONITORING RESULTS

4.1 A 28 days baseline underwater noise monitoring was conducted from 24th November 2012 to 22nd December 2012 at monitoring station R2 as shown in **Figure 1**. RMS broad band (10Hz – 100kHz) noise measurements plotted at 15 minute intervals are shown in **Figure 4-1**. The hourly average plot for the same parameter is provided in **Figure 4-2** and **Table 4-1**.

4.2 Results indicated that underwater noise levels were between about 105 and 150 dB re 1μPa_{rms}. There were considerable fluctuations in the levels of over 20dB within relatively short time periods.

4.3 **Figure 4-3** shows a box plot of noise levels in the 10Hz to 100kHz band plotted for each hour of the day for the entire 28 days of the monitoring period. The boxes have lines at the lower quartile, median, and upper quartile values. The whiskers are lines extending from each end of the boxes to show the extent of the rest of the data. Outliers (red crosses) are data with values beyond the ends of the whiskers. As shown in RMS level within each hour (red circle), there is no discernible difference in median noise levels according to time of day, although the large fluctuations may mask small effects. The RMS values are generally higher than the mean, which indicates that the distribution of noise measurement is highly skewed with a small number of large values contributing to the relatively high RMS measures. **Figure 4-4** shows the same measurement made in the 70Hz to 100kHz band. The 70Hz – 100kHz measurements are on average 15dB lower than the 10Hz – 100kHz measurements.

4.4 **Figure 4-5** shows a box plot of one-third octave band RMS noise measurements for the entire monitoring period. Noise levels are considerably higher at lower frequencies. Levels within most bands fluctuate by around 10dB either side of the median values. There are also outliers at high noise levels, but this is in fact relatively rare comprising only a small percentage of measurements.

4.5 Pressure Spectral Densities (PSD) re 1 μPa^2/Hz from 10Hz to 125kHz for each hour of the day are shown in **Figure 4-6a** to **Figure 4-6f.** Most of the plots are similar in that there is a decrease in sound pressure level with frequency.

Table 4-1 Hourly Average Baseline Monitoring Results, dB re 1μPa_{rms}

Hour	SPL dB re 1μPa_{rms}	Hour	SPL dB re 1μPa_{rms}	Hour	SPL dB re 1μPa_{rms}	Hour	SPL dB re 1μPa_{rms}
00	137.0	06	131.5	12	138.5	18	143.5
01	138.0	07	134.0	13	138.2	19	144.8
02	138.5	08	136.5	14	137.5	20	144.5
03	138.2	09	137.0	15	137.1	21	142.0
04	138.0	10	136.5	16	142.0	22	138.4
05	130.5	11	138.0	17	142.8	23	138.5

5 EVENT AND ACTION PLAN

Auditory Injury

5.1 There is data concerning hearing damage in fish, including Temporary Threshold Shift (TTS) measurements on goldfish (Cox *et al*. 1986, 1987), cod (Enger 1981), and Oscar fish (Hastings *et al*. 1986), and hearing damage in marine mammals from Schlundt *et al*. (2000) and Nachtigall *et al*. (2004) that indicate auditory damage in marine species may occur following exposure to high level underwater noise. The conservative limit proposed by the US National Marine Fisheries Service (NMFS) of 180 dB re. 1 µPa Sound Pressure Level limit has been considered in this respect. Therefore, Limit level is taken as 180 dB re 1µPa, RMS Sound Pressure Level over 1 second between 70 Hz and 125kHz which represents the range of CWD hearing.

Action and Limit Level

5.2 Action shall be made to ensure that no CWD will be exposed to high level underwater noise due to the construction work. Based on the defined Limit Level, it is proposed that the Action Level is set at 170 dB re 1µPa, RMS Sound Pressure Level over 1 second between 70 Hz and 125kHz, measured at 100m from the piling site. The construction activities would be stopped when the RMS Sound Pressure Level over 1 second between 70 Hz and 125kHz reach the Limit Level, or when the underwater noise level cannot be reduced to 170 dB or below after triggering the action level for half an hour. Refer to the baseline monitoring results, the reported noise level were 20dB lower than the Action Level of 170dB.

Construction Phase Monitoring Procedures

5.3 The measured data will be analyzed in real time. In the event that:

(a) If the 1 second RMS sound pressure level re 1µPa exceeds the Action Level, the ET will give signals to the Contractor to review the piling sequence or method in order to reduce the underwater noise levels to no higher than 170 dB. At the same time, a protection zone of 50m radius will be set if the underwater noise level measured is between 171 to 174 dB. The zone will be enlarged to 100m radius if the underwater noise level is between 175 to 179 dB. If dolphin is found within the protection zone, the construction work will stop and can only commence after confirming that no dolphin is present for 30 minutes. A scanning staff from the Contractor will scan the surrounding area near the bored piling site.

(b) If the measured underwater noise level cannot be reduced to below 170 dB within half an hour, the ET will give signals to the Contractor to stop the activities. The Contractor should not be allowed to resume the works unless the Contractor can come up with an alternative method or sequence agreeable to the Engineer that would generate noise no higher than 170 dB.

(c) If the measured noise level exceeds 180 dB, the ET will give signals to the Contractor to stop the activities immediately. Again, the Contractor should not be allowed to resume the works unless the Contractor can come up with an alternative method or sequence agreeable to the Engineer that would generate noise no higher than 170 dB.

5.4 The Event Action Plan is summarized in **Table 5-1**.

Table 5-1 Event Action Plan is summarized as follows:

Event	Action			
	ET Leader	IEC	ER	Contractor
Action level triggered	1. Inform the IEC, ER and Contractor; 2. Advise Contractor of dolphin protection zone coverage. 3. Continue to monitor underwater noise level.	1. Check monitoring data submitted by ET.	1. Inform Contractor.	1. Review the piling sequence or method; 2. Implement the mitigation measure to lower the underwater noise level to below action limit within 30 minutes; 3. Implement protection zone. 4. Closely liaise with the ET on the progress.
Limit level triggered	1. Instruct the Contractor to stop construction work; 2. Inform the IEC and ER; 3. Discuss with IEC, ER and Contractor on noise reduction proposal; 4. Assess effectiveness of Contractor's proposal and keep IEC and ER informed.	1. Check monitoring data submitted by ET. 2. Discuss amongst ER, ET and Contractor on the potential remedial actions.	1. Review the proposal by Contractor; 2. Make agreement on the measures to be implemented.	1. Stop construction work 2. Inform the ER 3. Review the piling sequence or method in order to reduce the underwater noise levels to no higher than 170 dB. 4. Submit noise reduction proposal to the ER for endorsement. 5. Implement the agreed measures. 6. Re-submit proposals if problem still not under control; 7. Stop the relevant portion of works as determined by the ER until the exceedance is abated

6 COMMENTS AND CONCLUSIONS

6.1 Baseline underwater noise measurements were conducted from 24th November 2012 to 22nd December 2012 for 28 continuous days at the monitoring station R2 as shown in **Figure 1**. Major components affecting the background noise level are the noise generated from sea flow and the noise from marine traffic. The noise levels could be increased significantly by strong sea flow and wave action. Noise levels fluctuated considerably during the deployment.

6.2 Noise other than sea flow and marine traffic are also clearly audible in several sound recordings. The duration and nature of these sounds (a minute to several minutes) are generally consistent with the noise expected from passing vessels. This noise might have been due to the marine work far away. Vessels can be clearly heard in some of the recordings listened to.

6.3 Although there are some possible influencing factors affecting the baseline condition, the measured data do represent the actual environment in this region. The values reported for the baseline noise level are all well below the Action Threshold of 170dB re 1µPa RMS.

6.4 Given the high levels of variation in received noise levels, the selection of a baseline for comparison with future data collection during construction should be done with care. Hourly RMS SPL is provided in this monitoring report that could be used to compare with the impact monitoring data on hour to hour basis.

6.5 Selection of the monitoring frequency band is also critical. Results plotted in **Figure 4-4** and **Figure 4-5** show a 15dB difference between a frequency band starting at 10Hz and one starting at 70Hz.

6.6 Power Spectral Density measurements (**Figure 4-6**) show levels in excess of 120dB re 1 $\mu Pa^2/Hz$ at 10Hz and around 80dB re 1 $\mu Pa^2/Hz$ at 1kHz. These levels are similar to the higher SPL levels reported by Wenz (1962) (in Urick, 1975).

6.7 Acoustic data were processed in real time on the PAMBuoy, and all of the data presented in this report can potentially be viewed in real time by connecting a PC based monitoring station with cable. This would enable real-time mitigation, with operators responding to increases in noise levels above 170 and 180 dB re1µPa as stipulated in the Event Action Plan**.**

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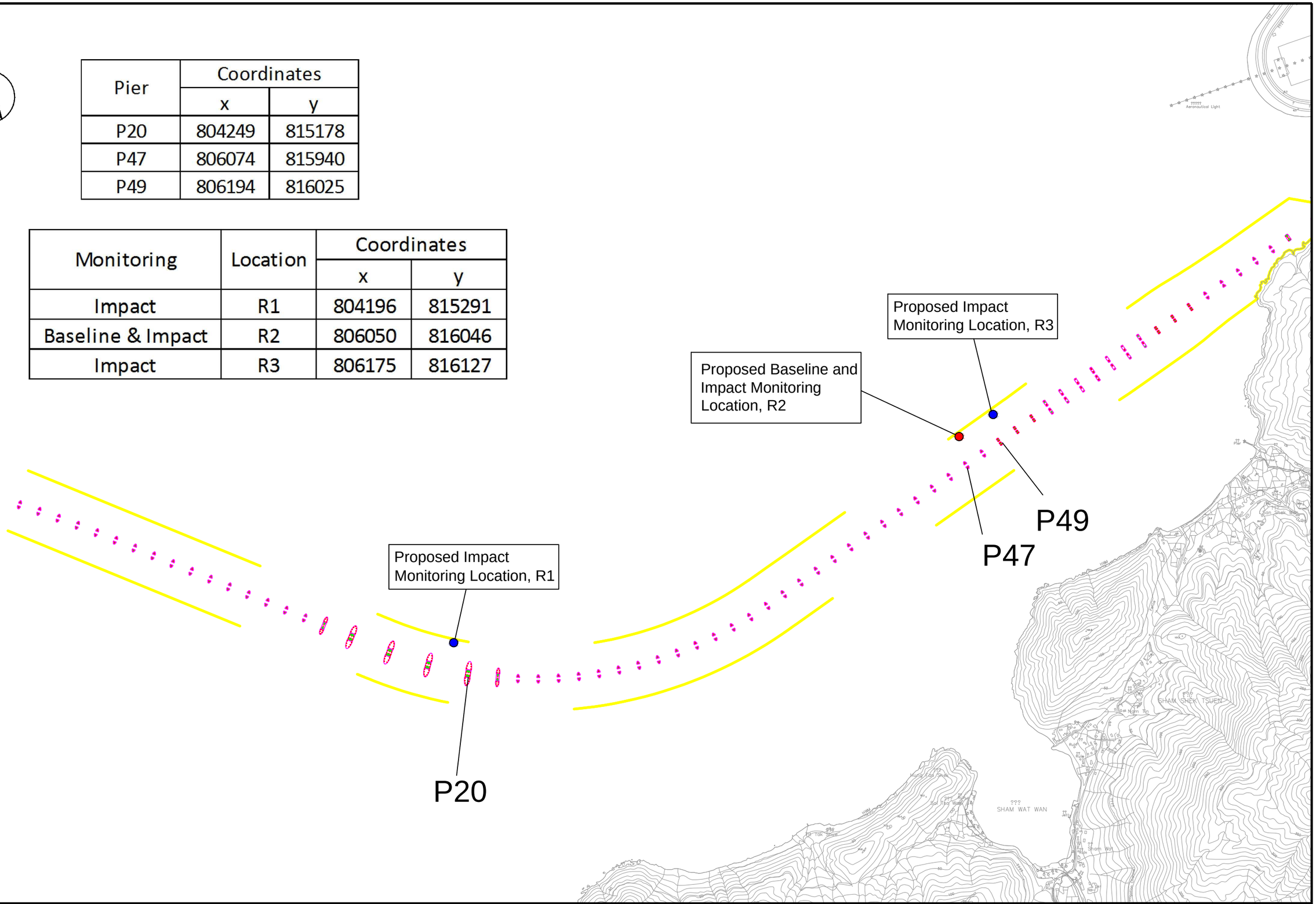
11. Urick, R. J. (1975). Principles of Underwater Sound(McGraw-Hill).

FIRGURES

N

Pier	Coordinates	
	x	y
P20	804249	815178
P47	806074	815940
P49	806194	816025

Monitoring	Location	Coordinates	
		x	y
Impact	R1	804196	815291
Baseline & Impact	R2	806050	816046
Impact	R3	806175	816127



CINOTECH
Cinotech Consultants Limited

Contract No. HY/2011/09 Hong Kong Link Road - Section between HKSAR Boundary & Scenic Hill

Location of Monitoring Stations

SCALE	NTS	DATE	NOV12
CHECK	BC	DRAWN	KL
JOB No.	MA12014	DRAWING No. 1	REV -

Figure 4-1 RMS Broad Band (10Hz – 100kHz) Noise Measurements plotted at 15 minute intervals

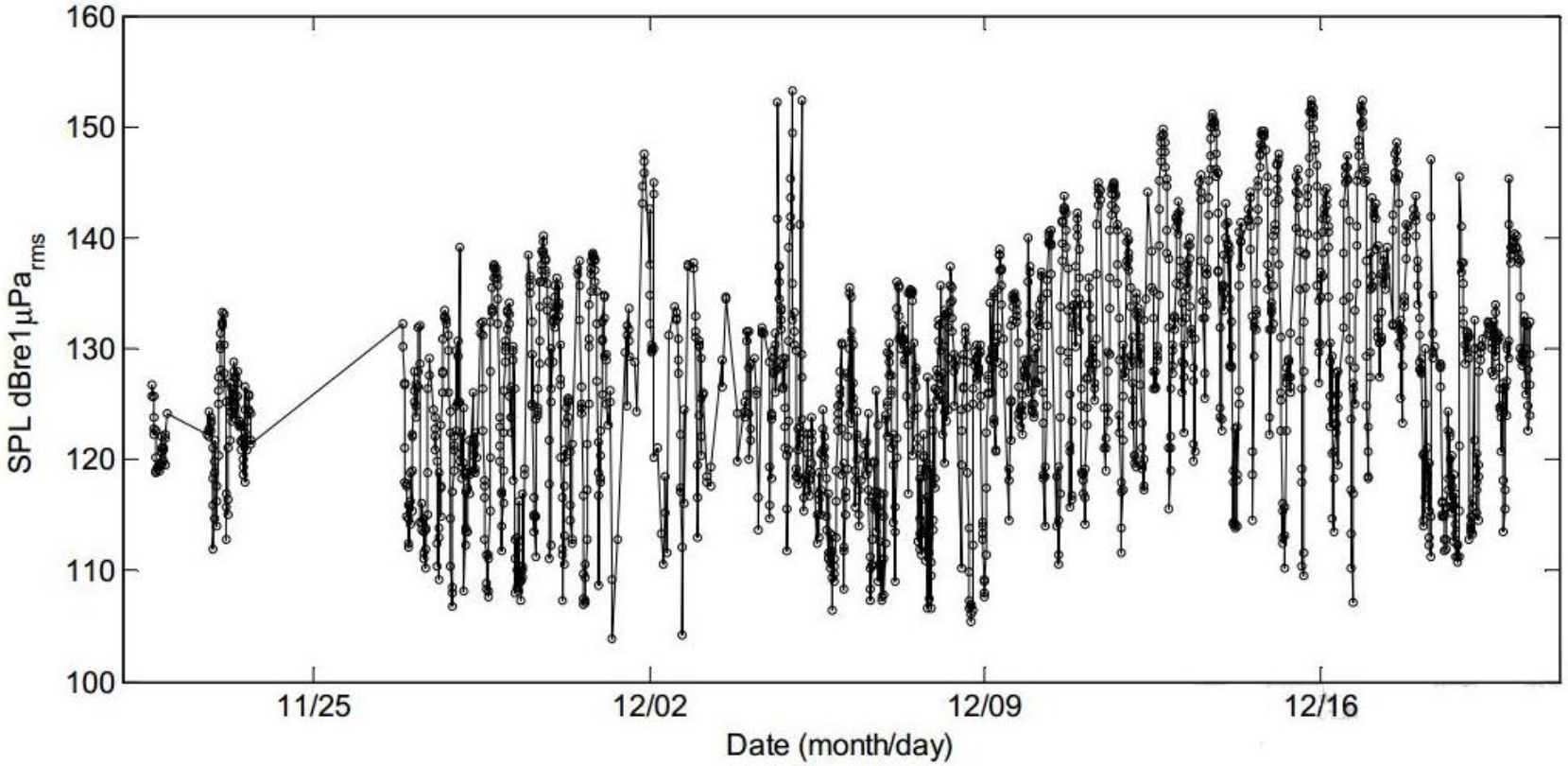


Figure4-2 Hourly average RMS Broad band (10Hz – 100kHz) noise measurements

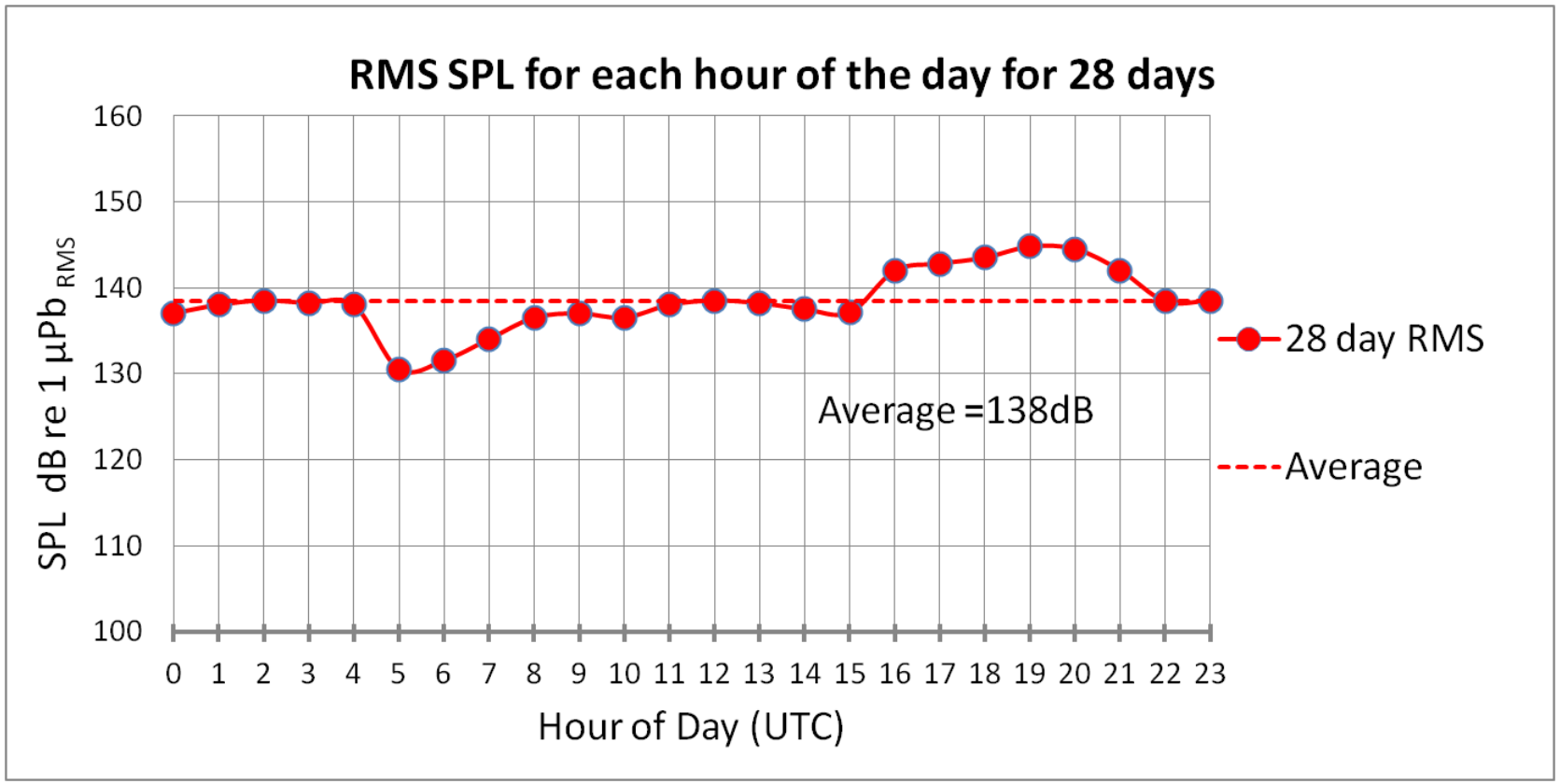


Figure 4-3 Box Plot of Noise Levels in the 10Hz to 100kHz Band plotted for each hour of the day for 28 days Monitoring Period

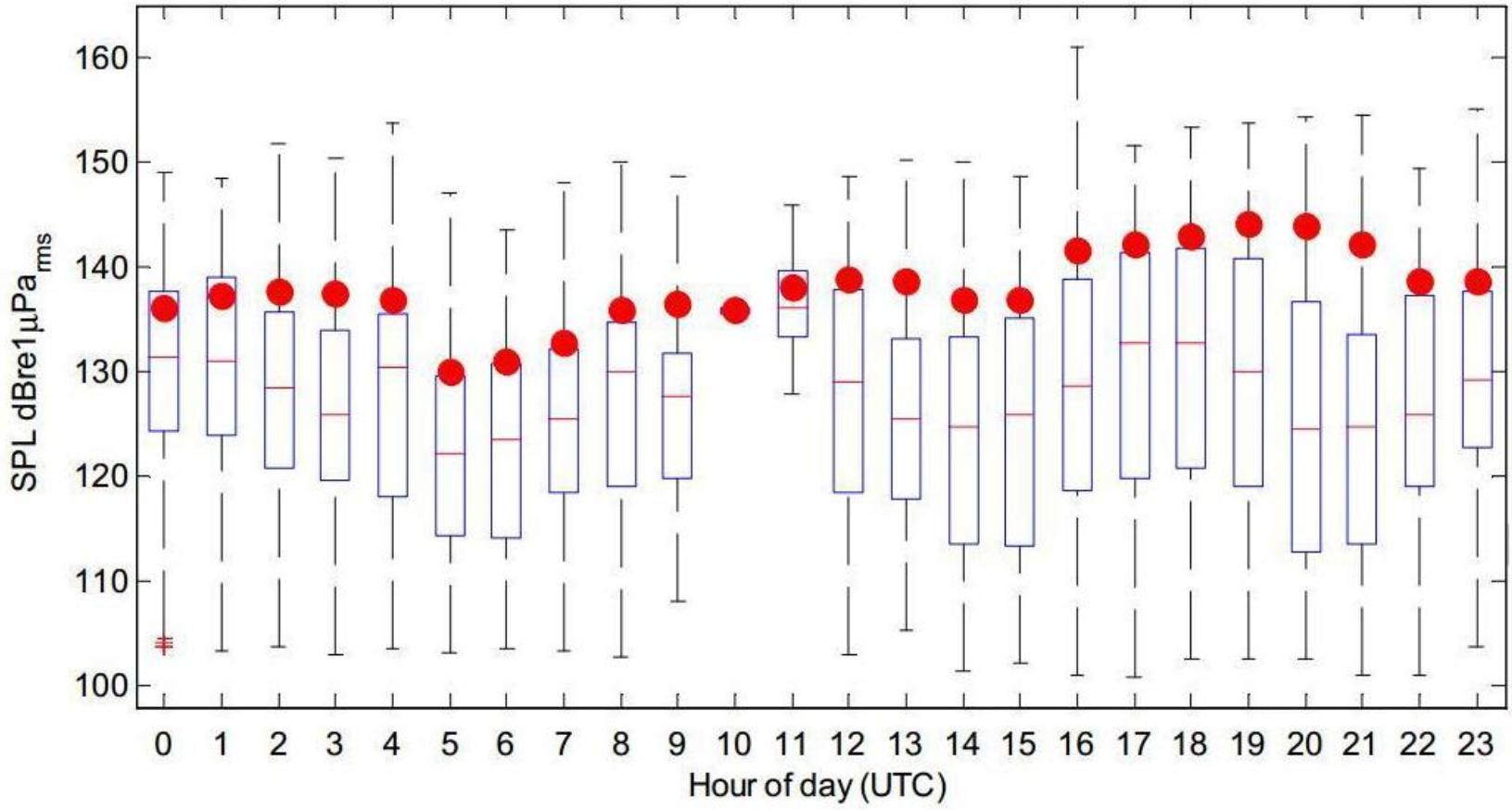


Figure 4-4 **Box plot of noise levels in the 70Hz to 100kHz band plotted for each hour of the day for 28 days monitoring period**

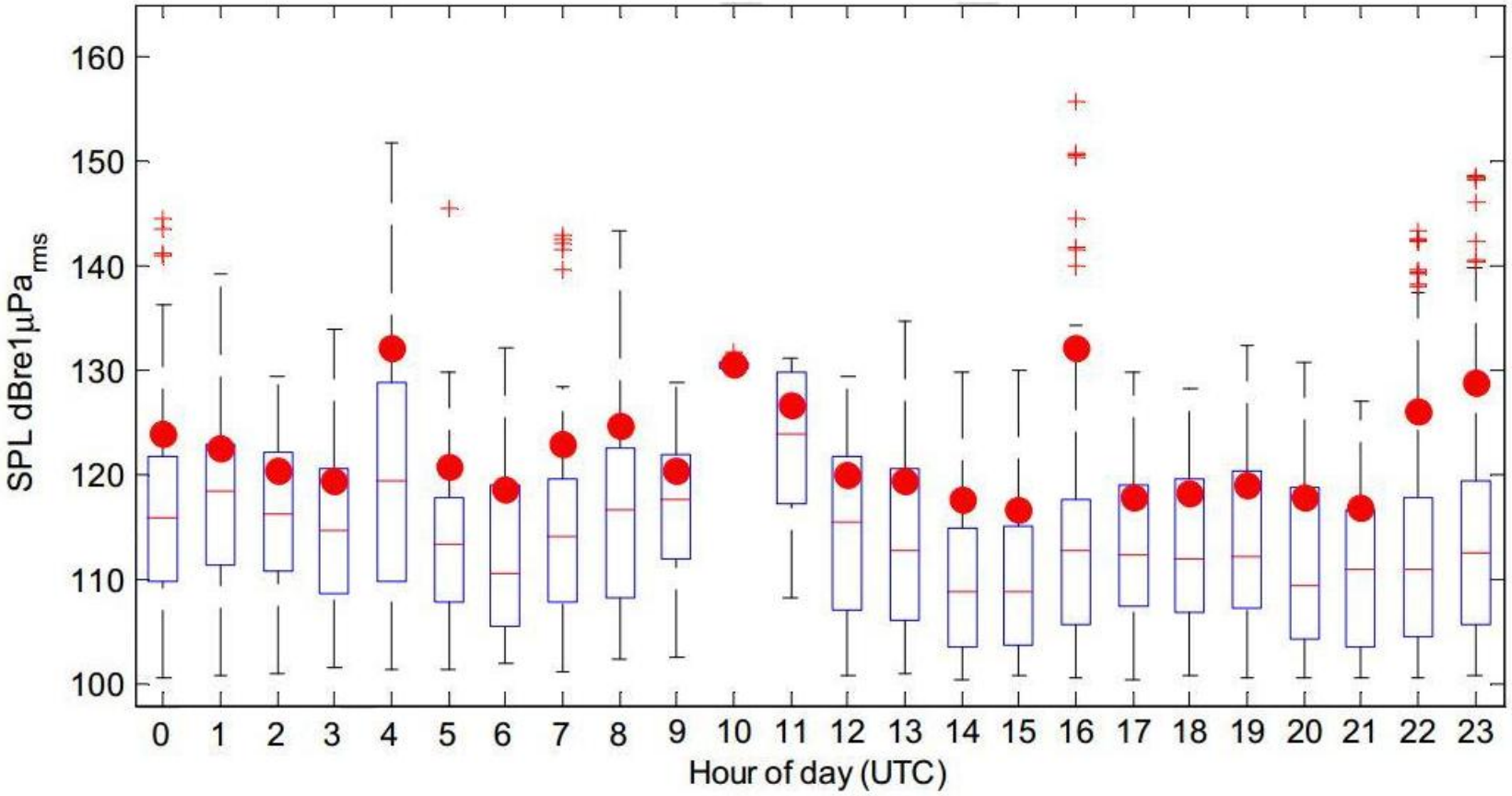


Figure 4-5 Box plot of Third Octave Band RMS Noise Measurements for the Entire Monitoring Period

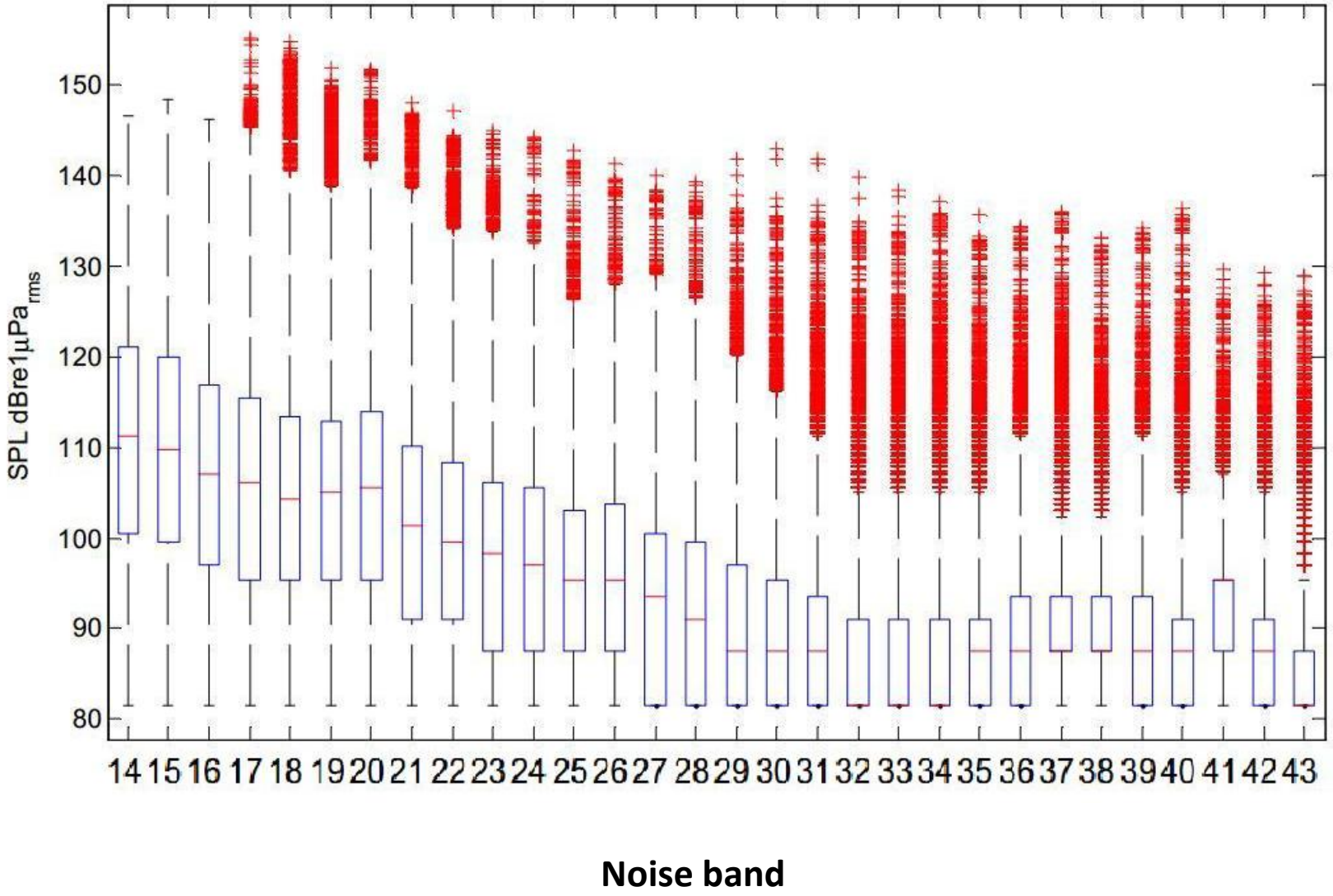


Figure 4-6a Pressure Spectral Density (PSD) re 1 µPa^2/Hz from 10Hz to 125kHz for each hour of the day (Hour 00 to Hour 04)

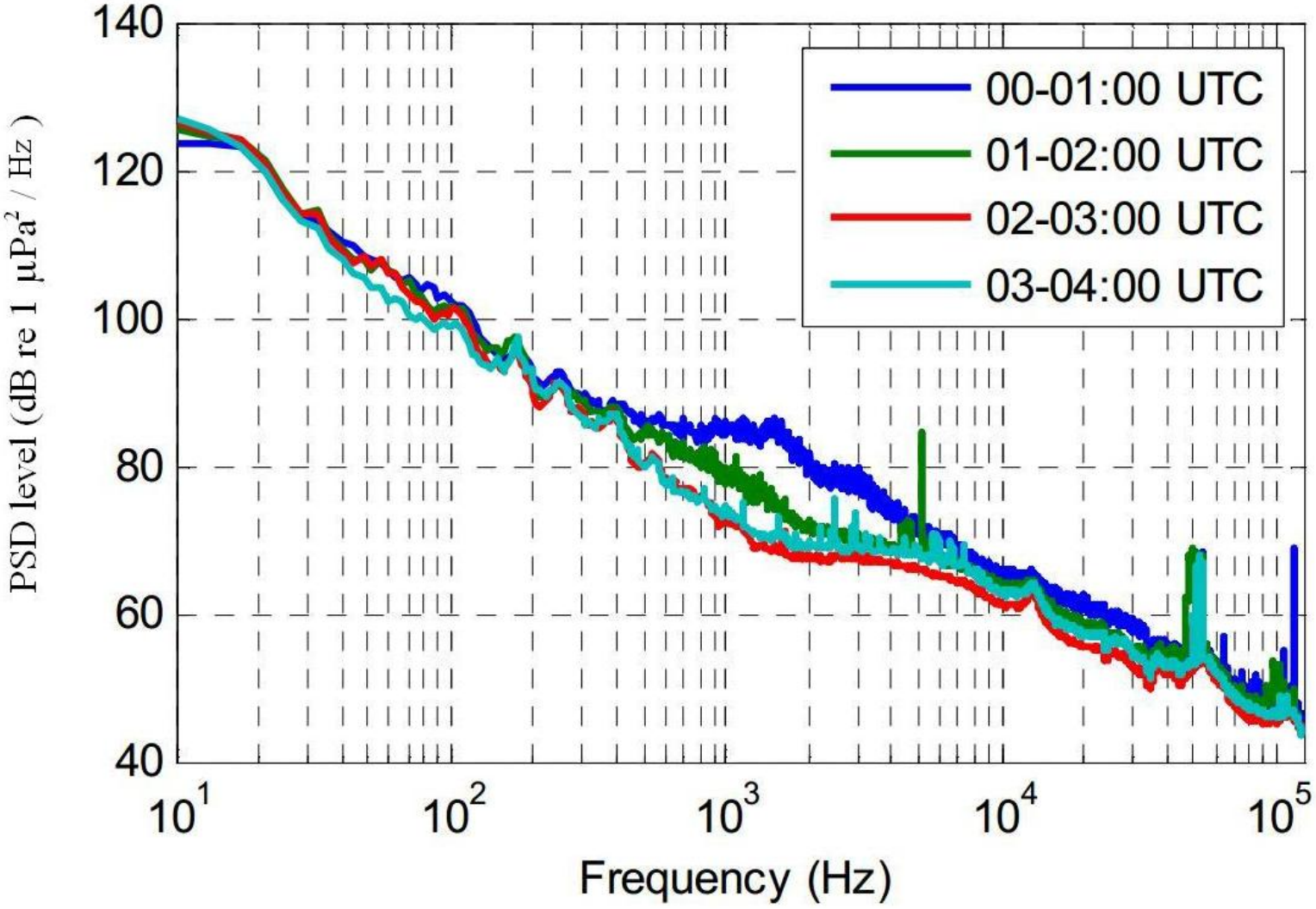


Figure 4-6b Pressure Spectral Density (PSD) re 1 µPa^2/Hz from 10Hz to 125kHz for each hour of the day (Hour 04 to Hour 08)

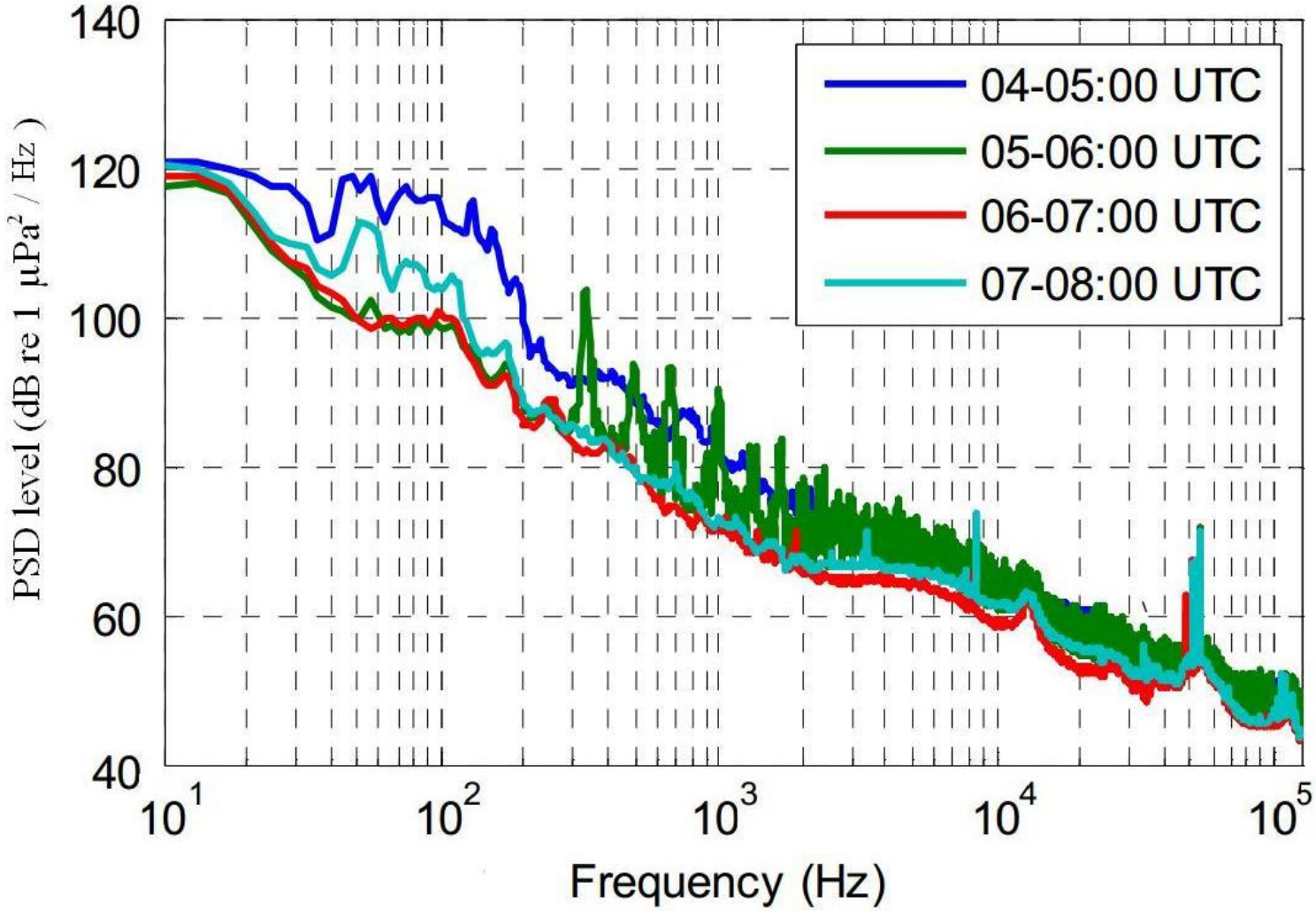


Figure 4-6c Pressure Spectral Density (PSD) re 1 µPa^2/Hz from 10Hz to 125kHz for each hour of the day (Hour 08 to Hour 12)

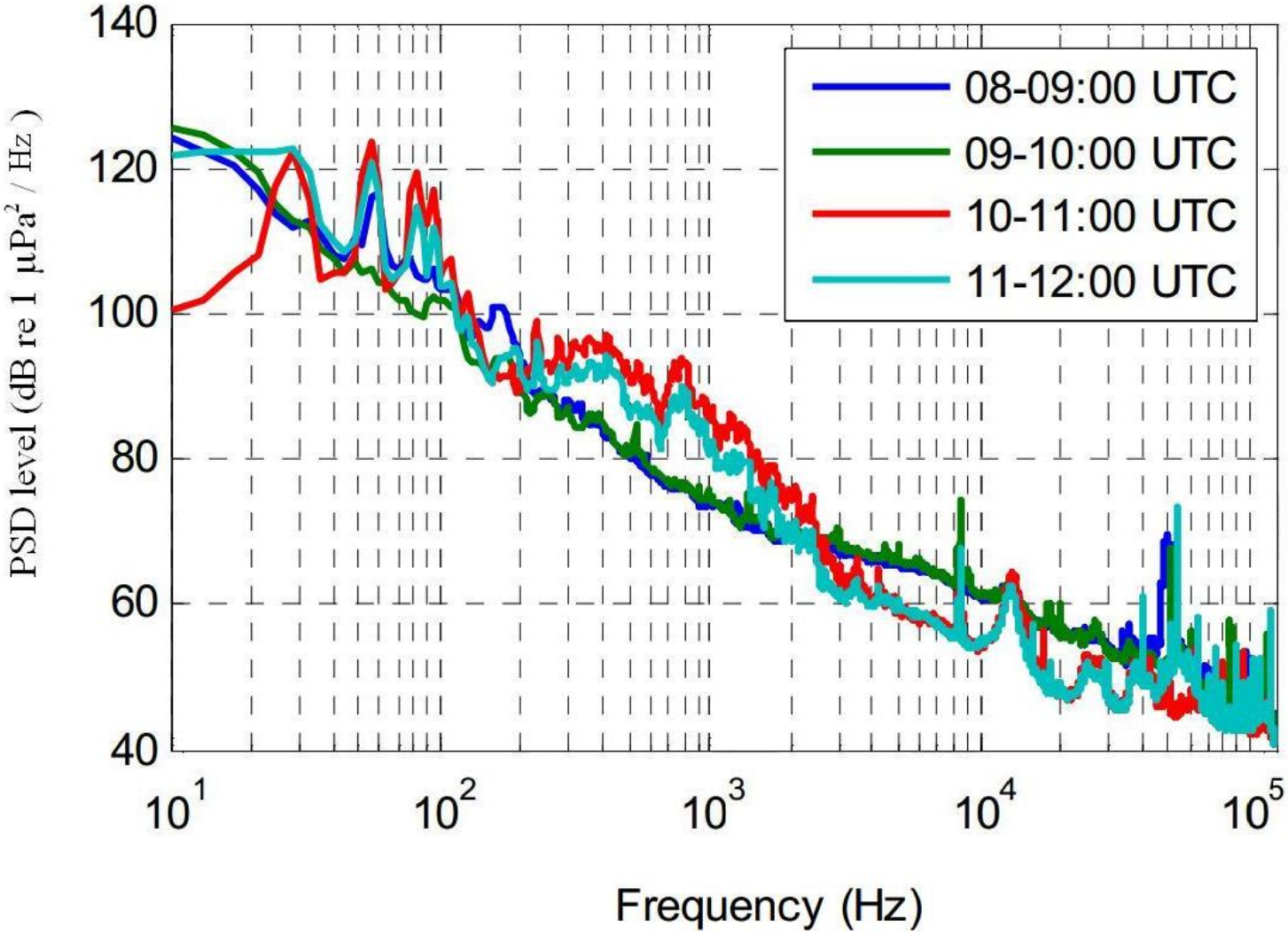


Figure 4-6d Pressure Spectral Density (PSD) re 1 µPa^2/Hz from 10Hz to 125kHz for each hour of the day (Hour 12 to Hour 16)

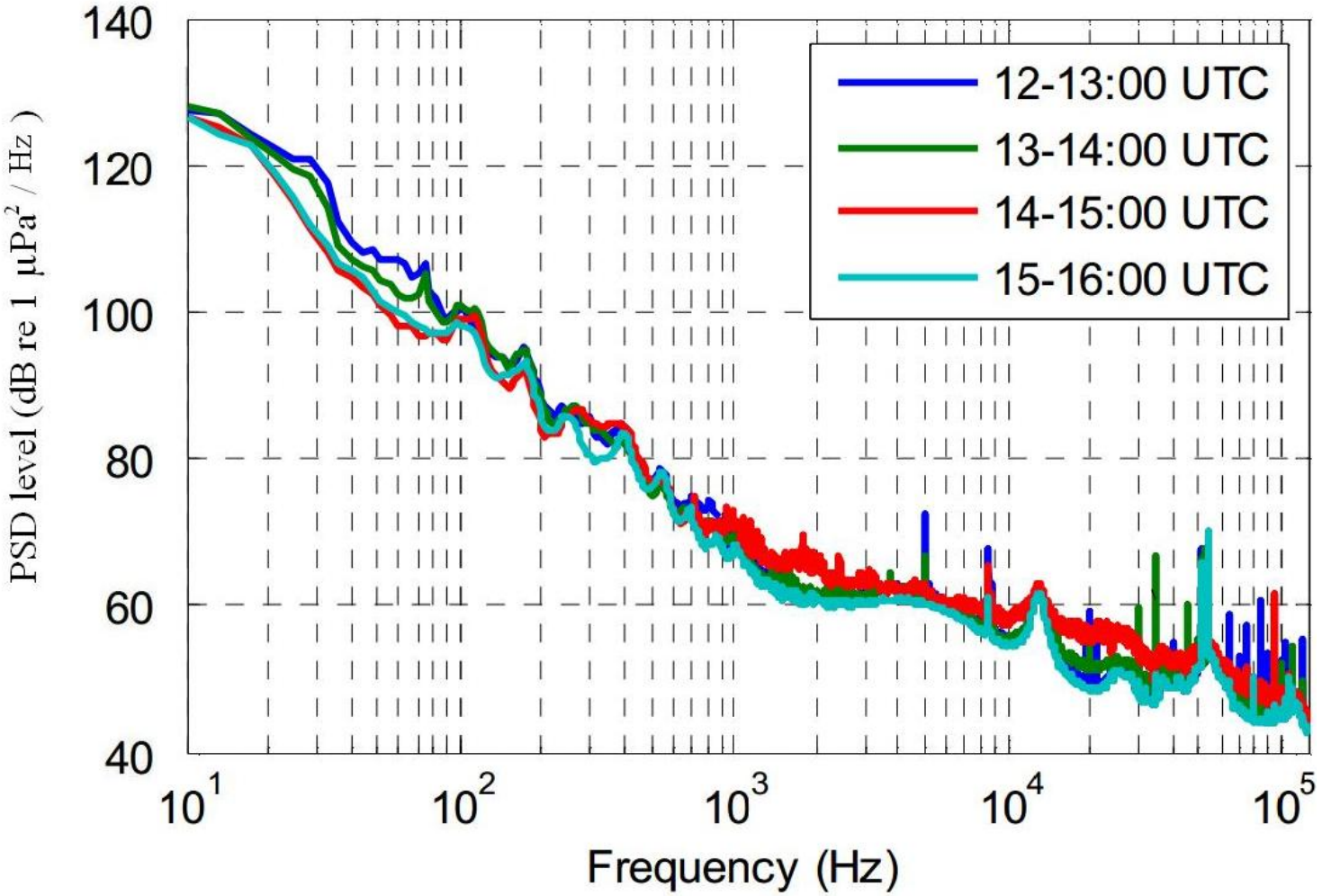


Figure 4-6e Pressure Spectral Density (PSD) re 1 µPa^2/Hz from 10Hz to 125kHz for each hour of the day (Hour 16 to Hour 20)

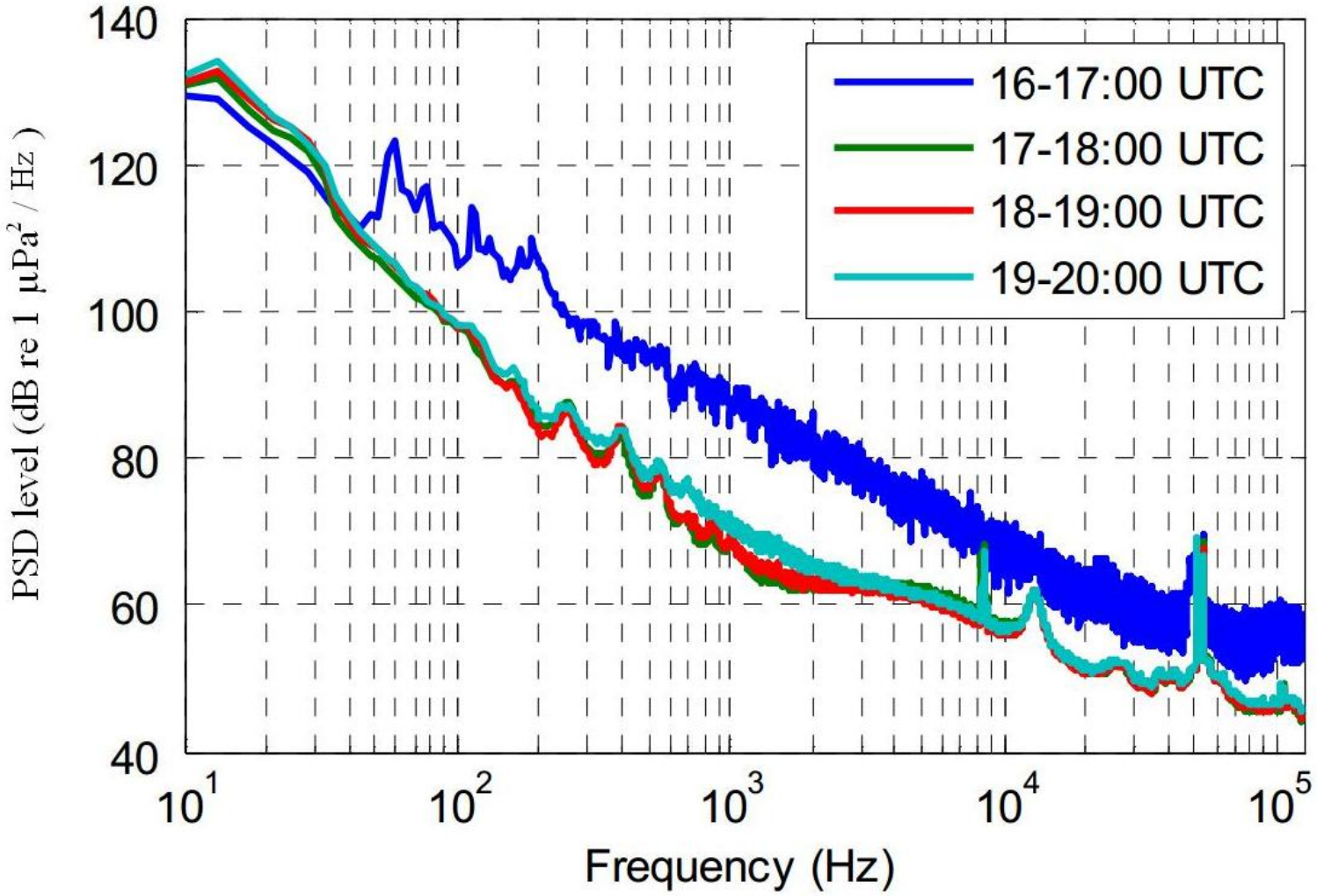
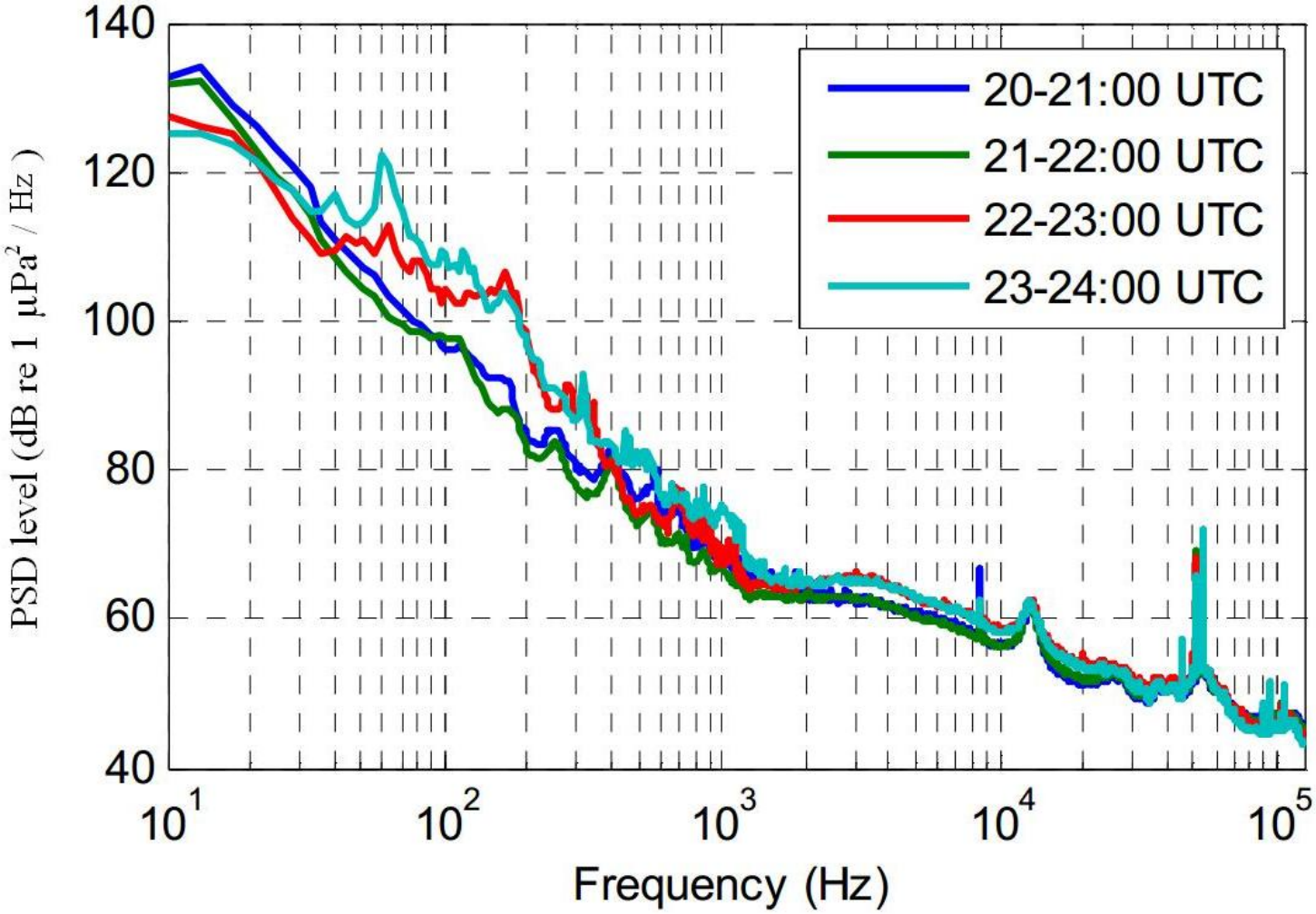


Figure 4-6f Pressure Spectral Density (PSD) re 1 µPa^2/Hz from 10Hz to 125kHz for each hour of the day (Hour 20 to Hour 24)

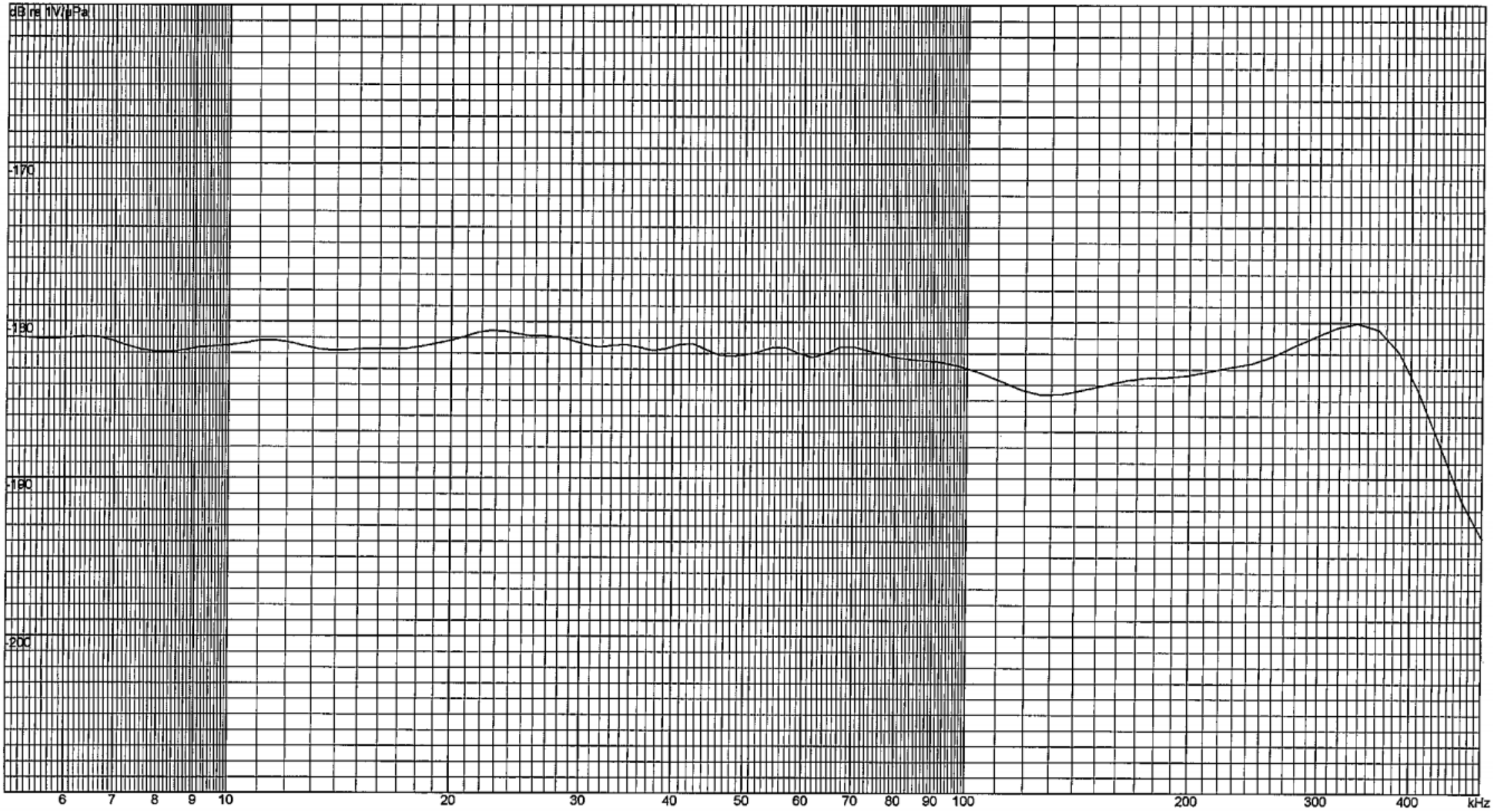


ANNEX-A
Hydrophone Calibration Sheet

HYDROPHONE SENSITIVITY

RESON

Under Test:	TC4014-5	Amplitude:	10.0 Vrms	Temperature:	°C
S/N:	5111003	Pulse Width:	357.1 µs	Depth:	0.0 m
Reference:		Rep Rate:	33.3 ms	Distance:	0.00 m
Date:	2012-01-24	Averages:	8	Tested by:	PRA
Session, Run:	14825, 43				
Comment:	PHO @ 250 Hz: -180.8 dB.				



HYDROPHONE DIRECTIVITY

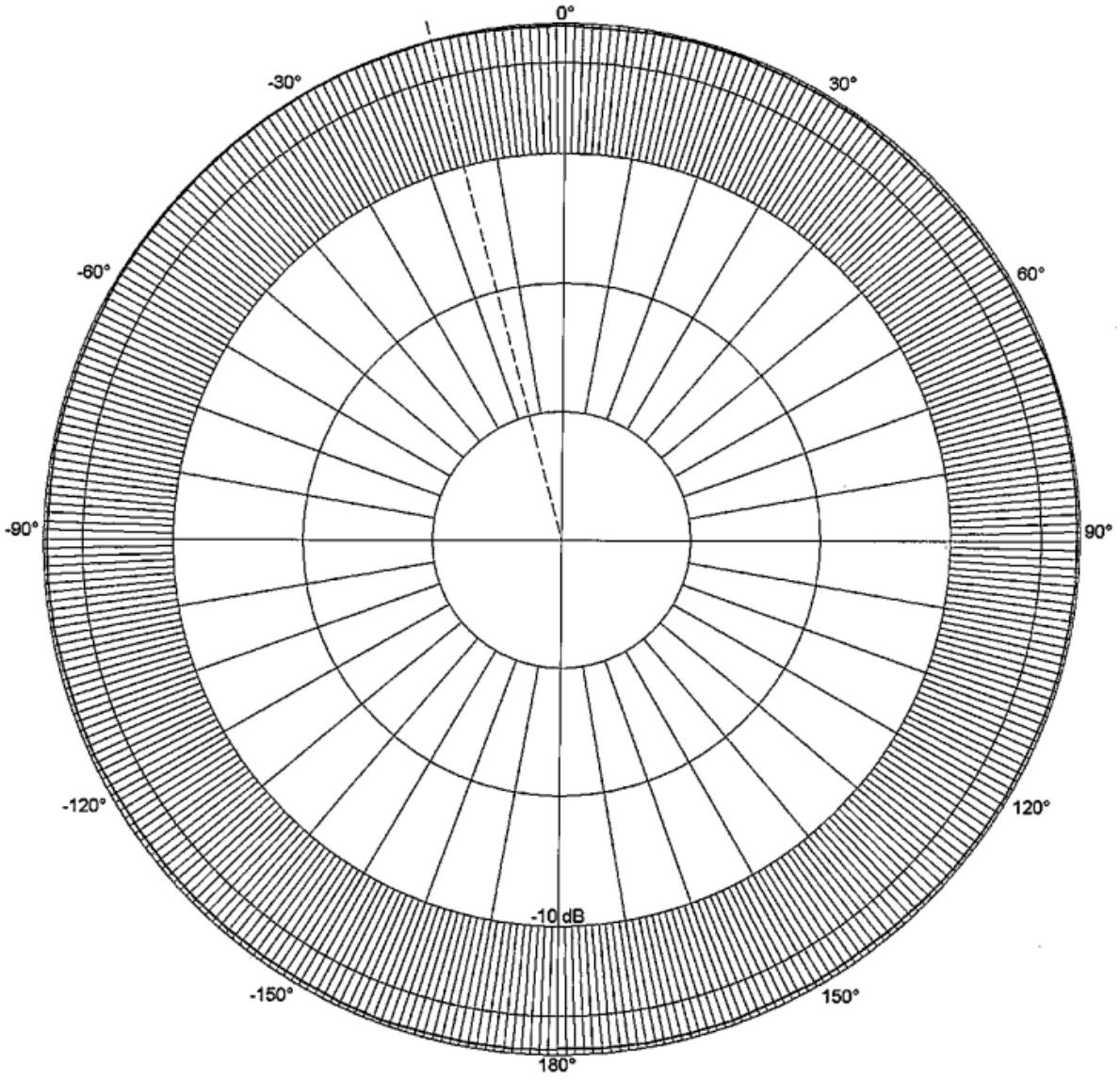
For all Seven pages
2012 -01- 25

RESON

Under Test:	TC4014-5	Amplitude:	10.0 Vrms	Temperature:	18.51°C
S/N:	5111003	Pulse Width:	250.0 µs	Depth:	1.2 m
Reference:	TC4034	Angle:	-180.0° to 180.0°	Distance:	0.65 m
Date:	2012-01-24	Frequency:	100.00 kHz	Tested by:	PRA
Session, Run:	14825, 42				
Max RR:	-183.0 dB re 1µPa/V at 1m				
SL Right:	-15.0°, 0.0dB dB re 1µPa/V at 1m				
Comment:	Horizontal.				

For all plots!
2012-01-24 PRA

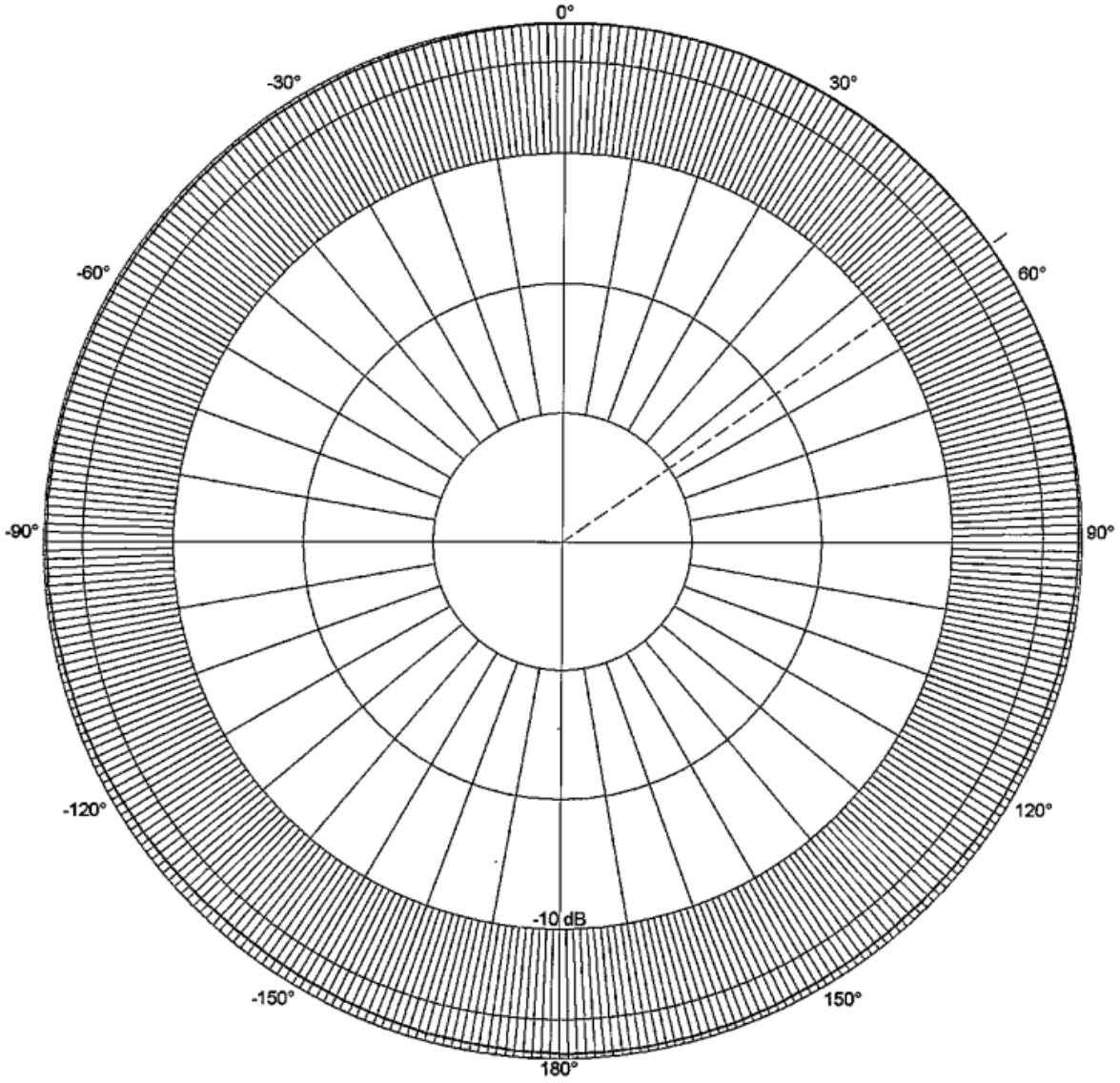
HK



HYDROPHONE DIRECTIVITY

RESON

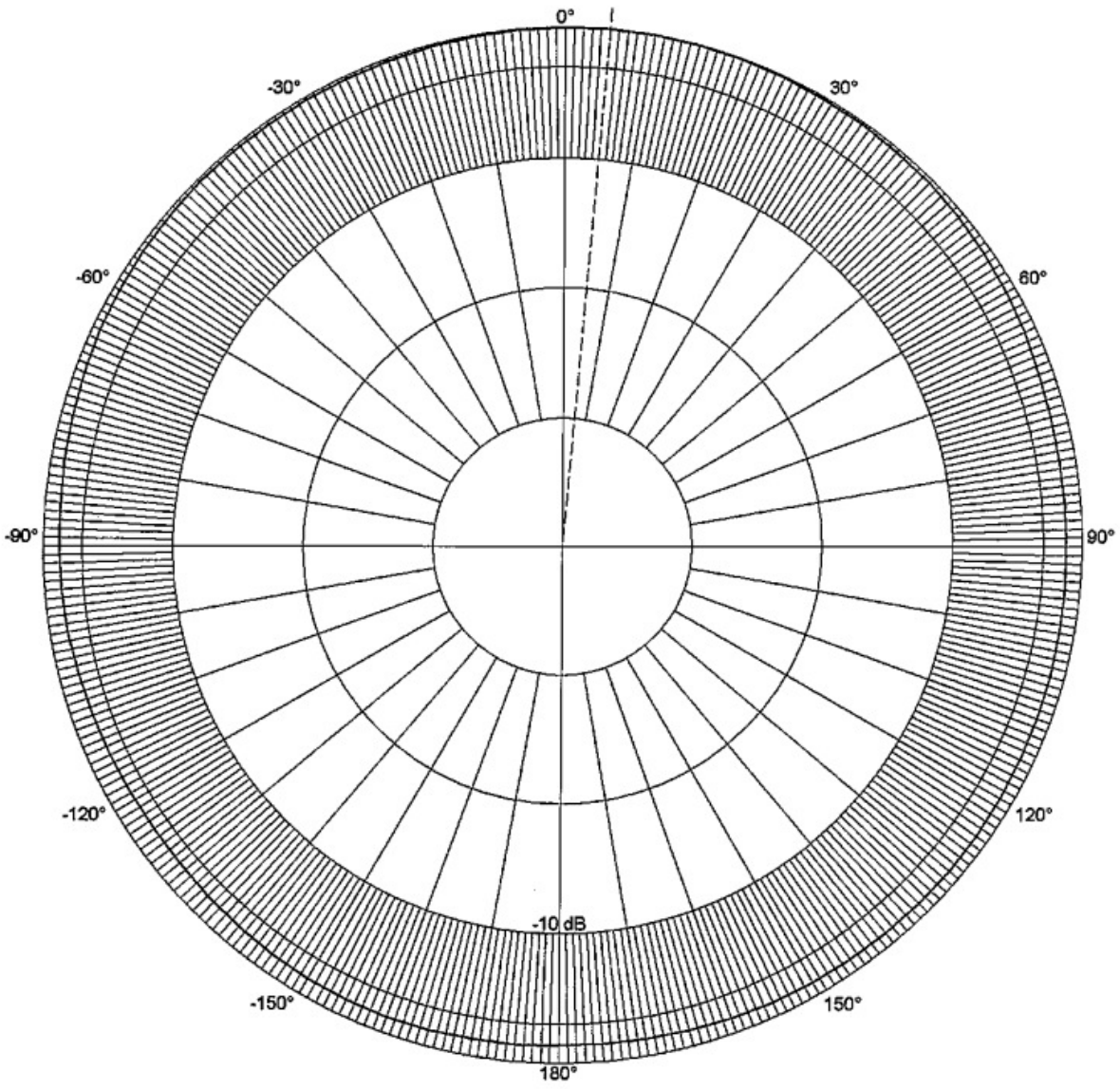
Under Test:	TC4014-5	Amplitude:	10.0 Vrms	Temperature:	18.51°C
S/N:	5111003	Pulse Width:	250.0 µs	Depth:	1.2 m
Reference:	TC4034	Angle:	-180.0° to 180.0°	Distance:	0.65 m
Date:	2012-01-24	Frequency:	200.00 kHz	Tested by:	PRA
Session, Run:	14825, 42				
Max RR:	-183.5 dB re 1µPa/V at 1m				
SL Right:	55.0°, 0.0dB dB re 1µPa/V at 1m				
Comment:	Horizontal.				



HYDROPHONE DIRECTIVITY

RESON

Under Test:	TC4014-5	Amplitude:	10.0 Vrms	Temperature:	18.51°C
S/N:	5111003	Pulse Width:	250.0 µs	Depth:	1.2 m
Reference:	TC4034	Angle:	-180.0° to 180.0°	Distance:	0.65 m
Date:	2012-01-24	Frequency:	300.00 kHz	Tested by:	PRA
Session, Run:	14825, 42				
Max RR:	-180.8 dB re 1µPa/V at 1m				
SL Right:	5.0°, 0.0dB dB re 1µPa/V at 1m				
Comment:	Horizontal.				



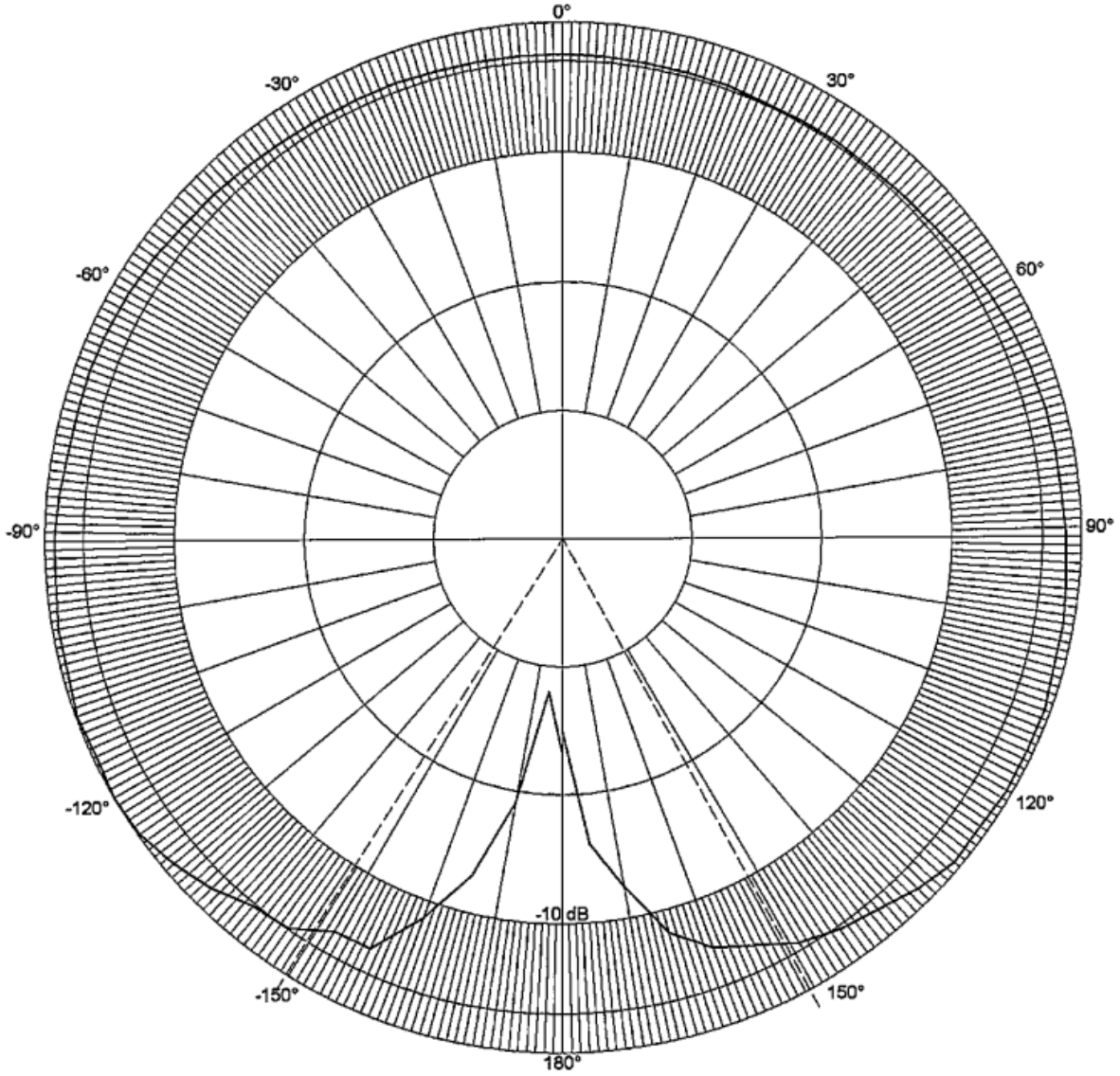
HYDROPHONE DIRECTIVITY

RESON

Under Test:	TC4014-5
S/N:	5111003
Reference:	TC4034
Date:	2012-01-24
Session, Run:	14825, 3
Max RR:	-182.0 dB re 1µPa/V at 1m
W:	299.2°
Comment:	Vertical

Amplitude:	10.0 Vrms
Pulse Width:	125.0 µs
Angle:	-180.0° to 180.0°
Frequency:	100.00 kHz

Temperature:	18.51°C
Depth:	1.2 m
Distance:	0.65 m
Tested by:	PRA



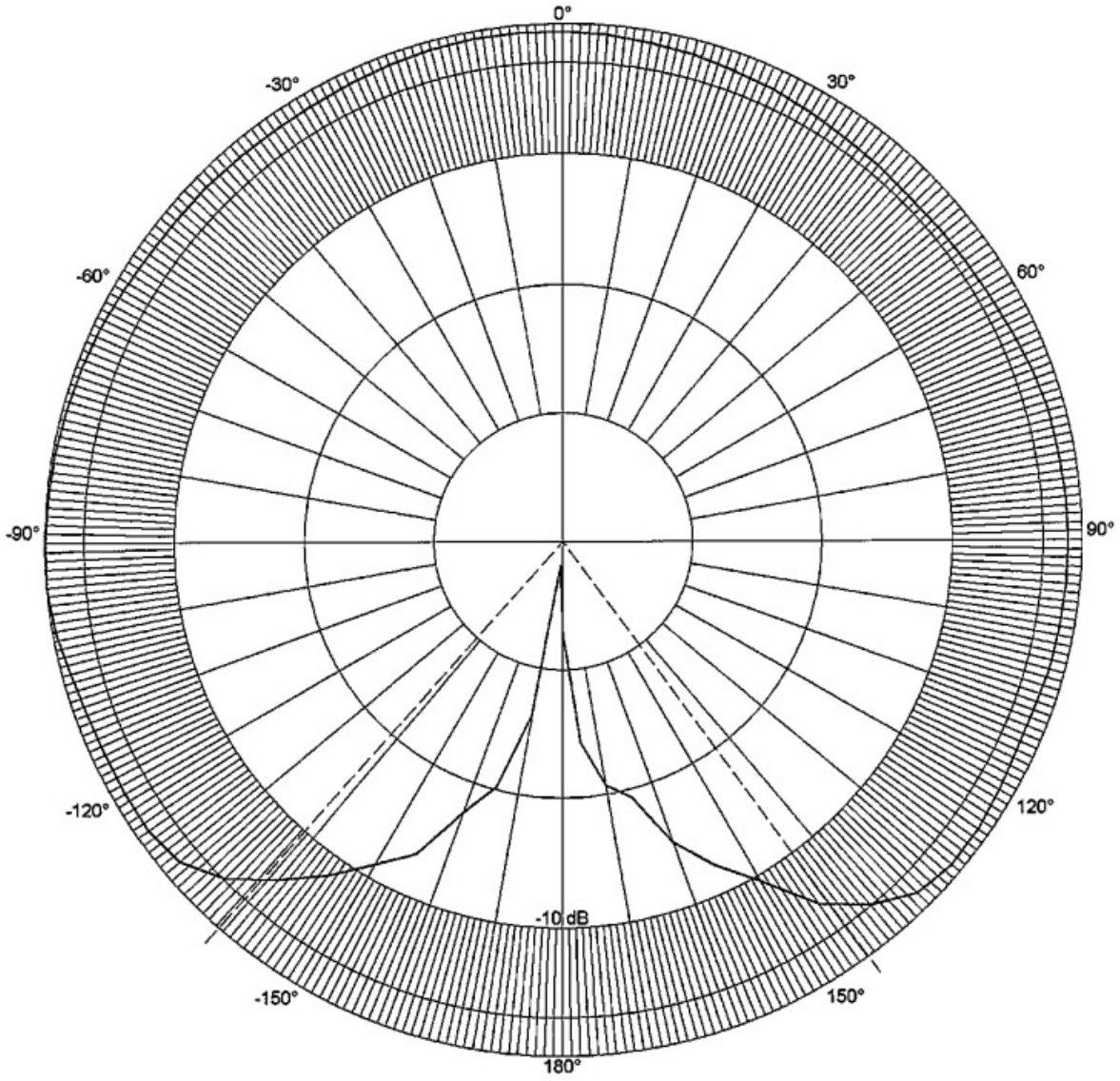
HYDROPHONE DIRECTIVITY

RESON

Under Test:	TC4014-5
S/N:	5111003
Reference:	TC4034
Date:	2012-01-24
Session, Run:	14825, 3
Max RR:	-183.4 dB re 1µPa/V at 1m
W:	282.3°
Comment:	Vertical

Amplitude:	10.0 Vrms
Pulse Width:	125.0 µs
Angle:	-180.0° to 180.0°
Frequency:	200.00 kHz

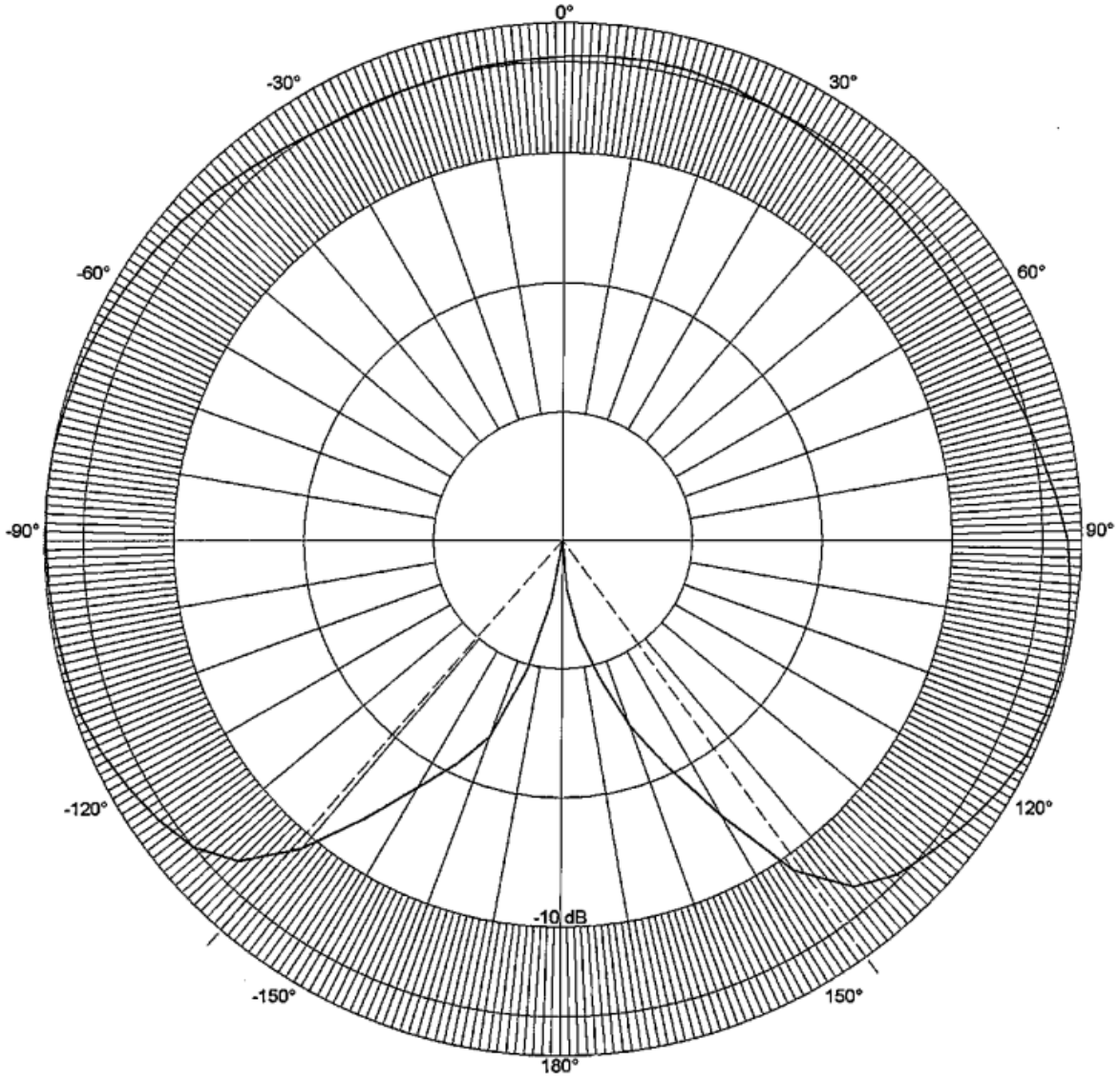
Temperature:	18.51°C
Depth:	1.2 m
Distance:	0.65 m
Tested by:	PRA



HYDROPHONE DIRECTIVITY

RESON

Under Test:	TC4014-5	Amplitude:	10.0 Vrms	Temperature:	18.51°C
S/N:	5111003	Pulse Width:	125.0 µs	Depth:	1.2 m
Reference:	TC4034	Angle:	-180.0° to 180.0°	Distance:	0.65 m
Date:	2012-01-24	Frequency:	300.00 kHz	Tested by:	PRA
Session, Run:	14825, 3				
Max RR:	-180.9 dB re 1µPa/V at 1m				
W:	283.0°				
Comment:	Vertical				



ANNEX-B
Baseline Monitoring Schedule

Contract HY/2011/09 Hong Kong-Zhuhai-Macao Bridge Hong Kong Link Road-Section between HKSAR Boundary and Scenic Hill

Baseline Underwater Noise Monitoring in November 2012

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1-Nov	2-Nov	3-Nov
4-Nov	5-Nov	6-Nov	7-Nov	8-Nov	9-Nov	10-Nov
11-Nov	12-Nov	13-Nov	14-Nov	15-Nov	16-Nov	17-Nov
18-Nov	19-Nov	20-Nov	21-Nov	22-Nov	23-Nov	24-Nov
						Baseline Underwater Noise Monitoirng
25-Nov	26-Nov	27-Nov	28-Nov	29-Nov	30-Nov	
Baseline Underwater Noise Monitoirng	Baseline Underwater Noise Monitoirng	Baseline Underwater Noise Monitoirng	Baseline Underwater Noise Monitoirng	Baseline Underwater Noise Monitoirng	Baseline Underwater Noise Monitoirng	

Contract HY/2011/09 Hong Kong-Zhuhai-Macao Bridge Hong Kong Link Road-Section between HKSAR Boundary and Scenic Hill
Baseline Underwater Noise Monitoring in December 2012

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1-Dec
						Baseline Underwater Noise Monitoirng
2-Dec	3-Dec	4-Dec	5-Dec	6-Dec	7-Dec	8-Dec
Baseline Underwater Noise Monitoirng	Baseline Underwater Noise Monitoirng	Baseline Underwater Noise Monitoirng	Baseline Underwater Noise Monitoirng	Baseline Underwater Noise Monitoirng	Baseline Underwater Noise Monitoirng	Baseline Underwater Noise Monitoirng
9-Dec	10-Dec	11-Dec	12-Dec	13-Dec	14-Dec	15-Dec
Baseline Underwater Noise Monitoirng	Baseline Underwater Noise Monitoirng	Baseline Underwater Noise Monitoirng	Baseline Underwater Noise Monitoirng	Baseline Underwater Noise Monitoirng	Baseline Underwater Noise Monitoirng	Baseline Underwater Noise Monitoirng
16-Dec	17-Dec	18-Dec	19-Dec	20-Dec	21-Dec	22-Dec
Baseline Underwater Noise Monitoirng	Baseline Underwater Noise Monitoirng	Baseline Underwater Noise Monitoirng	Baseline Underwater Noise Monitoirng	Baseline Underwater Noise Monitoirng	Baseline Underwater Noise Monitoirng	Baseline Underwater Noise Monitoirng
23-Dec	24-Dec	25-Dec	26-Dec	27-Dec	28-Dec	29-Dec
30-Dec	31-Dec	1-Jan	2-Jan	3-Jan	4-Jan	5-Jan

APPENDIX F
BASELINE DOLPHIN BEHAVIOUR AND MOVEMENT MONITORING REPORT

CONTRACT HY/2011/09
Hong Kong-Zhuhai-Macao Bridge
Hong Kong Link Road – Section between HKSAR Boundary and Scenic Hill

Land-based Dolphin Behaviour and Movement Monitoring Baseline Monitoring Report

By Bernd Würsig, David Lundquist and Samuel Hung
Hong Kong Cetacean Research Project (HKCRP)

February 28, 2013

1. INTRODUCTION

The Hong Kong Link Road (HKLR) comprises a 9.4 km long viaduct section from the HKSAR boundary to Scenic Hill on the Airport Island; a 1-km tunnel section to the reclamation formed along the east coast of the Airport Island, and a 1.6-km long at-grade road section on the reclamation connecting to the Hong Kong Boundary Crossing Facilities (HKBCF). Dragages – China Harbour – VSL JV (hereinafter called the "Contractor") was awarded as the main contractor of "Contract No. HY/2011/09 – Hong Kong-Zhuhai-Macao Bridge Hong Kong Link Road – Section between HKSAR Boundary and Scenic Hill".

According to the HKLR EM&A Manual, a number of environmental monitoring and audit works related to Chinese White Dolphins (a.k.a. Indo-Pacific humpback dolphins, *Sousa chinensis*) are to be conducted during baseline, construction and post-construction phases, including land-based dolphin behaviour and movement monitoring. Such monitoring is being undertaken by qualified dolphin specialists, who have sufficient (at least 5-10 years) relevant post-graduate experience and publication in the respective aspects. The specialists approved for the land-based work are Drs. Bernd Würsig and David Lundquist.

This progress report of land-based dolphin behaviour and movement monitoring details the methodology and results, from 29 December, 2012 through 30 January, 2013, at a location hereafter termed Sham Wat Station.

2. METHODS AND MATERIALS

2.1. Monitoring Station

Based on requirements under the EM&A Manual as described in the proposal for this work, the Sham Wat Station is located along the northwest coast of Lantau Island (GPS position: 22°16.10' N. and 113°52.32' E, Figure 1). The station was selected based on its height above sea level (minimum requirement of over 20 metres; Würsig et al. 1991), close proximity to shore, and relatively unobstructed views of the HKLR alignment to the west of the airport extending toward the HKSAR Boundary (Figure 2). The height of the Sham Wat Station established by the HKCRP team is 55.70 m high at mean low water, 66 m from shore, and only a few hundred metres to the closest point of the HKLR alignment, which is ideal for the purpose of the present behavioural and movement monitoring in relation to the HKLR bored piling works.

Moreover, the distances between the Sham Wat Station and the first few bored piling sites are 2100m (P47) and 2260m (P49) respectively, that are well within the acceptable range for effective tracking of dolphin movement and behaviour near these sites (Figure 1). Sham Wat Station is also ideal to overlook the bridge alignment to examine the north-south movements of Chinese White Dolphins. However, due to distance, we expect generally fewer sightings and tracks to the north of the bridge alignment than to the south of it.

2.2. Monitoring Frequency

Thirty days of monitoring were planned for each of the baseline and initial construction phases. When adverse weather conditions (e.g. heavy rain or otherwise poor visibility <3 km, Beaufort Sea State >3) were forecast, monitoring surveys were postponed, and frequency of monitoring is detailed in Section 3.

An additional 64 days of monitoring (twice per month, with 5-6 hours on each survey day) will be conducted throughout the construction period to examine the impact of bridge construction on north-south movement of Chinese White Dolphins across the bridge alignment. Such monitoring will commence after the 30 days of construction phase monitoring in relation to bored piling impact assessment is completed; this work has not commenced as of writing of this report.

2.3. Monitoring Methodology

The methodology of the present monitoring programme generally follows the one established under the Piwetz et al. (2012) study that is part of the AFCD long-term marine mammal monitoring programme (Hung 2012). On each survey day from Sham Wat Station, observers searched continuously for Chinese white dolphins using unaided eyes and 7x50 handheld binoculars. A theodolite tracking session was initiated when an individual dolphin or group of dolphins was located, and focal follow methods were used to track the dolphins (Lundquist 2012, Lundquist et al. 2012a and 2012b, Piwetz et al. 2012).

Within a group, a focal individual was selected for the purposes of tracking behaviour and movement of the group, based on its distinctive feature such as colouration or severe injury mark. The focal individual or group were then tracked continuously via the theodolite, with positions recorded whenever a known or unknown dolphin surfaced. If an individual could not be positively distinguished from other members, the group would be tracked by recording positions based on a central point within the group when the dolphins surfaced.

Tracking continued until animals were lost from view, moved beyond the range of reliable visibility (generally >3 km but up to >5 km under excellent conditions), or when environmental conditions obstructed visibility (e.g. intense haze). Behavioural state data (Table 1) were also recorded every 5 minutes for the focal individual or group. This interval is long enough to allow for determination of the behavioural state, and short enough to capture behavioural responses to the bored piling activities. Moreover, when multiple groups or individuals were present in the study area, attempts were made to record the behaviours of all groups/individuals every 10 minutes, with spotters assisting in determining behaviour of the dolphins.

Positions of dolphins, boats and construction activities were measured using a Sokkisha DT5 digital theodolite with ± 5-sec precision and 30-power magnification connected to a laptop computer running the program *Pythagoras* Version 1.2 (Gailey and Ortega-Ortiz 2002). This program calculates a real-time conversion of horizontal and vertical angles collected by the theodolite into geographic positions of latitude and longitude each time a fix is initiated. *Pythagoras* also displays positions, movements, and distances in real-time. When possible, the position of the focal dolphin was recorded at every surfacing with use of *Pythagoras*. The position, type, and activity of all vessels within 5 km of the focal dolphin were also recorded. An effort was made to obtain at least several positions for each vessel, and additional

positions were acquired when vessels changed course or speed.

While the primary source of human disturbance to dolphins of interest in this study is bored piling works for the Hong Kong Link Road Project, the presence of vessels may also have an effect on the behaviour and movement patterns of dolphins. Prior to the construction phase (i.e. baseline phase), the simultaneous tracking of dolphins and boats over time provides information on the speed and orientation of dolphins, as well as their movements in relation to vessel activities. These data are used as a baseline for comparison once construction begins. Other construction activities in relation to the bored piling works will be recorded during the construction phase monitoring, and for overall consistency and reliability the same theodolite tracking and behavioural procedures will be followed as during the baseline phase, with the same primary observers/theodolite operators.

2.4. Data Analysis

2.4.1. Assessment of potential impacts from bored piling activities

Movement patterns

To evaluate if dolphin behaviour or movement patterns varied in the presence of vessels in the baseline phase, it was necessary to determine how many vessels were present with the focal group at any time. A vessel was considered to be present with the focal dolphin when the two were within 500 metres of each other. Data recorded in *Pythagoras* were used to calculate dolphin and vessel positions in latitude and longitude for this comparison. If two consecutive fixes in a track for one dolphin were more than 5 min. apart, the track was split at this point, and analysed separately. Dolphin and vessel positions were analysed assuming linear travel at a constant speed between subsequent positions. Distance between the focal individual/group and each vessel was calculated to determine how many vessels were within 500 metres of the group at each point.

Tracks were required to have a minimum duration of 10 min. to be included in the analysis. For each track, three factors were calculated: 1) maximum number of vessels present at any time; 2) number of different types of vessels present over the entire track and; 3) total number of vessels passing within 500 metres during the track. Size of the group being tracked and time of day (morning = first sighting in track before 12 pm and afternoon = first sighting in track after 12 pm) were also noted for each track. Response variables were calculated for each track for this baseline phase, including mean leg speed, mean inter-breath interval, reorientation rate, and linearity. These response variables have been commonly used by many researchers,

including the dolphin specialists of the present project (Lundquist 2012, Lundquist et al. 2012a, Lundquist and Markowitz 2009). Leg speed (km/hr) is the displacement between two successive points divided by the time interval. Inter-breath interval (s) is the length of time between successive surfacings. Reorientation rate (˚/surfacing) is a measure of how much the group changed course over time. It was calculated as the sum of the absolute values of heading changes (defined as 0 to 180 degrees relative to the current bearing) divided by the number of surfacings recorded. Linearity is a dimensionless index ranging from 0 (no net movement) to 1 (straight line). It was calculated by dividing net distance from the first to last fix of a track by the sum of all the distances for each leg in the track.

Generalised additive models were fitted using package mgcv in *R* (Wood 2001) to describe heterogeneity in dolphin responses to anthropogenic and natural factors. This package uses thin-plate regression splines to fit smooth terms for the explanatory variables. It includes a penalty for excessive flexibility, which is determined by the number of knots used to model the smoothed relationship for each model term. Smoothing is automated for all model terms simultaneously, with the multiple generalised cross-validation (GCV) score used within a maximum likelihood framework to evaluate fit of the model. Simultaneous evaluation (rather than one-by-one) avoids problems inherent to many step-wise procedures.

To aid model convergence, the number of knots in each spline were left at the default of 10 (9 degrees of freedom). Histograms were evaluated for each response variable to determine the appropriate distribution and link function to use. The fully saturated model is:

$$y \sim s(SumBoats) + MaxBoats + TypeOfBoats + TimeOfDay + GroupSize$$

The procedure for dropping terms from the model is based on rules specified by Wood (2001). Smooth terms were dropped if three conditions were met:

1. The estimated degrees of freedom (e.d.f.) was close to 1
2. The confidence interval for the term included zero everywhere
3. The GCV score dropped and deviance explained increased when the term was removed

When the first condition was met but not the other two, the smooth term was replaced with a linear term for that variable. Linear terms were dropped if:

1. The parameter coefficient was close to 0

2. The significance of the term was near to 1
3. The GCV score dropped and deviance explained increased when the term was removed

Using generalised additive modeling in this analysis has multiple advantages. First, the technique is robust when used with small sample sizes, as is the case here. Second, it does not assume that relationships between factors and response variables are linear. Third, there is flexibility in determining the underlying error distribution to use in the model. Lastly, the technique produces multiple scores that may be used to evaluate the fit of the model based on the underlying distribution. When the underlying distribution is not perfectly normal (as is generally the case with small samples), the deviance explained by the model is a more appropriate metric for evaluating model fit than more traditional methods such as adjusted R-squared.

In summary, the above-mentioned analytical techniques (based on a previous study by Bain et al. 2006) utilized a model that included all factors of interest for when movement might be affected (hence called "fully saturated model", which includes all factors). A statistical technique (i.e. generalized additive modeling) was then used to fit the data to the model and determine which factors actually helped to predict differences in dolphin movement and described the heterogeneity in the response. From these results, it can be determined whether human activities have influenced dolphin movements.

For comparison between baseline and construction phase monitoring data, the analysis of data from the baseline phase was performed to determine whether there are influences due to vessel presence in the absence of construction activity. Then the construction phase data will also be added into the model (while keeping the baseline data as well) and recalculated. If the construction activity (i.e. bored piling works) is a significant factor in the best-fitting model, then it is evident that dolphin movements were in fact affected by the construction activity.

Behavioural state

Each 5 minute behavioural sample was classified according to the presence or absence of vessels, and the proportion of time spent in each behavioural state calculated. A Z-test for two proportions was calculated to determine if behaviour changed according to vessel presence in the baseline phase. Similarly, comparison to proportions to be calculated during construction activity can be used to determine if dolphin behaviour changes when construction is undertaken.

2.4.2. Assessment of potential impacts on north-south movements

To investigate whether the north-south movement of Chinese white dolphins between North and West Lantau waters will be affected by the presence of the Hong Kong Link Road, in particular the spacing between bridge pile cap piers, the number of dolphins that move across the bridge alignment (either from north to south, or from south to north) was examined before the construction of the bridge, and will be compared to construction and presence of the bridge in on-going work.

First, the proportion of dolphin tracks that crossed the bridge alignment before construction was ascertained. This will be compared to construction activities by appropriate testing techniques. The advantage of this approach is to demonstrate directly how dolphin movements occur across the bridge alignment. If a significantly greater percentage of dolphin tracks was recorded crossing the bridge alignment in the baseline phase than in the construction phase, the obstruction of the bridge as a barrier to dolphin movement will become evident.

Second, we calculated the proportion of all sightings on the north side, south side, and within the bridge alignment. These proportions do not necessarily reflect the abundance of dolphins on each side of the bridge, as dolphins on the south side (closer to the observation platform, Sham Wat Station) are more easily seen and tracked. Comparing these proportions between the baseline and construction phases, however, will allow determination of whether the observed abundance on each side is significantly different during construction than it was prior to construction.

Moreover, the ranging patterns of individual dolphins based on photo-identification data were examined to determine which individuals had their range use overlapped with the HKLR alignment before the construction commences. This will allow for comparison in individual ranging patterns at the end of the construction period to determine whether any shift in individual range use has occurred in response to the potential obstruction by the bridge structure. For the ranging pattern analysis, location data of individual dolphins with 10 ore more re-sightings that were sighted at least three times on both sides of the bridge alignment from 2008-12 were obtained from the HKCRP photo-identification catalogue. To deduce home ranges for individual dolphins using the fixed kernel method, the program Animal Movement Analyst Extension was loaded as an extension with ArcView© 3.1 along with another extension Spatial Analyst 2.0. The kernel estimator then calculates and displays the overall ranging area at 95% UD (utilization distribution) level.

3. RESULTS

3.1. Summary of Theodolite Tracking Effort

A total of 180 hours and 51 minutes were spent during the 30 days of effort from December 29, 2012 through January 30, 2013, in which 90.2% of effort was conducted in favourable weather conditions. Dolphins were successfully tracked from shore on 15 of 30 days of effort, and a total of 89 dolphin groups were tracked, in groups ranging from 1 to 9 members. In addition, we included 12 dolphin group tracks collected by HKCRP on 6 days of successful tracking between April 2011 and August 2012, to augment the data set. These data were collected in the same manner as those collected in the 30-day baseline period. It should be emphasized that the pooling of both sets of data to increase the sample size for statistical analysis during the baseline phase is beneficial to understand and quantify any responses during construction. The pooled data were utilized for the analyses on movement pattern, speed, reorientation rate, linearity, inter-breath interval, and north-south movement, but not on behavioural state, as the information on behavioural state was not consistently collected before the 30-days of baseline monitoring period. From the pooled data, a total of 77 vessels (fishing boats - all types = 25, high-speed ferry = 14, police vessel = 4, research vessel = 4, speed boat = 24, tour boat = 2, transportation boat = 2, other = 2) were observed within 500m of dolphins. The track log data included in the following analyses are presented in Appendix I.

3.2. Movement patterns

After filtering the tracks as described above in the data analysis section, 39 tracks met the conditions for analysis. Group size ranged from 1 to 5 individuals and 29 of the tracks were collected in the morning and 10 in the afternoon. Vessels were present in 25 of the 39 tracks, with a maximum of 3 boats present at any time, and a maximum of 9 total boats passing within 500 m of a single group over the course of a track.

Prior to analysing the models for each response variable, the variable was checked for normality using a histogram, qq plots, and the Shapiro-Wilk test for normality. Transformations were applied as appropriate. Leg speed was log-transformed to a normal distribution (Shapiro-Wilk = 0.9658, p = 0.2767). Reorientation rate did not require transformation (Shapiro-Wilk = 0.9819, p = 0.7722). Linearity was logit-transformed (Shapiro-Wilk = 0.979, p = 0.669) and inter-breath interval (IBI) was log-transformed (Shapiro-Wilk = 0.9772, p = 0.6014).

3.3. Speed

The selected model for leg speed (Table 2) included linear terms for the total and maximum number of vessels present, time of day, and size of the group:

Log(Speed) ~ SumBoats + MaxBoats + TimeOfDay + GroupSize

The model described a significant amount of variation in swimming speed, accounting for 23.2% of the deviance (adj-R^2 = 0.142, GCV score = 0.15, n = 39; Table 3). The linear relationship between the total number of vessels passing within 500 m of the group and swimming speed was negative (Figure 3A). This may indicate that dolphins slow down as the number of vessels they interact with increases. Alternatively, it may be an indication that slower moving dolphins are easier to approach, and thus more likely to have vessels interacted with them. However, there was a positive relationship between speed and the maximum number of vessels present (Figure 3B), indicating that dolphins speed up when multiple vessels are within 500 m. Results of the model fitting indicate that dolphin groups swam faster in the afternoon than the morning (Figure 3C), and faster in larger groups (Figure 3D). The fitted residuals for the GAM displayed no pattern, indicating the model fitted the data well and accounted for over-dispersion (Figure 3E). Mean group speeds by time of day, group size, and number of vessels present are presented in Table 4.

3.4. Reorientation rate

The selected model for reorientation rate (Table 2) included linear terms for the total number, maximum number, and type of vessels present, time of day, and size of the group:

ReorientationRate ~ SumBoats + MaxBoats + TypeOfBoats + TimeOfDay + GroupSize

The model described a significant amount of variation in reorientation rate, accounting for 17.8% of the deviance (adj-R^2 = 0.054, GCV score = 258.64, n = 39; Table 3). A positive relationship was found between reorientation rate and two variables: the total number of vessels passing within 500 m of the group (Figure 4A) and the number of different types of vessels interacting with a group (Figure 4C). This indicates that dolphins change their direction of travel as the number and type of vessels they interact with increase. However, there was a negative relationship between reorientation rate and the maximum number of vessels present (Figure 4B), indicating that dolphins change directions less when multiple boats are within 500 m.

Results of the model fitting indicate that dolphin groups reorient more in the afternoon than the morning (Figure 4D), and more when in larger groups (Figure 4E). The fitted residuals for the GAM displayed no pattern, indicating the model fitted the data well and accounted for over-dispersion (Figure 4F). Mean reorientation rates by time of day, group size, and number of vessels present are presented in Table 4.

3.5. Linearity

The selected model for linearity (Table 2) included linear terms for the total number, maximum number, and type of vessels present, time of day, and size of the group:

Logit(Linearity) ~ SumBoats + MaxBoats + TypeOfBoats + TimeOfDay + GroupSize

The model described a significant amount of variation in linearity of travel, accounting for 22.3% of the deviance (adj-R^2 = 0.105, GCV score = 2.497, n = 39; Table 3). A negative relationship was found between linearity and two variables: the total number of vessels passing within 500 m of the group (Figure 5A) and the number of different types of vessels interacting with a group (Figure 5C). This indicates that dolphins swim in a less direct path as they interact with a greater number and variety of vessels. However, there was a positive relationship between linearity and the maximum number of vessels present (Figure 5B), indicating that dolphins swim in a straighter path when multiple boats are within 500 m. Results of the model fitting indicate that dolphin groups move in a more circuitous path in the afternoon than the morning (Figure 5D), and when in larger groups (Figure 5E). The fitted residuals for the GAM displayed no pattern, indicating the model fitted the data well and accounted for over-dispersion (Figure 5F). Mean linearity by time of day, group size, and number of vessels present is presented in Table 4.

3.6. Inter-breath interval

The selected model for inter-breath interval (Table 2) included linear terms for the maximum number and type of vessels present, time of day, and size of the group:

Log(Inter-breath interval) ~ MaxBoats + TypeOfBoats + TimeOfDay + GroupSize

The model described a small amount of variation in inter-breath interval, accounting for 8.73% of the deviance (adj-R^2 = -0.020, GCV score = 0.210, n = 39; Table 3). A positive relationship was found between inter-breath interval and the maximum number of vessels within 500 m of the group at any time (Figure 6A). This

indicates that dolphins surfaced to breathe less frequently when more vessels were near to them. However, there was a negative relationship between inter-breath interval and the number of different types of vessels interacting with the group (Figure 6B). Results of the model fitting indicate that dolphins breathe more frequently in the afternoon than the morning (Figure 6C), and more frequently when in larger groups (Figure 6D). The fitted residuals for the GAM displayed no pattern, indicating the model fitted the data well and accounted for over-dispersion (Figure 6E). Mean inter-breath interval by time of day, group size, and number of vessels present are presented in Table 4.

3.7. Behavioural state

Behavioural state was recorded for a total of 103 five-minute sampling periods for 29 dolphin groups between 29 December, 2012 and 30 January, 2013. The number of vessels within 500 m of the dolphin group was calculated for each sample, and ranged from zero to three. Vessels were present in 69% of the sampling intervals (71 of 103). The proportion of time spent in each behavioural state was calculated in the presence and absence of vessels, and a z-test for two proportions calculated to determine if behaviour changed according to vessel presence (Table 5).

This analysis indicated that dolphins were significantly more likely to be feeding when vessels were present, and significantly less likely to be travelling. Two possible explanations for this are that dolphins are more visible when feeding than when travelling and therefore vessels approach them more often, or that dolphins preferentially associate with vessels in order to feed. The proportion of time spent milling and resting appeared unaffected by vessel presence.

3.8. North-South movement and distribution

A total of 97 dolphin tracks were analyzed for North-South movement across the bridge alignment (see Appendix II). These tracks contained 2,121 individual lat-long locations, which were analyzed to determine whether they were north of the alignment, south of the alignment, or within the alignment.

Of the tracks, 73% were wholly on the south side of the bridge alignment, 12% entirely on the north side, and 14% passed across the alignment. Of the lat-long positions, 88% were to the south of the bridge, 10% to the north, and 2%within the alignment. These numbers should not be assumed to be indicative of the actual distribution of dolphins in the area, as dolphins to the south are closer to the land-based observation platform and therefore more easily seen and tracked. These

proportions will be compared to similarly calculated proportions during the construction phase to see if the relative distribution of dolphins is affected by construction activity.

Among the 750+ individuals identified in Hong Kong and the rest of the Pearl River Estuary, 42 individuals had their ranges overlapped with the HKLR alignment and were seen at least three times to the north and south of the bridge alignment in recent years (i.e. 2008-12) (see Appendix III). Their north-south movement across the bridge alignment will be closely monitored during the construction period.

4. DISCUSSION

Results presented above for the baseline phase indicate that dolphin behaviour and movement change dependent upon natural (time of day, size of group) and anthropogenic (vessel presence) factors. Dolphins swim faster along a straighter path and breathe less frequently when multiple vessels are present at one time than when no vessels are present. As the number and variety of vessels encountered during a track increases, dolphins swim slower, make more turns, and breathe more frequently. This apparent inconsistency - dolphins behave differently when multiple vessels are present at once than when a variety of vessels approach sequentially - is a strong indication of a threshold response relative to vessel traffic, and bears further investigation in the future. At any rate, in both cases, dolphins change aspects of their behaviours relative to vessels. Analysis of general behavioural categories determined that dolphins were more likely to feed in the presence of fishing vessels, and if feeding behaviour is assisted by vessel presence (particularly the presence of fishing vessels), it is possible that the presence of multiple vessels inhibits this process. Alternatively, it may be that vessel noise from multiple vessels exceeds a threshold tolerance level for the dolphins, and bored piling and related vessel activity during construction has the potential to have the same effect.

Even with the small sample sizes collected here, natural and anthropogenic factors were included in most of the best-fitting models. Many of the effects described are subtle, and care must be taken not to over-interpret the meaning of the results from such a small sample size. However, analysis across all of the response variables is still informative, particularly when comparing to data that will be collected during construction activity. It is apparent from this analysis that the natural and anthropogenic factors used here must continue to be included in further analyses,

as all of them were included in most of the models.

Because of effects of multiple variables on the occurrence, movement, and general behaviours of Chinese white dolphins, it is a challenge to describe changes robustly enough for assessments of significant effects by the construction activities proposed for the Hong Kong Link Road. We propose to take all baseline data into account, including times with no apparent anthropogenic activities near the dolphins, various vessel activities, and time of day and other variables. Departures of any of these variables between baseline and construction phases with a 20% difference will be of concern and should trigger the Action Level under the Event and Action Plan (EAP). If a 40% difference in any of these variables between baseline and construction phases is detected, then the Limit Level under the EAP should be triggered and immediate action will be required. The abovementioned percentage reduction approach to set the Action and Limit Levels has taken into consideration of the influencing factors (e.g. time of the day, group size, vessel activities) that may affect the baseline condition on dolphin movement and behaviour. The evaluation for implementation of EAP should be conducted shortly after the 30-day construction monitoring period. The detailed Event and Action Plan is presented in Table 6.

5. ACKNOWLEGEMENTS

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Table 1. Definitions of group behavioural states of dolphins.

State	Definition
Resting	Dolphins close to the surface and each other, surfacing at regular intervals and in a coordinated fashion. Movement very slow.
Traveling	All individuals oriented and moving in the same direction. This behavioural state includes all high-speed, directional behaviours (e.g. porpoising).
Milling	Individuals within the group simultaneously moving in different directions, with no overall clear direction of travel.
Socialising	Physical interactions taking place among members of the group, including chasing, high levels of body contact, coordinated clean leaps and noisy leaps.
Feeding	Dolphins observed either capturing or pursuing fish at the surface. High number of non-coordinated re-entry leaps, rapid changes in direction and long dives. Dolphin rostrum or body covered with mud. Associations with operating fishing boats.

Table 2. Summary of model fitting results for movement patterns of dolphin groups. Model terms include: Sum of vessels (here termed "boats") approaching group during track (SB), Maximum boats present at one time (MB), number of boat types approaching group during track (BT), time of day (TD), and group size (GS). Smooth (non-linear) terms are indicated via parentheses. The best-fitting model for each response variable is in bold.

Response variable	Model	adj-R^2	GCV	Deviance
Log(Speed)	s(SB) + MB + BT + TD + GS	0.116	0.159	23.3 %
	SB + MB + BT + TD + GS	0.116	0.159	23.3 %
	SB + MB + TD + GS	**0.142**	**0.150**	**23.2 %**
	SB + MB + TD	0.102	0.152	17.3 %
	SB + MB + GS	0.146	0.145	21.4 %
	s(SB) + MB + BT + TD + GS			
Reorientation rate		0.054	258.6	17.8 %
	SB + MB + BT + TD + GS	**0.054**	**258.6**	**17.8 %**
	SB + MB + TD + GS	0.071	246.4	16.9%
	SB + MB + BT + TD	0.042	254.2	14.3%
	SB + MB + TD	0.063	241.6	13.7%
	s(SB) + MB + BT + TD + GS			
Logit(Linearity)		0.105	2.500	22.3%
	SB + MB + BT + TD + GS	**0.105**	**2.500**	**22.3%**
	SB + MB + TD + GS	0.113	2.401	20.7%
	SB + MB + BT + TD	0.075	2.505	17.2%
	SB + MB + TD	0.089	2.396	16.1%
	s(SB) + MB + BT + TD + GS			
Log(IBI)		-0.050	0.223	8.85%
	SB + MB + BT + TD + GS	-0.050	0.223	8.85%
	MB + BT + TD + GS	**-0.020**	**0.210**	**8.73%**
	BT + TD + GS	-0.006	0.201	7.33%
	MB + BT + TD	-0.060	0.212	2.4%

Table 3. Summary of selected model for all response variables. Partial contribution (Estimate) of each term indicates the relative strength of the term, with values less than zero indicating a negative correlation between the term and the response variable. SEM is Standard error of the mean, t the variable statistic, and P the probability.

Response variable	Parameter	Estimate	SEM	*t*	*P*
Leg speed	(Intercept)	1.102	0.132	8.339	<0.0001
	SumBoats	-0.083	0.038	-2.165	0.0375
	MaxBoats	0.160	0.113	1.411	0.1674
	TimeOfDay	0.123	0.136	0.905	0.3720
	GroupSize	0.071	0.044	1.618	0.1149
Reorientation rate	(Intercept)	41.376	5.470	7.565	<0.0001
	SumBoats	2.537	1.947	1.303	0.202
	MaxBoats	-6.877	6.601	-1.042	0.305
	TypeOfBoats	3.785	6.244	0.606	0.549
	TimeOfDay	7.033	5.637	1.248	0.221
	GroupSize	2.148	1.794	1.197	0.240
Linearity	(Intercept)	1.470	0.537	2.735	<0.0001
	SumBoats	-0.250	0.191	-1.308	0.200
	MaxBoats	0.870	0.649	1.341	0.189
	TypeOfBoats	-0.509	0.614	-0.830	0.412
	TimeOfDay	-0.943	0.554	-1.703	0.098
	GroupSize	-0.258	0.176	-1.465	0.152
Inter-breath Interval	(Intercept)	-0.139	0.158	-0.879	0.385
	MaxBoats	0.138	0.191	0.721	0.476
	TypeOfBoats	-0.139	0.146	-0.948	0.350
	TimeOfDay	-0.150	0.162	-0.930	0.359
	GroupSize	-0.079	0.051	-1.536	0.134

Table 4. Values of all response variables in the presence and absence of vessels by time of day, size of group, and maximum number of vessels present.

	Speed (km/hr)	Reorientation rate (degrees/surfacing)	Linearity	Inter-breath interval (sec)
Vessels absent	3.60	50.3	0.618	51.2
Morning	3.46	45.4	0.676	53.9
Afternoon	3.80	57.2	0.536	47.3
Individual	3.39	46.9	0.733	57.2
Group	3.91	55.2	0.455	42.6
Vessels present	3.77	50.5	0.577	43.3
Morning	3.74	49.9	0.606	45.0
Afternoon	3.93	52.7	0.454	36.2
Individual	3.42	50.8	0.542	45.0
Group	4.26	50.0	0.625	41.1
1 vessel	3.91	48.8	0.572	36.9
2 vessels	3.74	55.8	0.559	53.6
3 vessels	4.26	45.8	0.689	62.5

Table 5. Proportion of time spent in each behavioural state in the absence and presence of vessels within 500 m. Results and significance of the z-test for two proportions indicate if behaviour significantly changes when vessels are present. Significant differences are indicated by bold text.

Behavioural state	Vessels absent	Vessels present	z-value	p-value
Feeding	**0.23**	**0.44**	**-2.882**	**0.004**
Milling	0.20	0.21	-0.164	0.870
Resting	0.08	0.03	1.593	0.111
Travelling	**0.48**	**0.32**	**2.202**	**0.028**

Table 6. Event and Action Plan on Dolphin Movement and Behaviour

EVENT	ACTION			
	ET Leader	**IEC**	**SO**	**Contractor**
Action Level With the numerical values presented in Tables 4-5, any of the response variable for dolphin movement patterns (speed, inter-breath interval, reorientation rate & linearity) and behaviour (proportion of time spent in each behavioural state) recorded in the construction phase monitoring is **20% higher or lower** than that recorded in the baseline monitoring, action level should be triggered	1. Repeat statistical data analysis to confirm findings; 2. Review all available and relevant data to ascertain if differences are as a result of natural variation or seasonal differences; 3. Identify source(s) of impact; 4. Inform the IEC, SO and Contractor; 5. Check monitoring data; 6. Carry out audit to ensure all dolphin protective measures are implemented fully and additional measures be proposed if necessary	1. Check monitoring data submitted by ET and Contractor; 2. Discuss monitoring with the ET and the Contractor;	1. Discuss with the IEC the repeat monitoring and any other measures proposed by the ET; 2. Make agreement on measures to be implemented.	1. Inform the SO and confirm notification of the non-compliance in writing; 2. Discuss with the ET and the IEC and propose measures to the IEC and the SO; 3. Implement the agreed measures.
Limit Level With the numerical values presented in Tables 4-5, any of the response variable for dolphin movement patterns (speed, inter-breath interval, reorientation rate & linearity) and behaviour (proportion of time spent in each behavioural state) recorded in the construction phase monitoring is **40% higher or lower** than that recorded in the baseline monitoring, limit level should be triggered	1. Repeat statistical data analysis to confirm findings; 2. Review all available and relevant data to ascertain if differences are as a result of natural variation or seasonal differences; 3. Identify source(s) of impact; 4. Inform the IEC, SO and Contractor; 5. Check monitoring data; 6. Carry out audit to ensure all dolphin protective measures are implemented fully and additional measures be proposed if necessary 7. Discuss additional dolphin monitoring and any other potential mitigation measures (e.g. consider to temporarily stop relevant portion of construction activity) with the IEC and Contractor.	1. Check monitoring data submitted by ET and Contractor; 2. Discuss monitoring with the ET and the Contractor; 3. Review proposals for additional monitoring and any other measures submitted by the Contractor and advise ER accordingly.	1. Discuss with the IEC the repeat monitoring and any other measures proposed by the ET; 2. Make agreement on measures to be implemented.	1. Inform the SO and confirm notification of the non-compliance in writing; 2. Discuss with the ET and the IEC and propose measures to the IEC and the SO; 3. Implement the agreed measures.

Abbreviations: ET – Environmental Team, IEC – Independent Environmental Checker, SO – Supervising Officer

Figure 1. Location of Sham Wat Theodolite Tracking Station in northwestern Lantau with the first few bored piling locations

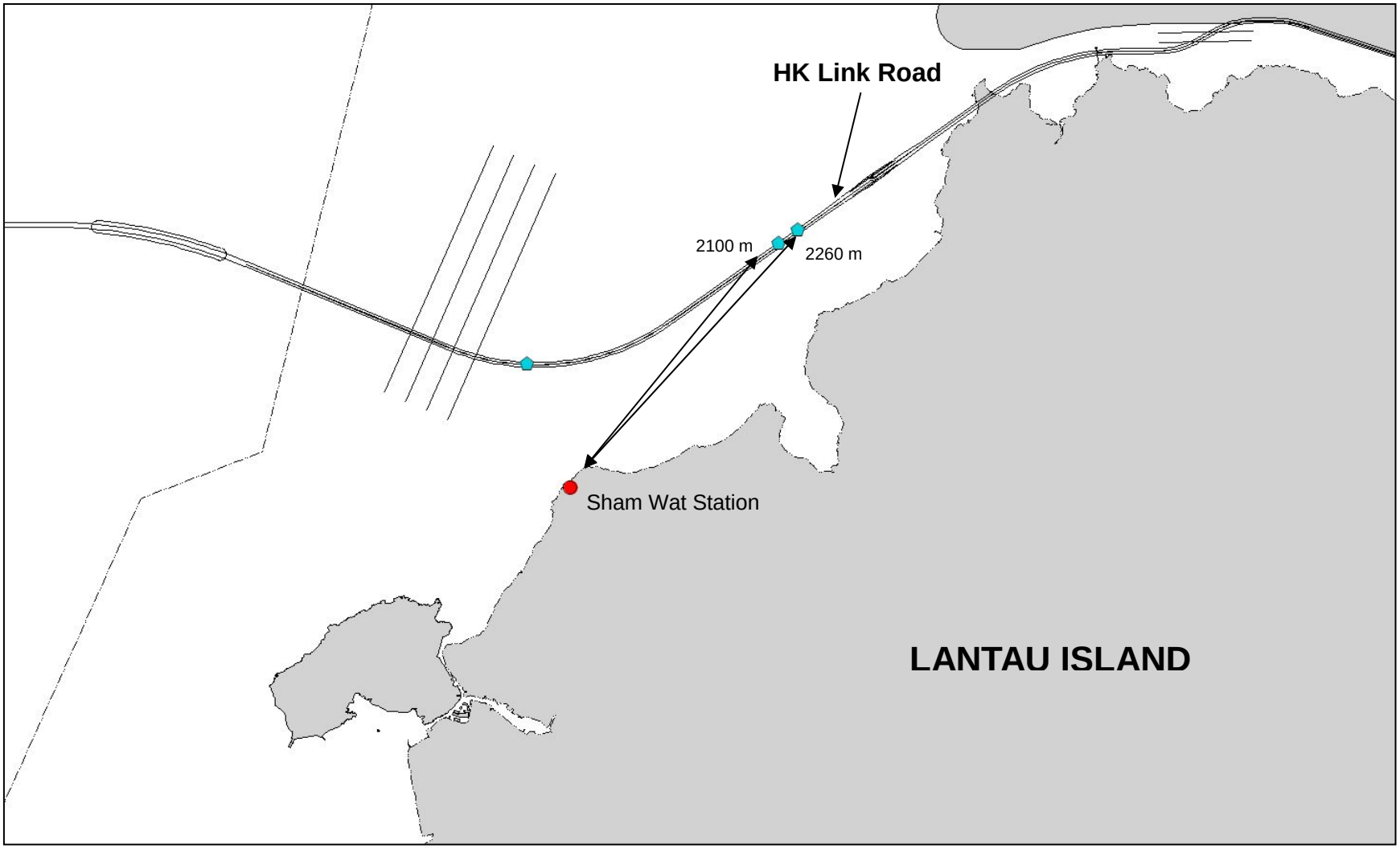
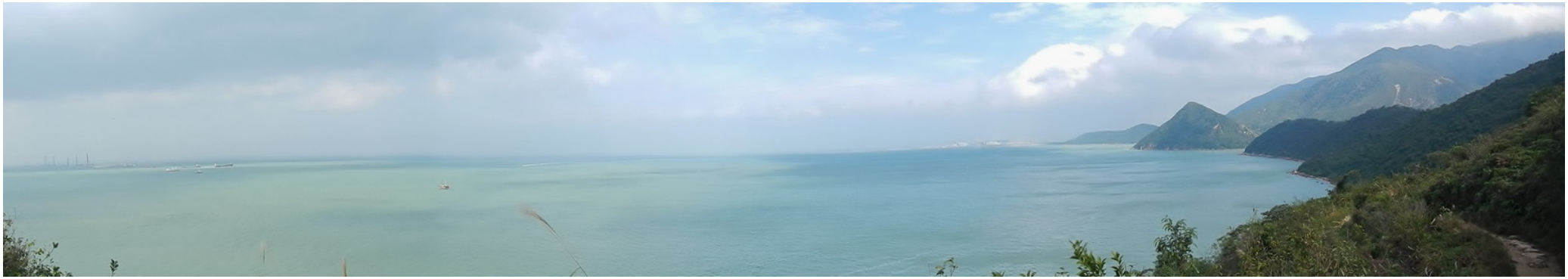


Figure 2. Panoramic View from the Sham Wat Theodolite Tracking Station (photos taken on 20/12/2012)



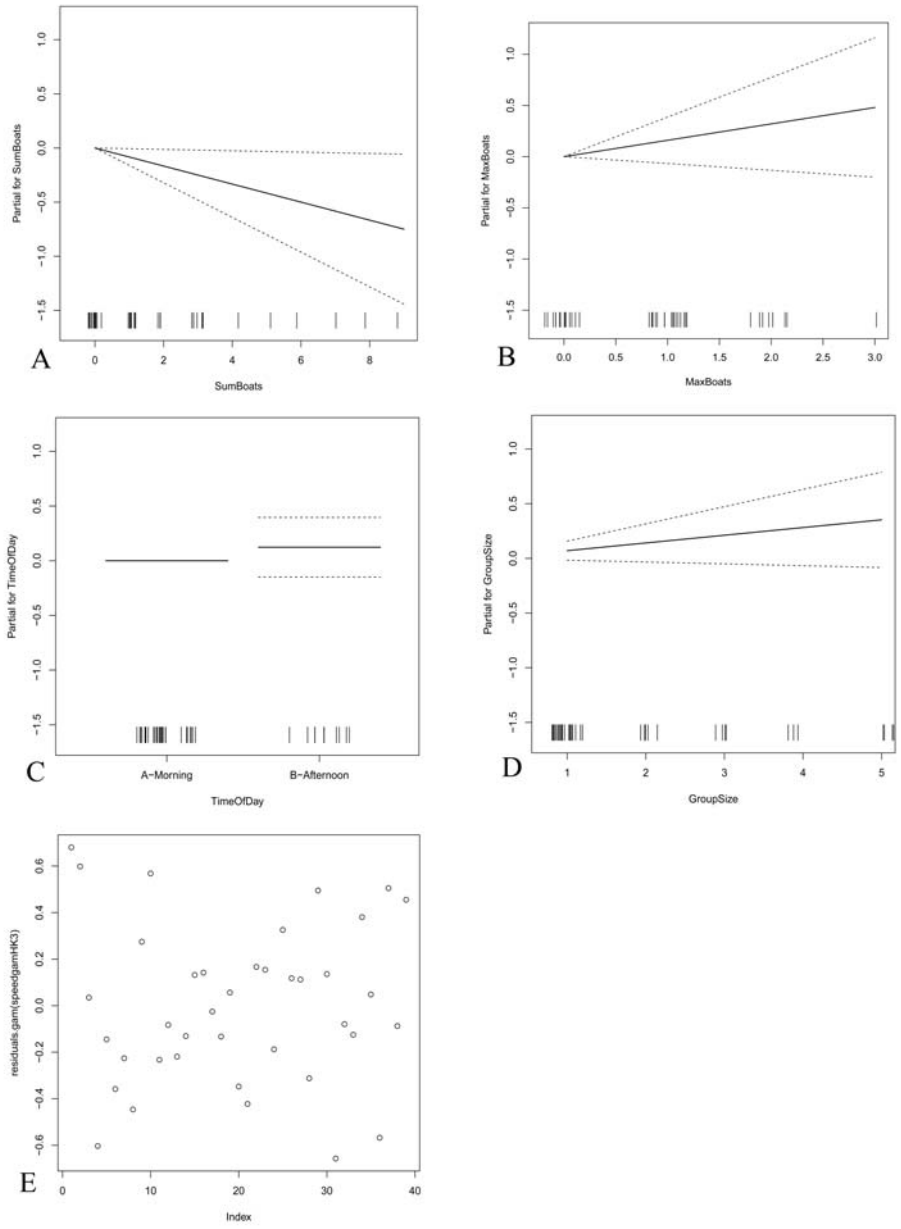


Figure 3. Plots of the partial contribution of each explanatory variable in the fitted GAM for swimming speed, plus residuals for the fitted model. **A**: Total number of vessels approaching within 500 m over the course of the track; **B**: Maximum number of vessels within 500m at any point in time; **C**: Time of day; **D**: Group size; **E**: Residuals for the fitted model. The x-axis in plots A-D has a rugplot at the bottom with tick marks indicating the observations made for each value of the explanatory variable. Dashed lines represent ± 2 SE (roughly 95% confidence intervals). Values greater than zero on the y-axis indicate positive correlation with swimming speed, zero corresponds to no effect, and less than zero indicates negative correlation.

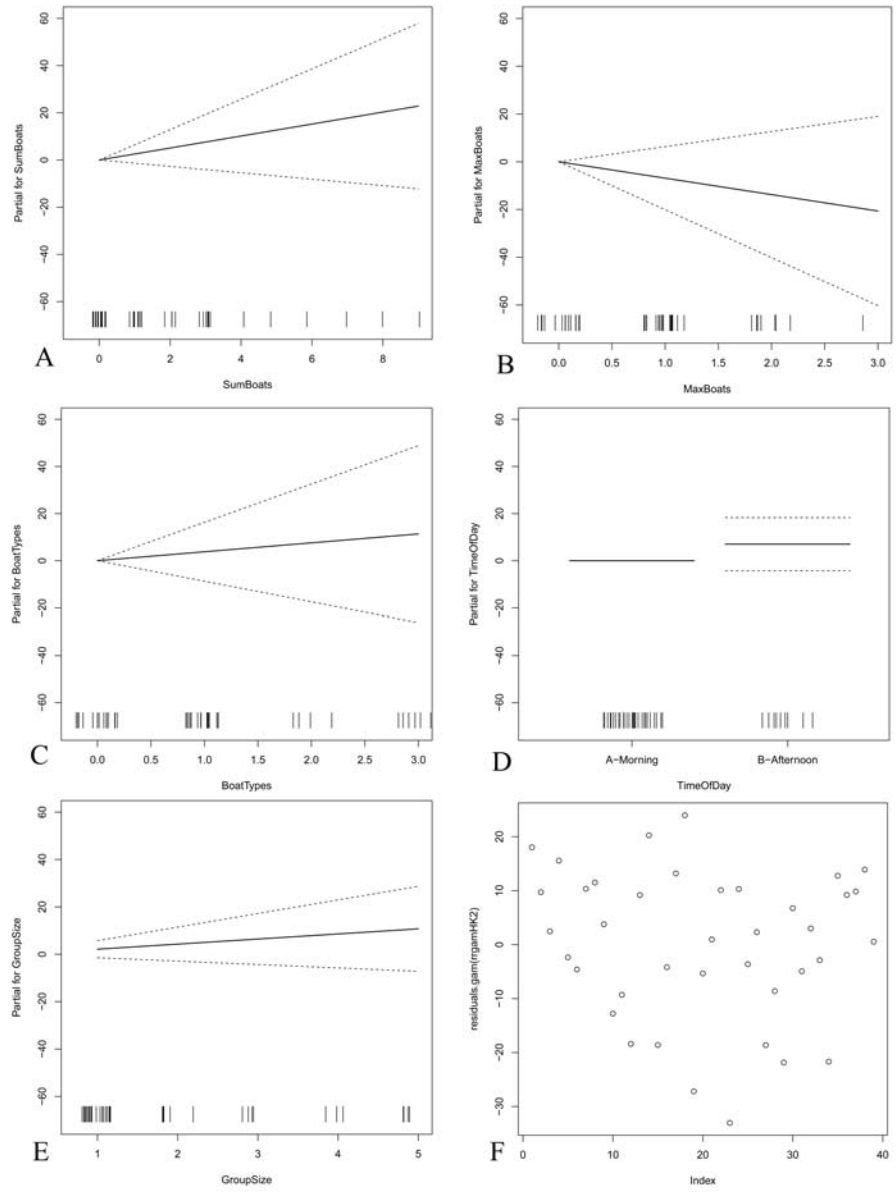


Figure 4. Plots of the partial contribution of each explanatory variable in the fitted GAM for reorientation rate, plus residuals for the fitted model. **A**: Total number of vessels approaching within 500 m over the course of the track; **B**: Maximum number of vessels within 500m at any point in time; **C**: Number of different types of boats approaching within 500 m over the course of the track; **D**: Time of day; **E**: Group size; **F**: Residuals for the fitted model. The x-axis in plots A-E has a rugplot at the bottom with tick marks indicating the observations made for each value of the explanatory variable. Dashed lines represent ± 2 SE (roughly 95% confidence intervals). Values greater than zero on the y-axis indicate positive correlation with reorientation rate, zero corresponds to no effect, and less than zero indicates negative correlation.

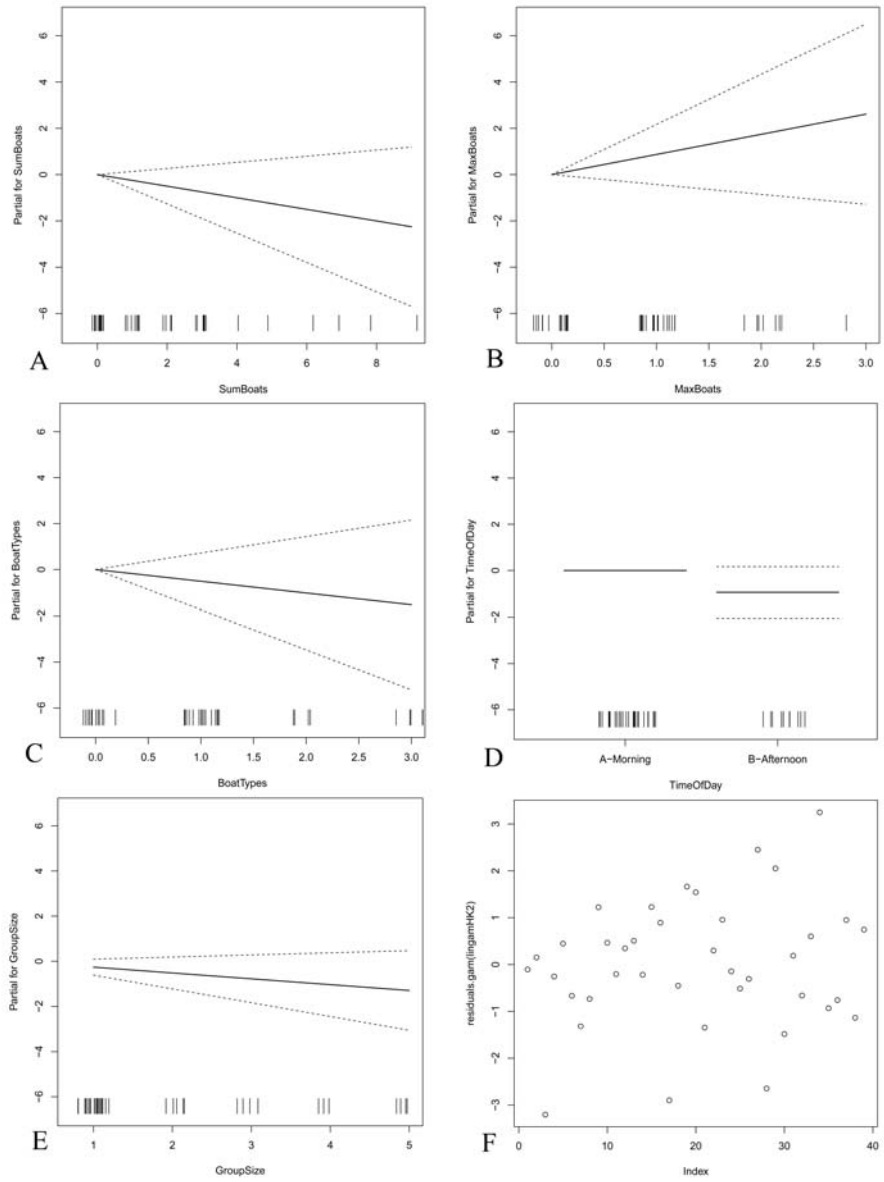


Figure 5. Plots of the partial contribution of each explanatory variable in the fitted GAM for linearity, plus residuals for the fitted model. **A**: Total number of vessels approaching within 500 m over the course of the track; **B**: Maximum number of vessels within 500m at any point in time; **C**: Number of different types of boats approaching within 500 m over the course of the track; **D**: Time of day; **E**: Group size; **F**: Residuals for the fitted model. The x-axis in plots A-E has a rugplot at the bottom with tick marks indicating the observations made for each value of the explanatory variable. Dashed lines represent ± 2 SE (roughly 95% confidence intervals). Values greater than zero on the y-axis indicate positive correlation with linearity, zero corresponds to no effect, and less than zero indicates negative correlation.

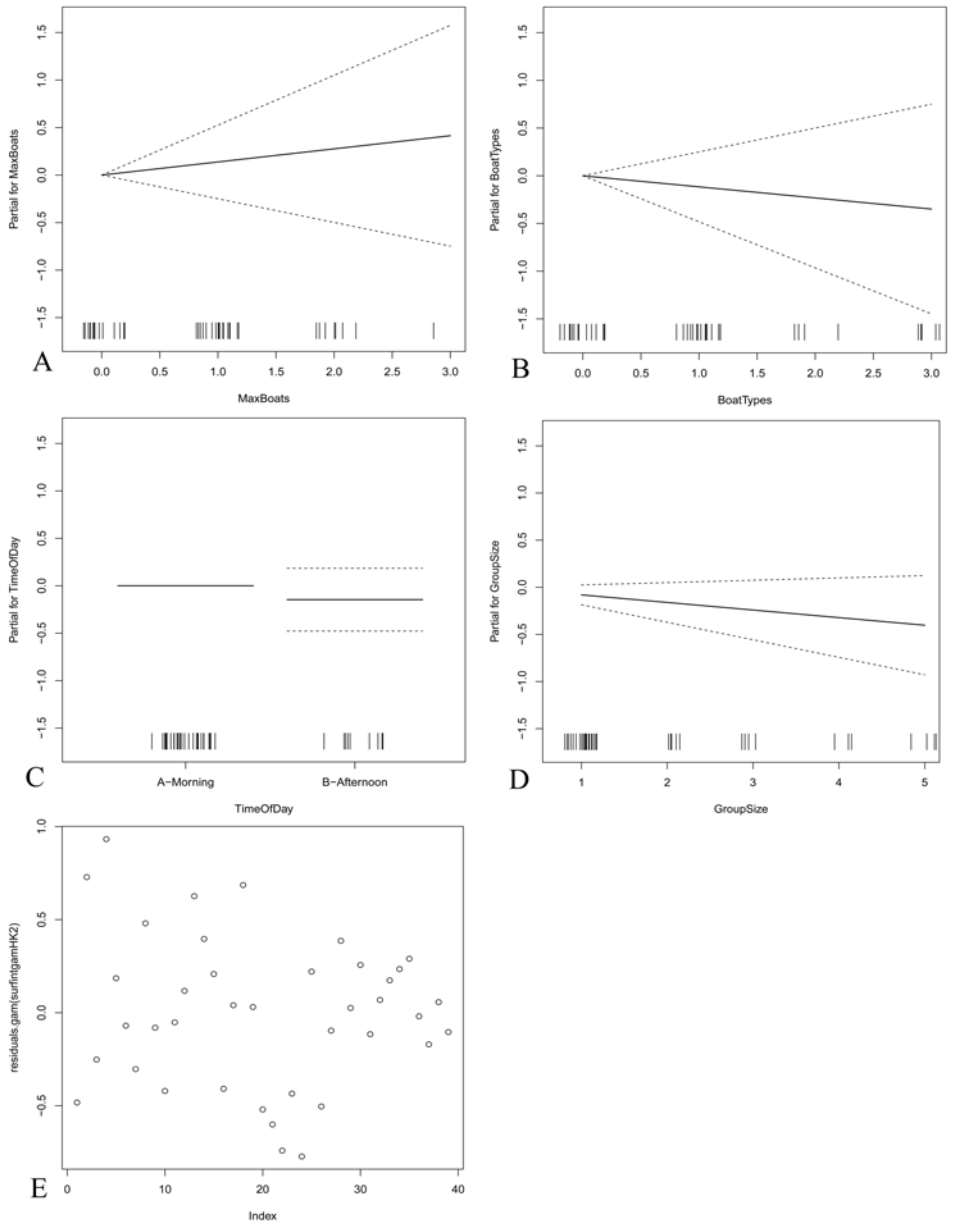


Figure 6. Plots of the partial contribution of each explanatory variable in the fitted GAM for inter-breath interval, plus residuals for the fitted model. **A**: Total number of vessels approaching within 500 m over the course of the track; **B**: Maximum number of vessels within 500m at any point in time; **C**: Number of different types of boats approaching within 500 m over the course of the track; **D**: Time of day; **E**: Group size; **F**: Residuals for the fitted model. The x-axis in plots A-E has a rugplot at the bottom with tick marks indicating the observations made for each value of the explanatory variable. Dashed lines represent ± 2 SE (roughly 95% confidence intervals). Values greater than zero on the y-axis indicate positive correlation with inter-breath interval, zero corresponds to no effect, and less than zero indicates negative correlation.

Appendix I. Track log data for HKLR09 study on dolphin movement and behaviour

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
14-Apr-11	10:01:43	Zero		91	10	0	0	0	0	N	22.28370	E	113.89319	2772.91	52.00
14-Apr-11	10:16:19	Trawler	Operating	92	23	10	212	19	50	N	22.26714	E	113.85893	1344.61	264.33
14-Apr-11	10:16:49	Trawler	Operating	92	2	30	237	26	30	N	22.27304	E	113.85752	1573.18	289.44
14-Apr-11	10:17:18	Trawler	Operating	92	15	40	240	43	50	N	22.27327	E	113.85921	1419.47	292.73
14-Apr-11	10:17:48	Trawler	Operating	93	16	0	254	13	10	N	22.27355	E	113.86425	980.53	306.22
14-Apr-11	10:19:28	Trawler	Operating	92	8	20	285	39	20	N	22.28083	E	113.86639	1501.25	337.65
14-Apr-11	10:21:14	Dolphin	Surface	93	10	50	247	53	40	N	22.27285	E	113.86345	1007.30	299.89
14-Apr-11	10:21:20	Dolphin	Surface	93	11	0	248	6	10	N	22.27288	E	113.86348	1006.42	300.10
14-Apr-11	10:22:48	Trawler	Operating	91	46	30	283	24	30	N	22.28316	E	113.86461	1812.04	335.41
14-Apr-11	10:23:12	Trawler	Operating	92	34	10	273	5	30	N	22.27755	E	113.86500	1248.33	325.09
14-Apr-11	10:23:28	Dolphin	Surface	93	21	30	258	2	40	N	22.27386	E	113.86484	953.78	310.04
14-Apr-11	10:25:48	Dolphin	Surface	93	7	10	263	3	10	N	22.27488	E	113.86489	1027.25	315.05
14-Apr-11	10:25:59	Dolphin	Surface	93	6	30	263	32	30	N	22.27495	E	113.86492	1030.95	315.54
14-Apr-11	10:27:14	Other		91	24	10	261	23	0	N	22.28255	E	113.85569	2299.81	313.38
14-Apr-11	10:27:39	Trawler	Operating	91	29	30	208	40	0	N	22.26518	E	113.85121	2160.87	260.66
14-Apr-11	10:28:06	Other		92	46	30	222	8	10	N	22.26908	E	113.86074	1155.52	274.13
14-Apr-11	10:29:05	Trawler	Operating	91	59	30	261	15	20	N	22.27828	E	113.86052	1613.50	313.25
14-Apr-11	10:29:24	Other		92	41	50	272	57	20	N	22.27709	E	113.86530	1189.06	324.95
14-Apr-11	10:29:57	Trawler	Operating	91	48	40	284	28	50	N	22.28299	E	113.86505	1775.88	336.48
14-Apr-11	10:32:00	Hi-Speed Ferry		92	50	30	334	31	20	N	22.27742	E	113.87684	1128.38	26.52
14-Apr-11	10:34:13	Hi-Speed Ferry		96	21	20	294	56	50	N	22.27274	E	113.87084	502.16	346.94
14-Apr-11	10:34:33	Other		90	58	20	293	50	40	N	22.29754	E	113.86398	3346.59	345.84
14-Apr-11	10:35:18	Trawler	Operating	91	45	0	257	12	30	N	22.27879	E	113.85809	1838.77	309.21
14-Apr-11	10:35:47	Trawler	Operating	92	6	50	234	30	50	N	22.27222	E	113.85777	1519.76	286.51
14-Apr-11	10:38:31	Trawler	Operating	92	33	0	233	20	50	N	22.27133	E	113.86014	1258.39	285.34
14-Apr-11	10:46:15	Dolphin	Surface	92	3	50	298	5	0	N	22.28214	E	113.86934	1557.27	350.08
14-Apr-11	10:46:22	Dolphin	Surface	92	3	30	298	30	40	N	22.28219	E	113.86944	1561.51	350.51
14-Apr-11	10:47:58	Trawler	Operating	91	28	0	300	20	0	N	22.28795	E	113.86909	2199.35	352.33
14-Apr-11	10:48:56	Dolphin	Surface	92	23	0	303	58	40	N	22.28043	E	113.87102	1347.29	355.97
14-Apr-11	10:49:27	Trawler	Operating	91	57	40	276	2	40	N	22.28085	E	113.86350	1639.69	328.04
14-Apr-11	10:50:22	Dolphin	Surface	92	2	40	307	58	30	N	22.28248	E	113.87194	1572.36	359.97
14-Apr-11	10:52:18	Trawler	Operating	91	27	10	245	11	0	N	22.27746	E	113.85273	2220.92	297.18
14-Apr-11	10:57:26	Trawler	Operating	91	29	30	334	18	30	N	22.28578	E	113.88126	2162.50	26.31
14-Apr-11	10:59:13	Trawler	Non-operating	91	18	10	271	51	20	N	22.28636	E	113.85771	2481.39	323.85
14-Apr-11	11:02:13	Trawler	Operating	91	34	20	352	35	10	N	22.28148	E	113.88594	2050.54	44.58
14-Apr-11	11:02:29	Dolphin	Surface	91	52	10	327	17	10	N	22.28296	E	113.87747	1721.38	19.28
14-Apr-11	11:04:11	Trawler	Non-operating	91	3	0	291	32	10	N	22.29503	E	113.86341	3093.95	343.53
14-Apr-11	11:05:55	Police Vessel		91	21	40	334	54	30	N	22.28738	E	113.88239	2373.68	26.91
14-Apr-11	11:07:29	Dolphin	Surface	91	45	30	331	5	50	N	22.28349	E	113.87893	1831.46	23.09
14-Apr-11	11:07:39	Dolphin	Surface	91	49	0	330	52	50	N	22.28303	E	113.87864	1772.09	22.88
14-Apr-11	11:07:48	Dolphin	Surface	91	34	10	330	26	20	N	22.28542	E	113.87957	2054.51	22.44
14-Apr-11	11:09:03	Trawler	Operating	91	8	50	346	33	30	N	22.28822	E	113.88907	2825.82	38.56
14-Apr-11	11:14:53	Trawler	Operating	91	31	50	336	36	10	N	22.28499	E	113.88176	2107.76	28.60
14-Apr-11	11:15:53	Dolphin	Surface	91	58	40	319	20	20	N	22.28269	E	113.87505	1626.85	11.34
14-Apr-11	11:17:28	Trawler	Non-operating	91	36	10	264	53	50	N	22.28155	E	113.85857	2011.76	316.89
14-Apr-11	11:20:08	Dolphin	Surface	92	11	50	310	27	50	N	22.28149	E	113.87256	1463.35	2.46
14-Apr-11	11:20:16	Dolphin	Surface	92	11	40	310	11	50	N	22.28151	E	113.87249	1465.22	2.19
14-Apr-11	11:20:25	Dolphin	Surface	92	12	40	309	53	20	N	22.28141	E	113.87241	1454.11	1.89
14-Apr-11	11:20:41	Dolphin	Surface	92	12	40	309	27	10	N	22.28142	E	113.87230	1454.12	1.45
14-Apr-11	11:20:48	Dolphin	Surface	92	12	40	309	1	50	N	22.28142	E	113.87220	1454.12	1.03
14-Apr-11	11:20:56	Dolphin	Surface	92	13	0	308	48	10	N	22.28139	E	113.87214	1450.46	0.80
14-Apr-11	11:22:02	Trawler	Operating	91	22	30	317	37	50	N	22.28919	E	113.87577	2350.28	9.63
14-Apr-11	11:22:41	Trawler	Non-operating	91	14	20	291	20	20	N	22.29086	E	113.86466	2613.37	343.34
14-Apr-11	11:26:41	Dolphin	Surface	92	17	10	303	7	20	N	22.28094	E	113.87078	1406.31	355.12
14-Apr-11	11:26:49	Dolphin	Surface	92	12	50	303	0	40	N	22.28136	E	113.87072	1452.50	355.01
14-Apr-11	11:27:58	Trawler	Non-operating	92	2	30	268	24	10	N	22.27926	E	113.86217	1576.02	320.40
14-Apr-11	11:28:23	Trawler	Operating	91	55	50	238	46	30	N	22.27365	E	113.85678	1667.50	290.77
14-Apr-11	11:29:55	Trawler	Non-operating	91	45	20	281	37	50	N	22.28313	E	113.86402	1835.42	333.63
14-Apr-11	11:35:24	Trawler	Operating	91	28	40	225	46	50	N	22.27099	E	113.85089	2185.20	277.78
14-Apr-11	11:36:05	Trawler	Operating	91	7	0	306	6	30	N	22.29448	E	113.87101	2906.99	358.11
14-Apr-11	11:37:26	Dolphin	Surface	91	41	0	300	14	30	N	22.28541	E	113.86943	1915.38	352.24
14-Apr-11	11:37:56	Dolphin	Surface	91	43	20	299	37	50	N	22.28500	E	113.86929	1871.70	351.63
14-Apr-11	11:38:14	Dolphin	Surface	91	44	50	299	18	10	N	22.28474	E	113.86923	1844.65	351.30
14-Apr-11	11:38:26	Dolphin	Surface	91	45	10	299	5	20	N	22.28468	E	113.86917	1838.76	351.09
14-Apr-11	11:40:37	Trawler	Non-operating	91	28	0	249	13	50	N	22.27861	E	113.85363	2202.28	301.23
14-Apr-11	11:42:57	Dolphin	surface	91	44	10	292	23	40	N	22.28443	E	113.86709	1856.80	344.39
14-Apr-11	11:44:02	Hi-Speed Ferry		91	40	40	328	46	40	N	22.28451	E	113.87858	1922.11	20.77
14-Apr-11	11:44:57	Trawler	Operating	92	6	10	250	34	40	N	22.27575	E	113.85940	1530.52	302.57
14-Apr-11	11:46:38	Hi-Speed Ferry		92	54	20	297	14	50	N	22.27811	E	113.86994	1105.52	349.24
14-Apr-11	11:47:49	Other		91	25	10	249	45	40	N	22.27912	E	113.85312	2277.05	301.76
14-Apr-11	11:51:09	Dolphin	Surface	91	35	50	280	27	0	N	22.28445	E	113.86285	2020.56	332.45
14-Apr-11	11:51:29	Dolphin	Surface	91	35	50	279	38	30	N	22.28433	E	113.86261	2020.58	331.64
14-Apr-11	11:51:41	Dolphin	Surface	91	35	40	279	9	50	N	22.28429	E	113.86245	2024.15	331.16
14-Apr-11	11:52:22	Trawler	Operating	91	54	0	277	33	20	N	22.28149	E	113.86359	1695.58	329.55
14-Apr-11	11:53:50	Other		91	9	0	266	58	30	N	22.28749	E	113.85393	2822.05	318.97
14-Apr-11	11:54:28	Dolphin	Surface	91	38	0	273	56	30	N	22.28306	E	113.86118	1975.53	325.94
14-Apr-11	11:56:26	Dolphin	Surface	91	37	50	272	35	10	N	22.28285	E	113.86079	1979.04	324.58
14-Apr-11	11:56:35	Dolphin	Surface	91	37	50	272	19	0	N	22.28280	E	113.86072	1979.04	324.31
14-Apr-11	11:56:42	Dolphin	Surface	91	40	40	271	59	20	N	22.28233	E	113.86095	1922.73	323.99
14-Apr-11	12:00:43	Trawler	Non-operating	91	26	50	253	16	0	N	22.27994	E	113.85421	2233.43	305.26
14-Apr-11	12:17:10	Trawler	Non-operating	91	31	0	261	12	30	N	22.28146	E	113.85684	2130.67	313.21
14-Apr-11	12:17:49	Trawler	Non-operating	91	0	0	264	22	20	N	22.28956	E	113.85007	3259.35	316.37
14-Apr-11	12:18:47	Trawler	Non-operating	90	43	40	313	47	50	N	22.30899	E	113.87640	4540.56	5.79
14-Apr-11	12:19:52	Other		91	55	10	221	6	0	N	22.26915	E	113.85564	1679.42	273.10
14-Apr-11	12:23:33	Trawler	Non-operating	91	13	30	283	15	50	N	22.28997	E	113.86117	2647.68	335.26
14-Apr-11	12:24:15	Trawler	Operating	91	8	10	258	27	30	N	22.28503	E	113.85078	2859.56	310.46
14-Apr-11	12:25:18	Other		91	51	20	259	12	30	N	22.27864	E	113.85923	1738.01	311.21
14-Apr-11	12:27:46	Trawler	Operating	91	14	30	259	35	40	N	22.28393	E	113.85295	2611.42	311.59
14-Apr-11	12:33:11	Trawler	Non-operating	91	9	0	264	42	0	N	22.28682	E	113.85311	2823.56	316.70
14-Apr-11	12:33:53	Trawler	Operating	91	55	0	281	42	40	N	22.28190	E	113.86470	1681.62	333.71
14-Apr-11	12:37:32	Trawler	Operating	92	12	10	269	25	50	N	22.27862	E	113.86308	1461.41	321.43
14-Apr-11	12:40:47	Trawler	Operating	92	17	30	256	21	20	N	22.27617	E	113.86124	1404.17	308.35
14-Apr-11	12:43:39	Trawler	Operating	91	56	50	256	41	50	N	22.27764	E	113.85939	1654.38	308.69
14-Apr-11	12:46:21	Police Vessel		91	26	30	334	28	30	N	22.28639	E	113.88166	2241.82	26.47
14-Apr-11	12:47:31	Dolphin	Surface	92	55	20	250	58	30	N	22.27372	E	113.86298	1099.35	302.97
14-Apr-11	12:47:43	Dolphin	Surface	93	25	30	251	10	40	N	22.27295	E	113.86432	937.22	303.17
14-Apr-11	12:47:57	Dolphin	Surface	93	46	40	252	46	40	N	22.27269	E	113.86516	849.29	304.77
14-Apr-11	12:48:00	Dolphin	Surface	93	46	40	252	46	50	N	22.27269	E	113.86516	849.29	304.78
14-Apr-11	12:48:09	Dolphin	Surface	93	52	50	253	39	10	N	22.27267	E	113.86541	826.68	305.65
14-Apr-11	12:48:16	Dolphin	Surface	93	52	50	254	12	30	N	22.27273	E	113.86546	826.68	306.21
14-Apr-11	12:48:29	Police Vessel		92	44	30	268	37	50	N	22.27649	E	113.86471	1172.10	320.63

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
14-Apr-11	12:49:04	Police Vessel		92	30	30	243	40	30	N	22.27333	E	113.86071	1281.74	295.67
14-Apr-11	12:52:01	Dolphin	Surface	92	58	30	271	43	10	N	22.27616	E	113.86573	1079.56	323.72
14-Apr-11	12:52:12	Dolphin	Surface	93	9	20	271	42	50	N	22.27571	E	113.86609	1017.48	323.71
14-Apr-11	12:52:25	Dolphin	Surface	93	17	10	272	54	40	N	22.27553	E	113.86648	976.85	324.91
14-Apr-11	12:52:27	Dolphin	Surface	93	17	10	272	48	50	N	22.27552	E	113.86647	976.85	324.81
14-Apr-11	12:52:32	Dolphin	Surface	93	17	10	272	59	20	N	22.27553	E	113.86649	976.85	324.99
14-Apr-11	12:52:41	Dolphin	Surface	93	17	10	273	42	0	N	22.27560	E	113.86659	976.84	325.70
14-Apr-11	12:52:45	Dolphin	Surface	93	16	10	273	42	0	N	22.27563	E	113.86656	981.85	325.70
14-Apr-11	12:52:49	Dolphin	Surface	93	16	10	274	7	30	N	22.27567	E	113.86662	981.84	326.12
14-Apr-11	12:52:53	Dolphin	Surface	93	14	30	274	30	0	N	22.27576	E	113.86663	990.29	326.50
14-Apr-11	12:56:30	Dolphin	Surface	92	30	20	283	43	0	N	22.27886	E	113.86681	1282.80	335.71
14-Apr-11	12:56:43	Dolphin	Surface	92	24	30	284	28	0	N	22.27935	E	113.86676	1334.89	336.46
14-Apr-11	12:56:47	Dolphin	Surface	92	24	30	284	27	40	N	22.27935	E	113.86676	1334.89	336.46
14-Apr-11	12:57:04	Dolphin	Surface	92	30	40	284	53	40	N	22.27893	E	113.86706	1279.92	336.89
14-Apr-11	12:57:07	Dolphin	Surface	92	30	40	284	57	50	N	22.27893	E	113.86707	1279.91	336.96
14-Apr-11	12:57:12	Dolphin	Surface	92	30	40	285	7	50	N	22.27895	E	113.86711	1279.91	337.13
14-Apr-11	12:57:18	Dolphin	Surface	92	26	10	285	11	10	N	22.27928	E	113.86697	1319.55	337.18
14-Apr-11	12:59:06	Dolphin	Surface	92	15	50	286	52	10	N	22.28026	E	113.86696	1420.50	338.87
14-Apr-11	12:59:10	Dolphin	Surface	92	12	0	286	45	40	N	22.28060	E	113.86679	1462.03	338.76
14-Apr-11	12:59:18	Dolphin	Surface	92	8	30	287	2	30	N	22.28096	E	113.86672	1502.14	339.04
14-Apr-11	12:59:31	Dolphin	Surface	92	10	50	287	24	0	N	22.28076	E	113.86690	1475.14	339.40
14-Apr-11	12:59:34	Dolphin	Surface	92	10	50	287	5	0	N	22.28073	E	113.86682	1475.14	339.08
14-Apr-11	12:59:37	Dolphin	Surface	92	10	50	287	5	0	N	22.28073	E	113.86682	1475.14	339.08
14-Apr-11	12:59:42	Dolphin	Surface	92	7	50	287	3	50	N	22.28102	E	113.86670	1510.00	339.06
14-Apr-11	13:10:31	Police Vessel		91	39	50	228	20	10	N	22.27146	E	113.85341	1937.03	280.33
14-Apr-11	13:10:59	Trawler	Non-operating	91	4	50	270	50	40	N	22.28989	E	113.85429	3005.12	322.84
14-Apr-11	13:13:06	Police Vessel		91	22	30	283	45	30	N	22.28761	E	113.86256	2349.76	335.76
3-Aug-11	7:22:57	Zero		91	13	10	0	0	0	N	22.28306	E	113.89231	2658.01	52.00
3-Aug-11	7:27:16	Zero		91	14	50	0	0	0	N	22.28272	E	113.89185	2596.86	52.00
3-Aug-11	7:28:31	Trawler	Non-operating	91	14	50	0	0	0	N	22.28272	E	113.89184	2596.63	52.00
3-Aug-11	7:33:56	Trawler	Non-operating	91	37	20	274	11	40	N	22.28320	E	113.86119	1987.67	326.19
3-Aug-11	7:36:13	Trawler	Non-operating	91	21	50	286	53	10	N	22.28822	E	113.86364	2369.45	338.88
3-Aug-11	7:36:43	Other		91	8	0	262	59	0	N	22.28654	E	113.85226	2861.76	314.98
3-Aug-11	7:41:02	Other		91	11	20	244	19	50	N	22.27920	E	113.84820	2724.27	296.33
3-Aug-11	7:41:36	Other		91	37	10	225	19	10	N	22.27061	E	113.85275	1990.05	277.32
3-Aug-11	7:42:00	Other		91	38	50	225	41	0	N	22.27068	E	113.85309	1956.05	277.68
3-Aug-11	7:42:15	Other		91	27	30	235	22	20	N	22.27428	E	113.85141	2212.80	287.37
3-Aug-11	7:42:38	Other		91	29	30	234	35	20	N	22.27389	E	113.85179	2162.61	286.59
3-Aug-11	7:43:24	Police Vessel		90	52	20	307	18	50	N	22.30205	E	113.87151	3747.10	359.31
3-Aug-11	7:45:58	Police Vessel		91	5	50	297	37	20	N	22.29450	E	113.86676	2956.32	349.62
3-Aug-11	7:49:37	Police Vessel		91	5	50	297	37	20	N	22.29450	E	113.86676	2955.56	349.62
3-Aug-11	7:54:38	Police Vessel		91	32	10	275	50	40	N	22.28431	E	113.86109	2097.44	327.84
3-Aug-11	7:57:16	Trawler	Operating	91	2	50	277	46	50	N	22.29243	E	113.85677	3098.78	329.78
3-Aug-11	7:58:35	Trawler	Operating	91	1	50	281	40	50	N	22.29374	E	113.85836	3150.02	333.68
3-Aug-11	7:59:13	Other		91	13	0	261	38	50	N	22.28484	E	113.85324	2657.36	313.64
3-Aug-11	7:59:49	Other		96	6	40	253	25	50	N	22.27106	E	113.86781	522.13	305.43
3-Aug-11	8:00:10	Other		96	6	40	253	25	50	N	22.27106	E	113.86781	522.12	305.43
3-Aug-11	8:00:40	Other		93	14	20	263	47	50	N	22.27471	E	113.86524	988.77	315.79
3-Aug-11	8:01:23	Other		92	33	0	250	4	20	N	22.27434	E	113.86158	1257.40	302.07
3-Aug-11	8:02:39	Trawler	Operating	90	56	30	292	9	0	N	22.29825	E	113.86276	3456.11	344.15
3-Aug-11	8:14:47	Police Vessel		92	11	10	228	48	0	N	22.27081	E	113.85793	1466.75	280.80
3-Aug-11	8:16:22	Police Vessel		92	3	30	279	30	10	N	22.28066	E	113.86471	1558.32	331.50
3-Aug-11	8:21:35	Other		91	38	50	250	43	40	N	22.27782	E	113.85599	1950.59	302.72
3-Aug-11	8:21:41	Other		91	38	20	249	51	50	N	22.27765	E	113.85575	1960.60	301.86
3-Aug-11	8:23:30	Other		92	45	10	229	58	30	N	22.27050	E	113.86089	1162.46	281.97
3-Aug-11	8:23:38	Other		92	51	40	223	31	40	N	22.26930	E	113.86112	1118.21	275.52
3-Aug-11	8:30:40	Other		91	48	0	250	38	30	N	22.27698	E	113.85735	1782.23	302.64
3-Aug-11	8:32:33	Other		91	48	0	250	38	30	N	22.27698	E	113.85735	1781.99	302.64
3-Aug-11	8:36:06	Other		91	29	50	217	55	10	N	22.26830	E	113.85107	2146.34	269.92
3-Aug-11	8:37:35	Dolphin	Surface	90	39	40	266	53	20	N	22.30223	E	113.83996	4999.90	318.89
3-Aug-11	8:39:01	Dolphin	Surface	90	38	0	266	18	10	N	22.30351	E	113.83806	5235.85	318.30
3-Aug-11	8:41:19	Other		90	46	50	266	47	0	N	22.29670	E	113.84508	4190.81	318.78
3-Aug-11	8:44:16	Dolphin	Surface	90	37	0	266	47	50	N	22.30480	E	113.83742	5387.18	318.79
3-Aug-11	8:46:18	Dolphin	Surface	90	36	40	268	11	10	N	22.30593	E	113.83806	5439.58	320.18
3-Aug-11	8:48:38	Dolphin	Surface	90	35	30	269	38	50	N	22.30809	E	113.83794	5633.83	321.64
3-Aug-11	8:51:57	Dolphin	Surface	90	34	50	271	25	0	N	22.30988	E	113.83860	5750.67	323.41
3-Aug-11	8:53:47	Dolphin	Surface	90	33	30	272	31	10	N	22.31232	E	113.83805	6002.68	324.52
3-Aug-11	8:53:58	Dolphin	Surface	90	34	0	272	36	0	N	22.31165	E	113.83867	5905.11	324.60
3-Aug-11	8:54:18	Dolphin	Surface	90	34	0	272	44	30	N	22.31172	E	113.83878	5904.97	324.74
3-Aug-11	8:55:46	Other		92	43	20	231	19	0	N	22.27076	E	113.86084	1172.91	283.31
3-Aug-11	8:56:14	Trawler	Non-operating	92	9	40	219	14	20	N	22.26862	E	113.85756	1479.50	271.24
3-Aug-11	8:57:52	Other		91	21	50	260	22	10	N	22.28262	E	113.85502	2355.77	312.37
3-Aug-11	9:00:14	Other		92	8	20	255	2	20	N	22.27643	E	113.86034	1494.56	307.04
3-Aug-11	9:00:36	Trawler	Non-operating	92	19	30	273	21	50	N	22.27851	E	113.86435	1374.10	325.36
3-Aug-11	9:01:51	Other		91	12	20	266	57	20	N	22.28646	E	113.85489	2670.44	318.95
3-Aug-11	9:02:03	Other		91	3	0	267	53	40	N	22.28950	E	113.85267	3076.10	319.89
3-Aug-11	9:02:11	Other		90	55	20	267	26	30	N	22.29237	E	113.84970	3516.52	319.44
3-Aug-11	9:02:21	Other		91	6	40	269	11	50	N	22.28869	E	113.85425	2902.62	321.19
3-Aug-11	9:04:05	Other		90	54	10	262	38	10	N	22.29106	E	113.84707	3594.57	314.63
3-Aug-11	9:05:18	Dolphin	Surface	90	31	40	277	57	50	N	22.31808	E	113.84085	6385.75	329.96
3-Aug-11	9:06:13	Hi-Speed Ferry		90	38	10	278	56	50	N	22.30924	E	113.84737	5200.78	330.94
3-Aug-11	9:06:49	Hi-Speed Ferry		90	33	50	263	49	40	N	22.30661	E	113.83174	5931.57	315.82
3-Aug-11	9:07:02	Hi-Speed Ferry		90	38	50	289	35	0	N	22.31191	E	113.85626	5104.30	341.58
3-Aug-11	9:07:17	Other		92	40	20	252	28	50	N	22.27442	E	113.86237	1194.00	304.48
3-Aug-11	9:07:38	Trawler	Non-operating	91	37	20	237	37	50	N	22.27430	E	113.85386	1974.54	289.63
3-Aug-11	9:08:46	Hi-Speed Ferry		90	38	0	281	56	50	N	22.31057	E	113.84962	5224.44	333.94
3-Aug-11	9:09:45	Other		101	7	50	347	46	0	N	22.27029	E	113.87370	282.66	39.76
3-Aug-11	9:10:11	Trawler	Non-operating	91	35	30	223	33	20	N	22.27008	E	113.85247	2012.53	275.55
3-Aug-11	9:10:35	Trawler	Non-operating	91	36	40	265	31	20	N	22.28153	E	113.85889	1987.90	317.52
3-Aug-11	9:12:24	Trawler	Operating	90	39	10	280	26	0	N	22.30866	E	113.84918	5055.59	332.43
3-Aug-11	9:12:37	Trawler	Operating	90	33	20	280	41	50	N	22.31653	E	113.84505	6027.49	332.69
3-Aug-11	9:14:03	Trawler	Operating	90	40	0	279	47	20	N	22.30752	E	113.84922	4942.05	331.79
3-Aug-11	9:14:11	Trawler	Operating	90	33	50	279	47	30	N	22.31534	E	113.84468	5928.33	331.79
3-Aug-11	9:16:43	Dolphin	Surface	90	29	30	283	37	50	N	22.32501	E	113.84419	6913.79	335.63
3-Aug-11	9:17:21	Dolphin	Surface	90	30	10	283	57	40	N	22.32372	E	113.84523	6739.41	335.96
3-Aug-11	9:18:36	Trawler	Non-operating	91	19	40	287	14	30	N	22.28867	E	113.86361	2417.35	339.24
3-Aug-11	9:19:58	Trawler	Non-operating	90	44	0	277	23	0	N	22.30290	E	113.84983	4463.30	329.38
3-Aug-11	9:20:16	Trawler	Non-operating	90	36	10	276	54	30	N	22.31077	E	113.84427	5507.67	328.91
3-Aug-11	9:32:10	Other		92	23	30	231	15	10	N	22.27108	E	113.85933	1332.58	283.25
3-Aug-11	9:33:09	Other		92	51	40	230	53	40	N	22.27057	E	113.86140	1112.73	282.89
3-Aug-11	9:33:23	Other		91	35	40	246	44	40	N	22.27701	E	113.85484	2005.67	298.74

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
3-Aug-11	9:33:54	Other		92	16	30	245	14	10	N	22.27410	E	113.85983	1401.19	297.23
3-Aug-11	9:34:43	Other		90	53	50	281	29	40	N	22.29740	E	113.85627	3609.69	333.49
3-Aug-11	9:42:17	Hi-Speed Ferry		91	11	20	348	55	20	N	22.28670	E	113.88915	2700.85	40.92
3-Aug-11	9:46:32	Hi-Speed Ferry		92	51	30	339	52	20	N	22.27684	E	113.87766	1112.76	31.87
3-Aug-11	9:47:04	Other		91	5	40	237	14	40	N	22.27705	E	113.84496	2938.50	289.24
3-Aug-11	9:49:59	Hi-Speed Ferry		91	5	40	237	14	40	N	22.27704	E	113.84497	2937.89	289.24
3-Aug-11	9:50:25	Police Vessel		92	32	50	217	41	30	N	22.26827	E	113.85980	1249.11	269.69
3-Aug-11	9:54:20	Dolphin	Surface	91	36	10	295	43	10	N	22.28585	E	113.86782	1992.15	347.72
3-Aug-11	9:54:50	Police Vessel		93	6	0	288	44	30	N	22.27704	E	113.86866	1024.99	340.74
3-Aug-11	9:56:51	Dolphin	Surface	91	28	30	300	6	40	N	22.28765	E	113.86905	2166.64	352.11
3-Aug-11	9:57:01	Dolphin	Surface	91	27	0	300	9	0	N	22.28799	E	113.86901	2204.50	352.15
3-Aug-11	9:58:45	Police Vessel		91	52	10	298	14	50	N	22.28345	E	113.86914	1704.73	350.24
3-Aug-11	10:09:43	Research Vessel	Traveling	92	43	30	333	33	0	N	22.27780	E	113.87683	1165.58	25.55
3-Aug-11	10:11:08	Research Vessel	Traveling	96	24	50	269	37	10	N	22.27181	E	113.86897	492.68	321.62
3-Aug-11	10:13:33	Hi-Speed Ferry		101	0	30	267	16	20	N	22.27027	E	113.87014	284.59	319.27
3-Aug-11	10:14:21	Hi-Speed Ferry		96	26	50	321	48	0	N	22.27262	E	113.87308	490.00	13.80
3-Aug-11	10:16:36	Trawler	Non-operating	97	44	30	262	39	30	N	22.27091	E	113.86913	407.20	314.66
3-Aug-11	10:17:42	Trawler	Non-operating	96	40	0	297	28	40	N	22.27252	E	113.87110	473.61	349.47
3-Aug-11	10:21:31	Other		98	26	40	355	11	40	N	22.27061	E	113.87460	372.73	47.19
3-Aug-11	10:21:57	Other		95	16	10	358	53	20	N	22.27174	E	113.87647	600.14	50.89
3-Aug-11	10:22:36	Police Vessel		91	5	0	306	0	30	N	22.29497	E	113.87094	2961.84	358.01
3-Aug-11	10:23:17	Trawler	Non-operating	91	5	0	278	18	0	N	22.29148	E	113.85767	2961.70	330.30
3-Aug-11	10:23:48	Other		92	1	50	235	9	10	N	22.27249	E	113.85740	1565.59	287.15
3-Aug-11	10:24:25	Trawler	Non-operating	91	0	50	283	18	50	N	22.29425	E	113.85907	3170.01	335.31
3-Aug-11	10:24:38	Other		91	36	30	243	43	50	N	22.27607	E	113.85459	1980.90	295.73
3-Aug-11	10:25:48	Other		91	14	50	252	54	20	N	22.28153	E	113.85149	2564.05	304.90
3-Aug-11	10:26:13	Trawler	Non-operating	90	54	10	290	8	10	N	22.29894	E	113.86128	3573.34	342.13
3-Aug-11	10:28:10	Sand Barge	Operating	90	59	20	285	40	10	N	22.29540	E	113.85993	3251.70	337.67
3-Aug-11	10:29:17	Other		90	58	20	293	1	20	N	22.29710	E	113.86362	3308.94	345.02
3-Aug-11	10:30:06	Other		91	22	50	231	54	0	N	22.27333	E	113.85012	2311.62	283.90
3-Aug-11	10:31:11	Trawler	Operating	91	11	50	218	38	10	N	22.26860	E	113.84596	2672.28	270.63
3-Aug-11	10:32:07	Other		91	5	0	274	43	50	N	22.29060	E	113.85615	2959.82	326.73
3-Aug-11	10:33:16	Other		91	43	30	239	21	0	N	22.27437	E	113.85524	1844.37	291.35
3-Aug-11	10:33:55	Other		91	26	30	261	48	30	N	22.28211	E	113.85642	2211.59	313.81
3-Aug-11	10:34:14	Other		92	18	40	222	32	50	N	22.26931	E	113.85863	1373.25	274.54
3-Aug-11	10:35:37	Dolphin	Splash	102	49	40	297	46	0	N	22.27048	E	113.87152	242.74	349.76
3-Aug-11	10:35:49	Dolphin	Surface	101	45	10	300	19	0	N	22.27070	E	113.87160	265.67	352.31
3-Aug-11	10:36:14	Dolphin	Surface	100	37	50	303	9	0	N	22.27097	E	113.87170	294.48	355.15
3-Aug-11	10:36:17	Dolphin	Surface	100	26	0	302	52	40	N	22.27102	E	113.87168	300.18	354.87
3-Aug-11	10:36:53	Dolphin	Surface	100	33	30	301	10	0	N	22.27098	E	113.87160	296.53	353.16
3-Aug-11	10:37:38	Research Vessel	Stationary	98	44	0	324	19	40	N	22.27144	E	113.87293	359.80	16.32
3-Aug-11	10:38:52	Dolphin	Surface	97	28	40	302	47	30	N	22.27211	E	113.87157	421.08	354.79
3-Aug-11	10:39:08	Dolphin	Surface	97	8	10	305	25	40	N	22.27230	E	113.87175	441.47	357.42
3-Aug-11	10:39:26	Dolphin	Surface	96	43	10	308	8	40	N	22.27256	E	113.87196	469.13	0.14
3-Aug-11	10:39:53	Research Vessel	Traveling	95	58	0	320	4	40	N	22.27299	E	113.87302	528.86	12.07
3-Aug-11	10:40:01	Dolphin	Surface	96	34	50	307	36	40	N	22.27264	E	113.87191	479.10	359.61
3-Aug-11	10:40:38	Dolphin	Surface	96	21	40	305	35	30	N	22.27279	E	113.87174	495.77	357.59
3-Aug-11	10:40:55	Dolphin	Surface	96	12	20	304	2	10	N	22.27290	E	113.87160	508.29	356.03
3-Aug-11	10:41:09	Dolphin	Fluke Up	96	6	0	303	42	20	N	22.27297	E	113.87157	517.16	355.70
3-Aug-11	10:41:29	Dolphin	Surface	95	37	0	317	31	40	N	22.27332	E	113.87285	562.01	9.52
3-Aug-11	10:43:50	Dolphin	Surface	95	4	50	308	32	30	N	22.27393	E	113.87200	621.64	0.54
3-Aug-11	10:44:05	Dolphin	Surface	94	55	20	308	15	40	N	22.27411	E	113.87197	641.75	0.26
3-Aug-11	10:44:11	Dolphin	Surface	94	53	50	307	56	30	N	22.27414	E	113.87194	645.04	359.94
3-Aug-11	10:45:07	Dolphin	Surface	95	50	10	302	23	40	N	22.27317	E	113.87143	540.58	354.39
3-Aug-11	10:45:25	Dolphin	Surface	95	58	40	302	50	10	N	22.27306	E	113.87148	527.66	354.83
3-Aug-11	10:45:45	Research Vessel	Traveling	94	6	30	308	44	20	N	22.27526	E	113.87204	769.56	0.74
3-Aug-11	10:46:29	Dolphin	Surface	95	50	30	300	1	40	N	22.27315	E	113.87122	540.01	352.02
3-Aug-11	10:46:45	Dolphin	Surface	95	48	50	299	31	0	N	22.27316	E	113.87117	542.60	351.51
3-Aug-11	10:47:43	Dolphin	Surface	95	24	20	298	51	10	N	22.27352	E	113.87104	583.86	350.85
3-Aug-11	10:49:21	Other		91	37	10	259	52	30	N	22.28013	E	113.85772	1963.68	311.87
3-Aug-11	10:49:56	Dolphin	Surface	94	39	50	297	20	20	N	22.27432	E	113.87073	677.23	349.34
3-Aug-11	10:51:32	Dolphin	Surface	95	1	40	297	4	50	N	22.27388	E	113.87079	627.86	349.08
3-Aug-11	10:51:38	Dolphin	Surface	95	4	0	296	51	50	N	22.27383	E	113.87077	623.01	348.86
3-Aug-11	10:52:54	Dolphin	Surface	95	23	0	297	13	10	N	22.27351	E	113.87088	586.07	349.22
3-Aug-11	10:53:13	Dolphin	Surface	95	33	50	298	43	0	N	22.27337	E	113.87105	566.91	350.71
3-Aug-11	10:53:40	Dolphin	Surface	95	45	0	298	27	30	N	22.27320	E	113.87106	548.41	350.46
3-Aug-11	10:55:03	Dolphin	Surface	96	28	50	299	42	20	N	22.27266	E	113.87126	486.05	351.70
3-Aug-11	10:55:11	Dolphin	Surface	96	34	40	299	13	30	N	22.27259	E	113.87123	478.79	351.22
3-Aug-11	10:55:20	Dolphin	Surface	96	33	50	298	41	20	N	22.27259	E	113.87119	479.81	350.69
3-Aug-11	10:55:33	Dolphin	Surface	96	38	50	298	19	0	N	22.27254	E	113.87117	473.73	350.31
3-Aug-11	10:55:47	Dolphin	Surface	96	47	50	299	42	50	N	22.27246	E	113.87130	463.17	351.71
3-Aug-11	10:56:20	Dolphin	Surface	97	6	50	300	9	20	N	22.27228	E	113.87136	442.32	352.15
3-Aug-11	10:57:28	Dolphin	Surface	98	33	30	301	56	40	N	22.27162	E	113.87157	366.75	353.94
3-Aug-11	10:57:50	Dolphin	Surface	98	58	20	303	16	50	N	22.27147	E	113.87166	349.56	355.28
3-Aug-11	10:57:58	Dolphin	Surface	98	59	50	303	28	0	N	22.27146	E	113.87168	348.57	355.46
3-Aug-11	10:59:28	Dolphin	Surface	100	4	0	300	0	40	N	22.27110	E	113.87152	310.84	352.01
3-Aug-11	10:59:37	Dolphin	Fluke Up	100	21	40	299	9	40	N	22.27102	E	113.87149	301.82	351.16
3-Aug-11	11:00:01	Dolphin	Surface	100	38	50	297	57	40	N	22.27093	E	113.87145	293.51	349.96
3-Aug-11	11:00:27	Dolphin	Surface	101	7	0	296	19	10	N	22.27081	E	113.87139	280.81	348.32
3-Aug-11	11:00:46	Dolphin	Surface	101	39	50	294	26	50	N	22.27067	E	113.87134	267.28	346.44
3-Aug-11	11:00:51	Dolphin	Surface	101	48	10	294	31	30	N	22.27064	E	113.87135	264.04	346.52
3-Aug-11	11:02:00	Dolphin	Surface	103	41	50	286	11	0	N	22.27022	E	113.87113	226.36	338.18
3-Aug-11	11:03:03	Dolphin	Surface	103	18	0	278	26	40	N	22.27016	E	113.87082	233.37	330.44
3-Aug-11	11:04:06	Dolphin	Surface	104	31	50	272	47	40	N	22.26990	E	113.87075	212.82	324.79
3-Aug-11	11:04:21	Dolphin	Fluke Up	103	49	40	271	4	40	N	22.26995	E	113.87064	224.10	323.07
3-Aug-11	11:04:32	Dolphin	Surface	104	17	30	269	16	40	N	22.26985	E	113.87063	216.53	321.27
3-Aug-11	11:04:51	Dolphin	Surface	105	21	40	268	14	50	N	22.26972	E	113.87070	200.78	320.24
3-Aug-11	11:05:03	Dolphin	Surface	104	38	30	269	33	50	N	22.26982	E	113.87067	211.12	321.56
3-Aug-11	11:05:58	Dolphin	Surface	103	4	10	266	17	0	N	22.26993	E	113.87041	237.58	318.28
3-Aug-11	11:06:33	Dolphin	Surface	100	23	40	315	35	10	N	22.27102	E	113.87233	300.68	7.58
3-Aug-11	11:06:54	Dolphin	Surface	101	4	20	315	11	50	N	22.27085	E	113.87229	281.84	7.19
3-Aug-11	11:07:39	Dolphin	Surface	103	7	30	318	49	50	N	22.27042	E	113.87238	236.51	10.83
3-Aug-11	11:07:53	Dolphin	Surface	103	29	0	321	33	40	N	22.27035	E	113.87247	230.00	13.56
3-Aug-11	11:08:21	Dolphin	Surface	103	1	0	330	0	50	N	22.27032	E	113.87281	238.54	22.01
3-Aug-11	11:09:55	Dolphin	Surface	106	22	20	323	5	30	N	22.26996	E	113.87242	187.68	15.09
3-Aug-11	11:10:29	Dolphin	Surface	109	11	30	314	58	50	N	22.26975	E	113.87213	158.40	6.98
3-Aug-11	11:11:13	Dolphin	Surface	110	45	40	297	4	40	N	22.26962	E	113.87168	145.43	349.07
3-Aug-11	11:11:51	Dolphin	Surface	110	15	20	274	19	40	N	22.26945	E	113.87114	149.39	326.32
3-Aug-11	11:12:03	Dolphin	Surface	101	1	10	265	15	30	N	22.27020	E	113.87008	283.12	317.26
3-Aug-11	11:12:35	Dolphin	Surface	100	20	20	260	51	20	N	22.27018	E	113.86979	302.20	312.85
3-Aug-11	11:13:56	Dolphin	Surface	98	36	20	248	16	0	N	22.26999	E	113.86888	364.28	300.26

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
3-Aug-11	11:14:01	Dolphin	Surface	98	29	0	247	43	0	N	22.26998	E	113.86882	369.61	299.71
3-Aug-11	11:17:50	Trawler	Non-operating	91	33	20	243	8	40	N	22.27614	E	113.85397	2041.15	295.14
3-Aug-11	11:19:03	Trawler	Non-operating	91	34	10	252	33	0	N	22.27865	E	113.85574	2022.69	304.55
3-Aug-11	11:20:55	Trawler	Non-operating	91	32	40	266	50	0	N	22.28226	E	113.85878	2055.57	318.83
3-Aug-11	11:25:18	Trawler	Non-operating	91	10	50	292	38	20	N	22.29177	E	113.86499	2700.28	344.64
3-Aug-11	11:28:09	Trawler	Non-operating	91	33	40	235	44	20	N	22.27390	E	113.85312	2032.30	287.74
3-Aug-11	11:30:39	Trawler	Non-operating	91	32	0	255	28	0	N	22.27966	E	113.85597	2069.21	307.46
3-Aug-11	11:35:47	Trawler	Non-operating	91	5	40	284	50	0	N	22.29246	E	113.86079	2915.61	336.83
3-Aug-11	11:36:16	Other		91	18	40	254	3	20	N	22.28117	E	113.85288	2424.59	306.05
3-Aug-11	12:06:09	Zero		91	11	10	0	0	10	N	22.28318	E	113.89248	2679.46	52.00
3-Aug-11	12:12:24	Trawler	Non-operating	91	22	0	113	20	50	N	22.24813	E	113.87765	2320.48	165.34
3-Aug-11	12:14:02	Trawler	Non-operating	91	24	0	108	11	0	N	22.24916	E	113.87941	2264.73	160.18
3-Aug-11	12:18:44	Research Vessel	Traveling	95	14	0	117	8	50	N	22.26303	E	113.87304	600.46	169.14
3-Aug-11	12:20:09	Research Vessel	Traveling	93	56	40	33	21	50	N	22.26891	E	113.87968	798.05	85.36
3-Aug-11	12:20:47	Research Vessel	Traveling	92	46	30	21	19	10	N	22.27127	E	113.88253	1136.40	73.32
3-Aug-11	12:31:38	Other		91	51	10	130	48	20	N	22.25298	E	113.87113	1708.47	182.80
3-Aug-11	12:33:58	Other		91	30	50	122	1	30	N	22.24957	E	113.87407	2095.99	174.02
3-Aug-11	12:42:29	Other		91	58	50	121	2	10	N	22.25405	E	113.87383	1598.96	173.03
3-Aug-11	12:43:21	Trawler	Operating	91	28	40	125	29	40	N	22.24901	E	113.87286	2149.80	177.49
3-Aug-11	12:45:05	Other		91	50	20	95	31	50	N	22.25525	E	113.88094	1723.67	147.53
3-Aug-11	12:46:34	Trawler	Operating	91	31	50	115	16	20	N	22.25012	E	113.87639	2075.33	167.27
3-Aug-11	12:47:45	Other		91	27	20	77	1	50	N	22.25596	E	113.88844	2183.98	129.03
3-Aug-11	12:52:19	Trawler	Operating	91	25	30	97	26	0	N	22.25103	E	113.88298	2232.46	149.43
3-Aug-11	12:55:28	Trawler	Operating	91	27	30	73	20	10	N	22.25698	E	113.88925	2181.35	125.33
3-Aug-11	12:58:07	Trawler	Operating	91	36	20	78	8	30	N	22.25685	E	113.88666	1979.37	130.14
3-Aug-11	12:59:24	Trawler	Operating	91	7	50	85	2	0	N	22.24971	E	113.89069	2827.93	137.03
3-Aug-11	13:03:12	Other		93	7	40	7	14	0	N	22.27299	E	113.88040	1011.63	59.23
3-Aug-11	13:04:11	Trawler	Operating	92	1	10	93	41	10	N	22.25666	E	113.88056	1571.12	145.68
3-Aug-11	13:05:07	Other		95	23	50	13	35	40	N	22.27051	E	113.87712	584.64	65.59
3-Aug-11	13:07:12	Trawler	Non-operating	103	57	20	62	28	10	N	22.26751	E	113.87391	222.23	114.47
3-Aug-11	13:10:46	Other		96	25	50	356	21	10	N	22.27127	E	113.87551	490.27	48.35
25-Dec-11	9:04:28	Zero		91	13	10	359	59	20	N	22.28309	E	113.89235	2663.56	51.99
25-Dec-11	9:07:50	Other		91	7	20	116	14	10	N	22.24279	E	113.87769	2899.23	168.23
25-Dec-11	9:08:43	Other		92	31	20	134	32	30	N	22.25691	E	113.87053	1277.18	186.54
25-Dec-11	9:09:15	Police Vessel	Traveling	91	58	0	141	22	50	N	22.25397	E	113.86825	1640.77	193.38
25-Dec-11	9:09:40	Police Vessel	Traveling	91	49	20	148	21	10	N	22.25338	E	113.86595	1772.01	200.35
25-Dec-11	9:11:12	Other		92	54	50	105	16	0	N	22.25917	E	113.87610	1104.53	157.26
25-Dec-11	9:11:33	Hi-Speed Ferry		91	39	20	15	35	50	N	22.27503	E	113.88950	1952.18	67.59
25-Dec-11	9:13:59	Dolphin	Surface	95	44	10	99	26	10	N	22.26392	E	113.87454	558.92	151.43
25-Dec-11	9:14:07	Dolphin	Surface	95	41	40	100	4	20	N	22.26386	E	113.87451	563.04	152.07
25-Dec-11	9:14:11	Dolphin	Surface	95	37	0	100	4	20	N	22.26379	E	113.87454	570.89	152.07
25-Dec-11	9:15:33	Hi-Speed Ferry		97	3	0	65	22	20	N	22.26646	E	113.87586	453.88	117.37
25-Dec-11	9:17:19	Dolphin	Surface	94	41	10	106	5	20	N	22.26261	E	113.87443	684.98	158.09
25-Dec-11	9:21:40	Dolphin	Surface	93	56	40	120	56	20	N	22.26106	E	113.87292	814.38	172.94
25-Dec-11	9:22:29	Dolphin	Surface	94	1	30	127	29	20	N	22.26115	E	113.87201	797.97	179.49
25-Dec-11	9:27:17	Trawler	Operating	92	3	30	28	31	50	N	22.27065	E	113.88697	1565.96	80.53
25-Dec-11	9:28:05	Seafood Container		91	29	40	140	14	0	N	22.24930	E	113.86749	2163.91	192.23
25-Dec-11	9:29:36	Dolphin	Surface	93	1	40	142	36	10	N	22.25908	E	113.86934	1061.97	194.60
25-Dec-11	9:29:52	Dolphin	Surface	93	1	30	142	54	10	N	22.25909	E	113.86929	1062.93	194.90
25-Dec-11	9:30:36	Dolphin	Surface	93	7	0	144	6	10	N	22.25941	E	113.86916	1031.49	196.10
25-Dec-11	9:30:54	Dolphin	Surface	93	4	0	143	42	40	N	22.25925	E	113.86918	1048.37	195.71
25-Dec-11	9:31:00	Dolphin	Surface	93	3	0	143	52	10	N	22.25921	E	113.86914	1054.13	195.87
25-Dec-11	9:31:08	Dolphin	Surface	93	2	50	143	54	20	N	22.25920	E	113.86913	1055.09	195.90
25-Dec-11	9:31:14	Dolphin	Surface	93	1	50	143	46	0	N	22.25914	E	113.86914	1060.92	195.76
25-Dec-11	9:31:24	Dolphin	Surface	93	0	10	143	47	10	N	22.25906	E	113.86911	1070.77	195.78
25-Dec-11	9:31:57	Dolphin	Surface	93	1	30	143	30	30	N	22.25912	E	113.86918	1062.84	195.51
25-Dec-11	9:32:35	Dolphin	Surface	93	1	30	142	48	40	N	22.25909	E	113.86930	1062.81	194.81
25-Dec-11	9:32:38	Dolphin	Surface	93	1	30	142	50	50	N	22.25909	E	113.86930	1062.81	194.84
25-Dec-11	9:33:33	Dolphin	Surface	93	3	10	142	38	30	N	22.25916	E	113.86936	1053.05	194.64
25-Dec-11	9:33:40	Dolphin	Surface	93	3	10	142	45	20	N	22.25917	E	113.86934	1053.05	194.75
25-Dec-11	9:34:33	Seafood Container		91	35	20	87	17	40	N	22.25446	E	113.88484	2033.13	139.29
25-Dec-11	9:34:53	Trawler	Operating	92	38	10	48	29	50	N	22.26633	E	113.88361	1220.38	100.49
25-Dec-11	9:36:57	Hi-Speed Ferry		92	11	30	154	27	30	N	22.25649	E	113.86558	1469.42	206.46
25-Dec-11	9:37:38	Seafood Container		91	18	30	68	22	40	N	22.25707	E	113.89271	2475.86	120.37
25-Dec-11	9:38:01	Trawler	Operating	93	7	20	60	51	10	N	22.26474	E	113.88117	1029.33	112.85
25-Dec-11	9:38:42	Hi-Speed Ferry		93	35	20	122	22	20	N	22.26032	E	113.87280	894.85	174.37
25-Dec-11	9:43:21	Trawler	Operating	94	13	10	97	34	0	N	22.26243	E	113.87569	760.36	149.56
25-Dec-11	9:50:25	Trawler	Operating	99	46	0	121	24	10	N	22.26542	E	113.87231	325.58	173.40
25-Dec-11	9:51:09	Other		91	38	0	22	15	30	N	22.27316	E	113.89044	1975.80	74.26
25-Dec-11	9:53:54	Other		92	4	30	28	18	50	N	22.27068	E	113.88682	1551.57	80.31
25-Dec-11	9:54:13	Trawler	Operating	97	16	50	39	21	20	N	22.26824	E	113.87621	438.65	91.35
25-Dec-11	9:54:54	Hi-Speed Ferry		90	39	50	63	57	40	N	22.24861	E	113.91570	5004.51	115.96
25-Dec-11	9:55:13	Hi-Speed Ferry		90	39	50	60	33	40	N	22.25105	E	113.91688	5004.44	112.56
25-Dec-11	9:55:46	Hi-Speed Ferry		90	34	20	48	35	10	N	22.25860	E	113.92816	5881.04	100.58
25-Dec-11	9:56:10	Hi-Speed Ferry		90	34	20	52	10	40	N	22.25536	E	113.92739	5880.94	104.17
25-Dec-11	9:56:39	Trawler	Operating	94	24	10	26	9	20	N	22.26968	E	113.87887	728.13	78.15
25-Dec-11	10:03:33	Other		103	9	0	66	23	40	N	22.26731	E	113.87400	239.74	118.39
25-Dec-11	10:08:16	Trawler	Operating	90	45	20	47	16	0	N	22.26201	E	113.91378	4358.97	99.26
25-Dec-11	10:13:36	Dolphin	Surface	95	29	40	15	6	10	N	22.27037	E	113.87716	582.26	67.10
25-Dec-11	10:28:56	Trawler	Operating	91	19	10	55	26	50	N	22.26172	E	113.89467	2449.41	107.44
25-Dec-11	10:29:39	Trawler	Operating	91	43	40	22	19	40	N	22.27286	E	113.88939	1863.67	74.32
25-Dec-11	10:30:37	Dolphin	Surface	102	16	10	104	36	10	N	22.26621	E	113.87294	257.26	156.60
25-Dec-11	10:32:05	Dolphin	Surface	99	28	30	94	23	10	N	22.26582	E	113.87375	335.23	146.38
25-Dec-11	10:32:12	Dolphin	Surface	99	19	0	93	39	30	N	22.26580	E	113.87382	341.03	145.66
25-Dec-11	10:32:45	Dolphin	Surface	98	43	10	90	40	20	N	22.26572	E	113.87410	364.79	142.67
25-Dec-11	10:34:36	Trawler	Operating	91	39	20	60	32	30	N	22.26162	E	113.88942	1945.47	112.54
25-Dec-11	10:38:30	Trawler	Operating	91	54	40	68	31	50	N	22.26064	E	113.88604	1682.65	120.53
25-Dec-11	10:48:34	Tour Boat	Traveling	103	30	40	33	37	40	N	22.26849	E	113.87420	232.66	85.62
25-Dec-11	10:48:46	Tour Boat	Traveling	100	19	40	20	25	40	N	22.26917	E	113.87479	306.79	72.42
25-Dec-11	10:50:05	Trawler	Operating	95	19	20	104	45	30	N	22.26337	E	113.87425	600.32	156.76
25-Dec-11	10:50:25	Trawler	Non-operating	93	5	30	88	52	0	N	22.26110	E	113.87831	1036.44	140.86
25-Dec-11	10:53:09	Dolphin	Surface	93	59	40	53	47	0	N	22.26637	E	113.87944	801.10	105.78
25-Dec-11	10:53:22	Dolphin	Surface	94	0	20	52	54	50	N	22.26648	E	113.87945	798.86	104.91
25-Dec-11	10:54:41	Other		92	32	10	41	59	50	N	22.26754	E	113.88421	1264.59	93.99
25-Dec-11	10:55:05	Other		92	54	40	45	50	10	N	22.26698	E	113.88255	1100.85	97.83
26-Jun-12	9:33:09	Zero		104	46	40	0	0	0	N	22.26951	E	113.87357	212.73	52.00
26-Jun-12	9:37:56	Trawler	Operating	92	17	20	255	15	10	N	22.27600	E	113.86105	1407.82	307.25
26-Jun-12	9:39:28	Speedboat	Traveling	94	59	50	13	6	30	N	22.27077	E	113.87761	642.13	65.11
26-Jun-12	9:39:46	Speedboat	Traveling	94	20	0	12	48	30	N	22.27117	E	113.87847	741.11	64.81
26-Jun-12	9:41:16	Trawler	Operating	92	11	0	271	55	20	N	22.27907	E	113.86349	1476.36	323.92
26-Jun-12	9:42:43	Hi-Speed Ferry		91	2	30	347	46	20	N	22.28997	E	113.89141	3128.45	39.77

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
26-Jun-12	9:47:21	Hi-Speed Ferry		93	9	20	340	35	20	N	22.27606	E	113.87728	1019.34	32.59
26-Jun-12	9:48:52	Hi-Speed Ferry		97	32	0	309	12	50	N	22.27215	E	113.87203	424.43	1.21
26-Jun-12	9:49:39	Hi-Speed Ferry		99	5	30	257	55	50	N	22.27036	E	113.86933	350.72	309.93
26-Jun-12	9:55:14	Trawler	Operating	91	50	40	238	38	30	N	22.27388	E	113.85602	1750.02	290.64
26-Jun-12	9:56:06	Trawler	Operating	91	16	10	292	1	0	N	22.29044	E	113.86510	2555.44	344.01
26-Jun-12	10:12:15	Zero		119	13	40	0	0	0	N	22.26889	E	113.87271	100.29	52.00
26-Jun-12	10:12:39	Hi-Speed Ferry		92	48	10	338	32	40	N	22.27723	E	113.87762	1148.33	30.54
26-Jun-12	10:12:59	Hi-Speed Ferry		92	25	30	339	43	50	N	22.27850	E	113.87874	1328.31	31.73
26-Jun-12	10:32:06	Trawler	Operating	91	43	0	233	54	50	N	22.27297	E	113.85435	1881.62	285.91
26-Jun-12	10:34:46	Trawler	Operating	91	12	50	294	54	0	N	22.29178	E	113.86605	2674.74	346.90
26-Jun-12	10:38:54	Trawler	Non-operating	91	20	50	283	11	50	N	22.28798	E	113.86213	2405.37	335.19
26-Jun-12	10:40:00	Trawler	Operating	91	39	40	267	41	20	N	22.28168	E	113.85970	1945.24	319.69
26-Jun-12	10:40:58	Trawler	Operating	92	3	50	238	42	10	N	22.27330	E	113.85773	1562.46	290.70
26-Jun-12	10:42:30	Trawler	Non-operating	91	34	20	263	31	0	N	22.28154	E	113.85793	2056.55	315.51
26-Jun-12	10:42:52	Trawler	Operating	91	32	40	278	48	10	N	22.28478	E	113.86201	2094.01	330.80
26-Jun-12	10:43:23	Trawler	Operating	92	11	50	249	39	0	N	22.27526	E	113.85980	1466.97	301.65
26-Jun-12	10:47:33	Dolphin	Surface	102	41	10	312	31	50	N	22.27054	E	113.87213	246.20	4.53
26-Jun-12	10:48:42	Dolphin	Surface	102	7	0	299	53	40	N	22.27063	E	113.87159	258.15	351.89
26-Jun-12	10:48:53	Dolphin	Surface	102	24	30	299	11	20	N	22.27057	E	113.87157	251.89	351.19
26-Jun-12	10:52:47	Trawler	Operating	92	0	30	241	8	40	N	22.27394	E	113.85776	1585.92	293.14
26-Jun-12	10:55:14	Trawler	Operating	92	7	50	254	44	20	N	22.27638	E	113.86030	1494.27	306.74
26-Jun-12	10:56:02	Dolphin	Surface	92	6	30	255	52	0	N	22.27667	E	113.86035	1510.13	307.86
26-Jun-12	10:56:46	Dolphin	Surface	92	6	50	260	15	30	N	22.27745	E	113.86110	1506.13	312.26
26-Jun-12	10:56:52	Dolphin	Surface	92	6	50	261	5	30	N	22.27759	E	113.86125	1506.13	313.09
26-Jun-12	10:56:57	Dolphin	Surface	92	6	50	261	43	0	N	22.27770	E	113.86136	1506.13	313.71
26-Jun-12	10:58:11	Trawler	Operating	92	3	40	271	19	20	N	22.27948	E	113.86297	1544.99	323.32
26-Jun-12	10:58:45	Dolphin	Surface	92	3	40	270	56	0	N	22.27943	E	113.86289	1544.99	322.93
26-Jun-12	10:59:09	Dolphin	Surface	92	2	30	272	45	40	N	22.27980	E	113.86319	1559.82	324.76
26-Jun-12	11:00:16	Dolphin	Surface	91	55	50	277	52	0	N	22.28118	E	113.86389	1650.35	329.86
26-Jun-12	11:00:25	Dolphin	Surface	91	52	0	278	33	40	N	22.28171	E	113.86378	1707.33	330.56
26-Jun-12	11:01:36	Trawler	Operating	91	41	40	284	10	30	N	22.28383	E	113.86455	1882.65	336.17
26-Jun-12	11:01:48	Dolphin	Surface	91	44	30	283	4	0	N	22.28328	E	113.86444	1831.08	335.06
26-Jun-12	11:02:10	Dolphin	Surface	91	40	50	283	50	0	N	22.28392	E	113.86438	1898.38	335.83
26-Jun-12	11:02:23	Dolphin	Surface	91	39	20	284	28	50	N	22.28424	E	113.86446	1927.37	336.48
26-Jun-12	11:03:16	Dolphin	Surface	91	33	50	286	43	10	N	22.28545	E	113.86474	2041.70	338.72
26-Jun-12	11:03:53	Dolphin	Surface	91	30	0	288	2	0	N	22.28635	E	113.86487	2129.81	340.03
26-Jun-12	11:04:07	Trawler	Operating	91	26	30	289	48	0	N	22.28729	E	113.86521	2217.21	341.80
26-Jun-12	11:05:03	Trawler	Operating	92	58	0	258	55	20	N	22.27465	E	113.86407	1071.02	310.92
26-Jun-12	11:07:37	Dolphin	Surface	92	45	20	275	31	10	N	22.27709	E	113.86592	1153.52	327.52
26-Jun-12	11:08:58	Trawler	Operating	92	20	20	284	38	30	N	22.27957	E	113.86670	1360.30	336.64
26-Jun-12	11:09:19	Dolphin	Surface	92	21	40	285	43	40	N	22.27955	E	113.86698	1347.42	337.72
26-Jun-12	11:09:30	Dolphin	Surface	92	20	30	286	34	30	N	22.27972	E	113.86712	1358.68	338.57
26-Jun-12	11:09:37	Dolphin	Surface	92	18	50	287	3	20	N	22.27989	E	113.86716	1375.10	339.05
26-Jun-12	11:09:46	Dolphin	Surface	92	16	50	287	33	10	N	22.28010	E	113.86720	1395.33	339.55
26-Jun-12	11:10:26	Trawler	Operating	92	5	20	290	22	30	N	22.28141	E	113.86746	1524.29	342.37
26-Jun-12	11:11:29	Dolphin	Surface	92	0	0	293	6	30	N	22.28218	E	113.86796	1592.58	345.11
26-Jun-12	11:13:22	Dolphin	Surface	91	42	30	297	27	10	N	22.28485	E	113.86862	1867.19	349.45
26-Jun-12	11:14:10	Dolphin	Surface	91	37	20	298	58	40	N	22.28582	E	113.86894	1967.42	350.97
26-Jun-12	11:14:43	Dolphin	Surface	91	32	40	300	1	30	N	22.28676	E	113.86915	2067.73	352.02
26-Jun-12	11:15:15	Dolphin	Surface	91	29	40	300	52	0	N	22.28742	E	113.86936	2137.83	352.86
26-Jun-12	11:15:33	Trawler	Operating	91	25	40	301	39	50	N	22.28836	E	113.86954	2239.09	353.66
26-Jun-12	11:15:43	Dolphin	Surface	91	27	10	301	36	50	N	22.28801	E	113.86956	2200.01	353.61
26-Jun-12	11:18:10	Trawler	Non-operating	91	16	30	304	13	30	N	22.29089	E	113.87033	2512.07	356.22
26-Jun-12	11:21:45	Dolphin	Surface	101	10	40	348	36	10	N	22.27025	E	113.87372	280.47	40.60
26-Jun-12	11:27:20	Dolphin	Surface	106	25	30	315	53	0	N	22.27001	E	113.87220	187.99	7.88
26-Jun-12	11:27:52	Dolphin	Surface	106	44	0	327	22	0	N	22.26990	E	113.87254	184.33	19.36
26-Jun-12	11:28:56	Dolphin	Surface	103	53	20	343	20	20	N	22.26998	E	113.87321	224.12	35.34
26-Jun-12	11:37:19	Other		93	15	0	298	13	10	N	22.27700	E	113.87033	977.21	350.22
26-Jun-12	11:38:20	Hi-Speed Ferry		91	29	0	347	0	30	N	22.28340	E	113.88513	2154.06	39.01
26-Jun-12	11:38:43	Other		95	7	10	242	36	10	N	22.27065	E	113.86647	618.88	294.60
26-Jun-12	11:39:19	Other		93	56	40	218	26	50	N	22.26839	E	113.86412	804.41	270.44
26-Jun-12	11:42:28	Dolphin	Surface	91	37	20	256	14	30	N	22.27929	E	113.85692	1967.42	308.24
26-Jun-12	11:43:00	Trawler	Operating	91	37	50	251	57	40	N	22.27817	E	113.85616	1957.25	303.96
26-Jun-12	11:45:13	Trawler	Non-operating	91	52	50	243	54	30	N	22.27500	E	113.85712	1694.61	295.91
26-Jun-12	11:49:10	Trawler	Operating	92	11	50	226	1	20	N	22.27015	E	113.85799	1448.61	278.02
26-Jun-12	11:52:41	Dolphin	Surface	104	14	30	344	38	40	N	22.26991	E	113.87321	218.34	36.64
26-Jun-12	11:52:47	Dolphin	Surface	103	56	50	347	33	30	N	22.26988	E	113.87333	223.15	39.56
26-Jun-12	11:55:54	Dolphin	Surface	99	49	50	347	2	30	N	22.27057	E	113.87390	319.85	39.04
26-Jun-12	11:56:03	Dolphin	Surface	99	44	20	345	36	10	N	22.27064	E	113.87386	322.92	37.60
26-Jun-12	11:58:21	Dolphin	Surface	99	22	40	341	21	10	N	22.27086	E	113.87374	335.60	33.35
26-Jun-12	12:01:05	Dolphin	Surface	97	20	0	352	40	20	N	22.27109	E	113.87489	430.71	44.67
26-Jun-12	12:03:17	Dolphin	Surface	97	59	0	341	41	40	N	22.27129	E	113.87408	395.22	33.69
26-Jun-12	12:06:55	Dolphin	Surface	108	4	30	298	19	50	N	22.26984	E	113.87167	169.80	350.33
26-Jun-12	12:07:01	Dolphin	Surface	107	34	30	300	5	40	N	22.26989	E	113.87171	174.96	352.09
26-Jun-12	12:07:20	Dolphin	Surface	106	22	30	294	52	10	N	22.26999	E	113.87153	188.60	346.87
26-Jun-12	12:07:25	Dolphin	Surface	105	47	50	294	48	0	N	22.27005	E	113.87151	195.88	346.80
26-Jun-12	12:07:57	Dolphin	Surface	104	29	10	308	52	30	N	22.27026	E	113.87198	214.50	0.87
26-Jun-12	12:08:12	Dolphin	Surface	104	23	40	314	27	30	N	22.27026	E	113.87218	215.93	6.46
26-Jun-12	12:08:36	Dolphin	Surface	103	28	30	315	48	30	N	22.27040	E	113.87225	231.28	7.81
26-Jun-12	12:08:43	Dolphin	Surface	102	50	50	317	23	20	N	22.27049	E	113.87233	243.00	9.39
26-Jun-12	12:10:04	Dolphin	Surface	101	35	20	333	2	30	N	22.27054	E	113.87306	270.25	25.04
26-Jun-12	12:10:25	Dolphin	Surface	102	52	30	333	37	50	N	22.27030	E	113.87296	242.46	25.63
26-Jun-12	12:10:39	Dolphin	Surface	103	29	40	337	27	30	N	22.27014	E	113.87305	230.94	29.46
26-Jun-12	12:11:06	Dolphin	Surface	102	17	10	343	47	30	N	22.27019	E	113.87339	254.48	35.79
26-Jun-12	12:11:38	Dolphin	Surface	100	51	50	344	7	20	N	22.27043	E	113.87360	288.78	36.12
26-Jun-12	12:12:08	Dolphin	Surface	100	5	30	347	11	20	N	22.27051	E	113.87386	311.40	39.19
26-Jun-12	12:12:38	Dolphin	Surface	99	20	50	350	11	30	N	22.27058	E	113.87414	336.71	42.19
26-Jun-12	12:12:55	Dolphin	Surface	98	40	50	347	46	50	N	22.27084	E	113.87420	363.03	39.78
26-Jun-12	12:12:59	Dolphin	Surface	98	33	20	347	10	0	N	22.27090	E	113.87421	368.42	39.16
26-Jun-12	12:18:55	Dolphin	Surface	95	15	10	2	19	10	N	22.27150	E	113.87671	603.07	54.32
26-Jun-12	12:18:59	Dolphin	Surface	95	12	0	2	7	20	N	22.27155	E	113.87674	609.23	54.12
26-Jun-12	12:20:41	Dolphin	Surface	94	19	30	3	5	10	N	22.27211	E	113.87779	733.28	55.08
26-Jun-12	12:28:48	Trawler	Operating	92	27	40	244	31	50	N	22.27353	E	113.86070	1292.34	296.53
26-Jun-12	12:31:26	Trawler	Operating	92	23	20	262	13	40	N	22.27669	E	113.86266	1331.65	314.22
26-Jun-12	12:37:20	Trawler	Operating	91	44	0	289	19	30	N	22.28402	E	113.86621	1839.98	341.32
26-Jun-12	12:43:18	Trawler	Non-operating	91	29	0	296	8	20	N	22.28730	E	113.86764	2154.06	348.14
26-Jun-12	12:47:29	Trawler	Operating	91	27	0	289	14	0	N	22.28712	E	113.86505	2204.28	341.23
26-Jun-12	12:53:07	Dolphin	Surface	91	38	30	274	3	10	N	22.28284	E	113.86139	1943.86	326.05
26-Jun-12	12:55:34	Trawler	Non-operating	91	46	10	263	15	20	N	22.27985	E	113.85961	1802.05	315.25
26-Jun-12	12:56:08	Dolphin	Surface	91	43	30	264	25	0	N	22.28039	E	113.85955	1848.96	316.41
26-Jun-12	12:57:00	Trawler	Non-operating	91	36	30	263	44	0	N	22.28112	E	113.85847	1984.61	315.73

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
26-Jun-12	12:59:11	Trawler	Operating	91	27	40	271	20	0	N	22.28412	E	113.85924	2187.28	323.33
2-Jul-12	8:10:26	Zero		110	34	50	0	0	0	N	22.26914	E	113.87306	145.95	52.00
2-Jul-12	8:11:25	Speedboat	Traveling	114	42	0	277	51	30	N	22.26926	E	113.87136	119.15	329.86
2-Jul-12	8:13:01	Dolphin	Breach	103	34	30	314	33	20	N	22.27036	E	113.87220	227.00	6.55
2-Jul-12	8:13:25	Dolphin	Surface	103	41	40	317	13	20	N	22.27033	E	113.87229	224.95	9.22
2-Jul-12	8:14:53	Dolphin	Surface	104	4	50	316	9	0	N	22.27028	E	113.87225	218.55	8.15
2-Jul-12	8:15:18	Dolphin	Surface	103	10	30	302	17	10	N	22.27043	E	113.87172	234.18	354.28
2-Jul-12	8:15:46	Dolphin	Surface	103	13	20	292	46	10	N	22.27036	E	113.87135	233.32	344.77
2-Jul-12	8:16:21	Dolphin	Surface	103	34	20	290	7	0	N	22.27028	E	113.87127	227.09	342.11
2-Jul-12	8:17:27	Dolphin	Surface	106	38	40	275	21	40	N	22.26978	E	113.87094	191.34	327.36
2-Jul-12	8:18:10	Dolphin	Surface	107	44	10	280	35	30	N	22.26976	E	113.87114	178.85	332.59
2-Jul-12	8:18:35	Dolphin	Surface	107	31	30	282	30	0	N	22.26980	E	113.87119	181.15	334.50
2-Jul-12	8:19:07	Dolphin	Surface	105	44	0	282	27	0	N	22.26998	E	113.87109	203.05	334.45
2-Jul-12	8:20:31	Trawler	Operating	106	26	0	263	54	30	N	22.26959	E	113.87063	193.94	315.91
2-Jul-12	8:20:43	Dolphin	Surface	103	52	0	287	44	20	N	22.27029	E	113.87116	231.73	339.74
2-Jul-12	8:20:49	Dolphin	Surface	103	43	20	286	22	30	N	22.27029	E	113.87110	234.27	338.37
2-Jul-12	8:21:04	Dolphin	Surface	104	12	40	280	18	0	N	22.27013	E	113.87092	225.88	332.30
2-Jul-12	8:21:34	Trawler	Operating	107	48	50	297	50	0	N	22.26991	E	113.87164	178.02	349.83
2-Jul-12	8:23:51	Dolphin	Surface	102	32	50	273	34	30	N	22.27024	E	113.87053	257.03	325.57
2-Jul-12	8:23:57	Dolphin	Surface	102	8	20	270	38	50	N	22.27024	E	113.87038	265.96	322.64
2-Jul-12	8:25:21	Speedboat	Traveling	116	28	10	307	15	0	N	22.26937	E	113.87193	114.88	359.25
2-Jul-12	8:25:33	Speedboat	Traveling	110	11	50	341	32	40	N	22.26950	E	113.87278	155.49	33.54
2-Jul-12	8:25:46	Trawler	Operating	96	34	10	6	27	40	N	22.27067	E	113.87606	496.85	58.46
2-Jul-12	8:26:34	Dolphin	Surface	98	54	0	236	18	30	N	22.26937	E	113.86857	365.34	288.31
2-Jul-12	8:26:44	Dolphin	Surface	98	47	10	235	7	40	N	22.26931	E	113.86850	370.15	287.12
2-Jul-12	8:28:47	Dolphin	Surface	97	50	30	283	20	0	N	22.27173	E	113.87026	415.42	335.33
2-Jul-12	8:28:53	Dolphin	Surface	97	49	10	283	45	30	N	22.27175	E	113.87028	416.62	335.76
2-Jul-12	8:30:29	Dolphin	Surface	98	13	30	290	4	10	N	22.27172	E	113.87076	395.80	342.07
2-Jul-12	8:30:53	Dolphin	Surface	98	21	50	293	7	10	N	22.27172	E	113.87097	389.14	345.12
2-Jul-12	8:31:08	Dolphin	Surface	98	0	20	293	41	10	N	22.27188	E	113.87097	406.81	345.68
2-Jul-12	8:31:20	Dolphin	Surface	97	47	50	294	29	10	N	22.27199	E	113.87099	417.82	346.48
2-Jul-12	8:32:59	Dolphin	Surface	98	28	30	298	40	50	N	22.27174	E	113.87134	383.96	350.68
2-Jul-12	8:33:17	Dolphin	Surface	98	34	50	300	38	50	N	22.27172	E	113.87147	379.16	352.64
2-Jul-12	8:35:49	Dolphin	Surface	106	50	30	310	11	30	N	22.27003	E	113.87201	188.97	2.19
2-Jul-12	8:36:17	Dolphin	Surface	104	32	10	313	19	20	N	22.27031	E	113.87214	220.62	5.32
2-Jul-12	8:37:01	Dolphin	Surface	102	36	20	313	32	40	N	22.27062	E	113.87218	255.80	5.54
2-Jul-12	8:37:11	Dolphin	Surface	102	23	0	315	52	30	N	22.27066	E	113.87229	260.55	7.87
2-Jul-12	8:37:30	Dolphin	Surface	102	12	30	320	5	40	N	22.27066	E	113.87248	264.40	12.09
2-Jul-12	8:38:34	Dolphin	Breach	102	19	20	333	35	20	N	22.27046	E	113.87304	261.88	25.59
2-Jul-12	8:38:55	Dolphin	Surface	101	57	40	335	36	20	N	22.27049	E	113.87316	270.03	27.60
2-Jul-12	8:39:35	Dolphin	Surface	100	59	20	339	53	50	N	22.27058	E	113.87346	294.61	31.89
2-Jul-12	8:39:49	Dolphin	Surface	100	16	30	341	6	0	N	22.27071	E	113.87362	315.58	33.10
2-Jul-12	8:40:43	Dolphin	Surface	98	31	10	347	59	0	N	22.27097	E	113.87433	381.92	39.98
2-Jul-12	8:40:57	Dolphin	Breach	97	26	20	347	54	20	N	22.27136	E	113.87468	438.20	39.90
2-Jul-12	8:41:14	Dolphin	Surface	97	31	40	350	7	40	N	22.27122	E	113.87477	432.97	42.12
2-Jul-12	8:42:01	Trawler	Operating	92	0	10	354	21	40	N	22.27853	E	113.88350	1641.77	46.36
2-Jul-12	8:45:57	Trawler	Operating	93	11	50	355	43	10	N	22.27454	E	113.87932	1025.47	47.72
2-Jul-12	8:46:40	Trawler	Operating	94	20	0	234	45	0	N	22.27029	E	113.86491	755.45	286.75
2-Jul-12	8:47:18	Dolphin	Surface	101	1	30	263	37	20	N	22.27022	E	113.86995	293.62	315.62
2-Jul-12	8:47:44	Dolphin	Surface	100	50	40	268	1	20	N	22.27039	E	113.87008	298.63	320.02
2-Jul-12	8:48:13	Dolphin	Surface	100	38	50	273	21	10	N	22.27059	E	113.87026	304.30	325.35
2-Jul-12	8:48:29	Dolphin	Fluke Up	100	38	0	276	20	50	N	22.27067	E	113.87039	304.70	328.34
2-Jul-12	8:49:14	Dolphin	Surface	101	52	0	278	8	0	N	22.27046	E	113.87063	272.25	330.13
2-Jul-12	8:49:21	Dolphin	Surface	101	56	30	281	8	0	N	22.27050	E	113.87076	270.49	333.13
2-Jul-12	8:50:23	Dolphin	Fluke Up	100	5	0	289	29	0	N	22.27108	E	113.87095	321.71	341.48
2-Jul-12	8:50:56	Trawler	Operating	99	29	50	322	16	20	N	22.27132	E	113.87276	341.97	14.27
2-Jul-12	8:51:07	Trawler	Operating	94	30	40	278	30	30	N	22.27402	E	113.86847	725.52	330.51
2-Jul-12	8:51:20	Dolphin	Fluke Up	99	17	50	296	0	10	N	22.27141	E	113.87124	349.46	348.00
2-Jul-12	8:52:35	Trawler	Operating	102	58	50	274	24	0	N	22.27019	E	113.87061	248.17	326.40
2-Jul-12	8:53:03	Trawler	Operating	93	57	10	295	23	30	N	22.27561	E	113.87019	828.58	347.39
2-Jul-12	8:58:10	Trawler	Operating	92	32	40	320	33	30	N	22.27967	E	113.87467	1290.12	12.56
2-Jul-12	8:59:52	Dolphin	Surface	97	4	40	290	28	40	N	22.27229	E	113.87059	460.82	342.47
2-Jul-12	9:00:01	Dolphin	Surface	96	58	40	291	9	20	N	22.27236	E	113.87063	467.50	343.15
2-Jul-12	9:00:46	Dolphin	Surface	96	48	0	293	59	10	N	22.27252	E	113.87081	479.85	345.98
2-Jul-12	9:01:14	Dolphin	Surface	96	35	20	293	45	50	N	22.27265	E	113.87076	495.37	345.76
2-Jul-12	9:16:12	Hi-Speed Ferry		92	30	20	333	10	50	N	22.27900	E	113.87737	1310.27	25.18
2-Jul-12	9:17:38	Dolphin	Surface	107	55	30	299	20	40	N	22.26991	E	113.87169	176.84	351.34
2-Jul-12	9:19:04	Dolphin	Surface	107	57	30	272	32	0	N	22.26963	E	113.87095	176.49	324.53
2-Jul-12	9:19:58	Dolphin	Surface	109	1	40	269	57	10	N	22.26951	E	113.87095	165.87	321.95
2-Jul-12	9:20:26	Hi-Speed Ferry		93	25	50	211	2	30	N	22.26729	E	113.86272	955.38	263.04
2-Jul-12	9:25:58	Zero		91	10	0	0	5	50	N	22.28403	E	113.89374	2839.82	52.09
2-Jul-12	9:34:21	Speedboat	Traveling	121	1	0	275	13	30	N	22.26905	E	113.87144	95.14	327.22
2-Jul-12	9:41:22	Hi-Speed Ferry		104	45	0	300	34	20	N	22.27027	E	113.87167	217.27	352.57
2-Jul-12	9:42:38	Hi-Speed Ferry		95	15	40	344	11	40	N	22.27285	E	113.87551	621.51	36.19
2-Jul-12	9:44:36	Speedboat	Traveling	93	21	40	265	51	30	N	22.27484	E	113.86558	975.22	317.86
2-Jul-12	9:44:55	Speedboat	Traveling	93	3	0	278	42	10	N	22.27677	E	113.86683	1075.22	330.70
2-Jul-12	9:45:19	Speedboat	Traveling	92	36	30	291	28	30	N	22.27919	E	113.86846	1258.34	343.47
2-Jul-12	9:45:50	Speedboat	Traveling	92	4	40	302	59	10	N	22.28252	E	113.87060	1582.04	354.98
2-Jul-12	9:48:29	Dolphin	Surface	97	23	0	304	23	50	N	22.27230	E	113.87167	441.54	356.39
2-Jul-12	9:49:35	Dolphin	Surface	98	36	40	301	47	20	N	22.27171	E	113.87155	377.80	353.79
2-Jul-12	9:55:37	Zero		117	16	50	0	4	50	N	22.26895	E	113.87280	110.92	52.08
2-Jul-12	9:55:58	Trawler	Operating	93	15	30	270	59	0	N	22.27556	E	113.86605	1006.14	322.98
2-Jul-12	9:56:30	Speedboat	Traveling	92	28	40	317	7	0	N	22.28011	E	113.87399	1325.04	9.11
2-Jul-12	9:58:31	Dolphin	Surface	98	59	50	322	43	10	N	22.27148	E	113.87284	361.32	14.72
2-Jul-12	9:58:35	Dolphin	Surface	98	54	20	322	20	20	N	22.27152	E	113.87282	365.11	14.34
2-Jul-12	9:59:27	Speedboat	Traveling	94	55	0	301	30	10	N	22.27428	E	113.87121	665.34	353.50
2-Jul-12	9:59:43	Trawler	Non-operating	94	38	40	248	47	10	N	22.27158	E	113.86606	704.58	300.78
2-Jul-12	10:00:12	Trawler	Non-operating	92	50	20	242	33	20	N	22.27265	E	113.86172	1155.61	294.55
2-Jul-12	10:03:06	Trawler	Operating	95	56	30	279	50	0	N	22.27270	E	113.86942	549.83	331.83
2-Jul-12	10:05:02	Trawler	Non-operating	91	53	50	288	2	10	N	22.28300	E	113.86619	1733.92	340.03
2-Jul-12	10:13:21	Dolphin	Surface	95	39	50	339	14	10	N	22.27277	E	113.87485	577.01	31.23
2-Jul-12	10:13:28	Dolphin	Surface	95	35	30	339	0	0	N	22.27284	E	113.87487	584.52	31.00
2-Jul-12	10:15:02	Dolphin	Surface	95	17	0	340	46	40	N	22.27302	E	113.87520	618.88	32.77
2-Jul-12	10:16:00	Dolphin	Surface	95	14	40	341	34	0	N	22.27301	E	113.87530	623.50	33.56
2-Jul-12	10:16:12	Dolphin	Splash	95	14	40	340	9	50	N	22.27308	E	113.87517	623.50	32.16
2-Jul-12	10:21:41	Dolphin	Surface	94	53	0	327	15	50	N	22.27402	E	113.87409	669.91	19.26
2-Jul-12	10:31:39	Dolphin	Surface	96	29	30	239	49	50	N	22.27002	E	113.86740	502.86	291.83
2-Jul-12	10:31:53	Dolphin	Surface	96	44	30	239	51	30	N	22.26995	E	113.86758	484.04	291.86
2-Jul-12	10:35:59	Dolphin	Surface	97	42	0	234	25	30	N	22.26941	E	113.86800	423.16	286.42
2-Jul-12	10:36:23	Dolphin	Surface	97	9	50	234	48	20	N	22.26952	E	113.86771	455.22	286.80
2-Jul-12	10:36:33	Dolphin	Splash	97	16	10	234	17	0	N	22.26946	E	113.86776	448.54	286.28

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
2-Jul-12	10:36:37	Dolphin	Splash	97	18	30	234	4	10	N	22.26944	E	113.86778	446.12	286.07
2-Jul-12	10:43:39	Dolphin	Surface	95	52	50	351	54	30	N	22.27194	E	113.87569	555.59	43.91
2-Jul-12	10:44:21	Dolphin	Surface	95	55	10	347	15	10	N	22.27218	E	113.87534	551.91	39.25
2-Jul-12	10:44:31	Dolphin	Surface	95	52	20	347	0	40	N	22.27222	E	113.87535	556.39	39.01
2-Jul-12	10:44:35	Dolphin	Surface	95	50	0	347	14	40	N	22.27224	E	113.87539	560.12	39.24
2-Jul-12	10:44:42	Dolphin	Breach	95	46	40	347	56	40	N	22.27224	E	113.87548	565.55	39.94
2-Jul-12	10:45:05	Dolphin	Splash	95	42	0	349	47	30	N	22.27218	E	113.87566	573.33	41.79
2-Jul-12	10:45:45	Dolphin	Splash	95	37	50	352	39	20	N	22.27205	E	113.87591	580.45	44.65
2-Jul-12	10:50:05	Dolphin	Surface	94	42	40	359	11	10	N	22.27225	E	113.87721	694.55	51.18
2-Jul-12	10:50:34	Dolphin	Surface	94	39	50	357	37	50	N	22.27242	E	113.87714	701.62	49.63
2-Jul-12	10:51:04	Dolphin	Surface	94	34	10	356	15	40	N	22.27262	E	113.87714	716.21	48.26
2-Jul-12	10:51:29	Dolphin	Surface	94	30	20	355	11	30	N	22.27278	E	113.87713	726.42	47.19
2-Jul-12	10:52:07	Dolphin	Surface	94	23	0	353	36	40	N	22.27303	E	113.87713	746.79	45.61
2-Jul-12	10:52:29	Dolphin	Surface	94	19	10	353	28	50	N	22.27312	E	113.87720	757.90	45.48
2-Jul-12	10:52:35	Dolphin	Surface	94	19	20	353	53	30	N	22.27308	E	113.87723	757.41	45.89
2-Jul-12	10:53:00	Dolphin	Surface	94	15	30	354	4	30	N	22.27313	E	113.87733	768.83	46.07
2-Jul-12	10:54:54	Dolphin	Surface	94	0	10	356	16	40	N	22.27323	E	113.87788	818.18	48.27
2-Jul-12	11:04:15	Dolphin	Splash	93	28	10	2	28	10	N	22.27327	E	113.87942	944.62	54.47
2-Jul-12	11:09:23	Dolphin	Surface	104	11	0	262	11	10	N	22.26975	E	113.87037	226.34	314.18
2-Jul-12	11:09:36	Dolphin	Surface	104	10	20	264	44	10	N	22.26982	E	113.87043	226.53	316.73
2-Jul-12	11:10:05	Dolphin	Surface	103	57	0	270	9	10	N	22.26997	E	113.87057	230.29	322.15
2-Jul-12	11:10:38	Dolphin	Surface	103	40	30	275	1	10	N	22.27011	E	113.87070	235.11	327.02
2-Jul-12	11:12:11	Dolphin	Surface	105	51	10	286	37	50	N	22.27002	E	113.87123	201.44	338.63
2-Jul-12	11:12:29	Dolphin	Surface	105	58	40	290	12	0	N	22.27005	E	113.87135	199.78	342.20
2-Jul-12	11:12:40	Dolphin	Surface	107	6	50	292	26	0	N	22.26994	E	113.87146	185.78	344.43
2-Jul-12	11:13:03	Dolphin	Surface	107	12	50	294	55	10	N	22.26995	E	113.87154	184.63	346.92
2-Jul-12	11:13:20	Dolphin	Surface	106	4	50	296	58	40	N	22.27009	E	113.87158	198.44	348.97
2-Jul-12	11:14:13	Dolphin	Surface	107	53	0	298	43	20	N	22.26991	E	113.87167	177.28	350.72
2-Jul-12	11:14:21	Dolphin	Surface	107	11	0	296	43	50	N	22.26997	E	113.87159	184.98	348.73
2-Jul-12	11:14:26	Dolphin	Splash	106	14	40	295	54	30	N	22.27006	E	113.87154	196.33	347.91
2-Jul-12	11:14:37	Dolphin	Surface	104	47	20	294	45	30	N	22.27023	E	113.87146	216.68	346.76
2-Jul-12	11:14:45	Dolphin	Surface	104	3	40	294	13	30	N	22.27033	E	113.87142	228.40	346.22
2-Jul-12	11:15:06	Dolphin	Splash	101	52	30	296	14	10	N	22.27073	E	113.87140	272.05	348.23
2-Jul-12	11:15:28	Dolphin	Surface	103	41	30	296	59	10	N	22.27041	E	113.87151	234.81	348.98
2-Jul-12	11:15:53	Dolphin	Surface	104	36	50	296	24	10	N	22.27027	E	113.87152	219.39	348.40
2-Jul-12	11:16:23	Hi-Speed Ferry		94	10	10	315	14	20	N	22.27534	E	113.87291	785.31	7.24
2-Jul-12	11:17:02	Dolphin	Splash	110	5	30	297	7	10	N	22.26972	E	113.87166	156.38	349.12
2-Jul-12	11:17:28	Hi-Speed Ferry		95	42	0	272	56	0	N	22.27256	E	113.86874	573.33	324.93
2-Jul-12	11:19:53	Dolphin	Surface	100	26	50	316	38	30	N	22.27109	E	113.87240	310.26	8.64
2-Jul-12	11:20:08	Dolphin	Splash	100	21	20	317	14	0	N	22.27111	E	113.87243	313.07	9.23
2-Jul-12	11:20:21	Dolphin	Splash	100	47	40	318	39	10	N	22.27099	E	113.87248	300.05	10.65
2-Jul-12	11:20:57	Dolphin	Surface	100	29	30	321	54	20	N	22.27103	E	113.87267	308.91	13.90
2-Jul-12	11:22:33	Dolphin	Surface	99	49	50	321	1	20	N	22.27123	E	113.87267	330.15	13.02
2-Jul-12	11:22:43	Dolphin	Surface	99	40	10	320	21	40	N	22.27128	E	113.87264	335.76	12.36
2-Jul-12	11:23:00	Dolphin	Surface	99	27	20	319	18	40	N	22.27136	E	113.87260	343.51	11.31
2-Jul-12	11:23:07	Dolphin	Surface	99	26	0	319	41	20	N	22.27137	E	113.87262	344.33	11.69
2-Jul-12	11:23:28	Dolphin	Surface	98	58	20	318	4	10	N	22.27154	E	113.87256	362.35	10.07
2-Jul-12	11:26:19	Dolphin	Surface	96	53	40	316	24	30	N	22.27255	E	113.87262	473.21	8.41
2-Jul-12	11:26:23	Dolphin	Splash	96	47	0	316	24	30	N	22.27262	E	113.87263	481.04	8.41
2-Jul-12	11:31:03	Dolphin	Surface	107	32	40	300	48	0	N	22.26995	E	113.87172	180.93	352.80
2-Jul-12	11:32:35	Dolphin	Surface	107	22	40	302	16	10	N	22.26997	E	113.87177	182.78	354.27
2-Jul-12	11:32:52	Dolphin	Surface	107	33	0	303	24	30	N	22.26996	E	113.87180	180.87	355.41
2-Jul-12	11:33:13	Dolphin	Surface	107	26	0	303	38	50	N	22.26997	E	113.87181	182.16	355.64
2-Jul-12	11:35:37	Dolphin	Surface	108	42	20	290	20	0	N	22.26978	E	113.87145	168.94	342.33
2-Jul-12	11:35:53	Dolphin	Surface	106	55	50	290	26	10	N	22.26995	E	113.87139	187.92	342.43
2-Jul-12	11:36:20	Dolphin	Breach	104	56	0	288	17	30	N	22.27015	E	113.87124	214.48	340.29
2-Jul-12	11:39:53	Dolphin	Surface	104	24	20	293	10	50	N	22.27027	E	113.87139	222.70	345.18
2-Jul-12	11:40:06	Dolphin	Surface	103	25	30	294	1	10	N	22.27043	E	113.87138	239.66	346.02
2-Jul-12	11:40:10	Dolphin	Surface	103	20	10	294	0	10	N	22.27044	E	113.87138	241.31	346.00
2-Jul-12	11:44:47	Zero		132	12	0	0	0	0	N	22.26868	E	113.87243	63.08	52.00
2-Jul-12	11:46:29	Dolphin	Splash	99	31	20	272	30	40	N	22.27083	E	113.87002	341.06	324.51
2-Jul-12	11:46:42	Dolphin	Surface	99	20	20	273	5	10	N	22.27090	E	113.87001	347.88	325.08
2-Jul-12	11:47:02	Dolphin	Splash	99	12	10	273	22	20	N	22.27095	E	113.86999	353.12	325.37
2-Jul-12	11:48:20	Speedboat	Traveling	97	36	10	302	46	40	N	22.27217	E	113.87156	428.64	354.77
2-Jul-12	11:48:37	Speedboat	Traveling	101	7	10	293	16	50	N	22.27087	E	113.87123	291.06	345.28
2-Jul-12	11:49:10	Speedboat	Traveling	106	24	10	271	37	0	N	22.26974	E	113.87082	194.32	323.61
2-Jul-12	11:50:17	Dolphin	Surface	104	53	40	283	52	20	N	22.27010	E	113.87109	215.07	335.87
2-Jul-12	11:50:34	Dolphin	Surface	104	40	10	284	19	50	N	22.27013	E	113.87109	218.52	336.33
2-Jul-12	11:51:04	Dolphin	Surface	104	29	20	286	5	30	N	22.27018	E	113.87114	221.37	338.09
2-Jul-12	11:51:54	Dolphin	Surface	104	43	30	287	18	0	N	22.27017	E	113.87120	217.66	339.30
2-Jul-12	11:52:06	Dolphin	Surface	103	33	30	283	29	20	N	22.27028	E	113.87099	237.21	335.49
2-Jul-12	11:52:15	Dolphin	Surface	103	4	10	281	50	10	N	22.27032	E	113.87089	246.42	333.83
2-Jul-12	11:54:04	Dolphin	Surface	101	3	30	276	30	10	N	22.27058	E	113.87046	292.71	328.50
2-Jul-12	11:54:11	Dolphin	Surface	100	57	10	276	35	50	N	22.27060	E	113.87045	295.60	328.59
2-Jul-12	11:54:24	Dolphin	Surface	100	55	0	275	39	30	N	22.27059	E	113.87040	296.61	327.66
2-Jul-12	11:54:36	Dolphin	Surface	100	43	40	272	49	30	N	22.27055	E	113.87025	301.96	324.82
2-Jul-12	11:54:48	Dolphin	Surface	100	29	0	271	0	20	N	22.27056	E	113.87014	309.17	323.00
2-Jul-12	11:55:00	Speedboat	Traveling	102	9	10	291	39	10	N	22.27063	E	113.87122	265.65	343.65
2-Jul-12	11:55:17	Speedboat	Traveling	98	26	10	309	38	20	N	22.27180	E	113.87205	385.75	1.64
2-Jul-12	12:01:10	Dolphin	Surface	106	11	10	287	7	40	N	22.26999	E	113.87126	197.07	339.12
2-Jul-12	12:01:54	Dolphin	Surface	103	59	30	268	43	50	N	22.26993	E	113.87053	229.58	320.73
2-Jul-12	12:08:12	Trawler	Operating	92	34	10	275	27	50	N	22.27803	E	113.86526	1277.50	327.46
2-Jul-12	12:11:05	Dolphin	Surface	103	59	0	281	49	30	N	22.27019	E	113.87096	229.72	333.82
2-Jul-12	12:13:10	Trawler	Operating	92	34	20	227	32	0	N	22.27023	E	113.85971	1276.11	279.53
2-Jul-12	12:13:37	Dolphin	Surface	102	42	40	287	54	10	N	22.27048	E	113.87110	253.61	339.90
2-Jul-12	12:13:48	Dolphin	Surface	102	52	30	288	48	0	N	22.27046	E	113.87114	250.27	340.80
2-Jul-12	12:14:09	Dolphin	Surface	103	5	20	287	32	10	N	22.27041	E	113.87111	246.04	339.53
2-Jul-12	12:14:25	Dolphin	Surface	103	42	40	286	42	30	N	22.27030	E	113.87112	234.46	338.71
2-Jul-12	12:15:20	Dolphin	Surface	107	21	20	274	1	20	N	22.26970	E	113.87095	183.03	326.02
2-Jul-12	12:17:06	Dolphin	Surface	107	42	0	267	9	20	N	22.26955	E	113.87080	179.24	319.15
13-Jul-12	6:07:01	Zero		91	11	50	0	0	0	N	22.28314	E	113.89242	2671.98	52.00
13-Jul-12	6:08:33	Trawler	Operating	96	8	0	93	23	20	N	22.26452	E	113.87479	514.63	145.39
13-Jul-12	6:09:00	Trawler	Operating	92	34	50	40	14	0	N	22.26790	E	113.88389	1229.18	92.23
13-Jul-12	6:09:22	Trawler	Operating	96	39	0	104	56	10	N	22.26441	E	113.87375	474.30	156.93
13-Jul-12	6:14:34	Dolphin	Surface	104	31	10	78	25	40	N	22.26709	E	113.87352	213.47	130.42
13-Jul-12	6:15:33	Dolphin	Surface	104	56	40	71	46	0	N	22.26730	E	113.87362	207.12	123.76
13-Jul-12	6:16:52	Dolphin	Surface	104	25	10	65	23	50	N	22.26744	E	113.87380	215.01	117.39
13-Jul-12	6:18:15	Dolphin	Surface	102	51	30	63	16	50	N	22.26740	E	113.87407	242.19	115.28
13-Jul-12	6:20:49	Speedboat	Traveling	93	6	40	56	24	50	N	22.26544	E	113.88134	1018.56	108.41
13-Jul-12	6:22:40	Speedboat	Traveling	93	13	30	73	2	0	N	22.26326	E	113.87977	982.42	125.03
13-Jul-12	6:22:46	Speedboat	Traveling	93	16	0	76	38	0	N	22.26288	E	113.87931	969.83	128.63

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
13-Jul-12	6:22:54	Speedboat	Traveling	93	17	50	81	34	50	N	22.26237	E	113.87871	960.80	133.58
13-Jul-12	6:23:09	Trawler	Operating	93	33	10	117	38	50	N	22.26044	E	113.87350	891.36	169.64
13-Jul-12	6:23:21	Trawler	Operating	93	33	30	115	57	30	N	22.26050	E	113.87375	889.97	167.96
13-Jul-12	6:23:33	Speedboat	Traveling	93	16	10	106	21	40	N	22.26023	E	113.87542	969.00	158.36
13-Jul-12	6:24:35	Police Vessel	Traveling	93	14	0	115	40	20	N	22.25972	E	113.87398	979.87	167.67
13-Jul-12	6:24:47	Speedboat	Traveling	93	14	50	116	0	40	N	22.25974	E	113.87392	975.66	168.01
13-Jul-12	6:25:49	Trawler	Operating	93	20	10	95	55	0	N	22.26109	E	113.87685	949.54	147.91
13-Jul-12	6:27:04	Trawler	Operating	93	0	50	88	6	30	N	22.26107	E	113.87850	1051.58	140.11
13-Jul-12	6:27:30	Trawler	Operating	91	47	0	14	0	30	N	22.27486	E	113.88779	1783.51	66.01
13-Jul-12	6:29:54	Trawler	Operating	92	25	40	74	21	0	N	22.26136	E	113.88218	1306.99	126.35
13-Jul-12	6:30:12	Trawler	Operating	92	8	50	9	35	50	N	22.27466	E	113.88460	1478.96	61.59
13-Jul-12	6:34:13	Dolphin	Surface	106	51	30	62	32	20	N	22.26765	E	113.87356	182.43	114.54
13-Jul-12	6:34:52	Dolphin	Surface	106	56	0	59	55	50	N	22.26772	E	113.87358	181.58	111.93
13-Jul-12	6:35:16	Dolphin	Surface	104	56	50	56	9	40	N	22.26775	E	113.87386	207.08	108.16
13-Jul-12	6:39:12	Trawler	Operating	96	42	0	19	1	0	N	22.26971	E	113.87627	470.72	71.01
13-Jul-12	6:39:39	Trawler	Operating	91	19	40	61	36	20	N	22.25967	E	113.89337	2404.57	113.60
13-Jul-12	6:42:43	Trawler	Operating	104	40	40	82	27	10	N	22.26700	E	113.87341	211.06	134.45
13-Jul-12	6:44:35	Trawler	Operating	92	11	50	39	47	40	N	22.26793	E	113.88599	1445.07	91.79
13-Jul-12	6:53:40	Speedboat	Traveling	117	13	30	46	57	10	N	22.26818	E	113.87298	107.45	98.95
13-Jul-12	6:53:55	Speedboat	Traveling	112	11	40	16	58	10	N	22.26877	E	113.87317	135.50	68.97
13-Jul-12	6:54:14	Trawler	Operating	93	35	50	100	39	0	N	22.26130	E	113.87588	880.30	152.65
13-Jul-12	6:54:49	Trawler	Operating	92	11	40	115	16	0	N	22.25563	E	113.87505	1446.91	167.26
13-Jul-12	7:05:06	Zero		91	12	20	67	47	0	N	22.25647	E	113.89434	2653.13	119.78
13-Jul-12	7:06:05	Trawler	Non-operating	94	28	0	323	55	10	N	22.27446	E	113.87383	708.17	15.92
13-Jul-12	7:06:38	Trawler	Operating	92	33	50	245	54	40	N	22.27354	E	113.86131	1237.21	297.91
13-Jul-12	7:08:38	Trawler	Non-operating	97	50	50	265	3	20	N	22.27098	E	113.86929	401.19	317.05
13-Jul-12	7:08:56	Trawler	Operating	92	20	10	254	33	30	N	22.27562	E	113.86133	1358.60	306.56
13-Jul-12	7:13:03	Trawler	Operating	92	11	10	270	21	40	N	22.27868	E	113.86332	1452.47	322.36
13-Jul-12	7:13:32	Trawler	Operating	91	48	20	231	45	40	N	22.27210	E	113.85531	1761.35	283.76
13-Jul-12	7:13:49	Trawler	Operating	92	16	30	215	29	0	N	22.26778	E	113.85839	1395.34	267.48
13-Jul-12	7:17:23	Trawler	Operating	91	47	20	277	19	30	N	22.28209	E	113.86312	1777.91	329.32
13-Jul-12	7:17:37	Trawler	Operating	92	1	20	247	27	10	N	22.27528	E	113.85864	1571.09	299.45
13-Jul-12	7:17:46	Trawler	Operating	93	4	30	229	1	30	N	22.27011	E	113.86211	1030.58	281.02
13-Jul-12	7:25:02	Trawler	Operating	93	44	50	282	37	30	N	22.27520	E	113.86842	844.89	334.62
13-Jul-12	7:25:17	Trawler	Operating	92	15	10	280	57	20	N	22.27963	E	113.86571	1409.20	332.95
13-Jul-12	7:28:07	Trawler	Operating	93	12	50	286	31	0	N	22.27659	E	113.86843	985.83	338.51
13-Jul-12	7:28:18	Trawler	Operating	93	14	20	306	35	0	N	22.27713	E	113.87171	978.19	358.58
13-Jul-12	7:28:47	Speedboat	Traveling	113	35	40	333	41	0	N	22.26936	E	113.87248	126.57	25.68
13-Jul-12	7:28:57	Speedboat	Traveling	114	42	0	329	37	40	N	22.26934	E	113.87238	120.19	21.62
13-Jul-12	7:32:59	Trawler	Operating	99	0	40	271	3	40	N	22.27084	E	113.86991	348.65	323.06
13-Jul-12	7:33:14	Trawler	Operating	92	13	10	326	19	30	N	22.28055	E	113.87632	1430.50	18.32
13-Jul-12	7:39:13	Dolphin	Surface	106	0	10	285	26	40	N	22.26994	E	113.87123	192.76	337.44
13-Jul-12	7:40:40	Dolphin	Surface	102	8	10	295	47	0	N	22.27059	E	113.87142	257.09	347.78
13-Jul-12	7:41:10	Dolphin	Surface	102	37	50	299	14	20	N	22.27053	E	113.87158	246.71	351.24
13-Jul-12	7:41:21	Dolphin	Surface	102	3	40	297	48	50	N	22.27063	E	113.87150	258.74	349.81
13-Jul-12	7:50:28	Trawler	Operating	96	51	30	233	46	20	N	22.26946	E	113.86764	459.75	285.77
13-Jul-12	7:50:38	Trawler	Operating	97	0	10	231	15	50	N	22.26926	E	113.86768	450.17	283.26
13-Jul-12	7:55:04	Dolphin	Surface	99	54	20	283	54	30	N	22.27093	E	113.87069	316.60	335.91
13-Jul-12	7:55:52	Dolphin	Surface	99	44	30	287	55	20	N	22.27106	E	113.87087	322.04	339.92
13-Jul-12	8:04:38	Trawler	Operating	95	9	10	245	8	20	N	22.27085	E	113.86664	613.35	297.14
13-Jul-12	8:04:54	Dolphin	Surface	100	22	50	308	32	30	N	22.27105	E	113.87197	301.81	0.54
13-Jul-12	8:05:47	Dolphin	Surface	100	1	10	312	27	20	N	22.27114	E	113.87218	312.93	4.45
13-Jul-12	8:07:10	Dolphin	Surface	100	36	20	306	29	50	N	22.27099	E	113.87187	295.26	358.49
13-Jul-12	8:08:11	Dolphin	Surface	102	44	30	302	32	30	N	22.27052	E	113.87172	244.49	354.54
13-Jul-12	8:08:34	Dolphin	Surface	103	58	0	298	42	50	N	22.27031	E	113.87160	222.28	350.71
13-Jul-12	8:12:13	Trawler	Operating	92	19	30	283	13	0	N	22.27949	E	113.86638	1365.14	335.21
13-Jul-12	8:12:25	Trawler	Operating	92	59	50	297	29	0	N	22.27769	E	113.87007	1057.46	349.48
13-Jul-12	8:12:46	Trawler	Operating	92	16	40	349	11	40	N	22.27777	E	113.88087	1393.63	41.19
13-Jul-12	8:13:27	Trawler	Operating	91	17	10	285	45	40	N	22.28902	E	113.86280	2483.86	337.76
13-Jul-12	8:14:45	Trawler	Operating	91	55	10	287	47	50	N	22.28232	E	113.86638	1655.92	339.79
13-Jul-12	8:14:55	Trawler	Operating	93	19	0	279	8	10	N	22.27586	E	113.86746	955.14	331.13
13-Jul-12	8:15:25	Trawler	Operating	92	48	30	355	46	30	N	22.27516	E	113.88007	1128.96	47.77
13-Jul-12	8:18:02	Speedboat	Traveling	115	13	50	301	31	0	N	22.26938	E	113.87182	117.32	353.51
13-Jul-12	8:18:20	Speedboat	Traveling	113	10	10	332	1	50	N	22.26940	E	113.87246	129.17	24.03
13-Jul-12	8:19:13	Trawler	Operating	93	0	50	248	32	10	N	22.27314	E	113.86314	1051.58	300.53
13-Jul-12	8:19:20	Trawler	Operating	91	37	20	267	54	40	N	22.28184	E	113.85965	1962.60	319.91
13-Jul-12	8:19:51	Trawler	Operating	95	10	50	346	49	20	N	22.27261	E	113.87566	610.04	38.82
13-Jul-12	8:27:38	Zero		91	10	30	0	0	40	N	22.28342	E	113.89282	2723.59	52.01
13-Jul-12	8:29:18	Dolphin	Surface	106	13	30	298	43	30	N	22.27002	E	113.87165	189.98	350.72
13-Jul-12	8:30:13	Dolphin	Surface	104	44	0	298	31	0	N	22.27020	E	113.87161	210.23	350.51
13-Jul-12	8:49:23	Dolphin	Breach	102	7	0	311	52	40	N	22.27065	E	113.87211	257.52	3.87
13-Jul-12	8:51:55	Dolphin	Surface	100	51	40	308	17	10	N	22.27093	E	113.87196	288.15	0.28
13-Jul-12	8:53:03	Dolphin	Surface	99	23	50	313	20	50	N	22.27133	E	113.87225	334.07	5.34
13-Jul-12	9:02:17	Dolphin	Surface	102	46	20	293	5	0	N	22.27045	E	113.87133	243.88	345.08
13-Jul-12	9:07:06	Dolphin	Surface	112	15	10	284	8	50	N	22.26970	E	113.87129	166.40	336.14
13-Jul-12	9:23:03	Trawler	Operating	92	51	40	313	13	40	N	22.28064	E	113.87316	1372.73	5.22
13-Jul-12	9:23:36	Trawler	Operating	93	1	20	310	16	10	N	22.28002	E	113.87244	1299.38	2.27
13-Jul-12	9:24:18	Trawler	Operating	92	59	0	306	15	40	N	22.28018	E	113.87156	1316.73	358.26
13-Jul-12	9:24:58	Speedboat	Traveling	114	41	0	288	12	0	N	22.26960	E	113.87145	149.05	340.20
13-Jul-12	9:25:17	Trawler	Operating	92	41	40	308	21	10	N	22.28147	E	113.87203	1459.30	0.35
13-Jul-12	9:27:11	Speedboat	Traveling	114	3	40	284	53	50	N	22.26960	E	113.87136	153.54	336.89
13-Jul-12	9:29:30	Dolphin	Breach	107	3	20	334	51	0	N	22.27013	E	113.87293	223.64	26.85
13-Jul-12	9:31:16	Speedboat	Traveling	98	35	20	331	41	40	N	22.27208	E	113.87372	454.63	23.69
13-Jul-12	9:31:20	Speedboat	Traveling	98	15	0	334	13	20	N	22.27216	E	113.87398	473.60	26.22
13-Jul-12	9:31:29	Speedboat	Traveling	96	42	20	337	48	30	N	22.27289	E	113.87477	584.17	29.81
13-Jul-12	9:33:55	Trawler	Operating	98	40	0	317	48	40	N	22.27233	E	113.87269	450.89	9.81
13-Jul-12	9:34:07	Trawler	Operating	98	3	40	322	39	40	N	22.27256	E	113.87314	485.32	14.66
13-Jul-12	9:34:23	Trawler	Operating	91	36	20	335	48	50	N	22.28798	E	113.88315	2468.87	27.81
13-Jul-12	9:36:13	Speedboat	Traveling	113	4	40	339	24	20	N	22.26957	E	113.87276	161.40	31.40
13-Jul-12	9:36:17	Speedboat	Traveling	112	42	50	342	21	20	N	22.26955	E	113.87285	164.29	34.35
13-Jul-12	9:43:54	Speedboat	Traveling	114	4	50	273	21	20	N	22.26948	E	113.87109	154.27	325.35
13-Jul-12	9:44:22	Hi-Speed Ferry		92	32	40	345	41	10	N	22.27942	E	113.88119	1556.01	37.68
13-Jul-12	9:45:04	Police Vessel	Traveling	91	49	20	338	51	30	N	22.28517	E	113.88282	2179.68	30.86
13-Jul-12	9:45:16	Hi-Speed Ferry		93	45	0	339	57	20	N	22.27638	E	113.87737	1053.72	31.95
13-Jul-12	9:45:40	Police Vessel	Traveling	92	2	50	336	11	30	N	22.28371	E	113.88085	1938.17	28.19
13-Jul-12	9:46:03	Hi-Speed Ferry		95	57	40	326	30	20	N	22.27398	E	113.87398	661.10	18.50
13-Jul-12	9:47:02	Hi-Speed Ferry		99	41	40	272	54	10	N	22.27131	E	113.86968	404.09	324.90
13-Jul-12	9:47:37	Police Vessel	Traveling	93	22	30	319	52	50	N	22.27866	E	113.87429	1172.40	11.88
13-Jul-12	9:49:16	Police Vessel	Traveling	95	7	50	281	0	20	N	22.27451	E	113.86855	769.81	333.00
13-Jul-12	9:49:46	Speedboat	Traveling	91	55	30	280	56	20	N	22.28488	E	113.86281	2065.37	332.94
13-Jul-12	9:49:55	Speedboat	Traveling	91	53	0	287	26	10	N	22.28613	E	113.86473	2111.67	339.43

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
13-Jul-12	9:50:17	Speedboat	Traveling	91	46	30	301	26	20	N	22.28838	E	113.86945	2242.35	353.44
13-Jul-12	9:54:17	Speedboat	Traveling	113	40	40	332	49	50	N	22.26962	E	113.87259	157.79	24.83
13-Jul-12	9:54:29	Speedboat	Traveling	116	25	30	314	59	40	N	22.26958	E	113.87211	139.24	6.99
13-Jul-12	9:56:55	Zero		91	14	20	359	59	30	N	22.28629	E	113.89677	3240.28	51.99
13-Jul-12	9:58:23	Dolphin	Breach	106	52	40	281	38	10	N	22.27017	E	113.87096	228.37	333.63
13-Jul-12	9:58:34	Dolphin	Surface	105	3	0	281	19	0	N	22.27041	E	113.87082	257.71	333.31
13-Jul-12	9:59:10	Dolphin	Surface	101	41	50	277	30	30	N	22.27093	E	113.87029	334.77	329.51
13-Jul-12	9:59:32	Dolphin	Surface	101	15	50	274	45	30	N	22.27095	E	113.87009	348.06	326.76
13-Jul-12	9:59:43	Dolphin	Surface	102	13	20	272	15	40	N	22.27067	E	113.87013	320.03	324.26
13-Jul-12	9:59:59	Dolphin	Surface	102	8	10	268	44	50	N	22.27058	E	113.86996	322.40	320.74
13-Jul-12	10:00:27	Dolphin	Surface	103	7	30	269	4	40	N	22.27042	E	113.87013	297.38	321.07
13-Jul-12	10:06:25	Dolphin	Fluke Up	107	11	0	301	38	20	N	22.27034	E	113.87170	224.67	353.64
13-Jul-12	10:07:21	Trawler	Operating	94	54	50	350	11	0	N	22.27373	E	113.87723	808.91	42.18
13-Jul-12	10:08:50	Dolphin	Surface	103	45	40	321	4	0	N	22.27082	E	113.87257	283.93	13.06
13-Jul-12	10:09:00	Dolphin	Surface	103	21	20	324	10	0	N	22.27087	E	113.87274	292.91	16.16
13-Jul-12	10:09:16	Dolphin	Surface	102	41	0	326	13	20	N	22.27097	E	113.87288	309.02	18.22
13-Jul-12	10:09:37	Trawler	Operating	98	2	30	329	2	0	N	22.27247	E	113.87366	492.39	21.03
13-Jul-12	10:10:24	Hi-Speed Ferry		97	15	20	261	37	10	N	22.27173	E	113.86810	546.59	313.62
13-Jul-12	10:10:51	Trawler	Operating	97	49	40	356	51	10	N	22.27133	E	113.87565	506.24	48.85
13-Jul-12	10:12:44	Trawler	Operating	104	34	0	321	21	10	N	22.27068	E	113.87255	267.94	13.35
13-Jul-12	10:13:50	Hi-Speed Ferry		92	5	0	340	30	0	N	22.28293	E	113.88199	1922.53	32.50
13-Jul-12	10:15:33	Trawler	Operating	94	39	50	248	7	40	N	22.27219	E	113.86475	854.90	300.12
13-Jul-12	10:15:46	Trawler	Operating	96	42	50	259	42	40	N	22.27188	E	113.86764	592.25	311.71
13-Jul-12	10:18:38	Dolphin	Surface	106	45	40	290	35	40	N	22.27032	E	113.87127	231.63	342.59
13-Jul-12	10:18:58	Dolphin	Surface	106	40	30	291	48	30	N	22.27035	E	113.87131	232.93	343.81
13-Jul-12	10:19:20	Dolphin	Surface	106	45	20	295	15	30	N	22.27037	E	113.87145	231.77	347.26
13-Jul-12	10:21:42	Dolphin	Surface	103	9	10	320	10	30	N	22.27096	E	113.87256	298.86	12.17
13-Jul-12	10:22:10	Dolphin	Surface	102	58	40	324	29	20	N	22.27095	E	113.87278	303.08	16.49
13-Jul-12	10:25:17	Dolphin	Surface	103	36	30	318	16	0	N	22.27089	E	113.87244	288.83	10.26
13-Jul-12	10:27:42	Dolphin	Surface	102	38	10	323	36	50	N	22.27104	E	113.87276	312.14	15.61
13-Jul-12	10:28:01	Dolphin	Surface	101	56	0	325	8	0	N	22.27118	E	113.87289	331.15	17.13
13-Jul-12	10:28:43	Dolphin	Fluke Up	100	50	0	322	3	20	N	22.27153	E	113.87281	365.82	14.05
13-Jul-12	10:30:19	Dolphin	Fluke Up	98	58	50	313	55	10	N	22.27230	E	113.87239	443.23	5.92
31-Jul-12	6:29:45	Zero		111	50	0	359	6	40	N	22.26910	E	113.87298	136.46	51.11
31-Jul-12	6:30:16	Trawler	Operating	103	14	0	321	46	30	N	22.27037	E	113.87248	232.50	13.77
31-Jul-12	6:33:58	Trawler	Operating	95	15	10	3	7	10	N	22.27140	E	113.87669	594.96	55.12
31-Jul-12	6:34:18	Speedboat	Traveling	117	51	20	311	37	20	N	22.26926	E	113.87201	103.45	3.62
31-Jul-12	6:34:25	Speedboat	Traveling	112	18	20	337	48	0	N	22.26937	E	113.87259	133.27	29.80
31-Jul-12	6:37:46	Trawler	Operating	92	56	10	6	32	20	N	22.27335	E	113.88080	1067.65	58.54
31-Jul-12	6:38:02	Speedboat	Stationary	94	56	30	15	16	0	N	22.27053	E	113.87762	632.66	67.26
31-Jul-12	6:44:15	Speedboat	Traveling	115	20	40	326	16	50	N	22.26932	E	113.87230	115.43	18.28
31-Jul-12	6:44:22	Speedboat	Traveling	113	13	10	335	39	30	N	22.26935	E	113.87252	127.44	27.66
31-Jul-12	6:44:32	Trawler	Operating	91	41	40	352	35	10	N	22.28024	E	113.88462	1857.22	44.58
31-Jul-12	6:46:22	Trawler	Operating	91	35	0	347	13	30	N	22.28220	E	113.88418	1989.06	39.22
31-Jul-12	6:46:32	Speedboat	Traveling	96	13	20	10	23	20	N	22.27043	E	113.87627	501.62	62.39
31-Jul-12	6:51:54	Trawler	Operating	91	26	0	328	37	50	N	22.28686	E	113.87948	2200.09	20.63
31-Jul-12	6:52:14	Speedboat	Traveling	93	7	50	2	17	30	N	22.27359	E	113.87985	1001.02	54.29
31-Jul-12	6:54:54	Speedboat	Traveling	108	27	0	330	3	20	N	22.26970	E	113.87254	163.87	22.05
31-Jul-12	6:55:06	Trawler	Operating	91	23	0	318	44	50	N	22.28850	E	113.87608	2280.82	10.74
31-Jul-12	6:55:24	Seafood Container		91	57	10	306	25	30	N	22.28281	E	113.87151	1609.39	358.42
31-Jul-12	7:27:15	Dolphin	Surface	109	23	20	266	0	50	N	22.26937	E	113.87093	155.35	318.01
31-Jul-12	7:53:29	Zero		134	6	40	0	0	0	N	22.26865	E	113.87238	56.39	52.00
31-Jul-12	8:27:20	Police Vessel	Traveling	92	14	50	255	7	50	N	22.27592	E	113.86111	1397.07	307.13
31-Jul-12	8:27:30	Police Vessel	Traveling	92	18	20	246	0	0	N	22.27408	E	113.86025	1361.49	298.00
31-Jul-12	8:27:50	Police Vessel	Traveling	92	12	30	228	47	40	N	22.27073	E	113.85836	1421.84	280.79
31-Jul-12	8:29:13	Speedboat	Traveling	108	3	20	269	47	50	N	22.26952	E	113.87094	167.71	321.79
31-Jul-12	8:29:23	Speedboat	Traveling	106	14	50	290	32	10	N	22.26994	E	113.87140	187.61	342.53
31-Jul-12	8:29:49	Speedboat	Traveling	99	21	40	319	6	10	N	22.27126	E	113.87257	331.68	11.10
31-Jul-12	8:30:06	Speedboat	Traveling	97	3	10	326	13	30	N	22.27211	E	113.87329	442.01	18.22
31-Jul-12	8:45:21	Police Vessel	Traveling	91	52	50	225	9	50	N	22.27021	E	113.85581	1671.74	277.16
31-Jul-12	8:46:58	Police Vessel	Traveling	91	56	40	257	46	30	N	22.27764	E	113.85986	1616.35	309.77
31-Jul-12	8:50:18	Police Vessel	Traveling	91	3	10	298	41	50	N	22.29510	E	113.86720	3013.78	350.69
31-Jul-12	8:58:29	Dolphin	Surface	107	33	50	281	7	0	N	22.26972	E	113.87118	172.73	333.11
31-Jul-12	8:59:01	Dolphin	Surface	108	31	0	259	19	40	N	22.26930	E	113.87075	163.24	311.32
31-Jul-12	8:59:38	Dolphin	Surface	109	7	10	307	29	10	N	22.26975	E	113.87193	157.71	359.48
31-Jul-12	9:00:09	Dolphin	Surface	108	11	10	306	24	0	N	22.26983	E	113.87190	166.42	358.40
31-Jul-12	9:00:40	Dolphin	Surface	108	4	0	305	20	50	N	22.26984	E	113.87187	167.60	357.34
31-Jul-12	9:00:46	Dolphin	Surface	107	46	40	305	13	30	N	22.26987	E	113.87186	170.51	357.22
31-Jul-12	9:00:51	Dolphin	Surface	107	33	40	305	38	20	N	22.26989	E	113.87188	172.76	357.64
31-Jul-12	9:01:08	Dolphin	Surface	107	42	10	306	30	10	N	22.26987	E	113.87190	171.28	358.50
31-Jul-12	9:01:14	Dolphin	Surface	107	29	30	306	39	20	N	22.26989	E	113.87190	173.49	358.65
31-Jul-12	9:01:38	Dolphin	Surface	107	48	50	306	44	20	N	22.26986	E	113.87191	170.14	358.74
31-Jul-12	9:01:45	Dolphin	Surface	107	44	0	307	2	30	N	22.26987	E	113.87192	170.97	359.04
31-Jul-12	9:02:15	Dolphin	Surface	108	45	50	306	40	0	N	22.26978	E	113.87191	160.93	358.66
31-Jul-12	9:02:56	Dolphin	Surface	109	2	20	305	12	10	N	22.26976	E	113.87187	158.43	357.20
31-Jul-12	9:03:08	Dolphin	Surface	108	40	20	305	0	10	N	22.26979	E	113.87186	161.78	357.00
31-Jul-12	9:03:41	Dolphin	Surface	108	39	10	304	42	20	N	22.26979	E	113.87185	161.96	356.70
31-Jul-12	9:04:07	Dolphin	Surface	108	40	50	301	37	40	N	22.26978	E	113.87177	161.70	353.62
31-Jul-12	9:04:48	Dolphin	Surface	111	14	0	279	7	0	N	22.26944	E	113.87128	140.71	331.11
31-Jul-12	9:10:27	Dolphin	Surface	106	31	10	259	33	0	N	22.26943	E	113.87060	184.34	311.55
31-Jul-12	9:10:50	Dolphin	Surface	105	29	30	252	20	10	N	22.26933	E	113.87036	197.26	304.33
31-Jul-12	9:22:24	Speedboat	Traveling	93	28	40	349	0	40	N	22.27445	E	113.87769	900.62	41.01
31-Jul-12	9:22:42	Speedboat	Traveling	93	57	0	348	3	40	N	22.27379	E	113.87690	792.46	40.06
31-Jul-12	9:23:07	Speedboat	Traveling	94	49	0	345	50	50	N	22.27295	E	113.87582	649.18	37.84
31-Jul-12	9:24:43	Trawler	Operating	102	35	20	245	3	10	N	22.26934	E	113.86982	244.82	297.05
31-Jul-12	9:24:56	Speedboat	Traveling	108	42	20	262	13	40	N	22.26935	E	113.87082	161.47	314.22
31-Jul-12	9:26:42	Trawler	Operating	104	56	40	291	21	30	N	22.27010	E	113.87137	204.84	343.36
31-Jul-12	9:29:00	Trawler	Operating	101	24	10	347	30	50	N	22.27022	E	113.87362	271.09	39.51
31-Jul-12	9:30:18	Trawler	Non-operating	91	56	30	232	39	50	N	22.27202	E	113.85672	1618.68	284.66
31-Jul-12	9:30:55	Trawler	Operating	97	12	30	2	7	10	N	22.27061	E	113.87535	432.37	54.12
31-Jul-12	9:31:19	Trawler	Non-operating	92	0	50	242	20	50	N	22.27412	E	113.85812	1560.17	294.34
31-Jul-12	9:32:56	Trawler	Non-operating	91	59	20	258	36	30	N	22.27759	E	113.86028	1579.94	310.61
31-Jul-12	9:33:20	Trawler	Operating	94	24	40	6	12	40	N	22.27170	E	113.87781	709.22	58.21
31-Jul-12	9:34:29	Dolphin	Surface	104	21	20	274	40	10	N	22.26994	E	113.87080	213.63	326.67
31-Jul-12	9:35:42	Dolphin	Surface	100	32	40	288	35	0	N	22.27083	E	113.87099	293.74	340.58
31-Jul-12	9:35:52	Dolphin	Surface	100	21	50	290	36	30	N	22.27090	E	113.87108	298.97	342.61
31-Jul-12	9:36:05	Dolphin	Surface	99	59	30	292	17	50	N	22.27102	E	113.87113	310.36	344.29
31-Jul-12	9:36:17	Dolphin	Surface	99	39	0	294	58	40	N	22.27115	E	113.87124	321.57	346.97
31-Jul-12	9:36:56	Dolphin	Surface	99	41	40	295	12	10	N	22.27114	E	113.87125	320.07	347.20
31-Jul-12	9:37:51	Dolphin	Surface	101	37	40	287	12	10	N	22.27057	E	113.87103	265.70	339.20
31-Jul-12	9:43:02	Speedboat	Traveling	114	32	30	333	21	40	N	22.26931	E	113.87244	119.73	25.36

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
31-Jul-12	9:43:15	Speedboat	Stationary	115	30	0	332	43	10	N	22.26927	E	113.87241	114.62	24.72
31-Jul-12	9:43:29	Trawler	Operating	91	42	40	357	5	10	N	22.27917	E	113.88546	1838.94	49.08
31-Jul-12	9:43:49	Speedboat	Traveling	117	1	50	305	38	0	N	22.26930	E	113.87190	107.16	357.63
31-Jul-12	9:44:51	Dolphin	Surface	107	40	50	270	4	10	N	22.26955	E	113.87092	171.51	322.07
31-Jul-12	9:45:34	Dolphin	Surface	107	53	20	281	56	20	N	22.26970	E	113.87122	169.38	333.94
31-Jul-12	9:45:38	Dolphin	Surface	107	53	20	282	31	10	N	22.26971	E	113.87124	169.38	334.52
31-Jul-12	9:46:17	Dolphin	Surface	109	11	50	287	39	0	N	22.26966	E	113.87141	157.02	339.65
31-Jul-12	9:46:21	Dolphin	Surface	109	19	20	287	17	40	N	22.26965	E	113.87141	155.92	339.29
31-Jul-12	9:46:43	Dolphin	Surface	108	18	20	288	58	0	N	22.26974	E	113.87142	165.26	340.96
31-Jul-12	9:46:54	Dolphin	Surface	107	33	40	290	25	40	N	22.26982	E	113.87144	172.76	342.42
31-Jul-12	9:47:08	Dolphin	Surface	107	49	20	290	43	0	N	22.26979	E	113.87145	170.06	342.71
31-Jul-12	9:47:43	Dolphin	Surface	104	37	30	285	10	0	N	22.27007	E	113.87115	209.52	337.16
31-Jul-12	9:48:01	Dolphin	Surface	103	29	50	284	38	10	N	22.27022	E	113.87107	227.78	336.63
31-Jul-12	9:48:21	Hi-Speed Ferry		104	7	40	280	0	20	N	22.27006	E	113.87095	217.22	332.00
31-Jul-12	9:48:26	Hi-Speed Ferry		104	19	40	268	52	0	N	22.26983	E	113.87063	214.06	320.86
31-Jul-12	9:48:45	Dolphin	Surface	102	17	50	288	5	40	N	22.27046	E	113.87111	250.82	340.09
31-Jul-12	9:49:12	Dolphin	Surface	101	7	20	290	7	40	N	22.27072	E	113.87111	278.12	342.12
31-Jul-12	9:49:58	Dolphin	Surface	99	23	20	292	11	30	N	22.27120	E	113.87107	330.68	344.19
31-Jul-12	9:52:10	Dolphin	Surface	96	42	0	272	43	0	N	22.27175	E	113.86933	465.53	324.71
31-Jul-12	9:52:25	Dolphin	Surface	96	30	0	271	30	20	N	22.27181	E	113.86917	479.99	323.50
31-Jul-12	9:52:45	Dolphin	Surface	96	8	30	270	21	30	N	22.27195	E	113.86893	508.25	322.36
31-Jul-12	9:53:22	Dolphin	Surface	95	44	10	266	48	0	N	22.27202	E	113.86846	544.48	318.80
31-Jul-12	9:53:29	Dolphin	Surface	95	38	10	266	45	0	N	22.27208	E	113.86839	554.22	318.75
31-Jul-12	9:53:43	Dolphin	Surface	95	27	20	265	52	20	N	22.27216	E	113.86821	572.69	317.87
31-Jul-12	9:54:05	Dolphin	Fluke Up	95	12	0	264	40	40	N	22.27227	E	113.86793	601.03	316.67
31-Jul-12	9:56:53	Trawler	Operating	91	23	0	339	18	20	N	22.28587	E	113.88347	2280.82	31.30
31-Jul-12	9:58:12	Trawler	Operating	92	35	10	4	58	50	N	22.27428	E	113.88183	1212.96	56.98
31-Jul-12	9:58:59	Trawler	Operating	91	23	20	333	19	50	N	22.28681	E	113.88140	2271.56	25.33
31-Jul-12	10:00:22	Trawler	Operating	93	18	10	5	54	30	N	22.27287	E	113.87976	948.57	57.91
31-Jul-12	10:00:38	Trawler	Operating	91	19	0	329	49	30	N	22.28837	E	113.88061	2398.23	21.82
31-Jul-12	10:01:11	Speedboat	Traveling	92	11	30	329	59	50	N	22.28029	E	113.87716	1432.73	21.99
31-Jul-12	10:01:32	Speedboat	Traveling	92	37	0	326	37	0	N	22.27856	E	113.87567	1198.72	18.61
31-Jul-12	10:02:30	Speedboat	Traveling	94	54	30	300	42	20	N	22.27402	E	113.87116	636.98	352.70
31-Jul-12	10:03:24	Trawler	Operating	95	44	0	358	32	50	N	22.27145	E	113.87603	544.75	50.54
31-Jul-12	10:03:47	Speedboat	Traveling	94	30	10	217	9	50	N	22.26824	E	113.86519	694.70	269.16
31-Jul-12	10:03:54	Speedboat	Traveling	94	8	10	212	26	50	N	22.26767	E	113.86462	756.63	264.44
31-Jul-12	10:04:13	Speedboat	Traveling	117	49	20	317	50	20	N	22.26925	E	113.87212	103.60	9.84
31-Jul-12	10:04:19	Speedboat	Traveling	119	33	40	298	15	0	N	22.26919	E	113.87179	96.39	350.25
31-Jul-12	10:05:19	Trawler	Operating	99	14	30	339	9	40	N	22.27092	E	113.87364	336.05	31.16
31-Jul-12	10:05:31	Trawler	Operating	91	6	50	323	3	10	N	22.29305	E	113.87913	2844.40	15.05
31-Jul-12	10:06:24	Trawler	Operating	100	50	40	313	58	0	N	22.27089	E	113.87223	285.42	5.96
31-Jul-12	10:12:02	Trawler	Operating	94	40	40	213	24	10	N	22.26785	E	113.86546	668.57	265.40
31-Jul-12	10:12:19	Hi-Speed Ferry		100	58	40	242	50	50	N	22.26940	E	113.86946	281.87	294.84
31-Jul-12	10:12:26	Hi-Speed Ferry		101	41	40	252	21	50	N	22.26967	E	113.86982	264.15	304.36
31-Jul-12	10:12:48	Police Vessel	Traveling	91	46	10	230	27	30	N	22.27178	E	113.85506	1777.72	282.46
31-Jul-12	10:13:01	Hi-Speed Ferry		98	49	0	302	35	40	N	22.27149	E	113.87162	352.53	354.59
31-Jul-12	10:13:14	Police Vessel	Traveling	91	44	40	224	43	20	N	22.27023	E	113.85453	1803.45	276.72
31-Jul-12	10:13:33	Hi-Speed Ferry		95	59	10	326	8	0	N	22.27279	E	113.87352	521.57	18.13
31-Jul-12	10:14:20	Trawler	Operating	96	52	50	216	59	40	N	22.26826	E	113.86754	453.19	268.99
31-Jul-12	10:14:38	Hi-Speed Ferry		93	10	10	341	7	0	N	22.27579	E	113.87720	988.68	33.11
31-Jul-12	10:15:03	Police Vessel	Traveling	91	24	50	204	20	0	N	22.26359	E	113.85087	2230.80	256.33
31-Jul-12	10:15:34	Trawler	Operating	91	38	50	210	19	20	N	22.26603	E	113.85353	1911.04	262.32
31-Jul-12	10:15:50	Hi-Speed Ferry		92	3	30	347	0	50	N	22.27901	E	113.88129	1526.23	39.01
31-Jul-12	10:18:04	Trawler	Operating	104	22	30	276	5	40	N	22.26996	E	113.87085	213.33	328.09
31-Jul-12	10:20:00	Trawler	Operating	91	47	0	222	29	0	N	22.26957	E	113.85485	1763.74	274.48
31-Jul-12	10:22:24	Trawler	Operating	96	35	0	3	16	30	N	22.27076	E	113.87573	473.86	55.27
31-Jul-12	10:24:04	Trawler	Non-operating	93	34	10	241	20	0	N	22.27146	E	113.86411	877.38	293.33
31-Jul-12	10:24:47	Trawler	Non-operating	93	25	40	250	52	10	N	22.27280	E	113.86448	913.82	302.87
31-Jul-12	10:25:44	Trawler	Operating	91	47	0	240	13	0	N	22.27433	E	113.85607	1763.74	292.21
31-Jul-12	10:26:27	Trawler	Operating	93	6	10	8	20	30	N	22.27283	E	113.88048	1010.02	60.34
31-Jul-12	10:27:16	Trawler	Operating	92	36	50	275	50	50	N	22.27748	E	113.86573	1200.00	327.84
31-Jul-12	10:29:38	Trawler	Operating	92	9	50	2	39	10	N	22.27589	E	113.88346	1451.25	54.65
31-Jul-12	10:30:07	Trawler	Operating	91	51	50	289	56	30	N	22.28277	E	113.86686	1686.82	341.94
31-Jul-12	10:30:26	Trawler	Operating	91	40	30	253	35	0	N	22.27817	E	113.85708	1879.01	305.58
31-Jul-12	10:34:40	Trawler	Operating	91	29	0	262	56	40	N	22.28184	E	113.85732	2124.92	314.94
31-Jul-12	10:35:11	Police Vessel	Traveling	93	49	30	221	37	10	N	22.26880	E	113.86400	818.49	273.62
31-Jul-12	10:35:37	Police Vessel	Traveling	94	49	30	239	1	40	N	22.27043	E	113.86606	648.05	291.02
31-Jul-12	10:36:23	Trawler	Operating	91	24	0	265	59	50	N	22.28340	E	113.85728	2253.26	317.99
31-Jul-12	10:36:53	Police Vessel	Traveling	94	6	40	310	37	40	N	22.27518	E	113.87228	761.25	2.62
31-Jul-12	10:38:25	Police Vessel	Traveling	93	15	10	320	57	50	N	22.27678	E	113.87405	963.23	12.96
31-Jul-12	10:38:37	Police Vessel	Stationary	93	15	40	321	14	40	N	22.27675	E	113.87408	960.75	13.24
31-Jul-12	10:40:48	Police Vessel	Traveling	93	17	50	324	3	20	N	22.27655	E	113.87450	950.18	16.05
31-Jul-12	10:40:55	Police Vessel	Traveling	93	18	30	324	11	20	N	22.27652	E	113.87451	946.97	16.19
31-Jul-12	10:41:36	Police Vessel	Traveling	93	3	30	323	28	20	N	22.27722	E	113.87460	1024.77	15.47
31-Jul-12	10:42:18	Trawler	Operating	91	9	0	344	42	0	N	22.28820	E	113.88795	2753.06	36.70
31-Jul-12	10:42:37	Police Vessel	Stationary	92	58	30	322	57	50	N	22.27749	E	113.87459	1053.62	14.96
31-Jul-12	10:43:38	Trawler	Operating	91	8	40	275	47	0	N	22.28940	E	113.85760	2766.72	327.78
31-Jul-12	10:44:57	Police Vessel	Stationary	93	2	40	321	46	30	N	22.27733	E	113.87433	1029.47	13.77
31-Jul-12	10:45:53	Trawler	Operating	91	20	10	337	57	20	N	22.28676	E	113.88342	2362.75	29.95
31-Jul-12	10:49:50	Trawler	Operating	91	19	50	327	49	50	N	22.28842	E	113.87977	2372.77	19.83
31-Jul-12	10:54:59	Other		90	56	40	239	8	10	N	22.27927	E	113.84137	3370.40	291.13
31-Jul-12	10:55:09	Other		91	0	30	247	26	50	N	22.28227	E	113.84526	3150.41	299.44
31-Jul-12	10:57:56	Police Vessel	Traveling	94	47	10	311	46	30	N	22.27420	E	113.87236	653.35	3.77
31-Jul-12	11:00:04	Police Vessel	Traveling	95	18	40	308	9	40	N	22.27363	E	113.87196	588.38	0.16
20-Aug-12	9:24:30	Zero		93	37	10	0	0	0	N	22.27317	E	113.87864	873.56	52.00
20-Aug-12	9:26:25	Trawler	Operating	106	8	30	277	0	20	N	22.26980	E	113.87099	190.71	329.00
20-Aug-12	9:27:07	Trawler	Operating	92	10	20	328	57	30	N	22.28060	E	113.87702	1459.46	20.96
20-Aug-12	9:27:28	Trawler	Operating	92	3	20	299	11	30	N	22.28205	E	113.86965	1542.90	351.19
20-Aug-12	9:27:53	Trawler	Operating	101	12	50	331	41	50	N	22.27063	E	113.87303	278.40	23.69
20-Aug-12	9:29:30	Trawler	Operating	96	42	40	358	46	50	N	22.27100	E	113.87548	469.13	50.78
20-Aug-12	9:31:37	Trawler	Operating	92	47	20	316	55	0	N	22.27842	E	113.87365	1134.83	8.91
20-Aug-12	9:32:41	Trawler	Operating	93	33	40	306	13	20	N	22.27632	E	113.87168	887.63	358.22
20-Aug-12	9:33:09	Trawler	Operating	93	15	10	7	57	20	N	22.27271	E	113.88013	972.17	59.95
20-Aug-12	9:35:20	Speedboat	Traveling	115	22	30	291	25	30	N	22.26934	E	113.87162	116.33	343.42
20-Aug-12	9:35:30	Speedboat	Traveling	114	20	30	260	16	20	N	22.26907	E	113.87107	121.96	312.27
20-Aug-12	9:37:14	Dolphin	Surface	93	13	20	230	8	40	N	22.27019	E	113.86262	981.27	282.14
20-Aug-12	9:37:26	Dolphin	Surface	93	14	30	230	9	30	N	22.27018	E	113.86267	975.35	282.16
20-Aug-12	9:37:41	Dolphin	Surface	93	11	20	229	34	20	N	22.27012	E	113.86250	991.56	281.57
20-Aug-12	9:37:56	Dolphin	Surface	93	10	10	229	16	0	N	22.27009	E	113.86243	997.66	281.26
20-Aug-12	9:38:07	Dolphin	Surface	93	7	40	228	59	30	N	22.27007	E	113.86229	1011.01	280.99
20-Aug-12	9:38:22	Dolphin	Surface	93	4	40	228	32	20	N	22.27002	E	113.86212	1027.50	280.54

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
20-Aug-12	9:42:50	Trawler	Operating	93	24	0	263	12	0	N	22.27427	E	113.86557	929.50	315.20
20-Aug-12	9:43:03	Trawler	Operating	93	2	40	350	30	40	N	22.27522	E	113.87877	1038.60	42.51
20-Aug-12	9:43:26	Dolphin	Surface	93	19	20	241	47	20	N	22.27179	E	113.86348	951.34	293.79
20-Aug-12	9:44:25	Dolphin	Surface	93	20	40	247	42	40	N	22.27255	E	113.86396	944.95	299.71
20-Aug-12	9:44:39	Dolphin	Surface	93	33	40	248	50	40	N	22.27243	E	113.86454	887.18	300.84
20-Aug-12	9:44:58	Dolphin	Surface	93	36	40	250	50	30	N	22.27260	E	113.86480	874.83	302.84
20-Aug-12	9:45:06	Dolphin	Surface	93	39	30	251	27	30	N	22.27262	E	113.86494	863.47	303.46
20-Aug-12	9:49:27	Zero		93	5	20	0	0	0	N	22.27400	E	113.87979	1023.31	52.00
20-Aug-12	9:49:44	Hi-Speed Ferry		93	10	50	319	8	0	N	22.27711	E	113.87381	993.66	11.13
20-Aug-12	9:49:56	Trawler	Operating	100	32	40	298	18	40	N	22.27096	E	113.87146	296.25	350.31
20-Aug-12	9:50:23	Dolphin	Surface	96	38	50	281	29	10	N	22.27214	E	113.86989	473.27	333.48
20-Aug-12	9:50:34	Hi-Speed Ferry		94	10	40	300	37	20	N	22.27508	E	113.87100	755.44	352.62
20-Aug-12	9:50:45	Trawler	Operating	103	2	40	315	18	0	N	22.27046	E	113.87224	238.00	7.30
20-Aug-12	9:51:19	Hi-Speed Ferry		94	51	30	275	11	30	N	22.27324	E	113.86852	649.05	327.19
20-Aug-12	9:51:26	Dolphin	Surface	97	38	20	287	25	10	N	22.27180	E	113.87054	411.19	339.42
20-Aug-12	9:51:45	Dolphin	Surface	97	55	10	290	11	0	N	22.27173	E	113.87076	396.43	342.18
20-Aug-12	9:52:08	Dolphin	Surface	98	17	10	295	18	20	N	22.27166	E	113.87114	378.64	347.30
20-Aug-12	9:53:02	Dolphin	Surface	98	16	10	304	47	50	N	22.27174	E	113.87174	379.40	356.79
20-Aug-12	9:53:16	Dolphin	Surface	98	19	10	307	47	40	N	22.27173	E	113.87193	377.09	359.79
20-Aug-12	9:53:21	Dolphin	Surface	98	11	40	309	12	40	N	22.27178	E	113.87202	382.92	1.21
20-Aug-12	9:54:16	Trawler	Operating	95	15	20	8	50	30	N	22.27096	E	113.87704	599.62	60.84
20-Aug-12	9:54:51	Dolphin	Surface	97	39	20	326	17	50	N	22.27184	E	113.87320	410.22	18.29
20-Aug-12	9:55:19	Dolphin	Surface	97	33	50	332	34	20	N	22.27173	E	113.87362	415.24	24.57
20-Aug-12	9:55:41	Dolphin	Surface	96	55	0	336	34	40	N	22.27193	E	113.87406	454.55	28.57
20-Aug-12	9:56:13	Dolphin	Surface	96	9	20	340	40	10	N	22.27221	E	113.87463	511.30	32.67
20-Aug-12	9:57:20	Dolphin	Surface	95	34	40	347	9	50	N	22.27227	E	113.87541	564.68	39.16
20-Aug-12	9:58:46	Dolphin	Surface	94	34	30	352	34	20	N	22.27275	E	113.87665	689.27	44.57
20-Aug-12	9:59:25	Dolphin	Surface	94	13	20	355	13	0	N	22.27290	E	113.87728	747.17	47.21
20-Aug-12	9:59:49	Dolphin	Surface	94	5	50	356	28	0	N	22.27293	E	113.87755	770.07	48.46
20-Aug-12	10:01:35	Dolphin	Surface	107	16	30	328	53	30	N	22.26982	E	113.87256	177.22	20.89
20-Aug-12	10:03:16	Dolphin	Surface	102	33	30	3	1	30	N	22.26961	E	113.87392	247.40	55.02
20-Aug-12	10:03:24	Dolphin	Surface	101	52	30	4	7	50	N	22.26965	E	113.87406	262.09	56.13
20-Aug-12	10:03:58	Dolphin	Surface	100	1	40	2	59	0	N	22.26994	E	113.87443	311.68	54.98
20-Aug-12	10:04:42	Dolphin	Surface	99	0	10	0	15	40	N	22.27025	E	113.87462	347.86	52.26
20-Aug-12	10:04:58	Dolphin	Surface	98	28	10	2	24	30	N	22.27027	E	113.87487	370.13	54.41
20-Aug-12	10:06:26	Dolphin	Surface	96	42	20	9	45	0	N	22.27033	E	113.87596	468.80	61.75
20-Aug-12	10:07:00	Dolphin	Surface	96	20	0	8	36	20	N	22.27053	E	113.87615	496.60	60.60
20-Aug-12	10:07:36	Dolphin	Surface	95	40	20	8	8	10	N	22.27082	E	113.87662	554.97	60.13
20-Aug-12	10:07:49	Dolphin	Surface	95	11	40	8	26	30	N	22.27103	E	113.87707	606.38	60.44
20-Aug-12	10:08:11	Dolphin	Breach	95	10	10	5	39	10	N	22.27127	E	113.87695	609.32	57.65
20-Aug-12	10:09:22	Dolphin	Surface	94	38	20	6	39	20	N	22.27151	E	113.87759	679.42	58.65
20-Aug-12	10:09:34	Dolphin	Surface	94	28	30	7	6	40	N	22.27159	E	113.87782	704.44	59.11
20-Aug-12	10:11:09	Dolphin	Surface	94	14	30	9	49	30	N	22.27149	E	113.87832	743.36	61.82
20-Aug-12	10:12:16	Dolphin	Surface	93	38	40	10	45	40	N	22.27190	E	113.87943	865.79	62.76
20-Aug-12	10:12:23	Dolphin	Surface	93	38	40	10	14	20	N	22.27196	E	113.87939	865.78	62.24
20-Aug-12	10:12:50	Speedboat	Traveling	113	24	50	283	20	30	N	22.26937	E	113.87143	127.21	335.34
20-Aug-12	10:13:08	Speedboat	Traveling	107	45	30	326	49	30	N	22.26980	E	113.87248	172.00	18.82
20-Aug-12	10:13:35	Dolphin	Surface	93	16	30	10	1	40	N	22.27240	E	113.88022	963.90	62.02
20-Aug-12	10:14:10	Speedboat	Traveling	95	57	30	7	52	50	N	22.27072	E	113.87639	527.97	59.88
20-Aug-12	10:14:24	Hi-Speed Ferry		97	11	50	269	16	50	N	22.27140	E	113.86929	436.30	321.28
20-Aug-12	10:14:39	Speedboat	Traveling	94	25	20	9	27	30	N	22.27140	E	113.87803	712.74	61.46
20-Aug-12	10:14:53	Dolphin	Surface	93	3	0	9	12	10	N	22.27282	E	113.88077	1035.31	61.20
20-Aug-12	10:15:06	Dolphin	Surface	92	54	10	9	10	20	N	22.27305	E	113.88121	1088.08	61.17
20-Aug-12	10:15:28	Speedboat	Traveling	93	1	10	7	11	40	N	22.27315	E	113.88068	1045.81	59.19
20-Aug-12	10:15:45	Dolphin	Surface	92	51	10	7	40	50	N	22.27336	E	113.88124	1107.21	59.68
20-Aug-12	10:15:57	Speedboat	Traveling	92	32	50	5	6	20	N	22.27440	E	113.88208	1240.78	57.10
20-Aug-12	10:16:32	Dolphin	Surface	92	46	30	8	54	0	N	22.27332	E	113.88162	1138.38	60.90
20-Aug-12	10:16:37	Dolphin	Surface	92	46	30	8	55	20	N	22.27331	E	113.88162	1138.37	60.92
20-Aug-12	10:17:09	Dolphin	Surface	92	40	20	8	15	40	N	22.27361	E	113.88193	1182.37	60.26
20-Aug-12	10:17:17	Dolphin	Surface	92	40	20	8	15	40	N	22.27361	E	113.88193	1182.36	60.26
20-Aug-12	10:18:14	Hi-Speed Ferry		91	39	30	343	43	40	N	22.28230	E	113.88280	1912.14	35.72
20-Aug-12	10:18:32	Dolphin	Surface	92	30	0	8	33	50	N	22.27392	E	113.88265	1264.22	60.56
20-Aug-12	10:18:38	Dolphin	Surface	92	30	10	7	54	30	N	22.27403	E	113.88257	1262.80	59.91
20-Aug-12	10:19:48	Dolphin	Surface	92	21	10	5	51	0	N	22.27477	E	113.88301	1343.75	57.85
20-Aug-12	10:19:56	Dolphin	Surface	92	19	30	5	24	10	N	22.27493	E	113.88309	1359.90	57.40
20-Aug-12	10:20:12	Dolphin	Surface	92	16	30	5	7	20	N	22.27512	E	113.88330	1389.97	57.12
20-Aug-12	10:21:21	Dolphin	Surface	92	10	0	4	9	40	N	22.27565	E	113.88374	1459.88	56.16
20-Aug-12	10:23:03	Trawler	Operating	91	57	30	332	44	50	N	22.28154	E	113.87852	1616.31	24.74
20-Aug-12	10:23:56	Dolphin	Surface	97	7	20	255	30	50	N	22.27075	E	113.86854	440.77	307.51
20-Aug-12	10:24:00	Dolphin	Surface	97	7	20	256	16	30	N	22.27079	E	113.86858	440.77	308.27
20-Aug-12	10:24:14	Dolphin	Surface	97	14	0	258	34	20	N	22.27087	E	113.86874	433.92	310.57
20-Aug-12	10:24:27	Dolphin	Surface	97	21	30	260	56	0	N	22.27095	E	113.86891	426.46	312.93
20-Aug-12	10:24:36	Dolphin	Surface	97	28	40	262	54	40	N	22.27100	E	113.86905	419.57	314.91
20-Aug-12	10:24:41	Dolphin	Surface	97	31	0	264	0	0	N	22.27104	E	113.86912	417.37	316.00
20-Aug-12	10:24:50	Dolphin	Surface	97	40	30	265	34	30	N	22.27105	E	113.86926	408.65	317.57
20-Aug-12	10:25:04	Dolphin	Surface	97	53	20	268	18	0	N	22.27108	E	113.86948	397.43	320.30
20-Aug-12	10:25:08	Dolphin	Surface	98	8	0	268	27	50	N	22.27101	E	113.86956	385.32	320.46
20-Aug-12	10:25:22	Dolphin	Spyhop	98	15	0	267	14	20	N	22.27092	E	113.86953	379.79	319.24
20-Aug-12	10:26:07	Dolphin	Surface	98	58	0	271	22	50	N	22.27085	E	113.86992	348.97	323.38
20-Aug-12	10:26:24	Dolphin	Surface	99	22	30	275	1	50	N	22.27085	E	113.87018	333.51	327.03
20-Aug-12	10:27:01	Dolphin	Surface	99	54	50	284	20	50	N	22.27093	E	113.87072	315.03	336.34
20-Aug-12	10:27:42	Dolphin	Surface	99	59	20	294	49	0	N	22.27107	E	113.87125	312.60	346.81
20-Aug-12	10:28:15	Dolphin	Surface	99	59	50	303	44	30	N	22.27114	E	113.87172	312.33	355.74
20-Aug-12	10:28:38	Dolphin	Surface	100	7	30	309	10	20	N	22.27111	E	113.87201	308.30	1.17
20-Aug-12	10:29:08	Dolphin	Surface	100	2	0	315	55	20	N	22.27111	E	113.87236	311.17	7.92
20-Aug-12	10:29:46	Dolphin	Surface	100	20	10	322	36	30	N	22.27096	E	113.87268	301.85	14.61
20-Aug-12	10:30:23	Dolphin	Surface	99	17	20	327	38	30	N	22.27119	E	113.87304	336.60	19.64
20-Aug-12	10:30:44	Dolphin	Surface	98	36	20	329	22	50	N	22.27138	E	113.87323	363.79	21.38
20-Aug-12	10:31:34	Dolphin	Surface	97	24	40	332	47	20	N	22.27179	E	113.87367	423.26	24.79
20-Aug-12	10:32:14	Dolphin	Surface	96	35	40	334	54	40	N	22.27216	E	113.87404	476.25	26.91
20-Aug-12	10:32:43	Dolphin	Surface	96	41	50	338	50	20	N	22.27196	E	113.87428	468.86	30.84
20-Aug-12	10:34:01	Dolphin	Surface	96	26	10	335	48	10	N	22.27222	E	113.87416	488.04	27.80
20-Aug-12	10:34:24	Dolphin	Surface	96	4	30	336	56	50	N	22.27241	E	113.87438	517.31	28.94
20-Aug-12	10:34:34	Dolphin	Surface	95	43	50	337	19	50	N	22.27264	E	113.87456	548.65	29.33
20-Aug-12	10:35:01	Dolphin	Surface	95	24	40	338	14	40	N	22.27285	E	113.87479	581.27	30.24
20-Aug-12	10:35:28	Dolphin	Surface	95	6	0	339	30	20	N	22.27307	E	113.87508	616.96	31.50
20-Aug-12	10:35:52	Dolphin	Surface	94	48	40	340	27	0	N	22.27330	E	113.87536	654.23	32.45
20-Aug-12	10:36:12	Dolphin	Surface	94	37	20	340	45	50	N	22.27349	E	113.87553	681.11	32.76
20-Aug-12	10:36:50	Dolphin	Fluke up	94	18	20	341	16	20	N	22.27384	E	113.87585	731.47	33.27
20-Aug-12	10:38:09	Trawler	Non-operating	95	4	0	305	25	0	N	22.27392	E	113.87167	620.97	357.41
20-Aug-12	10:38:48	Trawler	Non-operating	94	17	50	315	6	10	N	22.27488	E	113.87283	732.84	7.10

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
20-Aug-12	10:39:41	Trawler	Non-operating	93	30	0	324	39	0	N	22.27610	E	113.87445	900.65	16.65
20-Aug-12	10:40:42	Dolphin	Surface	92	6	40	342	22	40	N	22.27945	E	113.88017	1497.35	34.37
20-Aug-12	10:41:09	Dolphin	Fluke up	92	9	10	342	33	10	N	22.27922	E	113.88004	1468.13	34.55
20-Aug-12	10:44:21	Dolphin	Surface	100	20	20	325	39	0	N	22.27092	E	113.87283	301.58	17.65
20-Aug-12	10:45:25	Dolphin	Surface	102	35	20	312	22	0	N	22.27054	E	113.87213	246.34	4.36
20-Aug-12	10:45:30	Dolphin	Fluke up	102	46	0	312	50	10	N	22.27051	E	113.87214	242.80	4.83
20-Aug-12	10:46:02	Dolphin	Surface	104	39	40	304	7	30	N	22.27022	E	113.87181	210.27	356.12
20-Aug-12	10:46:41	Dolphin	Surface	107	44	40	291	18	0	N	22.26982	E	113.87146	171.90	343.30
20-Aug-12	10:47:06	Dolphin	Surface	108	43	30	279	4	10	N	22.26961	E	113.87118	162.28	331.07
20-Aug-12	10:47:45	Dolphin	Surface	108	19	40	260	52	30	N	22.26935	E	113.87076	166.05	312.87
20-Aug-12	10:49:27	Dolphin	Fluke up	98	23	0	259	46	10	N	22.27057	E	113.86924	373.28	311.77
20-Aug-12	10:49:54	Dolphin	Surface	97	54	20	256	39	40	N	22.27056	E	113.86894	396.16	308.66
20-Aug-12	10:50:15	Dolphin	Surface	97	36	30	254	53	50	N	22.27056	E	113.86874	411.83	306.89
20-Aug-12	10:50:38	Dolphin	Surface	97	18	10	252	45	0	N	22.27054	E	113.86851	429.27	304.75
20-Aug-12	10:51:37	Dolphin	Surface	96	49	30	246	53	10	N	22.27033	E	113.86803	459.63	298.88
20-Aug-12	10:51:53	Dolphin	Surface	96	36	20	247	18	30	N	22.27043	E	113.86792	475.05	299.31
20-Aug-12	10:52:58	Dolphin	Surface	95	57	30	252	25	40	N	22.27101	E	113.86772	527.10	304.42
20-Aug-12	10:53:03	Dolphin	Surface	95	52	40	253	25	0	N	22.27112	E	113.86771	534.38	305.41
20-Aug-12	10:53:14	Dolphin	Surface	95	46	30	252	31	10	N	22.27111	E	113.86759	543.96	304.52
20-Aug-12	10:56:24	Dolphin	Surface	94	51	10	245	41	50	N	22.27104	E	113.86636	648.01	297.69
20-Aug-12	10:57:44	Dolphin	Surface	94	34	0	245	12	20	N	22.27117	E	113.86599	688.82	297.20
20-Aug-12	10:57:58	Dolphin	Surface	94	35	40	244	6	50	N	22.27104	E	113.86597	684.62	296.11
20-Aug-12	10:58:33	Dolphin	Surface	94	32	0	242	1	30	N	22.27088	E	113.86578	693.89	294.02
20-Aug-12	10:59:34	Dolphin	Surface	94	30	0	239	4	10	N	22.27059	E	113.86560	699.03	291.07
20-Aug-12	10:59:47	Dolphin	Surface	94	24	20	238	52	50	N	22.27062	E	113.86546	714.09	290.88
20-Aug-12	11:00:05	Dolphin	Surface	94	24	20	238	37	30	N	22.27060	E	113.86545	714.08	290.62
20-Aug-12	11:01:01	Dolphin	Surface	94	21	50	234	21	30	N	22.27016	E	113.86522	720.90	286.36
20-Aug-12	11:01:23	Dolphin	Surface	94	24	10	232	43	10	N	22.26997	E	113.86522	714.49	284.72
20-Aug-12	11:02:09	Dolphin	Surface	109	37	50	288	59	40	N	22.26964	E	113.87146	154.12	340.99
20-Aug-12	11:02:31	Dolphin	Surface	109	45	30	275	23	40	N	22.26949	E	113.87114	153.04	327.39
20-Aug-12	11:03:13	Dolphin	Surface	107	20	10	252	0	10	N	22.26922	E	113.87052	176.10	304.00
20-Aug-12	11:05:23	Dolphin	Surface	94	14	20	217	24	50	N	22.26826	E	113.86473	742.14	269.41
20-Aug-12	11:05:36	Dolphin	Surface	94	18	30	216	57	30	N	22.26821	E	113.86485	730.11	268.96
20-Aug-12	11:05:40	Dolphin	Surface	94	18	30	216	46	40	N	22.26819	E	113.86485	730.11	268.77
20-Aug-12	11:05:45	Dolphin	Surface	94	18	30	216	26	30	N	22.26815	E	113.86485	730.10	268.44
20-Aug-12	11:05:53	Dolphin	Surface	94	22	50	216	25	0	N	22.26815	E	113.86496	718.00	268.41
20-Aug-12	11:05:57	Dolphin	Surface	94	23	10	216	12	40	N	22.26813	E	113.86497	717.08	268.21
20-Aug-12	11:06:01	Dolphin	Surface	94	23	30	215	57	20	N	22.26810	E	113.86498	716.17	267.95
20-Aug-12	11:06:14	Dolphin	Surface	94	27	40	215	9	0	N	22.26802	E	113.86510	704.95	267.15
20-Aug-12	11:06:24	Dolphin	Surface	94	27	20	214	35	0	N	22.26795	E	113.86509	705.83	266.58
20-Aug-12	11:15:01	Dolphin	Surface	101	12	40	238	33	30	N	22.26921	E	113.86942	277.22	290.56
20-Aug-12	11:15:30	Dolphin	Surface	102	13	50	237	57	50	N	22.26911	E	113.86963	253.47	289.96
20-Aug-12	11:16:28	Dolphin	Surface	104	46	50	249	23	40	N	22.26931	E	113.87022	208.23	301.39
20-Aug-12	11:17:18	Dolphin	Surface	105	8	40	249	9	0	N	22.26928	E	113.87026	202.98	301.15
20-Aug-12	11:17:37	Dolphin	Surface	106	18	50	249	14	10	N	22.26921	E	113.87038	187.70	301.23
20-Aug-12	11:18:52	Dolphin	Surface	106	54	30	274	7	40	N	22.26968	E	113.87096	180.71	326.12
20-Aug-12	11:19:15	Dolphin	Surface	107	21	20	282	8	10	N	22.26976	E	113.87120	175.77	334.13
20-Aug-12	11:19:46	Dolphin	Surface	107	45	0	290	50	40	N	22.26981	E	113.87145	171.61	342.84
20-Aug-12	11:20:06	Dolphin	Surface	107	42	40	296	30	10	N	22.26985	E	113.87161	172.01	348.50
20-Aug-12	11:20:58	Dolphin	Surface	104	21	20	306	59	20	N	22.27026	E	113.87191	214.63	358.99
20-Aug-12	11:21:33	Dolphin	Surface	104	12	40	312	13	10	N	22.27028	E	113.87210	216.90	4.22
20-Aug-12	11:21:46	Dolphin	Surface	104	35	40	313	24	0	N	22.27022	E	113.87214	210.96	5.40
20-Aug-12	11:22:21	Dolphin	Surface	104	41	10	316	42	0	N	22.27020	E	113.87225	209.57	8.70
20-Aug-12	11:23:28	Dolphin	Surface	100	8	10	321	21	20	N	22.27102	E	113.87263	307.24	13.35
20-Aug-12	11:23:40	Dolphin	Surface	99	37	30	320	56	50	N	22.27117	E	113.87265	323.90	12.94
20-Aug-12	11:24:13	Speedboat		98	16	30	355	34	20	N	22.27063	E	113.87466	377.69	47.57
20-Aug-12	11:24:27	Speedboat		101	54	30	344	17	10	N	22.27022	E	113.87344	260.44	36.28
20-Aug-12	11:25:30	Speedboat		99	15	0	324	13	10	N	22.27125	E	113.87286	337.25	16.22
20-Aug-12	11:26:19	Dolphin	Surface	98	15	50	328	56	20	N	22.27151	E	113.87326	378.17	20.94
20-Aug-12	11:26:25	Dolphin	Surface	98	12	50	330	17	20	N	22.27150	E	113.87335	380.50	22.29
20-Aug-12	11:26:34	Dolphin	Surface	98	8	50	331	2	10	N	22.27151	E	113.87340	383.66	23.03
20-Aug-12	11:26:49	Dolphin	Surface	97	57	0	331	42	40	N	22.27157	E	113.87348	393.30	23.71
20-Aug-12	11:27:01	Dolphin	Surface	98	2	40	332	25	40	N	22.27152	E	113.87351	388.62	24.42
20-Aug-12	11:27:09	Dolphin	Surface	98	12	20	332	47	20	N	22.27145	E	113.87350	380.88	24.79
20-Aug-12	11:29:17	Dolphin	Surface	101	51	10	321	9	0	N	22.27063	E	113.87252	261.69	13.15
20-Aug-12	11:30:42	Dolphin	Surface	105	51	40	304	42	30	N	22.27007	E	113.87184	193.32	356.71
20-Aug-12	11:31:00	Dolphin	Surface	105	56	20	297	35	0	N	22.27004	E	113.87161	192.33	349.58
20-Aug-12	11:32:20	Dolphin	Surface	100	58	20	290	8	10	N	22.27076	E	113.87110	283.37	342.13
20-Aug-12	11:32:56	Dolphin	Surface	99	41	0	292	35	0	N	22.27113	E	113.87111	321.99	344.58
20-Aug-12	11:33:11	Dolphin	Surface	99	16	0	293	3	30	N	22.27126	E	113.87110	336.76	345.06
20-Aug-12	11:33:46	Dolphin	Surface	98	23	40	293	29	0	N	22.27158	E	113.87104	372.37	345.48
20-Aug-12	11:34:26	Dolphin	Surface	97	46	0	295	29	20	N	22.27187	E	113.87110	402.93	347.49
20-Aug-12	11:34:57	Dolphin	Surface	97	14	0	295	6	10	N	22.27213	E	113.87100	433.02	347.10
20-Aug-12	11:35:33	Dolphin	Surface	96	56	0	292	53	50	N	22.27226	E	113.87080	451.99	344.89
20-Aug-12	11:35:42	Dolphin	Fluke up	96	49	40	291	59	20	N	22.27230	E	113.87071	459.06	343.99
20-Aug-12	11:37:55	Dolphin	Surface	97	31	0	277	47	50	N	22.27157	E	113.86991	416.63	329.79
20-Aug-12	11:40:02	Dolphin	Surface	99	50	10	268	28	30	N	22.27053	E	113.86998	317.10	320.47
20-Aug-12	11:40:15	Dolphin	Surface	99	45	0	268	53	50	N	22.27057	E	113.86998	319.96	320.89
20-Aug-12	11:40:25	Dolphin	Surface	99	55	20	268	31	30	N	22.27052	E	113.87000	314.30	320.52
20-Aug-12	11:40:51	Hi-Speed Ferry		95	8	10	325	25	50	N	22.27359	E	113.87373	611.95	17.43
20-Aug-12	11:41:06	Dolphin	Surface	100	50	10	268	36	30	N	22.27033	E	113.87017	287.24	320.61
20-Aug-12	11:41:16	Hi-Speed Ferry		96	29	20	311	16	30	N	22.27268	E	113.87221	483.52	3.27
20-Aug-12	11:41:55	Dolphin	Surface	102	14	40	271	8	50	N	22.27016	E	113.87047	253.36	323.14
20-Aug-12	11:42:14	Hi-Speed Ferry		97	24	30	248	35	40	N	22.27027	E	113.86840	422.96	300.59
20-Aug-12	11:42:33	Dolphin	Surface	103	15	10	267	26	20	N	22.26993	E	113.87047	233.47	319.44
20-Aug-12	11:42:43	Dolphin	Surface	103	15	10	267	37	10	N	22.26993	E	113.87047	233.48	319.62
20-Aug-12	11:42:51	Dolphin	Surface	103	7	20	267	17	0	N	22.26994	E	113.87045	235.89	319.28
20-Aug-12	11:42:57	Dolphin	Surface	102	57	30	267	7	10	N	22.26996	E	113.87042	238.98	319.12
20-Aug-12	11:43:28	Dolphin	Surface	103	26	10	270	48	0	N	22.26998	E	113.87059	230.19	322.80
20-Aug-12	11:44:20	Dolphin	Surface	102	25	10	274	50	50	N	22.27021	E	113.87062	249.74	326.84
20-Aug-12	11:44:38	Dolphin	Surface	101	57	20	277	3	50	N	22.27034	E	113.87065	259.74	329.06
20-Aug-12	11:45:10	Dolphin	Surface	101	8	20	279	53	40	N	22.27055	E	113.87066	279.35	331.89
20-Aug-12	11:45:40	Dolphin	Surface	100	29	10	282	29	40	N	22.27075	E	113.87070	297.19	334.49
20-Aug-12	11:46:23	Dolphin	Surface	99	33	40	284	12	10	N	22.27102	E	113.87066	326.59	336.20
20-Aug-12	11:47:36	Dolphin	Surface	98	12	10	287	1	40	N	22.27154	E	113.87062	381.68	339.02
20-Aug-12	11:47:41	Dolphin	Surface	98	5	40	287	11	10	N	22.27159	E	113.87061	386.87	339.18
20-Aug-12	11:48:17	Dolphin	Surface	97	40	30	285	50	20	N	22.27174	E	113.87045	408.32	337.84
20-Aug-12	11:48:28	Dolphin	Surface	97	24	30	285	18	0	N	22.27185	E	113.87036	423.20	337.30
20-Aug-12	11:48:47	Dolphin	Surface	97	14	10	284	42	50	N	22.27192	E	113.87028	433.41	336.71
20-Aug-12	11:50:15	Dolphin	Surface	96	40	40	280	12	20	N	22.27208	E	113.86981	470.10	332.20
20-Aug-12	11:50:20	Dolphin	Surface	96	39	50	280	20	50	N	22.27209	E	113.86982	471.09	332.34

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
20-Aug-12	11:50:36	Dolphin	Surface	96	30	50	280	4	20	N	22.27217	E	113.86975	482.06	332.07
20-Aug-12	11:50:57	Dolphin	Surface	96	19	40	278	39	20	N	22.27223	E	113.86958	496.38	330.65
20-Aug-12	11:51:14	Dolphin	Surface	96	15	10	277	6	40	N	22.27221	E	113.86944	502.40	329.11
20-Aug-12	11:51:50	Dolphin	Surface	96	15	40	274	8	50	N	22.27208	E	113.86923	501.76	326.14
20-Aug-12	11:52:22	Dolphin	Surface	95	42	30	271	56	20	N	22.27234	E	113.86879	550.79	323.94
20-Aug-12	11:52:36	Dolphin	Surface	95	38	10	271	0	30	N	22.27234	E	113.86868	557.91	323.01
20-Aug-12	11:52:53	Dolphin	Surface	95	25	20	270	33	50	N	22.27248	E	113.86852	580.09	322.56
20-Aug-12	11:53:17	Dolphin	Surface	95	15	10	269	16	40	N	22.27254	E	113.86830	598.95	321.27
20-Aug-12	11:53:37	Dolphin	Surface	95	5	10	268	15	30	N	22.27261	E	113.86810	618.73	320.26
20-Aug-12	11:53:50	Dolphin	Surface	95	1	50	267	53	30	N	22.27264	E	113.86802	625.62	319.89
20-Aug-12	11:54:14	Dolphin	Surface	94	52	30	267	13	30	N	22.27273	E	113.86784	645.73	319.22
20-Aug-12	11:55:17	Dolphin	Surface	94	24	40	264	10	50	N	22.27297	E	113.86714	714.11	316.18
20-Aug-12	11:55:42	Dolphin	Surface	94	18	10	263	18	10	N	22.27302	E	113.86694	732.22	315.30
20-Aug-12	11:56:16	Dolphin	Surface	94	10	0	262	46	30	N	22.27313	E	113.86672	756.31	314.77
20-Aug-12	11:57:04	Dolphin	Surface	93	53	30	261	10	40	N	22.27332	E	113.86620	810.09	313.17
20-Aug-12	11:57:29	Dolphin	Surface	94	15	50	259	39	40	N	22.27275	E	113.86657	739.05	311.66
20-Aug-12	11:59:52	Dolphin	Surface	93	23	40	256	27	20	N	22.27354	E	113.86486	929.61	308.45
20-Aug-12	12:00:26	Dolphin	Surface	93	14	0	255	23	50	N	22.27367	E	113.86440	976.21	307.39
20-Aug-12	12:00:53	Dolphin	Surface	93	12	0	254	52	30	N	22.27366	E	113.86427	986.47	306.87
20-Aug-12	12:01:11	Dolphin	Surface	93	8	10	254	2	10	N	22.27366	E	113.86403	1006.69	306.03
20-Aug-12	12:01:22	Dolphin	Surface	93	7	10	253	59	40	N	22.27369	E	113.86398	1012.11	305.99
20-Aug-12	12:01:38	Dolphin	Surface	93	5	10	253	33	40	N	22.27369	E	113.86385	1023.12	305.56
20-Aug-12	12:01:45	Dolphin	Surface	93	2	40	253	29	40	N	22.27375	E	113.86373	1037.21	305.49
20-Aug-12	12:02:45	Dolphin	Surface	92	57	30	252	16	50	N	22.27374	E	113.86336	1067.65	304.28
20-Aug-12	12:03:12	Dolphin	Surface	92	56	40	250	43	0	N	22.27355	E	113.86317	1072.75	302.71
20-Aug-12	12:03:17	Dolphin	Surface	92	58	0	250	44	40	N	22.27352	E	113.86324	1064.69	302.74
20-Aug-12	12:03:21	Dolphin	Surface	92	55	20	250	44	40	N	22.27359	E	113.86310	1080.97	302.74
20-Aug-12	12:03:43	Dolphin	Surface	92	54	0	249	55	0	N	22.27352	E	113.86295	1089.33	301.91
20-Aug-12	12:03:47	Dolphin	Surface	92	54	0	249	44	0	N	22.27349	E	113.86293	1089.34	301.73
20-Aug-12	12:05:15	Hi-Speed Ferry		95	16	20	274	17	40	N	22.27281	E	113.86872	597.39	326.29
20-Aug-12	12:06:08	Hi-Speed Ferry		94	38	50	235	47	30	N	22.27020	E	113.86566	678.31	287.79
20-Aug-12	12:06:16	Dolphin	Surface	92	43	50	244	3	0	N	22.27291	E	113.86183	1157.56	296.05
20-Aug-12	12:07:14	Trawler	Operating	100	7	50	224	21	40	N	22.26864	E	113.86896	308.46	276.36
20-Aug-12	12:07:57	Dolphin	Surface	92	30	10	243	32	20	N	22.27324	E	113.86086	1263.72	295.54
20-Aug-12	12:08:37	Speedboat	Traveling	96	21	0	298	1	20	N	22.27272	E	113.87111	495.43	350.02
20-Aug-12	12:08:43	Speedboat	Traveling	96	49	50	291	0	10	N	22.27229	E	113.87064	460.26	343.00
20-Aug-12	12:09:02	Trawler	Operating	103	16	40	265	33	0	N	22.26988	E	113.87041	233.58	317.55
20-Aug-12	12:09:40	Speedboat	Traveling	95	21	40	223	9	30	N	22.26881	E	113.86625	587.65	275.16
20-Aug-12	12:10:08	Dolphin	Surface	92	16	40	240	55	10	N	22.27320	E	113.85950	1389.64	292.92
20-Aug-12	12:10:46	Dolphin	Surface	92	16	0	240	5	40	N	22.27306	E	113.85936	1396.58	292.09
20-Aug-12	12:11:18	Dolphin	Surface	92	14	30	240	1	0	N	22.27310	E	113.85921	1412.33	292.01
20-Aug-12	12:13:49	Trawler	Operating	96	26	40	345	32	10	N	22.27182	E	113.87484	488.34	37.53
20-Aug-12	12:17:33	Trawler	Operating	93	37	0	354	53	30	N	22.27371	E	113.87815	873.63	46.89
20-Aug-12	12:27:56	Trawler	Operating	91	36	30	348	37	10	N	22.28184	E	113.88446	1977.30	40.62
20-Aug-12	12:28:48	Other		91	10	50	350	10	0	N	22.28639	E	113.88962	2707.34	42.16
20-Aug-12	12:29:41	Hi-Speed Ferry		92	34	20	225	46	20	N	22.26983	E	113.86008	1231.86	277.77
20-Aug-12	12:30:41	Hi-Speed Ferry		92	46	30	245	4	40	N	22.27301	E	113.86206	1141.47	297.07
20-Aug-12	12:32:24	Trawler	Operating	91	24	50	334	58	40	N	22.28641	E	113.88189	2254.00	26.97
20-Aug-12	12:32:36	Hi-Speed Ferry		92	8	50	276	39	20	N	22.27969	E	113.86447	1477.77	328.65
20-Aug-12	12:32:53	Police Vessel	Traveling	91	27	0	285	50	20	N	22.28664	E	113.86388	2197.15	337.84
20-Aug-12	12:34:19	Police Vessel	Traveling	91	56	0	256	9	50	N	22.27747	E	113.85938	1642.85	308.16
20-Aug-12	12:35:54	Dolphin	Surface	92	51	10	242	43	50	N	22.27251	E	113.86213	1110.72	294.73
20-Aug-12	12:36:09	Dolphin	Surface	92	46	40	243	4	20	N	22.27268	E	113.86189	1140.90	295.07
20-Aug-12	12:36:14	Dolphin	Surface	92	47	10	243	15	40	N	22.27270	E	113.86194	1137.47	295.26
20-Aug-12	12:36:18	Dolphin	Surface	92	47	50	243	11	20	N	22.27267	E	113.86197	1132.94	295.19
20-Aug-12	12:36:25	Dolphin	Surface	92	48	40	243	11	40	N	22.27265	E	113.86202	1127.32	295.19
20-Aug-12	12:36:37	Dolphin	Surface	92	48	50	243	14	30	N	22.27265	E	113.86204	1126.23	295.24
20-Aug-12	12:36:43	Dolphin	Surface	92	49	20	242	59	0	N	22.27260	E	113.86205	1122.89	294.98
20-Aug-12	12:37:07	Dolphin	Surface	92	50	10	240	34	30	N	22.27219	E	113.86191	1117.41	292.57
20-Aug-12	12:43:12	Dolphin	Surface	92	39	0	236	45	20	N	22.27180	E	113.86092	1196.98	288.75
20-Aug-12	12:43:45	Dolphin	Surface	92	40	10	237	24	50	N	22.27189	E	113.86105	1188.27	289.41
20-Aug-12	12:46:20	Dolphin	Surface	92	34	20	252	29	40	N	22.27462	E	113.86206	1233.73	304.49
20-Aug-12	12:46:53	Dolphin	Surface	92	36	30	254	40	40	N	22.27487	E	113.86246	1216.62	306.67
20-Aug-12	12:47:27	Dolphin	Surface	92	24	10	257	45	30	N	22.27594	E	113.86207	1321.40	309.76
20-Aug-12	12:47:57	Dolphin	Surface	92	21	10	259	28	0	N	22.27638	E	113.86211	1349.72	311.46
20-Aug-12	12:50:21	Police Vessel	Traveling	92	10	40	236	44	30	N	22.27255	E	113.85851	1459.25	288.74
20-Aug-12	12:54:29	Police Vessel	Traveling	91	38	40	291	2	40	N	22.28502	E	113.86645	1938.10	343.04
20-Aug-12	13:01:21	Trawler	Non-operating	92	33	30	358	1	10	N	22.27552	E	113.88120	1242.17	50.02
20-Aug-12	13:06:36	Trawler	Non-operating	106	56	20	285	14	0	N	22.26984	E	113.87126	181.93	337.23
20-Aug-12	13:13:27	Speedboat	Traveling	91	46	10	358	58	0	N	22.27855	E	113.88556	1802.91	50.96
20-Aug-12	13:14:31	Speedboat	Traveling	92	33	0	7	25	50	N	22.27404	E	113.88239	1247.75	59.43
20-Aug-12	13:15:45	Speedboat	Traveling	95	49	30	9	23	20	N	22.27068	E	113.87659	543.79	61.39
29-Dec-12	9:24:05	Zero		97	27	20	0	0	0	N	22.27058	E	113.87532	427.66	54.35
29-Dec-12	9:27:56	Trawler	Operating	92	17	20	1	44	10	N	22.27538	E	113.88327	1403.52	56.09
29-Dec-12	9:28:18	Trawler	Operating	92	12	50	1	9	50	N	22.27573	E	113.88358	1451.37	55.51
29-Dec-12	9:30:04	Other	Stationary	112	17	30	265	33	40	N	22.26927	E	113.87109	136.46	319.91
29-Dec-12	9:30:18	Other	Stationary	111	36	50	265	6	10	N	22.26930	E	113.87105	141.19	319.45
29-Dec-12	9:30:40	Other	Stationary	112	53	40	269	58	50	N	22.26930	E	113.87119	132.47	324.33
29-Dec-12	9:30:50	Other	Stationary	112	35	50	275	15	20	N	22.26938	E	113.87128	134.41	329.61
29-Dec-12	9:31:26	Other	Stationary	91	26	10	249	41	50	N	22.27965	E	113.85384	2247.05	304.05
29-Dec-12	9:31:55	Other	Stationary	91	26	10	249	12	10	N	22.27951	E	113.85373	2247.02	303.55
29-Dec-12	9:32:12	Other	Stationary	91	21	10	248	25	20	N	22.27996	E	113.85242	2387.64	302.77
29-Dec-12	9:32:49	Other	Stationary	91	5	0	246	54	10	N	22.28232	E	113.84704	2995.20	301.25
29-Dec-12	9:33:02	Other	Stationary	90	57	20	241	36	30	N	22.28176	E	113.84214	3408.23	295.96
29-Dec-12	9:33:32	Trawler	Operating	91	30	50	357	7	30	N	22.28027	E	113.88815	2129.89	51.47
29-Dec-12	9:42:48	Trawler	Operating	91	0	10	348	20	10	N	22.28978	E	113.89332	3241.75	42.69
29-Dec-12	9:45:12	Other	Stationary	91	5	50	225	26	40	N	22.27285	E	113.84362	2955.15	279.79
29-Dec-12	9:45:31	Other	Stationary	91	5	50	227	19	0	N	22.27371	E	113.84380	2955.12	281.67
29-Dec-12	9:46:01	Other	Stationary	91	1	0	225	6	0	N	22.27305	E	113.84129	3195.82	279.45
29-Dec-12	9:46:09	Other	Stationary	91	1	0	223	28	50	N	22.27225	E	113.84116	3195.81	277.83
29-Dec-12	9:46:27	Hi-Speed Ferry		91	17	30	344	20	40	N	22.28590	E	113.88715	2501.46	38.69
29-Dec-12	9:49:27	Hi-Speed Ferry		92	38	10	335	2	0	N	22.27787	E	113.87775	1216.77	29.38
29-Dec-12	9:56:06	Trawler	Operating	91	25	40	339	21	0	N	22.28524	E	113.88413	2258.57	33.70
29-Dec-12	10:01:06	Police Vessel	Traveling	91	18	20	338	3	10	N	22.28712	E	113.88483	2473.21	32.40
29-Dec-12	10:01:14	Trawler	Operating	91	51	20	337	11	0	N	22.28162	E	113.88076	1732.27	31.53
29-Dec-12	10:05:56	Police Vessel	Stationary	91	21	50	335	26	10	N	22.28681	E	113.88337	2365.31	29.79
29-Dec-12	10:06:06	Speedboat	Traveling	92	23	40	346	14	40	N	22.27749	E	113.88042	1339.62	40.59
29-Dec-12	10:06:20	Trawler	Operating	92	39	10	332	51	20	N	22.27801	E	113.87732	1208.43	27.21
29-Dec-12	10:06:44	Speedboat	Traveling	93	33	0	341	34	30	N	22.27490	E	113.87709	901.67	35.92
29-Dec-12	10:07:07	Trawler	Non-operating	91	55	0	237	10	40	N	22.27387	E	113.85678	1676.24	291.53
29-Dec-12	10:08:02	Trawler	Operating	93	4	30	328	53	0	N	22.27695	E	113.87594	1041.64	23.23

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
29-Dec-12	10:08:14	Speedboat	Traveling	101	28	10	247	34	10	N	22.26964	E	113.86967	275.40	301.92
29-Dec-12	10:11:13	Trawler	Non-operating	91	37	40	269	49	10	N	22.28276	E	113.86069	1976.70	324.17
29-Dec-12	10:11:57	Other	Traveling	91	47	20	318	37	0	N	22.28409	E	113.87587	1796.83	12.97
29-Dec-12	10:12:11	Trawler	Operating	94	52	0	308	36	0	N	22.27423	E	113.87227	656.52	2.95
29-Dec-12	10:13:38	Hi-Speed Ferry		93	28	20	221	30	20	N	22.26918	E	113.86303	921.77	275.86
29-Dec-12	10:13:51	Other	Traveling	91	57	40	302	21	10	N	22.28305	E	113.87103	1637.57	356.70
29-Dec-12	10:15:50	Hi-Speed Ferry		94	16	0	297	52	40	N	22.27501	E	113.87096	749.31	352.23
29-Dec-12	10:16:15	Other	Traveling	92	6	40	227	24	40	N	22.27112	E	113.85747	1520.22	281.76
29-Dec-12	10:16:31	Other	Traveling	91	54	30	277	37	20	N	22.28170	E	113.86425	1683.11	331.97
29-Dec-12	10:16:43	Trawler	Non-operating	91	8	0	296	26	40	N	22.29370	E	113.86750	2855.84	350.79
29-Dec-12	10:16:55	Trawler	Operating	94	22	40	270	14	0	N	22.27369	E	113.86783	730.17	324.58
29-Dec-12	10:20:41	Other	Traveling	91	54	40	273	6	40	N	22.28108	E	113.86315	1680.42	327.46
29-Dec-12	10:20:50	Trawler	Operating	93	40	50	301	10	40	N	22.27613	E	113.87129	869.15	355.53
29-Dec-12	10:26:42	Trawler	Non-operating	91	47	20	240	2	50	N	22.27501	E	113.85604	1795.98	294.40
29-Dec-12	10:27:49	Trawler	Operating	92	11	40	332	5	20	N	22.28011	E	113.87827	1461.54	26.44
29-Dec-12	10:31:10	Trawler	Non-operating	91	30	50	282	57	50	N	22.28599	E	113.86397	2125.96	337.31
29-Dec-12	10:31:25	Speedboat	Traveling	98	50	10	8	50	20	N	22.26979	E	113.87506	359.21	63.19
29-Dec-12	10:31:36	Speedboat	Traveling	102	31	40	357	15	40	N	22.26974	E	113.87386	251.28	51.61
29-Dec-12	10:31:50	Speedboat	Traveling	109	4	40	329	30	0	N	22.26966	E	113.87258	161.44	23.85
29-Dec-12	10:32:07	Other	Traveling	91	38	10	239	36	50	N	22.27552	E	113.85448	1965.20	293.96
29-Dec-12	10:39:53	Other	Traveling	91	18	20	283	29	20	N	22.28892	E	113.86288	2470.12	337.84
29-Dec-12	10:51:00	Other	Traveling	93	14	30	228	0	50	N	22.27023	E	113.86257	986.48	282.36
29-Dec-12	10:51:14	Other	Traveling	93	2	20	224	32	30	N	22.26980	E	113.86183	1052.63	278.89
29-Dec-12	10:51:29	Other	Traveling	91	36	20	235	3	40	N	22.27432	E	113.85358	2001.80	289.41
29-Dec-12	10:56:18	Other	Traveling	91	37	30	265	22	30	N	22.28191	E	113.85951	1977.26	319.72
29-Dec-12	11:03:00	Other	Traveling	91	9	0	292	22	0	N	22.29294	E	113.86567	2809.31	346.72
29-Dec-12	11:07:28	Other	Traveling	91	45	10	278	24	40	N	22.28298	E	113.86379	1830.96	332.76
29-Dec-12	11:08:04	Other	Traveling	91	46	50	285	34	10	N	22.28356	E	113.86593	1802.08	339.92
29-Dec-12	11:11:28	Other	Traveling	91	35	30	324	26	20	N	22.28553	E	113.87827	2018.18	18.79
29-Dec-12	11:11:40	Sand Barge		91	22	50	281	26	30	N	22.28747	E	113.86265	2331.37	335.79
29-Dec-12	11:13:11	Other	Traveling	93	9	0	220	44	20	N	22.26914	E	113.86212	1014.61	275.09
29-Dec-12	11:14:55	Other	Traveling	94	8	50	265	51	40	N	22.27366	E	113.86715	769.59	320.21
29-Dec-12	11:15:02	Sand Barge		91	39	50	264	13	40	N	22.28135	E	113.85953	1929.48	318.58
29-Dec-12	11:56:02	Hi-Speed Ferry		91	43	40	339	1	20	N	22.28230	E	113.88189	1859.02	33.37
29-Dec-12	11:58:21	Hi-Speed Ferry		93	41	40	320	43	20	N	22.27585	E	113.87413	865.22	15.07
2-Jan-13	9:25:01	Zero		101	28	40	0	0	10	N	22.26988	E	113.87408	278.84	52.00
2-Jan-13	9:28:02	Speedboat	Stationary	115	33	20	304	37	10	N	22.26940	E	113.87188	118.40	356.62
2-Jan-13	9:31:06	Other	Stationary	90	58	10	241	15	0	N	22.28040	E	113.84157	3399.13	293.25
2-Jan-13	9:31:40	Other	Stationary	91	12	0	247	2	0	N	22.28026	E	113.84873	2730.56	299.03
2-Jan-13	9:32:37	Other	Traveling	91	43	30	313	57	20	N	22.28524	E	113.87385	1889.10	5.95
2-Jan-13	9:33:36	Other	Traveling	91	34	10	324	2	30	N	22.28631	E	113.87753	2078.60	16.04
2-Jan-13	9:35:36	Police Vessel	Traveling	91	35	10	262	21	10	N	22.28127	E	113.85764	2056.48	314.35
2-Jan-13	9:36:11	Other	Traveling	91	10	0	341	53	10	N	22.28933	E	113.88718	2810.30	33.88
2-Jan-13	9:37:34	Other	Traveling	91	37	30	236	5	40	N	22.27394	E	113.85339	2006.68	288.09
2-Jan-13	9:38:19	Police Vessel	Traveling	91	50	40	234	8	50	N	22.27275	E	113.85545	1765.58	286.14
2-Jan-13	9:43:36	Speedboat	Traveling	93	1	20	347	27	20	N	22.27580	E	113.87858	1073.98	39.45
2-Jan-13	9:45:01	Speedboat	Traveling	101	38	10	324	40	0	N	22.27070	E	113.87271	274.94	16.66
2-Jan-13	9:45:59	Speedboat	Traveling	110	42	20	247	20	20	N	22.26899	E	113.87067	149.78	299.34
2-Jan-13	9:48:15	Hi-Speed Ferry		92	20	50	338	36	0	N	22.27906	E	113.87880	1384.80	30.60
2-Jan-13	9:48:50	Other	Traveling	91	4	50	297	1	30	N	22.29519	E	113.86631	3039.91	349.02
2-Jan-13	9:50:38	Fishing Boat	Non-operating	92	21	40	237	18	40	N	22.27243	E	113.85931	1376.60	289.31
2-Jan-13	9:50:54	Hi-Speed Ferry		98	30	50	304	40	20	N	22.27173	E	113.87173	378.25	356.67
2-Jan-13	9:51:22	Speedboat	Traveling	94	16	50	339	30	0	N	22.27414	E	113.87579	756.95	31.50
2-Jan-13	9:51:51	Hi-Speed Ferry		101	31	50	235	39	40	N	22.26909	E	113.86937	277.53	287.66
2-Jan-13	9:52:09	Speedboat	Stationary	113	45	20	271	42	50	N	22.26927	E	113.87120	128.63	323.71
2-Jan-13	9:52:28	Speedboat	Traveling	103	8	50	302	12	20	N	22.27050	E	113.87171	242.39	354.20
2-Jan-13	9:52:53	Speedboat	Traveling	103	59	10	243	3	0	N	22.26920	E	113.86994	227.31	295.05
2-Jan-13	9:53:18	Fishing Boat	Non-operating	92	10	20	270	28	30	N	22.27902	E	113.86308	1497.15	322.47
2-Jan-13	9:55:37	Speedboat	Traveling	111	53	30	258	4	30	N	22.26914	E	113.87091	139.03	310.07
2-Jan-13	9:55:53	Speedboat	Traveling	111	20	0	245	35	20	N	22.26893	E	113.87071	143.05	297.59
2-Jan-13	10:03:11	Speedboat	Stationary	113	53	10	270	35	50	N	22.26924	E	113.87120	126.13	322.59
2-Jan-13	10:04:43	Speedboat	Traveling	95	28	0	13	53	20	N	22.27048	E	113.87713	583.92	65.89
2-Jan-13	10:05:22	Speedboat	Traveling	99	26	30	12	44	50	N	22.26962	E	113.87490	335.93	64.74
2-Jan-13	10:05:50	Police Vessel	Traveling	92	39	40	230	30	40	N	22.27068	E	113.86051	1204.16	282.51
2-Jan-13	10:06:24	Fishing Boat	Non-operating	91	51	20	228	13	0	N	22.27110	E	113.85537	1731.29	280.21
2-Jan-13	10:06:41	Speedboat	Traveling	115	46	40	260	0	30	N	22.26903	E	113.87111	115.65	312.01
2-Jan-13	10:06:54	Police Vessel	Traveling	93	15	30	276	51	20	N	22.27590	E	113.86700	982.40	328.85
2-Jan-13	10:07:25	Other	Traveling	91	53	20	309	57	20	N	22.28363	E	113.87251	1700.42	1.95
2-Jan-13	10:08:21	Police Vessel	Traveling	92	9	50	319	16	10	N	22.28142	E	113.87476	1482.68	11.27
2-Jan-13	10:08:40	Other	Traveling	91	58	20	298	23	20	N	22.28278	E	113.86930	1627.92	350.39
2-Jan-13	10:08:54	Fishing Boat	Non-operating	91	51	40	250	30	0	N	22.27668	E	113.85779	1725.97	302.50
2-Jan-13	10:10:49	Other	Traveling	91	54	30	277	57	10	N	22.28144	E	113.86375	1682.82	329.95
2-Jan-13	10:11:02	Fishing Boat	Non-operating	91	42	40	268	3	20	N	22.28129	E	113.86021	1878.74	320.05
2-Jan-13	10:11:39	Police Vessel	Traveling	91	23	0	334	57	40	N	22.28703	E	113.88222	2330.28	26.96
2-Jan-13	10:13:32	Hi-Speed Ferry		93	56	50	224	27	10	N	22.26915	E	113.86412	810.07	276.45
2-Jan-13	10:13:59	Other	Traveling	91	29	40	255	42	50	N	22.28019	E	113.85537	2154.47	307.71
2-Jan-13	10:15:28	Hi-Speed Ferry		94	10	0	296	22	10	N	22.27510	E	113.87044	767.16	348.37
2-Jan-13	10:15:45	Fishing Boat	Non-operating	91	20	50	299	26	40	N	22.28963	E	113.86848	2393.55	351.44
2-Jan-13	10:16:10	Police Vessel	Stationary	91	21	20	335	1	40	N	22.28740	E	113.88246	2378.57	27.02
2-Jan-13	10:17:54	Hi-Speed Ferry		91	55	10	334	27	50	N	22.28181	E	113.87919	1672.72	26.46
2-Jan-13	10:23:37	Fishing Boat	Non-operating	91	44	50	235	20	20	N	22.27326	E	113.85487	1838.99	287.34
2-Jan-13	10:24:08	Other	Traveling	92	0	20	262	3	40	N	22.27835	E	113.86076	1600.09	314.06
2-Jan-13	10:24:47	Speedboat	Traveling	107	19	10	254	9	20	N	22.26928	E	113.87054	179.04	306.15
2-Jan-13	10:24:59	Speedboat	Traveling	104	40	40	235	42	50	N	22.26892	E	113.86997	213.16	287.71
2-Jan-13	10:25:19	Other	Traveling	92	10	0	242	9	30	N	22.27378	E	113.85881	1480.20	294.16
2-Jan-13	10:25:34	Fishing Boat	Non-operating	91	47	20	254	39	30	N	22.27798	E	113.85793	1795.65	306.66
2-Jan-13	10:46:52	Other	Traveling	92	13	0	329	27	10	N	22.28044	E	113.87709	1445.88	21.45
2-Jan-13	10:48:29	Other	Traveling	91	47	40	342	58	0	N	22.28153	E	113.88192	1789.12	34.96
2-Jan-13	10:52:13	Other	Traveling	92	26	30	313	21	20	N	22.28009	E	113.87313	1311.67	5.35
2-Jan-13	10:53:06	Other	Traveling	95	22	0	292	32	30	N	22.27349	E	113.87040	594.23	344.54
2-Jan-13	10:53:45	Other	Traveling	98	0	40	226	6	50	N	22.26884	E	113.86813	396.52	278.11
2-Jan-13	11:01:07	Fishing Boat	Non-operating	91	49	10	212	23	50	N	22.26678	E	113.85487	1763.80	264.39
2-Jan-13	11:01:23	Fishing Boat	Non-operating	91	41	50	213	55	40	N	22.26712	E	113.85359	1892.13	265.92
2-Jan-13	11:06:00	Fishing Boat	Non-operating	91	59	20	265	7	50	N	22.27897	E	113.86128	1612.09	317.13
2-Jan-13	11:06:22	Fishing Boat	Non-operating	91	45	50	263	35	30	N	22.28003	E	113.85956	1819.68	315.59
2-Jan-13	11:07:14	Fishing Boat	Non-operating	91	44	10	220	39	20	N	22.26910	E	113.85398	1849.06	272.65
2-Jan-13	11:10:37	Fishing Boat	Non-operating	91	15	0	294	17	50	N	22.29089	E	113.86600	2579.97	346.29
2-Jan-13	11:10:50	Fishing Boat	Non-operating	91	13	0	292	42	30	N	22.29135	E	113.86514	2652.05	344.71
2-Jan-13	11:11:05	Fishing Boat	Non-operating	91	54	0	256	23	0	N	22.27776	E	113.85908	1687.97	308.38
2-Jan-13	11:11:37	Fishing Boat	Non-operating	92	15	10	246	27	20	N	22.27443	E	113.85979	1421.76	298.45
2-Jan-13	11:13:49	Dolphin	Surface	99	39	10	270	57	0	N	22.27069	E	113.87002	327.94	322.95

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
2-Jan-13	11:14:07	Dolphin	Surface	99	40	20	269	7	20	N	22.27063	E	113.86995	327.26	321.12
2-Jan-13	11:14:40	Dolphin	Surface	99	54	30	268	53	40	N	22.27056	E	113.86999	319.31	320.89
2-Jan-13	11:16:18	Dolphin	Surface	99	48	50	260	15	50	N	22.27028	E	113.86962	322.43	312.26
2-Jan-13	11:16:31	Dolphin	Surface	100	19	10	258	47	40	N	22.27013	E	113.86969	306.31	310.79
2-Jan-13	11:18:14	Fishing Boat	Non-operating	91	18	20	295	11	20	N	22.28999	E	113.86662	2467.78	347.19
2-Jan-13	11:18:52	Dolphin	Surface	98	31	50	246	1	40	N	22.26991	E	113.86875	371.83	298.02
2-Jan-13	11:19:23	Fishing Boat	Non-operating	91	48	10	269	7	0	N	22.28080	E	113.86108	1779.53	321.11
2-Jan-13	11:19:41	Speedboat	Stationary	116	47	40	277	47	0	N	22.26919	E	113.87140	110.42	329.78
2-Jan-13	11:21:34	Speedboat	Traveling	115	5	40	310	16	10	N	22.26940	E	113.87199	119.07	2.27
2-Jan-13	11:22:03	Dolphin	Surface	95	47	10	237	7	40	N	22.26996	E	113.86689	550.49	289.12
2-Jan-13	11:22:22	Speedboat	Traveling	105	27	40	357	2	50	N	22.26952	E	113.87343	201.60	49.04
2-Jan-13	11:23:14	Other	Traveling	95	50	0	256	9	50	N	22.27137	E	113.86777	545.99	308.16
2-Jan-13	11:23:28	Other	Traveling	95	56	30	278	51	10	N	22.27255	E	113.86941	535.95	330.85
2-Jan-13	11:23:50	Other	Traveling	94	28	30	305	47	0	N	22.27474	E	113.87168	712.93	357.78
2-Jan-13	11:24:29	Dolphin	Surface	94	48	20	240	10	40	N	22.27059	E	113.86597	663.61	292.17
2-Jan-13	11:25:40	Fishing Boat	Non-operating	91	44	50	221	19	40	N	22.26929	E	113.85412	1836.42	273.32
2-Jan-13	11:28:06	Fishing Boat	Non-operating	91	52	30	244	48	50	N	22.27527	E	113.85710	1710.02	296.81
2-Jan-13	11:35:40	Other	Stationary	90	59	0	241	27	10	N	22.28014	E	113.84253	3297.27	293.45
2-Jan-13	11:35:59	Other	Stationary	91	13	10	246	54	0	N	22.27983	E	113.84943	2644.38	298.90
2-Jan-13	11:36:26	Speedboat	Stationary	94	33	30	12	56	20	N	22.27100	E	113.87811	699.63	64.94
2-Jan-13	11:36:40	Speedboat	Traveling	115	31	10	311	2	50	N	22.26938	E	113.87200	116.76	3.04
2-Jan-13	11:37:35	Speedboat	Traveling	104	49	40	6	40	40	N	22.26932	E	113.87369	210.56	58.67
2-Jan-13	11:46:10	Hi-Speed Ferry		92	31	40	328	22	20	N	22.27901	E	113.87623	1265.19	20.37
2-Jan-13	11:46:45	Dolphin	Surface	96	42	30	297	23	0	N	22.27253	E	113.87110	473.94	349.38
2-Jan-13	11:47:20	Hi-Speed Ferry		93	58	40	311	25	30	N	22.27554	E	113.87241	802.12	3.42
2-Jan-13	11:47:44	Dolphin	Surface	98	6	50	291	45	40	N	22.27171	E	113.87088	390.96	343.76
2-Jan-13	11:48:15	Hi-Speed Ferry		95	33	30	281	33	10	N	22.27295	E	113.86946	572.89	333.55
2-Jan-13	11:48:37	Dolphin	Surface	99	50	50	284	36	10	N	22.27099	E	113.87070	321.08	336.60
2-Jan-13	11:48:57	Dolphin	Surface	100	35	30	279	48	50	N	22.27070	E	113.87058	298.04	331.81
2-Jan-13	11:49:09	Hi-Speed Ferry		95	27	40	240	21	10	N	22.27033	E	113.86670	583.15	292.35
2-Jan-13	11:49:32	Dolphin	Surface	101	51	40	268	59	10	N	22.27019	E	113.87032	265.35	320.98
2-Jan-13	11:50:41	Dolphin	Surface	101	40	30	243	53	30	N	22.26939	E	113.86958	269.69	295.89
2-Jan-13	11:51:20	Dolphin	Surface	99	51	10	234	31	50	N	22.26915	E	113.86895	320.88	286.53
2-Jan-13	11:52:37	Fishing Boat	Non-operating	91	44	50	252	40	10	N	22.27773	E	113.85726	1835.30	304.67
2-Jan-13	11:53:27	Dolphin	Surface	96	6	50	218	56	20	N	22.26841	E	113.86688	520.38	270.94
2-Jan-13	11:53:59	Dolphin	Surface	95	35	50	216	53	20	N	22.26823	E	113.86641	568.80	268.89
2-Jan-13	11:54:13	Dolphin	Surface	95	25	0	215	19	30	N	22.26809	E	113.86623	587.90	267.32
2-Jan-13	11:59:18	Dolphin	Surface	93	3	0	229	35	40	N	22.27023	E	113.86197	1047.20	281.59
2-Jan-13	12:01:49	Dolphin	Surface	92	42	40	218	0	0	N	22.26833	E	113.86030	1197.86	270.00
2-Jan-13	12:08:07	Other	Traveling	91	38	50	321	24	40	N	22.28566	E	113.87641	1978.94	13.41
2-Jan-13	12:09:18	Other	Traveling	91	50	10	308	15	20	N	22.28429	E	113.87202	1773.31	0.25
2-Jan-13	12:10:16	Other	Traveling	91	17	50	226	28	50	N	22.27168	E	113.84769	2521.48	278.48
2-Jan-13	12:13:24	Other	Traveling	91	38	30	257	16	40	N	22.27964	E	113.85700	1985.48	309.27
2-Jan-13	12:13:37	Other	Traveling	91	14	0	248	33	30	N	22.28048	E	113.84971	2654.46	300.56
2-Jan-13	12:25:26	Speedboat	Traveling	92	59	50	347	9	10	N	22.27589	E	113.87859	1082.37	39.15
2-Jan-13	12:26:43	Speedboat	Traveling	100	36	20	318	45	50	N	22.27101	E	113.87249	302.20	10.76
2-Jan-13	12:32:35	Dolphin	Surface	92	58	0	257	6	40	N	22.27454	E	113.86369	1093.40	309.11
2-Jan-13	12:35:54	Dolphin	Surface	92	47	10	246	43	40	N	22.27337	E	113.86201	1164.56	298.72
2-Jan-13	12:36:27	Dolphin	Breach	92	54	0	246	25	50	N	22.27313	E	113.86238	1118.58	298.43
2-Jan-13	12:38:10	Dolphin	Breach	92	48	20	249	28	40	N	22.27377	E	113.86235	1156.39	301.47
2-Jan-13	12:38:15	Dolphin	Breach	92	48	10	249	44	0	N	22.27381	E	113.86237	1157.54	301.73
2-Jan-13	12:38:34	Dolphin	Breach	92	44	10	250	18	50	N	22.27404	E	113.86220	1185.89	302.31
2-Jan-13	12:38:36	Dolphin	Breach	92	42	30	250	27	0	N	22.27412	E	113.86211	1198.12	302.45
2-Jan-13	12:38:53	Dolphin	Surface	92	42	40	250	39	10	N	22.27414	E	113.86214	1196.87	302.65
2-Jan-13	12:39:10	Dolphin	Surface	92	43	20	250	39	50	N	22.27412	E	113.86219	1191.95	302.66
2-Jan-13	12:39:21	Dolphin	Surface	92	42	40	249	52	30	N	22.27402	E	113.86206	1196.86	301.87
2-Jan-13	12:41:33	Dolphin	Surface	92	38	30	244	48	50	N	22.27332	E	113.86128	1228.44	296.81
2-Jan-13	12:41:56	Dolphin	Breach	92	43	30	244	22	40	N	22.27309	E	113.86157	1190.66	296.37
2-Jan-13	12:43:03	Other	Traveling	91	19	30	233	9	40	N	22.27413	E	113.84880	2465.89	285.16
2-Jan-13	12:44:17	Other	Traveling	91	18	30	242	12	30	N	22.27755	E	113.84979	2497.79	294.21
2-Jan-13	12:44:53	Dolphin	Surface	92	31	20	243	46	0	N	22.27337	E	113.86067	1286.86	295.76
2-Jan-13	12:47:54	Sand Barge		91	15	40	278	42	40	N	22.28868	E	113.85961	2592.87	330.71
2-Jan-13	12:51:34	Sand Barge		91	30	20	266	48	10	N	22.28300	E	113.85807	2165.49	318.80
2-Jan-13	12:51:59	Police Vessel	Traveling	93	34	10	318	15	20	N	22.27637	E	113.87352	907.54	10.25
2-Jan-13	12:52:28	Police Vessel	Traveling	91	19	10	291	2	0	N	22.28964	E	113.86492	2475.93	343.03
2-Jan-13	12:53:41	Police Vessel	Traveling	95	59	20	256	32	0	N	22.27136	E	113.86784	539.21	308.53
2-Jan-13	12:53:52	Police Vessel	Traveling	91	47	50	270	0	20	N	22.28117	E	113.86111	1810.26	322.00
2-Jan-13	12:55:11	Police Vessel	Traveling	93	21	0	209	7	0	N	22.26699	E	113.86265	967.22	261.11
2-Jan-13	12:55:37	Police Vessel	Traveling	91	56	30	227	47	20	N	22.27089	E	113.85590	1674.34	279.79
2-Jan-13	12:57:14	Sand Barge		91	39	30	240	21	30	N	22.27505	E	113.85429	1963.39	292.36
2-Jan-13	13:04:54	Speedboat	Traveling	104	55	50	278	32	40	N	22.26997	E	113.87095	208.64	330.54
2-Jan-13	13:05:59	Speedboat	Traveling	94	44	30	344	9	30	N	22.27321	E	113.87579	671.07	36.16
2-Jan-13	13:07:49	Speedboat	Traveling	91	52	0	352	53	30	N	22.27926	E	113.88371	1713.86	44.89
2-Jan-13	13:11:16	Police Vessel	Traveling	92	14	50	228	29	40	N	22.27066	E	113.85835	1421.46	280.49
2-Jan-13	13:12:16	Police Vessel	Traveling	92	21	20	245	38	10	N	22.27399	E	113.86026	1355.64	297.63
2-Jan-13	13:18:53	Sand Barge		91	33	20	222	18	30	N	22.26972	E	113.85197	2060.12	274.31
2-Jan-13	13:22:50	Sand Barge		91	37	40	254	8	0	N	22.27877	E	113.85649	1967.80	306.13
2-Jan-13	13:23:38	Other	Stationary	116	6	50	260	29	10	N	22.26902	E	113.87113	113.46	312.48
2-Jan-13	13:28:39	Other	stationary	116	45	50	313	47	10	N	22.26932	E	113.87205	110.29	5.78
2-Jan-13	13:29:39	Other	Stationary	115	0	10	323	35	30	N	22.26937	E	113.87226	119.27	15.59
2-Jan-13	13:31:03	Other	Stationary	90	58	30	241	29	40	N	22.28024	E	113.84234	3319.34	293.49
2-Jan-13	13:31:29	Other	Stationary	91	11	10	247	7	10	N	22.28022	E	113.84888	2714.61	299.12
2-Jan-13	13:31:52	Other	Stationary	94	35	10	13	11	40	N	22.27095	E	113.87807	693.95	65.19
2-Jan-13	13:39:01	Other	Traveling	115	5	30	307	51	40	N	22.26940	E	113.87194	118.82	359.86
2-Jan-13	13:39:35	Other	Stationary	114	48	50	313	38	20	N	22.26941	E	113.87206	120.33	5.64
2-Jan-13	13:51:38	Speedboat	Traveling	93	47	30	9	24	40	N	22.27195	E	113.87912	840.53	61.41
2-Jan-13	14:12:42	Other	Traveling	117	6	20	324	55	50	N	22.26927	E	113.87225	108.77	16.93
2-Jan-13	14:12:58	Hi-Speed Ferry		98	39	50	253	51	30	N	22.27026	E	113.86906	365.44	305.86
2-Jan-13	14:13:40	Hi-Speed Ferry		97	36	20	299	34	0	N	22.27205	E	113.87135	417.06	351.56
2-Jan-13	14:14:51	Hi-Speed Ferry		93	47	10	329	48	0	N	22.27537	E	113.87499	842.17	21.80
3-Jan-13	9:05:15	Zero		91	8	30	0	0	0	N	22.28423	E	113.89393	2869.46	52.00
3-Jan-13	9:09:45	Other	Stationary	91	1	50	241	34	10	N	22.27980	E	113.84354	3186.52	293.57
3-Jan-13	9:10:14	Other	Stationary	91	13	10	247	21	50	N	22.28017	E	113.84921	2681.83	299.36
3-Jan-13	9:11:06	Speedboat	Traveling	116	35	0	288	10	10	N	22.26929	E	113.87157	112.95	340.17
3-Jan-13	9:11:27	Speedboat	Stationary	113	24	10	269	54	10	N	22.26926	E	113.87116	130.59	321.90
3-Jan-13	9:12:43	Speedboat	Stationary	116	14	20	283	53	50	N	22.26928	E	113.87149	114.66	335.89
3-Jan-13	9:15:13	Police Vessel	Traveling	91	18	50	325	13	30	N	22.28969	E	113.87910	2484.84	17.22
3-Jan-13	9:16:45	Police Vessel	Traveling	91	22	10	331	25	10	N	22.28801	E	113.88115	2382.15	23.42
3-Jan-13	9:18:35	Police Vessel	Stationary	91	22	20	335	4	20	N	22.28738	E	113.88246	2377.01	27.07
3-Jan-13	9:28:40	Other	Traveling	91	25	30	337	28	30	N	22.28625	E	113.88288	2286.35	29.47
3-Jan-13	9:33:10	Other	Traveling	92	4	20	285	59	30	N	22.28139	E	113.86624	1565.48	337.99

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
3-Jan-13	9:33:48	Fishing Boat	Non-operating	92	32	0	220	4	20	N	22.26875	E	113.85952	1278.76	272.07
3-Jan-13	9:34:34	Other	Traveling	91	54	10	267	15	30	N	22.27996	E	113.86112	1705.95	319.26
3-Jan-13	9:35:30	Speedboat	Traveling	92	18	0	355	45	50	N	22.27686	E	113.88209	1409.21	47.76
3-Jan-13	9:35:56	Fishing Boat	Non-operating	92	30	50	247	3	30	N	22.27396	E	113.86099	1288.56	299.06
3-Jan-13	9:36:55	Fishing Boat	Non-operating	91	15	0	290	1	10	N	22.29068	E	113.86410	2611.10	342.02
3-Jan-13	9:37:14	Speedboat	Traveling	95	21	40	346	6	20	N	22.27259	E	113.87556	601.72	38.10
3-Jan-13	9:37:47	Speedboat	Traveling	112	34	40	251	17	40	N	22.26900	E	113.87084	135.73	303.29
3-Jan-13	9:38:18	Speedboat	Traveling	104	15	30	306	41	10	N	22.27033	E	113.87189	222.09	358.68
3-Jan-13	9:38:46	Speedboat	Traveling	112	53	30	269	21	30	N	22.26927	E	113.87113	133.65	321.36
3-Jan-13	9:39:10	Speedboat	Stationary	117	20	30	251	3	40	N	22.26887	E	113.87105	109.14	303.06
3-Jan-13	9:39:25	Speedboat	Stationary	112	47	40	252	23	40	N	22.26902	E	113.87087	134.29	304.39
3-Jan-13	9:40:12	Fishing Boat	Non-operating	91	45	10	287	47	50	N	22.28398	E	113.86572	1852.82	339.79
3-Jan-13	9:40:26	Fishing Boat	Non-operating	91	30	30	272	21	0	N	22.28410	E	113.85972	2156.87	324.35
3-Jan-13	9:43:20	Fishing Boat	Non-operating	91	16	30	301	51	10	N	22.29122	E	113.86928	2558.03	353.85
3-Jan-13	9:43:43	Fishing Boat	Non-operating	91	37	40	250	37	0	N	22.27802	E	113.85559	1996.33	302.61
3-Jan-13	9:44:07	Hi-Speed Ferry		91	18	50	349	33	20	N	22.28504	E	113.88795	2480.85	41.55
3-Jan-13	9:47:10	Hi-Speed Ferry		92	44	0	347	17	50	N	22.27658	E	113.87924	1183.81	39.29
3-Jan-13	9:48:44	Hi-Speed Ferry		95	57	20	333	37	10	N	22.27272	E	113.87422	540.89	25.62
3-Jan-13	9:49:03	Other	Traveling	91	30	10	347	42	10	N	22.28332	E	113.88539	2163.92	39.70
3-Jan-13	9:50:25	Hi-Speed Ferry		100	12	0	231	58	50	N	22.26901	E	113.86899	313.49	283.98
3-Jan-13	9:50:44	Other	Traveling	91	48	10	339	34	0	N	22.28213	E	113.88111	1799.88	31.56
3-Jan-13	9:54:49	Speedboat	Traveling	113	35	0	328	19	20	N	22.26942	E	113.87238	129.16	20.32
3-Jan-13	9:55:02	Speedboat	Traveling	109	46	40	349	39	10	N	22.26939	E	113.87296	156.81	41.65
3-Jan-13	9:55:18	Speedboat	Traveling	104	13	10	5	15	10	N	22.26942	E	113.87376	222.52	57.25
3-Jan-13	9:55:51	Speedboat	Traveling	98	21	10	13	53	20	N	22.26975	E	113.87535	384.08	65.89
3-Jan-13	9:56:33	Other	Traveling	92	16	30	279	34	30	N	22.27960	E	113.86536	1423.14	331.57
3-Jan-13	9:57:14	Research Vessel	Traveling	91	8	50	341	55	0	N	22.28959	E	113.88739	2846.99	33.91
3-Jan-13	9:58:47	Speedboat	Traveling	92	26	10	8	32	20	N	22.27421	E	113.88319	1328.28	60.54
3-Jan-13	10:00:01	Other	Traveling	91	35	30	253	42	10	N	22.27905	E	113.85583	2040.32	305.70
3-Jan-13	10:01:29	Research Vessel	Traveling	91	27	20	329	16	40	N	22.28706	E	113.87983	2233.58	21.27
3-Jan-13	10:02:21	Speedboat	Traveling	115	19	10	261	52	50	N	22.26908	E	113.87111	119.13	313.88
3-Jan-13	10:02:47	Speedboat	Stationary	113	13	10	254	37	0	N	22.26904	E	113.87092	131.38	306.61
3-Jan-13	10:03:11	Speedboat	Traveling	113	34	20	323	37	30	N	22.26945	E	113.87228	129.17	15.62
3-Jan-13	10:03:23	Speedboat	Traveling	105	3	50	352	43	50	N	22.26967	E	113.87338	209.41	44.73
3-Jan-13	10:03:37	Speedboat	Traveling	99	49	10	4	28	0	N	22.26995	E	113.87458	325.66	56.46
3-Jan-13	10:04:08	Speedboat	Traveling	95	13	50	8	55	30	N	22.27103	E	113.87718	615.92	60.92
3-Jan-13	10:04:38	Other	Traveling	92	11	50	335	56	30	N	22.28005	E	113.87866	1473.21	27.94
3-Jan-13	10:05:19	Speedboat	Traveling	92	32	30	6	21	20	N	22.27434	E	113.88248	1272.33	58.35
3-Jan-13	10:06:26	Speedboat	Traveling	91	53	20	359	40	30	N	22.27791	E	113.88503	1715.58	51.67
3-Jan-13	10:06:48	Other	Traveling	94	15	20	317	15	0	N	22.27506	E	113.87313	757.85	9.25
3-Jan-13	10:07:12	Research Vessel	Traveling	91	4	50	306	29	50	N	22.29555	E	113.87117	3025.40	358.49
3-Jan-13	10:09:18	Other	Traveling	95	35	20	226	57	10	N	22.26914	E	113.86641	576.00	278.95
3-Jan-13	10:11:14	Hi-Speed Ferry		93	46	50	223	29	30	N	22.26907	E	113.86368	853.37	275.49
3-Jan-13	10:12:52	Hi-Speed Ferry		94	46	20	282	43	10	N	22.27383	E	113.86914	675.14	334.72
3-Jan-13	10:14:06	Hi-Speed Ferry		93	15	50	317	33	20	N	22.27711	E	113.87354	989.01	9.55
3-Jan-13	10:14:54	Research Vessel	Traveling	90	52	30	290	11	30	N	22.30055	E	113.86076	3760.35	342.19
3-Jan-13	10:16:36	Hi-Speed Ferry		91	34	40	339	49	0	N	22.28406	E	113.88249	2056.61	31.81
3-Jan-13	10:17:35	Hi-Speed Ferry		91	19	10	342	52	10	N	22.28654	E	113.88565	2465.63	34.87
3-Jan-13	10:21:44	Research Vessel	Traveling	91	19	20	281	19	50	N	22.28811	E	113.86121	2459.79	333.33
3-Jan-13	10:22:05	Other	Traveling	91	37	30	261	41	50	N	22.28074	E	113.85791	1995.53	313.69
3-Jan-13	10:24:04	Other	Traveling	91	51	40	279	40	40	N	22.28211	E	113.86392	1739.72	331.67
3-Jan-13	10:24:17	Other	Traveling	91	43	40	264	39	20	N	22.28061	E	113.85943	1875.32	316.65
3-Jan-13	10:24:49	Research Vessel	Traveling	91	41	40	273	33	40	N	22.28253	E	113.86142	1912.55	325.56
3-Jan-13	10:28:17	Other	Traveling	91	41	30	322	5	0	N	22.28505	E	113.87648	1915.36	14.08
3-Jan-13	10:28:25	Other	Traveling	91	53	20	314	7	20	N	22.28367	E	113.87372	1713.49	6.12
3-Jan-13	10:28:44	Research Vessel	Traveling	92	2	10	255	16	30	N	22.27699	E	113.85965	1588.57	307.27
3-Jan-13	10:31:19	Other	Traveling	91	16	40	339	56	20	N	22.28777	E	113.88504	2545.55	31.94
3-Jan-13	10:31:34	Other	Traveling	91	21	40	339	32	0	N	22.28664	E	113.88409	2387.03	31.53
3-Jan-13	10:31:55	Research Vessel	Traveling	91	31	30	244	2	10	N	22.27673	E	113.85336	2126.90	296.03
3-Jan-13	10:33:06	Research Vessel	Traveling	91	26	0	239	52	40	N	22.27593	E	113.85151	2264.73	291.87
3-Jan-13	10:37:52	Research Vessel	Traveling	91	14	40	219	22	0	N	22.26889	E	113.84653	2614.10	271.36
3-Jan-13	10:40:41	Research Vessel	Traveling	91	26	50	217	59	40	N	22.26833	E	113.85014	2241.74	269.99
3-Jan-13	10:41:07	Fishing Boat	Non-operating	91	34	20	220	37	40	N	22.26918	E	113.85192	2061.16	272.62
3-Jan-13	10:46:19	Research Vessel	Traveling	92	50	30	212	41	10	N	22.26739	E	113.86096	1134.73	264.68
3-Jan-13	10:47:15	Fishing Boat	Non-operating	91	34	20	277	57	10	N	22.28438	E	113.86191	2060.45	329.95
3-Jan-13	10:51:21	Fishing Boat	Non-operating	91	5	50	300	42	0	N	22.29485	E	113.86827	2970.93	352.70
3-Jan-13	10:51:53	Speedboat	Traveling	94	24	0	11	55	10	N	22.27123	E	113.87833	731.01	63.92
3-Jan-13	10:52:30	Speedboat	Stationary	94	36	40	13	47	40	N	22.27091	E	113.87813	697.34	65.79
3-Jan-13	11:02:55	Other	Stationary	91	1	20	241	34	50	N	22.27982	E	113.84348	3192.96	293.58
3-Jan-13	11:03:06	Other	Stationary	91	12	0	247	2	0	N	22.28016	E	113.84891	2709.10	299.03
3-Jan-13	11:03:21	Police Vessel	Stationary	91	22	30	335	26	20	N	22.28717	E	113.88251	2358.35	27.44
3-Jan-13	11:03:39	Speedboat	Traveling	99	10	10	3	57	50	N	22.27009	E	113.87475	348.04	55.96
3-Jan-13	11:05:29	Speedboat	Stationary	112	15	50	254	37	40	N	22.26907	E	113.87087	137.19	306.62
3-Jan-13	11:05:54	Fishing Boat	Non-operating	91	46	30	225	48	40	N	22.27056	E	113.85440	1820.71	277.81
3-Jan-13	11:10:55	Fishing Boat	Non-operating	91	42	0	272	17	50	N	22.28223	E	113.86115	1901.36	324.29
3-Jan-13	11:11:17	Fishing Boat	Non-operating	91	50	20	237	21	0	N	22.27357	E	113.85583	1756.33	289.35
3-Jan-13	11:14:35	Fishing Boat	Non-operating	91	15	40	292	54	40	N	22.29069	E	113.86543	2573.61	344.91
3-Jan-13	11:14:51	Fishing Boat	Non-operating	91	39	0	270	7	10	N	22.28225	E	113.86024	1959.19	322.12
3-Jan-13	11:15:19	Speedboat	Traveling	91	32	20	275	28	50	N	22.28429	E	113.86095	2102.37	327.48
3-Jan-13	11:16:42	Speedboat	Stationary	92	6	30	277	10	10	N	22.28015	E	113.86432	1529.66	329.17
3-Jan-13	11:17:08	Fishing Boat	Non-operating	91	25	20	286	9	50	N	22.28735	E	113.86371	2277.10	338.16
3-Jan-13	11:17:30	Fishing Boat	Non-operating	90	59	50	302	28	30	N	22.29765	E	113.86888	3272.75	354.47
3-Jan-13	11:17:49	Fishing Boat	Non-operating	91	47	20	224	50	30	N	22.27027	E	113.85451	1805.24	276.84
3-Jan-13	11:19:36	Speedboat	Traveling	92	15	10	292	23	40	N	22.28073	E	113.86820	1430.67	344.39
3-Jan-13	11:20:32	Fishing Boat	Non-operating	91	3	40	299	18	50	N	22.29564	E	113.86743	3069.69	351.31
3-Jan-13	11:20:51	Fishing Boat	Non-operating	91	55	30	255	20	10	N	22.27748	E	113.85898	1676.18	307.33
3-Jan-13	11:21:08	Fishing Boat	Non-operating	91	51	30	220	17	30	N	22.26896	E	113.85507	1736.83	272.29
3-Jan-13	11:21:30	Speedboat	Traveling	91	50	0	343	25	30	N	22.28125	E	113.88187	1760.70	35.42
3-Jan-13	11:22:06	Speedboat	Traveling	91	29	40	350	21	10	N	22.28273	E	113.88613	2164.92	42.35
3-Jan-13	11:23:14	Fishing Boat	Non-operating	91	41	20	277	5	10	N	22.28310	E	113.86239	1912.69	329.08
3-Jan-13	11:23:27	Fishing Boat	Non-operating	92	2	30	244	19	40	N	22.27464	E	113.85818	1579.40	296.32
3-Jan-13	11:23:44	Fishing Boat	Non-operating	91	46	50	222	18	30	N	22.26956	E	113.85436	1813.17	274.31
3-Jan-13	11:26:24	Fishing Boat	Non-operating	91	15	40	294	27	30	N	22.29083	E	113.86609	2571.91	346.46
3-Jan-13	11:26:41	Fishing Boat	Non-operating	91	41	10	275	2	50	N	22.28280	E	113.86181	1915.51	327.04
3-Jan-13	11:26:54	Fishing Boat	Non-operating	91	54	10	252	21	50	N	22.27694	E	113.85833	1695.36	304.36
3-Jan-13	11:43:08	Speedboat	Traveling	93	6	20	1	14	50	N	22.27390	E	113.88001	1034.57	53.24
3-Jan-13	11:44:23	Speedboat	Traveling	97	34	0	354	46	0	N	22.27093	E	113.87493	422.00	46.76
3-Jan-13	11:45:11	Speedboat	Traveling	118	39	10	281	7	20	N	22.26916	E	113.87149	102.56	333.12
3-Jan-13	11:46:02	Hi-Speed Ferry		91	18	10	341	40	0	N	22.28695	E	113.88534	2485.43	33.66
3-Jan-13	11:47:57	Hi-Speed Ferry		91	50	20	334	30	0	N	22.28245	E	113.87955	1752.75	26.50
3-Jan-13	11:51:30	Police Vessel	Traveling	97	6	20	283	39	50	N	22.27202	E	113.87014	449.54	335.66

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
3-Jan-13	11:51:42	Police Vessel	Traveling	95	24	20	307	34	20	N	22.27366	E	113.87190	592.31	359.57
3-Jan-13	11:51:55	Hi-Speed Ferry		95	8	10	273	20	20	N	22.27295	E	113.86850	623.59	325.34
3-Jan-13	11:52:11	Police Vessel	Traveling	92	59	10	331	16	20	N	22.27723	E	113.87608	1075.63	23.27
3-Jan-13	11:52:50	Fishing Boat	Non-operating	91	38	30	230	2	10	N	22.27202	E	113.85325	1965.08	282.03
3-Jan-13	11:53:06	Hi-Speed Ferry		94	26	0	232	59	0	N	22.27002	E	113.86515	723.03	284.98
3-Jan-13	11:53:26	Speedboat	Traveling	109	50	20	286	45	20	N	22.26964	E	113.87140	155.26	338.75
3-Jan-13	11:54:41	Speedboat	Traveling	99	22	20	348	15	10	N	22.27066	E	113.87408	339.41	40.25
3-Jan-13	11:55:58	Speedboat	Traveling	94	49	30	0	6	50	N	22.27200	E	113.87704	663.91	52.11
3-Jan-13	11:56:14	Speedboat	Traveling	93	40	40	6	49	30	N	22.27240	E	113.87920	872.25	58.82
3-Jan-13	11:56:54	Other	Traveling	91	40	30	321	32	20	N	22.28518	E	113.87633	1925.11	13.54
3-Jan-13	11:57:15	Speedboat	Traveling	97	45	0	1	23	30	N	22.27054	E	113.87516	411.60	53.39
3-Jan-13	11:57:43	Fishing Boat	Non-operating	91	29	0	272	7	10	N	22.28421	E	113.85953	2177.02	324.12
3-Jan-13	11:57:57	Speedboat	Traveling	108	4	30	319	49	50	N	22.26984	E	113.87229	171.60	11.83
3-Jan-13	11:58:23	Speedboat	Stationary	113	33	30	300	20	50	N	22.26948	E	113.87178	128.44	352.34
3-Jan-13	11:58:42	Speedboat	Stationary	92	13	50	356	22	20	N	22.27695	E	113.88243	1441.89	48.37
3-Jan-13	11:59:40	Other	Traveling	91	56	50	289	2	10	N	22.28240	E	113.86672	1653.31	341.03
3-Jan-13	11:59:59	Fishing Boat	Non-operating	91	17	30	287	7	30	N	22.28940	E	113.86326	2505.24	339.12
3-Jan-13	12:02:36	Other	Traveling	91	36	50	256	35	30	N	22.27955	E	113.85675	1998.21	308.59
3-Jan-13	12:04:07	Other	Traveling	91	17	0	222	20	30	N	22.27005	E	113.84750	2521.22	274.34
3-Jan-13	12:04:31	Other	Stationary	91	26	0	249	16	10	N	22.27886	E	113.85321	2253.21	301.27
3-Jan-13	12:06:09	Other	Traveling	91	36	30	256	36	30	N	22.27959	E	113.85671	2004.80	308.61
3-Jan-13	12:08:38	Other	Traveling	91	54	40	288	25	0	N	22.28261	E	113.86645	1683.98	340.41
3-Jan-13	12:08:49	Other	Traveling	91	38	0	254	52	10	N	22.27899	E	113.85659	1973.46	306.87
3-Jan-13	12:13:24	Police Vessel	Traveling	91	20	0	338	49	30	N	22.28706	E	113.88402	2423.78	30.82
3-Jan-13	12:13:39	Other	Traveling	91	10	10	338	31	50	N	22.28981	E	113.88563	2770.45	30.53
3-Jan-13	12:13:54	Other	Traveling	91	15	0	287	28	0	N	22.29015	E	113.86311	2588.31	339.46
3-Jan-13	12:14:48	Police Vessel	Stationary	91	21	50	335	16	0	N	22.28728	E	113.88250	2368.40	27.26
3-Jan-13	12:43:47	Speedboat	Traveling	106	31	30	343	39	20	N	22.26971	E	113.87301	188.28	35.65
3-Jan-13	12:44:59	Speedboat	Traveling	97	54	0	9	46	30	N	22.27005	E	113.87539	402.62	61.77
3-Jan-13	12:46:12	Speedboat	Traveling	94	47	40	12	42	40	N	22.27089	E	113.87780	666.30	64.71
3-Jan-13	12:46:50	Speedboat	Stationary	94	43	30	12	51	50	N	22.27092	E	113.87790	676.13	64.86
3-Jan-13	12:47:26	Police Vessel	Traveling	91	31	30	294	18	20	N	22.28679	E	113.86708	2110.87	346.30
3-Jan-13	12:47:58	Fishing Boat	Non-operating	91	28	40	280	9	0	N	22.28567	E	113.86204	2179.18	332.15
3-Jan-13	12:49:23	Police Vessel	Traveling	91	59	10	278	16	40	N	22.28096	E	113.86415	1616.18	330.27
3-Jan-13	12:49:42	Fishing Boat	Non-operating	91	37	50	270	12	50	N	22.28236	E	113.86019	1972.35	322.21
3-Jan-13	12:54:03	Police Vessel	Traveling	91	43	40	219	48	30	N	22.26886	E	113.85387	1859.73	271.81
3-Jan-13	12:54:17	Fishing Boat	Non-operating	91	37	10	238	46	50	N	22.27467	E	113.85389	1985.53	290.78
3-Jan-13	12:57:50	Police Vessel	Traveling	92	8	0	241	1	50	N	22.27362	E	113.85849	1503.11	293.03
3-Jan-13	12:58:06	Fishing Boat	Non-operating	91	15	30	221	10	0	N	22.26961	E	113.84704	2564.47	273.16
3-Jan-13	12:58:21	Police Vessel	Traveling	92	7	20	247	34	10	N	22.27504	E	113.85916	1510.99	299.57
3-Jan-13	13:04:09	Police Vessel	Traveling	91	17	20	298	38	10	N	22.29055	E	113.86798	2501.71	350.63
3-Jan-13	13:18:57	Other	Traveling	92	24	0	312	15	20	N	22.28030	E	113.87291	1333.47	4.25
3-Jan-13	13:22:38	Other	Traveling	92	25	50	287	9	40	N	22.27940	E	113.86739	1316.33	339.16
3-Jan-13	13:26:49	Other	Traveling	92	1	20	264	13	20	N	22.27862	E	113.86129	1583.77	316.22
3-Jan-13	13:32:34	Other	Traveling	91	25	50	246	45	0	N	22.27806	E	113.85279	2246.53	298.75
3-Jan-13	13:39:51	Police Vessel	Traveling	92	45	40	318	32	0	N	22.27857	E	113.87400	1156.78	10.53
3-Jan-13	13:41:25	Police Vessel	Traveling	93	59	10	286	55	10	N	22.27505	E	113.86915	799.76	338.92
3-Jan-13	13:43:44	Police Vessel	Traveling	93	18	10	227	7	0	N	22.26971	E	113.86267	965.99	279.11
3-Jan-13	13:45:46	Speedboat	Traveling	111	26	0	309	29	10	N	22.26961	E	113.87198	141.80	1.48
3-Jan-13	13:45:57	Speedboat	Traveling	103	9	10	338	0	50	N	22.27019	E	113.87310	238.23	30.01
3-Jan-13	13:46:12	Speedboat	Traveling	98	0	50	349	50	10	N	22.27099	E	113.87451	395.46	41.83
3-Jan-13	13:47:10	Speedboat	Traveling	93	2	40	0	38	20	N	22.27406	E	113.88005	1048.17	52.64
3-Jan-13	14:13:53	Hi-Speed Ferry		98	16	10	254	9	50	N	22.27037	E	113.86894	382.77	306.16
3-Jan-13	14:14:35	Hi-Speed Ferry		97	8	30	297	4	10	N	22.27226	E	113.87113	444.05	349.07
3-Jan-13	14:15:52	Hi-Speed Ferry		93	35	0	328	20	20	N	22.27584	E	113.87495	889.22	20.34
3-Jan-13	14:17:02	Hi-Speed Ferry		92	20	30	335	55	0	N	22.27918	E	113.87815	1363.85	27.91
3-Jan-13	14:25:48	Research Vessel	Traveling	94	58	40	219	52	0	N	22.26852	E	113.86573	639.18	271.86
3-Jan-13	14:27:29	Research Vessel	Traveling	97	31	30	250	12	10	N	22.27035	E	113.86848	421.33	302.20
3-Jan-13	14:30:34	Research Vessel	Traveling	95	8	10	322	53	0	N	22.27372	E	113.87349	619.44	14.88
3-Jan-13	14:32:45	Research Vessel	Traveling	93	10	10	336	6	20	N	22.27632	E	113.87655	1006.43	28.10
3-Jan-13	14:36:14	Research Vessel	Traveling	91	57	40	327	17	30	N	22.28219	E	113.87719	1631.51	19.29
3-Jan-13	14:51:55	Other	Traveling	92	25	10	285	44	0	N	22.27934	E	113.86708	1321.07	337.73
3-Jan-13	14:52:44	Other	Traveling	92	24	30	279	18	10	N	22.27881	E	113.86575	1327.23	331.30
4-Jan-13	8:58:53	Zero		137	27	10	0	0	0	N	22.26862	E	113.87234	51.93	52.00
4-Jan-13	9:00:00	Other	Stationary	91	43	30	344	19	10	N	22.28202	E	113.88282	1887.66	36.32
4-Jan-13	9:00:18	Other	Stationary	91	43	20	345	11	0	N	22.28189	E	113.88306	1890.70	37.18
4-Jan-13	9:00:53	Other	Stationary	91	35	50	345	23	50	N	22.28292	E	113.88400	2040.35	37.39
4-Jan-13	9:01:04	Other	Stationary	91	29	30	346	16	30	N	22.28378	E	113.88512	2186.64	38.27
4-Jan-13	9:01:16	Other	Stationary	91	30	10	347	8	30	N	22.28348	E	113.88527	2170.23	39.14
4-Jan-13	9:01:29	Other	Stationary	91	36	10	346	2	50	N	22.28274	E	113.88413	2033.12	38.04
4-Jan-13	9:02:01	Other	Stationary	90	59	0	241	40	50	N	22.28043	E	113.84214	3346.63	293.68
4-Jan-13	9:02:34	Other	Stationary	91	13	0	247	29	20	N	22.28025	E	113.84917	2689.94	299.49
4-Jan-13	9:03:26	Sand Barge		91	32	0	231	7	10	N	22.27267	E	113.85181	2126.16	283.12
4-Jan-13	9:07:19	Sand Barge		91	32	0	253	4	20	N	22.27932	E	113.85502	2125.72	305.07
4-Jan-13	9:07:49	Other	Traveling	91	28	50	217	53	0	N	22.26829	E	113.85053	2202.48	269.88
4-Jan-13	9:10:53	Other	Traveling	91	38	30	237	37	0	N	22.27432	E	113.85378	1983.39	289.61
4-Jan-13	9:14:31	Sand Barge		91	10	50	285	45	50	N	22.29142	E	113.86174	2772.19	337.76
4-Jan-13	9:14:51	Other	Traveling	91	33	20	264	41	0	N	22.28204	E	113.85797	2094.10	316.68
4-Jan-13	9:15:35	Other	Traveling	91	19	20	338	43	40	N	22.28744	E	113.88422	2469.55	30.72
4-Jan-13	9:17:31	Sand Barge		91	1	10	294	37	40	N	22.29654	E	113.86470	3221.79	346.62
4-Jan-13	9:17:49	Other	Traveling	91	19	50	280	16	10	N	22.28788	E	113.86084	2453.52	332.27
4-Jan-13	9:18:10	Other	Traveling	91	41	0	320	40	40	N	22.28530	E	113.87607	1932.99	12.67
4-Jan-13	9:21:38	Other	Traveling	92	3	40	283	34	30	N	22.28124	E	113.86561	1575.44	335.57
4-Jan-13	9:22:08	Other	Traveling	91	1	40	295	22	30	N	22.29638	E	113.86515	3194.10	347.37
4-Jan-13	9:25:01	Other	Traveling	91	31	30	251	51	40	N	22.27904	E	113.85470	2135.43	303.86
4-Jan-13	9:26:14	Other	Stationary	91	26	20	249	7	50	N	22.27887	E	113.85309	2264.92	301.13
4-Jan-13	9:27:25	Speedboat	Traveling	107	10	50	269	59	40	N	22.26963	E	113.87085	182.70	321.99
4-Jan-13	9:27:38	Speedboat	Traveling	104	36	10	305	38	0	N	22.27028	E	113.87186	216.82	357.63
4-Jan-13	9:27:58	Speedboat	Traveling	98	18	40	327	17	50	N	22.27162	E	113.87319	386.74	19.29
4-Jan-13	9:28:25	Speedboat	Traveling	95	6	50	337	38	50	N	22.27327	E	113.87498	631.50	29.64
4-Jan-13	9:29:01	Speedboat	Traveling	93	18	50	346	23	50	N	22.27522	E	113.87784	976.73	38.39
4-Jan-13	9:29:18	Other	Traveling	91	47	40	255	1	20	N	22.27815	E	113.85788	1811.00	307.02
4-Jan-13	9:30:09	Speedboat	Traveling	92	50	0	352	3	0	N	22.27573	E	113.87967	1143.23	44.05
4-Jan-13	9:31:00	Speedboat	Traveling	92	7	20	353	37	40	N	22.27796	E	113.88257	1528.96	45.62
4-Jan-13	9:31:17	Other	Traveling	92	15	20	277	7	30	N	22.27944	E	113.86477	1437.93	329.12
4-Jan-13	9:32:05	Speedboat	Traveling	91	36	0	353	13	40	N	22.28122	E	113.88598	2033.32	45.22
4-Jan-13	9:33:20	Other	Traveling	92	9	10	306	14	20	N	22.28189	E	113.87149	1506.91	358.24
4-Jan-13	9:34:47	Other	Traveling	91	55	0	323	54	30	N	22.28299	E	113.87646	1693.98	15.91
4-Jan-13	9:35:34	Police Vessel	Traveling	91	41	50	295	37	10	N	22.28517	E	113.86795	1915.19	347.62
4-Jan-13	9:36:40	Police Vessel	Traveling	92	28	10	270	9	10	N	22.27766	E	113.86411	1312.24	322.15
4-Jan-13	9:36:58	Other	Traveling	91	24	50	337	21	50	N	22.28641	E	113.88293	2304.24	29.36

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
4-Jan-13	9:37:13	Police Vessel	Traveling	92	40	30	249	19	10	N	22.27400	E	113.86188	1210.81	301.32
4-Jan-13	9:37:53	Speedboat	Traveling	95	17	0	14	8	10	N	22.27056	E	113.87738	610.80	66.13
4-Jan-13	9:38:19	Police Vessel	Stationary	92	49	30	236	23	30	N	22.27159	E	113.86137	1146.11	288.39
4-Jan-13	9:38:34	Speedboat	Traveling	97	17	10	14	19	20	N	22.26993	E	113.87588	441.64	66.32
4-Jan-13	9:39:38	Speedboat	Traveling	107	33	40	352	13	30	N	22.26948	E	113.87315	178.38	44.22
4-Jan-13	9:40:18	Speedboat	Traveling	115	42	30	287	16	30	N	22.26932	E	113.87154	117.25	339.27
4-Jan-13	9:40:46	Speedboat	Traveling	112	49	10	250	18	50	N	22.26898	E	113.87084	134.15	302.31
4-Jan-13	9:44:25	Hi-Speed Ferry		91	15	20	343	23	10	N	22.28740	E	113.88658	2599.06	35.38
4-Jan-13	9:48:10	Hi-Speed Ferry		93	10	50	319	40	40	N	22.27729	E	113.87395	1016.83	11.67
4-Jan-13	9:50:24	Hi-Speed Ferry		95	1	40	250	57	20	N	22.27147	E	113.86671	641.62	302.95
4-Jan-13	9:51:43	Hi-Speed Ferry		93	20	50	215	47	30	N	22.26800	E	113.86256	965.77	267.79
4-Jan-13	9:52:05	Other	Traveling	91	40	50	311	33	30	N	22.28569	E	113.87311	1932.66	3.56
4-Jan-13	9:52:27	Other	Traveling	91	23	30	335	16	0	N	22.28705	E	113.88237	2339.63	27.26
4-Jan-13	9:54:39	Other	Traveling	91	48	20	296	15	10	N	22.28417	E	113.86838	1797.28	348.25
4-Jan-13	9:54:49	Other	Traveling	91	44	30	320	29	30	N	22.28471	E	113.87586	1863.86	12.49
4-Jan-13	9:59:11	Other	Traveling	91	42	40	268	22	20	N	22.28148	E	113.86018	1897.05	320.37
4-Jan-13	9:59:20	Other	Traveling	91	55	40	275	15	10	N	22.28106	E	113.86310	1681.89	327.25
4-Jan-13	9:59:39	Research Vessel	Traveling	91	24	10	340	31	0	N	22.28594	E	113.88407	2319.90	32.51
4-Jan-13	10:01:46	Other	Traveling	91	31	50	255	14	20	N	22.27990	E	113.85550	2123.34	307.24
4-Jan-13	10:01:54	Other	Traveling	91	35	20	253	55	40	N	22.27913	E	113.85584	2044.40	305.92
4-Jan-13	10:02:11	Research Vessel	Traveling	91	47	50	335	19	10	N	22.28277	E	113.88000	1804.95	27.32
4-Jan-13	10:03:25	Research Vessel	Traveling	92	4	20	334	19	40	N	22.28094	E	113.87869	1563.38	26.32
4-Jan-13	10:04:27	Research Vessel	Traveling	92	21	10	339	12	30	N	22.27892	E	113.87888	1375.65	31.21
4-Jan-13	10:05:28	Research Vessel	Traveling	92	44	50	340	42	30	N	22.27725	E	113.87813	1177.00	32.71
4-Jan-13	10:06:08	Research Vessel	Traveling	92	38	20	335	21	20	N	22.27813	E	113.87742	1225.55	27.35
4-Jan-13	10:08:04	Other	Stationary	91	26	50	251	36	40	N	22.27952	E	113.85375	2246.57	303.61
4-Jan-13	10:08:30	Other	Stationary	91	26	0	249	6	0	N	22.27888	E	113.85305	2268.61	301.10
4-Jan-13	10:08:58	Research Vessel	Traveling	91	50	0	325	59	10	N	22.28347	E	113.87725	1768.41	17.98
4-Jan-13	10:11:23	Police Vessel	Stationary	93	13	30	210	28	10	N	22.26715	E	113.86229	1001.49	262.47
4-Jan-13	10:12:11	Hi-Speed Ferry		99	4	10	230	52	30	N	22.26904	E	113.86860	353.07	282.87
4-Jan-13	10:13:04	Hi-Speed Ferry		100	36	10	307	50	0	N	22.27104	E	113.87194	301.04	359.83
4-Jan-13	10:13:57	Hi-Speed Ferry		95	25	0	345	7	0	N	22.27260	E	113.87543	594.50	37.11
4-Jan-13	10:15:41	Hi-Speed Ferry		92	22	40	353	45	50	N	22.27687	E	113.88142	1360.27	45.76
4-Jan-13	10:16:09	Other	Traveling	91	23	20	342	43	30	N	22.28565	E	113.88491	2341.36	34.72
4-Jan-13	10:17:17	Police Vessel	Traveling	93	28	40	219	25	10	N	22.26854	E	113.86292	928.06	271.42
4-Jan-13	10:18:23	Other	Traveling	91	41	10	341	56	40	N	22.28269	E	113.88239	1923.47	33.94
4-Jan-13	10:18:43	Police Vessel	Traveling	94	54	10	258	24	40	N	22.27217	E	113.86708	657.07	310.41
4-Jan-13	10:19:37	Other	Stationary	91	43	20	344	51	0	N	22.28189	E	113.88292	1882.59	36.85
4-Jan-13	10:20:32	Police Vessel	Traveling	93	12	10	310	17	20	N	22.27740	E	113.87234	1007.97	2.29
4-Jan-13	10:22:22	Police Vessel	Traveling	91	48	10	330	1	0	N	22.28333	E	113.87850	1797.37	22.01
4-Jan-13	10:22:49	Other	Traveling	91	48	30	346	52	10	N	22.28089	E	113.88288	1791.75	38.87
4-Jan-13	10:24:11	Police Vessel	Traveling	91	24	50	334	43	50	N	22.28681	E	113.88200	2298.32	26.73
4-Jan-13	10:24:31	Other	Traveling	91	48	50	348	39	40	N	22.28053	E	113.88326	1786.04	40.66
4-Jan-13	10:25:45	Police Vessel	Stationary	91	23	0	335	11	40	N	22.28714	E	113.88239	2349.68	27.19
4-Jan-13	10:26:06	Other	Stationary	91	48	40	348	45	30	N	22.28053	E	113.88330	1788.65	40.76
4-Jan-13	10:27:45	Other	Traveling	91	49	10	269	18	10	N	22.28084	E	113.86112	1780.22	321.30
4-Jan-13	10:30:31	Other	Traveling	92	15	0	298	0	50	N	22.28107	E	113.86952	1436.89	350.01
4-Jan-13	10:31:18	Other	Traveling	91	22	10	240	19	10	N	22.27644	E	113.85059	2373.18	292.32
4-Jan-13	10:33:23	Other	Traveling	92	1	20	331	38	50	N	22.28152	E	113.87818	1599.74	23.64
4-Jan-13	10:33:45	Other	Traveling	91	19	0	253	32	20	N	22.28125	E	113.85240	2469.61	305.54
4-Jan-13	10:35:27	Other	Stationary	91	42	0	344	12	20	N	22.28217	E	113.88289	1905.82	36.20
4-Jan-13	10:36:36	Other	Traveling	91	15	30	268	33	40	N	22.28630	E	113.85597	2585.84	320.56
4-Jan-13	10:36:55	Other	Stationary	91	42	10	343	40	0	N	22.28224	E	113.88273	1902.52	35.66
4-Jan-13	10:54:12	Other	Traveling	91	34	0	344	53	0	N	22.28322	E	113.88401	2067.87	36.88
4-Jan-13	10:56:42	Other	Traveling	91	10	50	347	2	10	N	22.28760	E	113.88883	2756.77	39.03
4-Jan-13	11:06:40	Police Vessel	Stationary	91	22	40	335	12	40	N	22.28717	E	113.88241	2354.05	27.21
4-Jan-13	11:08:10	Other	Stationary	91	49	20	349	8	0	N	22.28035	E	113.88329	1773.58	41.13
4-Jan-13	11:08:31	Other	Stationary	91	26	30	249	9	20	N	22.27880	E	113.85324	2247.94	301.15
4-Jan-13	11:08:52	Other	Stationary	91	42	30	344	13	40	N	22.28208	E	113.88282	1892.98	36.22
4-Jan-13	11:09:16	Other	Stationary	91	42	10	345	4	40	N	22.28197	E	113.88308	1899.18	37.07
4-Jan-13	11:09:30	Other	Stationary	91	35	10	345	22	0	N	22.28293	E	113.88399	2040.50	37.36
4-Jan-13	11:09:46	Other	Stationary	91	28	50	346	14	50	N	22.28380	E	113.88512	2187.91	38.24
4-Jan-13	11:10:01	Other	Stationary	91	29	30	347	6	40	N	22.28350	E	113.88527	2171.36	39.11
4-Jan-13	11:10:19	Other	Stationary	91	35	40	346	1	0	N	22.28272	E	113.88410	2029.62	38.01
4-Jan-13	11:11:08	Other	Stationary	90	58	40	241	37	20	N	22.28038	E	113.84216	3342.48	293.62
4-Jan-13	11:11:34	Other	Stationary	91	12	40	247	37	30	N	22.28027	E	113.84926	2683.57	299.62
4-Jan-13	11:28:23	Police Vessel	Traveling	91	24	30	335	38	10	N	22.28667	E	113.88232	2299.45	27.63
4-Jan-13	11:29:15	Police Vessel	Traveling	91	18	20	339	10	20	N	22.28746	E	113.88445	2483.46	31.17
4-Jan-13	11:30:11	Police Vessel	Traveling	91	10	20	342	23	50	N	22.28892	E	113.88717	2771.70	34.39
4-Jan-13	11:44:40	Hi-Speed Ferry		91	32	10	335	56	0	N	22.28506	E	113.88153	2103.73	27.93
4-Jan-13	11:45:02	Other	Traveling	91	30	30	332	35	50	N	22.28587	E	113.88062	2142.94	24.59
4-Jan-13	11:46:29	Hi-Speed Ferry		92	19	20	321	32	0	N	22.28046	E	113.87510	1386.17	13.53
4-Jan-13	11:46:45	Other	Traveling	91	48	20	319	51	20	N	22.28407	E	113.87551	1786.35	11.85
4-Jan-13	11:48:07	Hi-Speed Ferry		93	38	40	294	12	30	N	22.27603	E	113.86990	881.06	346.21
4-Jan-13	11:48:20	Other	Traveling	92	5	0	303	52	0	N	22.28221	E	113.87086	1546.14	355.86
4-Jan-13	11:49:41	Hi-Speed Ferry		94	8	0	246	17	50	N	22.27164	E	113.86530	776.30	298.29
4-Jan-13	11:49:57	Other	Traveling	92	8	40	284	5	50	N	22.28069	E	113.86603	1501.62	336.09
4-Jan-13	11:51:34	Hi-Speed Ferry		92	32	30	208	43	10	N	22.26650	E	113.85980	1265.44	260.72
4-Jan-13	11:51:44	Other	Traveling	91	51	10	264	26	10	N	22.27968	E	113.86028	1739.92	316.43
4-Jan-13	11:53:58	Other	Traveling	91	27	50	250	12	50	N	22.27892	E	113.85378	2207.83	302.21
4-Jan-13	11:54:43	Other	Stationary	91	26	20	249	17	20	N	22.27883	E	113.85327	2246.66	301.29
4-Jan-13	12:00:10	Other	Traveling	92	16	0	291	12	40	N	22.28056	E	113.86796	1419.31	343.21
4-Jan-13	12:02:33	Other	Traveling	92	2	0	323	34	0	N	22.28206	E	113.87608	1583.23	15.56
4-Jan-13	12:05:10	Other	Traveling	91	23	50	340	9	30	N	22.28596	E	113.88392	2313.36	32.16
4-Jan-13	12:05:41	Police Vessel	Traveling	91	21	40	336	21	10	N	22.28715	E	113.88292	2375.66	28.35
4-Jan-13	12:06:36	Police Vessel	Stationary	91	21	50	335	15	30	N	22.28730	E	113.88250	2370.62	27.26
4-Jan-13	12:40:27	Zero		97	0	40	0	0	20	N	22.27085	E	113.87543	454.65	52.00
4-Jan-13	12:46:15	Other	Traveling	91	24	50	270	49	0	N	22.28468	E	113.85854	2280.53	322.81
4-Jan-13	12:55:23	Other	Traveling	91	26	30	226	41	50	N	22.27137	E	113.85046	2234.82	278.69
4-Jan-13	13:02:53	Police Vessel	Traveling	91	41	10	278	24	30	N	22.28325	E	113.86279	1906.28	330.41
4-Jan-13	13:04:32	Police Vessel	Traveling	92	7	40	247	23	40	N	22.27499	E	113.85917	1507.32	299.39
4-Jan-13	13:08:49	Police Vessel	Traveling	91	45	40	218	4	30	N	22.26835	E	113.85421	1823.67	270.07
4-Jan-13	13:11:20	Police Vessel	Traveling	91	56	20	252	39	0	N	22.27680	E	113.85871	1654.76	304.65
4-Jan-13	13:13:31	Police Vessel	Traveling	91	37	10	278	39	20	N	22.28390	E	113.86249	1984.50	330.65
4-Jan-13	13:15:43	Tour Boat	Traveling	102	28	50	322	53	0	N	22.27053	E	113.87257	252.08	14.88
4-Jan-13	13:15:58	Tour Boat	Traveling	98	17	20	337	7	20	N	22.27134	E	113.87376	383.02	29.12
4-Jan-13	13:16:37	Tour Boat	Traveling	94	24	10	346	43	40	N	22.27342	E	113.87636	725.10	38.72
4-Jan-13	13:17:54	Tour Boat	Traveling	92	8	30	352	29	40	N	22.27794	E	113.88214	1496.38	44.49
4-Jan-13	13:49:35	Zero		103	23	20	0	0	0	N	22.26963	E	113.87374	233.97	52.00
4-Jan-13	13:57:35	Other	Traveling	91	31	30	332	5	40	N	22.28562	E	113.88030	2103.86	24.09
4-Jan-13	13:58:59	Other	Traveling	91	44	30	320	53	50	N	22.28447	E	113.87594	1839.17	12.89

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
4-Jan-13	14:00:43	Other	Traveling	92	3	20	303	47	0	N	22.28230	E	113.87083	1555.88	355.78
4-Jan-13	14:01:26	Police Vessel	Traveling	91	27	10	288	7	50	N	22.28703	E	113.86464	2209.44	340.13
4-Jan-13	14:03:31	Police Vessel	Traveling	91	51	20	267	25	0	N	22.28012	E	113.86103	1724.80	319.41
4-Jan-13	14:03:42	Other	Traveling	91	54	10	268	3	10	N	22.27993	E	113.86144	1681.60	320.05
4-Jan-13	14:07:37	Police Vessel	Traveling	91	46	40	207	33	0	N	22.26539	E	113.85473	1800.58	259.55
4-Jan-13	14:07:58	Other	Stationary	91	27	0	249	58	10	N	22.27888	E	113.85369	2212.94	301.97
4-Jan-13	14:11:05	Hi-Speed Ferry		94	40	0	223	7	40	N	22.26888	E	113.86534	681.84	275.12
4-Jan-13	14:11:53	Hi-Speed Ferry		96	9	0	255	41	50	N	22.27117	E	113.86797	516.37	307.69
4-Jan-13	14:12:43	Hi-Speed Ferry		95	14	30	296	35	10	N	22.27368	E	113.87078	606.55	348.58
4-Jan-13	14:14:42	Hi-Speed Ferry		92	21	20	331	2	40	N	22.27956	E	113.87710	1355.40	23.04
4-Jan-13	14:16:43	Hi-Speed Ferry		91	27	50	340	34	30	N	22.28495	E	113.88341	2190.59	32.57
4-Jan-13	14:29:12	Police Vessel	Traveling	91	14	40	325	49	50	N	22.29045	E	113.87963	2582.03	17.83
4-Jan-13	14:29:51	Police Vessel	Traveling	91	8	50	321	43	20	N	22.29286	E	113.87842	2805.53	13.72
4-Jan-13	14:45:24	Other	Traveling	91	31	30	253	24	10	N	22.27927	E	113.85531	2098.32	305.40
4-Jan-13	14:48:07	Other	Traveling	91	18	50	263	8	30	N	22.28390	E	113.85520	2440.57	315.14
4-Jan-13	14:48:30	Other	Traveling	92	3	30	267	38	0	N	22.27896	E	113.86218	1549.69	319.63
4-Jan-13	14:51:06	Other	Traveling	92	15	40	289	42	40	N	22.28038	E	113.86764	1409.57	341.71
4-Jan-13	14:54:25	Other	Traveling	92	1	10	317	9	0	N	22.28237	E	113.87439	1579.72	9.15
5-Jan-13	10:12:40	Zero		121	2	30	0	0	0	N	22.26885	E	113.87266	93.48	52.00
5-Jan-13	10:16:16	Other	Stationary	91	35	30	345	20	20	N	22.28290	E	113.88395	2036.10	37.34
5-Jan-13	10:16:32	Other	Stationary	91	29	30	346	12	40	N	22.28371	E	113.88502	2174.39	38.21
5-Jan-13	10:16:44	Other	Stationary	91	30	10	347	4	50	N	22.28341	E	113.88518	2158.08	39.08
5-Jan-13	10:16:58	Other	Stationary	91	36	10	345	59	0	N	22.28267	E	113.88404	2021.75	37.98
5-Jan-13	10:17:50	Other	Stationary	91	47	30	341	24	20	N	22.28190	E	113.88162	1806.34	33.40
5-Jan-13	10:18:30	Other	Stationary	91	48	20	342	18	50	N	22.28166	E	113.88177	1792.25	34.31
5-Jan-13	10:19:42	Other	Stationary	90	57	10	241	24	30	N	22.28062	E	113.84126	3437.62	293.41
5-Jan-13	10:20:02	Other	Stationary	91	13	20	247	33	50	N	22.28015	E	113.84942	2662.18	299.56
5-Jan-13	10:20:41	Speedboat	Traveling	93	40	10	236	6	10	N	22.27079	E	113.86383	877.89	288.10
5-Jan-13	10:23:34	Fishing Boat	Non-operating	91	26	0	237	10	40	N	22.27502	E	113.85115	2263.40	289.17
5-Jan-13	10:24:14	Other	Traveling	91	19	30	277	50	10	N	22.28741	E	113.85996	2451.46	329.83
5-Jan-13	10:24:27	Speedboat	Traveling	108	15	20	318	37	20	N	22.26984	E	113.87225	170.47	10.62
5-Jan-13	10:24:41	Speedboat	Traveling	102	2	50	338	17	0	N	22.27038	E	113.87324	263.49	30.28
5-Jan-13	10:24:57	Speedboat	Traveling	98	27	10	347	0	50	N	22.27098	E	113.87426	378.44	39.01
5-Jan-13	10:25:19	Police Vessel	Stationary	91	23	0	335	18	20	N	22.28710	E	113.88241	2346.29	27.30
5-Jan-13	10:25:41	Other	Stationary	91	47	0	343	49	30	N	22.28157	E	113.88227	1814.17	35.82
5-Jan-13	10:26:21	Speedboat	Traveling	92	59	30	0	19	0	N	22.27426	E	113.88024	1077.56	52.31
5-Jan-13	10:27:56	Fishing Boat	Non-operating	91	29	10	268	21	20	N	22.28345	E	113.85841	2181.43	320.35
5-Jan-13	10:28:09	Other	Traveling	91	32	50	248	44	20	N	22.27796	E	113.85444	2094.12	300.74
5-Jan-13	10:28:38	Other	Traveling	91	45	50	340	50	50	N	22.28220	E	113.88162	1834.11	32.84
5-Jan-13	10:36:17	Other	Traveling	91	52	30	276	11	20	N	22.28152	E	113.86311	1723.78	328.19
5-Jan-13	10:36:42	Other	Traveling	91	50	30	264	22	30	N	22.27977	E	113.86017	1755.23	316.37
5-Jan-13	10:37:24	Fishing Boat	Non-operating	91	46	10	223	17	10	N	22.26985	E	113.85425	1827.52	275.28
5-Jan-13	10:39:03	Other	Traveling	91	44	0	309	0	50	N	22.28512	E	113.87226	1865.83	1.01
5-Jan-13	10:39:21	Other	Traveling	92	2	0	280	10	40	N	22.28097	E	113.86473	1588.22	332.17
5-Jan-13	10:40:15	Fishing Boat	Non-operating	91	50	30	246	41	40	N	22.27591	E	113.85697	1754.93	298.69
5-Jan-13	10:41:41	Other	Traveling	91	25	50	346	33	50	N	22.28428	E	113.88568	2265.87	38.56
5-Jan-13	10:41:51	Other	Traveling	91	26	10	347	18	0	N	22.28405	E	113.88585	2256.95	39.30
5-Jan-13	10:42:03	Other	Traveling	91	23	50	346	24	30	N	22.28470	E	113.88597	2320.72	38.41
5-Jan-13	10:42:56	Other	Traveling	91	11	40	337	6	0	N	22.28974	E	113.88482	2722.35	29.10
5-Jan-13	10:43:11	Other	Traveling	92	1	0	306	0	40	N	22.28273	E	113.87140	1601.16	358.01
5-Jan-13	10:43:26	Fishing Boat	Non-operating	91	36	40	270	29	30	N	22.28267	E	113.86005	2008.58	322.49
5-Jan-13	10:47:31	Speedboat	Traveling	104	27	0	278	2	50	N	22.27003	E	113.87089	217.98	330.04
5-Jan-13	10:47:42	Speedboat	Traveling	101	32	40	310	32	40	N	22.27081	E	113.87206	275.00	2.54
5-Jan-13	10:47:52	Speedboat	Traveling	98	43	30	326	43	50	N	22.27145	E	113.87309	366.05	18.73
5-Jan-13	10:48:03	Speedboat	Traveling	96	17	20	336	3	30	N	22.27238	E	113.87428	509.83	28.06
5-Jan-13	10:48:29	Speedboat	Traveling	93	50	10	344	53	50	N	22.27437	E	113.87684	838.43	36.89
5-Jan-13	10:49:09	Other	Stationary	91	19	30	344	58	50	N	22.28594	E	113.88627	2448.50	36.98
5-Jan-13	10:49:27	Other	Stationary	91	26	0	346	37	30	N	22.28423	E	113.88567	2260.56	38.62
5-Jan-13	10:49:42	Other	Stationary	91	25	50	347	21	30	N	22.28409	E	113.88591	2264.99	39.36
5-Jan-13	10:51:07	Other	Traveling	91	26	30	347	32	50	N	22.28393	E	113.88586	2247.12	39.54
5-Jan-13	11:01:20	Fishing Boat	Non-operating	92	2	10	220	2	40	N	22.26884	E	113.85655	1584.35	272.04
5-Jan-13	11:01:39	Other	Traveling	91	29	40	350	52	10	N	22.28262	E	113.88627	2165.55	42.87
5-Jan-13	11:03:20	Fishing Boat	Non-operating	92	17	40	241	2	0	N	22.27328	E	113.85937	1404.62	293.03
5-Jan-13	11:03:49	Fishing Boat	Non-operating	91	43	10	214	36	40	N	22.26733	E	113.85371	1878.81	266.61
5-Jan-13	11:04:13	Other	Traveling	91	25	30	345	57	10	N	22.28446	E	113.88554	2272.34	37.95
5-Jan-13	11:08:36	Other	Traveling	91	33	20	331	20	20	N	22.28551	E	113.87995	2078.67	23.34
5-Jan-13	11:09:00	Fishing Boat	Non-operating	91	30	40	289	58	40	N	22.28665	E	113.86550	2140.58	341.97
5-Jan-13	11:09:15	Fishing Boat	Non-operating	91	49	0	264	28	50	N	22.27993	E	113.86004	1776.81	316.48
5-Jan-13	11:09:48	Fishing Boat	Non-operating	91	35	20	228	59	0	N	22.27182	E	113.85252	2034.41	280.98
5-Jan-13	11:10:19	Fishing Boat	Non-operating	91	21	30	228	4	0	N	22.27208	E	113.84911	2384.95	280.06
5-Jan-13	11:10:38	Other	Traveling	91	50	20	308	38	50	N	22.28413	E	113.87214	1755.02	0.64
5-Jan-13	11:13:53	Fishing Boat	Non-operating	91	15	30	292	44	50	N	22.29071	E	113.86535	2577.53	344.74
5-Jan-13	11:14:08	Fishing Boat	Non-operating	91	31	50	264	25	0	N	22.28210	E	113.85778	2112.50	316.41
5-Jan-13	11:14:21	Fishing Boat	Non-operating	91	23	20	255	7	20	N	22.28099	E	113.85387	2331.19	307.12
5-Jan-13	11:14:36	Other	Traveling	91	38	50	258	20	20	N	22.27976	E	113.85741	1961.08	310.34
5-Jan-13	11:15:20	Fishing Boat	Non-operating	92	10	10	222	25	40	N	22.26936	E	113.85754	1485.26	274.42
5-Jan-13	11:15:43	Fishing Boat	Non-operating	91	36	20	218	28	40	N	22.26848	E	113.85237	2012.46	270.47
5-Jan-13	11:16:06	Fishing Boat	Non-operating	91	14	20	217	21	0	N	22.26806	E	113.84648	2618.49	269.35
5-Jan-13	11:19:06	Fishing Boat	Non-operating	92	25	30	256	33	40	N	22.27578	E	113.86185	1327.52	308.56
5-Jan-13	11:19:21	Fishing Boat	Non-operating	91	47	0	246	33	20	N	22.27612	E	113.85649	1809.46	298.55
5-Jan-13	11:19:30	Fishing Boat	Non-operating	91	33	50	236	59	50	N	22.27438	E	113.85294	2066.37	288.99
5-Jan-13	11:20:03	Fishing Boat	Non-operating	91	4	20	296	42	30	N	22.29512	E	113.86616	3034.93	348.71
5-Jan-13	11:20:20	Fishing Boat	Non-operating	91	1	20	282	45	0	N	22.29428	E	113.85872	3187.54	334.75
5-Jan-13	11:25:32	Fishing Boat	Non-operating	91	34	50	286	8	10	N	22.28540	E	113.86454	2043.71	338.13
5-Jan-13	11:25:52	Fishing Boat	Non-operating	91	17	50	289	37	20	N	22.28966	E	113.86429	2497.39	341.62
5-Jan-13	11:26:06	Fishing Boat	Non-operating	91	17	20	283	51	20	N	22.28898	E	113.86194	2513.80	335.85
5-Jan-13	11:26:33	Other	Traveling	91	51	0	272	42	10	N	22.28113	E	113.86215	1743.03	324.70
5-Jan-13	11:28:53	Other	Traveling	92	1	50	306	43	10	N	22.28261	E	113.87160	1586.60	358.72
5-Jan-13	11:30:20	Other	Traveling	91	48	0	325	58	0	N	22.28367	E	113.87732	1791.59	17.96
5-Jan-13	11:32:03	Other	Traveling	91	23	10	338	56	40	N	22.28635	E	113.88362	2333.93	30.94
5-Jan-13	11:37:16	Other	Traveling	91	27	30	330	24	10	N	22.28677	E	113.88016	2216.09	22.40
5-Jan-13	11:40:53	Other	Traveling	91	53	10	272	4	20	N	22.28078	E	113.86220	1708.17	324.07
5-Jan-13	11:42:29	Other	Traveling	92	10	20	254	32	10	N	22.27627	E	113.86037	1481.40	306.53
5-Jan-13	11:42:46	Other	Traveling	91	17	10	302	36	20	N	22.29089	E	113.86964	2517.28	354.60
5-Jan-13	11:44:10	Other	Traveling	92	12	0	232	37	40	N	22.27166	E	113.85818	1462.44	284.62
5-Jan-13	11:49:38	Zero		97	41	0	0	0	0	N	22.27063	E	113.87513	415.18	52.00
5-Jan-13	11:51:23	Hi-Speed Ferry		91	15	10	342	1	40	N	22.28761	E	113.88601	2584.45	34.02
5-Jan-13	11:55:54	Hi-Speed Ferry		93	16	30	304	48	0	N	22.27714	E	113.87141	979.64	356.80
5-Jan-13	11:56:23	Other	Traveling	93	3	30	333	57	40	N	22.27682	E	113.87641	1049.38	25.96
5-Jan-13	11:57:05	Other	Traveling	96	38	0	318	8	20	N	22.27260	E	113.87277	481.51	10.14
5-Jan-13	11:57:24	Other	Traveling	101	17	40	285	29	10	N	22.27066	E	113.87090	280.31	337.48

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
5-Jan-13	11:57:39	Other	Traveling	101	8	0	237	51	50	N	22.26920	E	113.86934	284.47	289.86
5-Jan-13	11:57:55	Hi-Speed Ferry		94	23	10	246	42	20	N	22.27149	E	113.86571	730.33	298.70
5-Jan-13	11:59:22	Hi-Speed Ferry		92	59	0	212	37	50	N	22.26743	E	113.86153	1075.74	264.63
5-Jan-13	12:11:57	Other	Traveling	91	29	20	324	1	50	N	22.28707	E	113.87776	2166.31	16.03
5-Jan-13	12:15:32	Other	Traveling	91	29	10	341	2	10	N	22.28471	E	113.88345	2170.04	33.03
5-Jan-13	12:17:03	Other	Traveling	91	33	0	343	39	10	N	22.28354	E	113.88373	2079.28	35.65
5-Jan-13	12:18:54	Other	Stationary	91	35	40	345	14	40	N	22.28281	E	113.88384	2020.43	37.24
5-Jan-13	12:29:13	Other	Traveling	96	27	0	227	9	30	N	22.26904	E	113.86720	494.56	279.16
5-Jan-13	12:32:29	Other	Traveling	96	56	50	224	49	50	N	22.26882	E	113.86751	458.75	276.83
5-Jan-13	12:34:47	Other	Traveling	97	1	0	256	51	0	N	22.27090	E	113.86851	454.12	308.85
5-Jan-13	12:35:01	Other	Traveling	97	13	50	285	6	0	N	22.27199	E	113.87028	440.53	337.10
5-Jan-13	12:35:11	Other	Traveling	96	7	40	302	3	20	N	22.27299	E	113.87142	520.65	354.05
5-Jan-13	12:35:54	Other	Traveling	92	57	0	332	4	40	N	22.27726	E	113.87625	1086.03	24.07
5-Jan-13	12:36:40	Other	Traveling	91	51	20	339	2	50	N	22.28169	E	113.88063	1731.85	31.04
5-Jan-13	12:37:17	Other	Traveling	111	18	50	253	47	40	N	22.26909	E	113.87081	143.20	305.79
5-Jan-13	12:38:18	Sand Barge		91	22	0	280	36	50	N	22.28719	E	113.86139	2360.02	332.61
5-Jan-13	12:41:40	Sand Barge		91	32	50	268	51	10	N	22.28285	E	113.85917	2080.56	320.85
5-Jan-13	12:46:48	Sand Barge		91	37	30	246	30	0	N	22.27683	E	113.85503	1979.30	298.50
5-Jan-13	12:47:29	Other	Traveling	91	37	0	345	17	10	N	22.28258	E	113.88367	1989.56	37.28
5-Jan-13	12:48:34	Other	Traveling	113	26	20	275	56	0	N	22.26932	E	113.87128	128.80	327.93
5-Jan-13	12:49:32	Other	Stationary	91	35	20	347	2	10	N	22.28249	E	113.88434	2024.56	39.03
5-Jan-13	12:51:19	Other	Traveling	99	40	0	255	31	40	N	22.27013	E	113.86942	327.83	307.52
5-Jan-13	12:51:54	Other	Stationary	91	35	30	346	5	20	N	22.28265	E	113.88407	2020.75	38.09
5-Jan-13	12:52:10	Sand Barge		91	22	50	226	9	20	N	22.27131	E	113.84947	2334.32	278.15
5-Jan-13	12:52:26	Sand Barge		91	20	30	269	37	10	N	22.28528	E	113.85743	2403.07	321.62
5-Jan-13	12:53:10	Other	Stationary	99	51	50	254	46	20	N	22.27006	E	113.86944	321.11	306.77
5-Jan-13	12:53:39	Other	Traveling	91	29	30	349	2	30	N	22.28298	E	113.88572	2157.83	41.04
5-Jan-13	12:54:21	Other	Traveling	91	29	0	348	16	30	N	22.28323	E	113.88559	2170.04	40.27
5-Jan-13	12:55:40	Other	Traveling	91	34	50	346	34	0	N	22.28265	E	113.88428	2034.75	38.56
5-Jan-13	12:59:21	Police Vessel	Traveling	92	59	20	345	0	50	N	22.27603	E	113.87821	1070.60	37.01
5-Jan-13	12:59:37	Police Vessel	Traveling	93	27	0	341	49	10	N	22.27526	E	113.87696	926.85	33.82
5-Jan-13	13:01:15	Police Vessel	Traveling	101	13	30	276	6	0	N	22.27048	E	113.87050	281.22	328.10
5-Jan-13	13:01:32	Police Vessel	Traveling	99	39	10	267	44	20	N	22.27059	E	113.86988	328.14	319.74
5-Jan-13	13:01:49	Police Vessel	Traveling	98	53	40	281	55	40	N	22.27122	E	113.87042	356.64	333.92
5-Jan-13	13:02:13	Other	Stationary	98	24	10	284	2	50	N	22.27144	E	113.87045	377.84	336.04
5-Jan-13	13:02:25	Police Vessel	Stationary	98	29	40	284	57	10	N	22.27143	E	113.87052	373.70	336.95
5-Jan-13	13:02:47	Police Vessel	Traveling	91	50	30	323	15	0	N	22.28347	E	113.87640	1742.82	15.25
5-Jan-13	13:03:07	Sand Barge		91	17	10	221	36	50	N	22.26975	E	113.84761	2507.41	273.61
5-Jan-13	13:04:10	Police Vessel	Traveling	92	19	10	313	38	0	N	22.28070	E	113.87326	1381.26	5.63
5-Jan-13	13:05:17	Police Vessel	Traveling	99	24	20	264	58	30	N	22.27055	E	113.86971	336.87	316.97
5-Jan-13	13:05:33	Police Vessel	Traveling	98	8	0	243	40	0	N	22.26986	E	113.86852	390.48	295.66
5-Jan-13	13:06:12	Police Vessel	Traveling	95	5	0	214	50	10	N	22.26802	E	113.86585	627.54	266.83
5-Jan-13	13:06:35	Police Vessel	Traveling	93	39	20	269	24	30	N	22.27448	E	113.86664	874.19	321.41
5-Jan-13	13:08:41	Police Vessel	Traveling	92	45	10	219	41	0	N	22.26864	E	113.86065	1162.40	271.68
5-Jan-13	13:10:40	Other	Traveling	103	8	0	238	57	40	N	22.26910	E	113.86977	239.09	290.96
5-Jan-13	13:11:11	Police Vessel	Traveling	92	7	0	226	53	50	N	22.27044	E	113.85740	1514.02	278.89
5-Jan-13	13:17:31	Police Vessel	Traveling	91	15	40	301	20	30	N	22.29118	E	113.86906	2556.24	353.34
5-Jan-13	13:42:34	Police Vessel	Traveling	92	2	50	277	48	30	N	22.28049	E	113.86430	1563.38	329.81
5-Jan-13	13:43:51	Police Vessel	Traveling	92	47	40	249	23	0	N	22.27369	E	113.86245	1143.02	301.38
5-Jan-13	13:45:09	Police Vessel	Traveling	92	12	0	222	10	10	N	22.26928	E	113.85784	1453.86	274.17
5-Jan-13	13:48:19	Other	Traveling	91	20	40	349	37	30	N	22.28442	E	113.88739	2391.46	41.62
5-Jan-13	13:49:04	Other	Traveling	91	29	20	348	3	10	N	22.28319	E	113.88544	2156.06	40.05
5-Jan-13	13:50:16	Other	Stationary	91	34	20	345	51	10	N	22.28283	E	113.88412	2040.22	37.85
5-Jan-13	13:54:27	Other	Traveling	91	10	20	348	34	10	N	22.28713	E	113.88933	2749.18	40.57
5-Jan-13	13:56:26	Other	Traveling	91	30	0	344	50	50	N	22.28374	E	113.88442	2139.10	36.84
5-Jan-13	13:56:41	Other	Traveling	91	24	40	350	30	0	N	22.28343	E	113.88690	2275.80	42.50
5-Jan-13	13:59:22	Other	Traveling	91	35	10	346	44	10	N	22.28252	E	113.88424	2021.23	38.73
5-Jan-13	13:59:40	Other	Stationary	91	29	20	344	52	50	N	22.28385	E	113.88452	2154.94	36.88
5-Jan-13	14:02:45	Other	Stationary	91	32	40	341	37	30	N	22.28389	E	113.88312	2076.11	33.62
5-Jan-13	14:05:40	Police Vessel	Traveling	94	21	50	243	58	40	N	22.27121	E	113.86557	729.53	295.97
5-Jan-13	14:06:17	Police Vessel	Traveling	94	25	40	261	3	20	N	22.27275	E	113.86684	718.93	313.05
5-Jan-13	14:07:32	Police Vessel	Traveling	93	58	0	282	58	40	N	22.27488	E	113.86864	802.91	334.97
5-Jan-13	14:08:19	Other	Traveling	91	27	10	349	52	30	N	22.28313	E	113.88628	2208.32	41.87
5-Jan-13	14:09:49	Police Vessel	Traveling	94	12	40	285	57	10	N	22.27464	E	113.86918	755.99	337.95
5-Jan-13	14:10:14	Other	Stationary	91	31	20	349	50	10	N	22.28245	E	113.88561	2106.03	41.83
5-Jan-13	14:12:27	Police Vessel	Traveling	94	56	0	288	17	50	N	22.27380	E	113.86983	644.66	340.29
5-Jan-13	14:13:37	Speedboat	Traveling	110	53	50	324	37	0	N	22.26959	E	113.87235	145.65	16.61
5-Jan-13	14:14:18	Hi-Speed Ferry		97	50	20	258	27	0	N	22.27069	E	113.86895	403.99	310.45
5-Jan-13	14:14:37	Police Vessel	Traveling	92	54	0	307	12	50	N	22.27823	E	113.87180	1099.55	359.21
5-Jan-13	14:14:58	Speedboat	Traveling	98	35	30	0	14	30	N	22.27036	E	113.87477	368.10	52.24
5-Jan-13	14:15:17	Hi-Speed Ferry		96	2	30	312	17	40	N	22.27305	E	113.87233	525.57	4.29
5-Jan-13	14:18:52	Speedboat	Traveling	94	34	50	12	4	50	N	22.27107	E	113.87802	694.39	64.08
5-Jan-13	14:19:06	Hi-Speed Ferry		91	33	0	341	1	30	N	22.28393	E	113.88290	2066.91	33.02
5-Jan-13	14:19:58	Other	Traveling	91	34	40	264	5	50	N	22.28149	E	113.85825	2029.99	316.09
5-Jan-13	14:21:15	Other	Traveling	93	1	30	266	42	30	N	22.27546	E	113.86518	1053.55	318.71
5-Jan-13	14:23:02	Other	Traveling	92	37	40	210	56	10	N	22.26699	E	113.86023	1213.60	262.93
5-Jan-13	14:23:21	Other	Traveling	91	15	30	283	34	40	N	22.28926	E	113.86167	2553.72	335.57
5-Jan-13	14:23:39	Speedboat	Stationary	94	37	0	13	44	40	N	22.27088	E	113.87805	688.77	65.74
5-Jan-13	14:24:21	Other	Traveling	91	11	50	330	34	50	N	22.29066	E	113.88198	2686.60	22.58
5-Jan-13	14:26:05	Other	Traveling	92	35	30	234	27	0	N	22.27147	E	113.86047	1230.42	286.45
5-Jan-13	14:27:45	Other	Traveling	91	32	0	342	8	10	N	22.28389	E	113.88334	2088.78	34.13
5-Jan-13	14:27:58	Other	Traveling	92	31	50	266	12	30	N	22.27679	E	113.86378	1260.19	318.21
5-Jan-13	14:32:09	Other	Traveling	91	21	40	299	53	40	N	22.28933	E	113.86871	2356.63	351.89
5-Jan-13	14:32:26	Other	Stationary	91	30	50	348	45	0	N	22.28276	E	113.88537	2115.48	40.75
5-Jan-13	14:33:36	Speedboat	Traveling	95	26	50	12	32	40	N	22.27059	E	113.87706	582.86	64.54
5-Jan-13	14:35:01	Speedboat	Traveling	99	41	40	6	4	40	N	22.26988	E	113.87463	325.22	58.07
5-Jan-13	14:35:38	Speedboat	Traveling	104	28	50	355	22	20	N	22.26964	E	113.87348	215.11	47.37
5-Jan-13	14:37:36	Speedboat	Traveling	109	52	10	277	59	20	N	22.26953	E	113.87120	153.70	329.99
5-Jan-13	14:38:39	Speedboat	Traveling	106	57	30	241	12	40	N	22.26898	E	113.87032	182.15	293.21
5-Jan-13	14:41:23	Speedboat	Traveling	115	22	10	315	2	40	N	22.26938	E	113.87208	117.12	7.04
5-Jan-13	14:41:43	Speedboat	Traveling	115	5	20	311	8	20	N	22.26940	E	113.87201	118.61	3.14
5-Jan-13	14:42:17	Speedboat	Traveling	116	23	30	275	1	10	N	22.26918	E	113.87135	111.91	327.02
5-Jan-13	14:42:49	Speedboat	Traveling	112	36	40	247	34	10	N	22.26893	E	113.87082	133.33	299.57
5-Jan-13	15:02:59	Speedboat	Traveling	97	0	20	1	52	10	N	22.27073	E	113.87549	451.57	53.87
5-Jan-13	15:06:47	Other	Stationary	91	31	50	342	26	40	N	22.28383	E	113.88343	2088.62	34.44
5-Jan-13	15:07:11	Other	Stationary	91	25	30	346	29	50	N	22.28415	E	113.88554	2245.50	38.49
5-Jan-13	15:07:51	Other	Stationary	91	24	40	347	13	10	N	22.28414	E	113.88589	2267.86	39.22
5-Jan-13	15:08:21	Other	Stationary	91	34	20	345	20	30	N	22.28287	E	113.88393	2032.42	37.34
5-Jan-13	15:08:47	Other	Stationary	91	28	10	346	27	40	N	22.28367	E	113.88511	2176.45	38.46
5-Jan-13	15:09:01	Other	Stationary	91	28	30	347	5	30	N	22.28348	E	113.88524	2168.11	39.09
5-Jan-13	15:09:23	Other	Stationary	91	34	30	345	59	0	N	22.28272	E	113.88409	2028.69	37.98

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
5-Jan-13	15:10:28	Police Vessel	Traveling	91	17	50	339	53	30	N	22.28721	E	113.88464	2470.05	31.89
5-Jan-13	15:11:15	Police Vessel	Traveling	91	25	40	335	24	0	N	22.28624	E	113.88197	2240.62	27.40
5-Jan-13	15:12:13	Police Vessel	Stationary	91	24	40	335	24	10	N	22.28645	E	113.88209	2267.37	27.40
5-Jan-13	15:14:08	Fishing Boat	Non-operating	91	48	20	243	17	20	N	22.27512	E	113.85641	1766.61	295.29
5-Jan-13	15:14:19	Fishing Boat	Non-operating	91	39	0	243	35	30	N	22.27585	E	113.85497	1934.95	295.59
5-Jan-13	15:16:06	Fishing Boat	Non-operating	91	44	40	258	56	40	N	22.27912	E	113.85851	1828.95	310.94
5-Jan-13	15:16:25	Fishing Boat	Non-operating	91	38	0	258	25	0	N	22.27974	E	113.85747	1954.72	310.41
5-Jan-13	15:20:07	Police Vessel	Traveling	91	24	10	338	34	10	N	22.28600	E	113.88322	2280.16	30.57
5-Jan-13	15:20:55	Police Vessel	Traveling	91	24	20	339	14	40	N	22.28584	E	113.88342	2275.49	31.24
5-Jan-13	15:22:31	Other	Traveling	91	45	20	256	28	50	N	22.27851	E	113.85811	1816.68	308.48
5-Jan-13	15:22:53	Police Vessel	Traveling	91	20	10	331	46	10	N	22.28806	E	113.88133	2395.46	23.77
5-Jan-13	15:23:39	Speedboat	Traveling	95	9	20	9	9	20	N	22.27100	E	113.87718	614.56	61.15
5-Jan-13	15:24:02	Police Vessel	Traveling	91	19	30	331	9	30	N	22.28832	E	113.88118	2415.76	23.16
5-Jan-13	15:24:21	Speedboat	Traveling	96	39	20	6	56	50	N	22.27054	E	113.87590	475.07	58.94
5-Jan-13	15:24:44	Other	Traveling	91	34	40	272	32	10	N	22.28316	E	113.86053	2023.54	324.53
5-Jan-13	15:25:07	Speedboat	Traveling	99	38	0	3	47	10	N	22.26999	E	113.87457	326.53	55.78
5-Jan-13	15:25:23	Police Vessel	Traveling	91	21	0	333	53	50	N	22.28752	E	113.88201	2370.12	25.89
5-Jan-13	15:26:42	Speedboat	Traveling	110	25	40	331	46	50	N	22.26956	E	113.87253	148.78	23.78
5-Jan-13	15:27:01	Other	Traveling	91	16	30	339	38	20	N	22.28758	E	113.88476	2511.83	31.64
5-Jan-13	15:28:29	Other	Traveling	91	30	20	330	15	40	N	22.28600	E	113.87976	2121.49	22.26
5-Jan-13	15:28:47	Police Vessel	Traveling	91	20	30	337	11	0	N	22.28707	E	113.88325	2384.69	29.18
5-Jan-13	15:29:17	Speedboat	Stationary	108	8	20	247	48	20	N	22.26909	E	113.87052	169.13	299.80
5-Jan-13	15:30:42	Other	Traveling	91	49	40	308	25	0	N	22.28402	E	113.87207	1743.52	0.41
5-Jan-13	15:31:25	Speedboat	Traveling	117	27	0	281	52	40	N	22.26920	E	113.87149	106.65	333.87
5-Jan-13	15:32:26	Speedboat	Traveling	113	33	30	330	1	30	N	22.26939	E	113.87241	127.05	22.02
5-Jan-13	15:33:02	Speedboat	Traveling	118	32	10	289	24	20	N	22.26920	E	113.87163	101.87	341.40
5-Jan-13	15:33:22	Other	Traveling	91	50	10	275	22	30	N	22.28149	E	113.86284	1735.30	327.37
5-Jan-13	15:34:38	Police Vessel	Traveling	91	15	30	340	8	30	N	22.28772	E	113.88511	2544.77	32.14
5-Jan-13	15:35:09	Speedboat	Stationary	111	0	10	261	56	50	N	22.26923	E	113.87093	144.27	313.94
5-Jan-13	15:35:29	Other	Traveling	91	31	20	254	22	0	N	22.27952	E	113.85552	2097.24	306.36
5-Jan-13	15:35:50	Police Vessel	Traveling	90	59	40	346	13	0	N	22.29123	E	113.89143	3238.19	38.21
6-Jan-13	9:08:21	Zero		134	5	20	0	0	10	N	22.26866	E	113.87239	58.19	52.00
6-Jan-13	9:10:08	Other	Stationary	91	27	30	346	29	50	N	22.28404	E	113.88544	2229.55	38.49
6-Jan-13	9:10:20	Other	Stationary	91	26	40	347	13	10	N	22.28403	E	113.88579	2251.31	39.22
6-Jan-13	9:10:36	Other	Stationary	91	35	50	345	20	40	N	22.28288	E	113.88394	2033.25	37.34
6-Jan-13	9:10:53	Other	Stationary	91	29	30	346	13	20	N	22.28374	E	113.88506	2179.07	38.22
6-Jan-13	9:11:07	Other	Stationary	91	30	0	347	5	50	N	22.28347	E	113.88523	2166.81	39.09
6-Jan-13	9:11:29	Other	Stationary	91	36	50	345	59	40	N	22.28260	E	113.88399	2012.04	37.99
6-Jan-13	9:12:06	Other	Stationary	90	57	50	241	25	10	N	22.28051	E	113.84156	3404.67	293.42
6-Jan-13	9:12:25	Other	Stationary	91	13	20	247	40	30	N	22.28022	E	113.84940	2668.46	299.67
6-Jan-13	9:15:04	Hi-Speed Ferry		91	18	20	340	50	50	N	22.28720	E	113.88511	2495.14	32.84
6-Jan-13	9:17:20	Hi-Speed Ferry		92	10	50	327	52	50	N	22.28090	E	113.87686	1485.23	19.88
6-Jan-13	9:19:47	Hi-Speed Ferry		94	23	20	278	38	40	N	22.27410	E	113.86844	735.16	330.64
6-Jan-13	9:21:18	Hi-Speed Ferry		93	40	50	228	35	0	N	22.26978	E	113.86356	877.46	280.58
6-Jan-13	9:43:21	Hi-Speed Ferry		98	25	50	227	36	30	N	22.26890	E	113.86829	380.68	279.61
6-Jan-13	9:44:37	Hi-Speed Ferry		96	38	20	308	39	10	N	22.27270	E	113.87200	484.83	0.65
6-Jan-13	9:46:19	Hi-Speed Ferry		92	43	40	331	52	30	N	22.27810	E	113.87661	1186.35	23.87
6-Jan-13	9:48:01	Hi-Speed Ferry		91	41	50	339	28	0	N	22.28302	E	113.88166	1913.48	31.46
6-Jan-13	10:01:04	Police Vessel	Traveling	91	28	30	333	21	40	N	22.28626	E	113.88113	2204.12	25.36
6-Jan-13	10:01:27	Police Vessel	Traveling	91	17	50	338	51	30	N	22.28773	E	113.88447	2511.28	30.86
6-Jan-13	10:01:49	Police Vessel	Traveling	91	13	40	340	46	50	N	22.28843	E	113.88593	2656.07	32.78
6-Jan-13	10:10:57	Speedboat	Traveling	110	21	40	284	55	20	N	22.26959	E	113.87137	151.83	336.92
6-Jan-13	10:11:14	Speedboat	Traveling	103	35	40	329	17	20	N	22.27029	E	113.87277	233.02	21.29
6-Jan-13	10:11:58	Speedboat	Traveling	95	9	0	352	59	10	N	22.27231	E	113.87624	625.51	44.98
6-Jan-13	10:12:50	Speedboat	Traveling	92	54	50	356	13	10	N	22.27498	E	113.87999	1108.80	48.22
6-Jan-13	10:34:26	Fishing boat	Non-operating	91	33	10	224	54	10	N	22.27059	E	113.85178	2088.99	276.90
6-Jan-13	10:36:21	Fishing boat	Non-operating	91	43	30	240	1	30	N	22.27467	E	113.85501	1877.97	292.02
6-Jan-13	10:38:54	Fishing boat	Non-operating	91	44	0	262	56	50	N	22.28021	E	113.85908	1868.62	314.94
6-Jan-13	10:42:19	Fishing boat	Non-operating	91	25	20	287	35	10	N	22.28759	E	113.86420	2282.68	339.58
6-Jan-13	10:45:46	Fishing boat	Non-operating	91	47	0	228	47	40	N	22.27139	E	113.85461	1815.12	280.79
6-Jan-13	10:47:34	Fishing boat	Non-operating	91	55	30	242	31	0	N	22.27461	E	113.85708	1680.21	294.51
6-Jan-13	10:49:35	Fishing boat	Non-operating	91	53	40	259	1	10	N	22.27842	E	113.85942	1707.38	311.02
6-Jan-13	10:51:37	Fishing boat	Non-operating	91	41	0	273	5	50	N	22.28253	E	113.86124	1923.57	325.09
6-Jan-13	10:55:53	Police Vessel	Traveling	91	14	30	343	16	10	N	22.28758	E	113.88665	2619.06	35.27
6-Jan-13	10:56:36	Police Vessel	Traveling	91	32	20	335	29	40	N	22.28514	E	113.88140	2105.88	27.49
6-Jan-13	10:57:35	Police Vessel	Traveling	91	41	10	327	54	20	N	22.28458	E	113.87830	1919.83	19.90
6-Jan-13	10:57:54	Speedboat	Traveling	91	42	20	327	31	0	N	22.28443	E	113.87811	1897.68	19.51
6-Jan-13	10:58:21	Police Vessel	Stationary	91	41	40	328	19	40	N	22.28445	E	113.87840	1910.22	20.32
6-Jan-13	10:58:43	Speedboat	Traveling	91	42	20	329	14	0	N	22.28425	E	113.87863	1897.61	21.23
6-Jan-13	11:00:00	Speedboat	Stationary	91	42	30	329	35	10	N	22.28419	E	113.87872	1894.37	21.58
6-Jan-13	11:06:08	Police Vessel	Traveling	91	36	30	328	34	30	N	22.28529	E	113.87882	2012.95	20.57
6-Jan-13	11:06:52	Police Vessel	Traveling	91	25	0	327	4	20	N	22.28780	E	113.87922	2289.11	19.07
6-Jan-13	11:07:33	Speedboat	Traveling	91	20	50	343	57	30	N	22.28588	E	113.88570	2408.95	35.96
6-Jan-13	11:15:13	Hi-Speed Ferry	Traveling	91	29	20	338	50	30	N	22.28514	E	113.88279	2175.65	30.84
6-Jan-13	11:17:17	Hi-Speed Ferry	Traveling	92	19	40	328	14	30	N	22.28003	E	113.87661	1385.56	20.24
6-Jan-13	11:17:54	Fishing boat	Non-operating	92	2	10	242	42	30	N	22.27430	E	113.85794	1585.51	294.71
6-Jan-13	11:21:01	Hi-Speed Ferry		96	7	0	238	13	20	N	22.26996	E	113.86716	524.28	290.22
6-Jan-13	11:21:18	Fishing boat	Non-operating	91	44	30	272	52	50	N	22.28199	E	113.86156	1855.87	324.88
6-Jan-13	11:22:13	Fishing boat	Non-operating	91	46	50	239	15	50	N	22.27425	E	113.85550	1814.86	291.26
6-Jan-13	11:22:32	Hi-Speed Ferry		93	14	40	207	50	30	N	22.26676	E	113.86245	992.04	259.84
6-Jan-13	11:22:56	Fishing boat	Non-operating	91	30	50	282	27	40	N	22.28570	E	113.86298	2138.46	334.46
6-Jan-13	11:23:31	Fishing boat	Non-operating	91	44	50	250	32	30	N	22.27729	E	113.85678	1849.72	302.54
6-Jan-13	11:38:25	Speedboat	Traveling	113	26	0	286	13	20	N	22.26942	E	113.87148	129.47	338.22
6-Jan-13	11:39:26	Speedboat	Stationary	111	36	20	313	23	50	N	22.26960	E	113.87207	141.69	5.39
6-Jan-13	11:40:54	Speedboat	Traveling	113	39	40	312	34	20	N	22.26948	E	113.87204	128.06	4.57
6-Jan-13	11:41:54	Speedboat	Traveling	113	52	10	261	12	0	N	22.26911	E	113.87105	126.80	313.20
6-Jan-13	11:42:22	Fishing boat	Non-operating	91	41	10	250	1	50	N	22.27748	E	113.85615	1915.78	302.03
6-Jan-13	11:42:55	Other	Traveling	91	38	30	332	51	0	N	22.28441	E	113.87999	1968.18	24.85
6-Jan-13	11:43:21	Hi-Speed Ferry		94	20	40	229	22	30	N	22.26964	E	113.86490	739.05	281.37
6-Jan-13	11:43:40	Speedboat	Stationary	114	1	0	271	34	10	N	22.26924	E	113.87122	125.91	323.57
6-Jan-13	11:43:58	Fishing boat	Non-operating	91	37	40	263	19	20	N	22.28103	E	113.85837	1985.07	315.32
6-Jan-13	11:44:12	Hi-Speed Ferry		95	32	10	261	55	20	N	22.27195	E	113.86789	579.08	313.92
6-Jan-13	11:44:25	Other	Traveling	92	0	20	325	48	10	N	22.28211	E	113.87672	1607.85	17.80
6-Jan-13	11:45:30	Hi-Speed Ferry		94	4	40	309	24	40	N	22.27542	E	113.87213	787.57	1.41
6-Jan-13	11:45:46	Other	Traveling	92	27	30	315	48	10	N	22.28001	E	113.87367	1309.77	7.80
6-Jan-13	11:46:03	Fishing boat	Non-operating	91	25	10	276	56	10	N	22.28591	E	113.86050	2280.33	328.93
6-Jan-13	11:47:27	Hi-Speed Ferry		92	2	0	332	16	40	N	22.28134	E	113.87828	1585.49	24.27
6-Jan-13	11:47:38	Other	Traveling	93	22	0	295	22	20	N	22.27672	E	113.86991	954.72	347.37
6-Jan-13	11:49:01	Hi-Speed Ferry		91	24	10	338	34	50	N	22.28621	E	113.88336	2307.51	30.58
6-Jan-13	11:49:14	Other	Traveling	94	2	20	266	50	30	N	22.27372	E	113.86686	795.05	318.84
6-Jan-13	11:51:14	Other	Traveling	93	20	0	230	28	10	N	22.27021	E	113.86279	964.15	282.47

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
6-Jan-13	11:51:29	Speedboat	Traveling	116	17	20	280	54	50	N	22.26924	E	113.87144	113.53	332.91
6-Jan-13	11:52:07	Speedboat	Traveling	112	22	30	245	49	40	N	22.26891	E	113.87077	136.23	297.82
6-Jan-13	11:57:52	Speedboat	Stationary	114	18	40	277	58	10	N	22.26930	E	113.87134	124.11	329.97
6-Jan-13	12:03:24	Fishing boat	Non-operating	91	26	0	260	47	40	N	22.28212	E	113.85584	2256.05	312.79
6-Jan-13	12:03:35	Speedboat	Traveling	113	25	20	259	6	30	N	22.26910	E	113.87100	129.39	311.11
6-Jan-13	12:03:48	Speedboat	Traveling	111	24	40	247	24	30	N	22.26896	E	113.87073	142.94	299.41
6-Jan-13	12:04:13	Speedboat	Stationary	110	12	10	249	11	20	N	22.26904	E	113.87068	152.32	301.19
6-Jan-13	12:06:04	Fishing boat	Non-operating	91	32	20	245	35	10	N	22.27708	E	113.85385	2098.98	297.58
6-Jan-13	12:13:29	Fishing boat	Non-operating	91	10	40	208	24	10	N	22.26420	E	113.84554	2753.99	260.40
6-Jan-13	12:13:43	Speedboat	Traveling	112	6	20	253	58	20	N	22.26906	E	113.87086	137.93	305.97
6-Jan-13	12:13:52	Speedboat	Traveling	110	40	20	245	44	0	N	22.26896	E	113.87067	148.48	297.73
6-Jan-13	12:14:32	Speedboat	Stationary	109	8	30	243	10	50	N	22.26895	E	113.87052	161.41	295.18
6-Jan-13	12:14:41	Speedboat	Traveling	112	19	40	313	8	40	N	22.26956	E	113.87206	136.41	5.14
6-Jan-13	12:14:57	Speedboat	Traveling	101	36	10	358	15	10	N	22.26990	E	113.87398	272.87	50.25
6-Jan-13	12:15:08	Speedboat	Traveling	97	59	0	4	56	20	N	22.27029	E	113.87520	399.53	56.94
6-Jan-13	12:15:31	Speedboat	Traveling	94	49	10	8	37	40	N	22.27127	E	113.87758	664.81	60.62
6-Jan-13	12:16:15	Speedboat	Traveling	92	48	10	9	13	50	N	22.27330	E	113.88172	1146.31	61.23
6-Jan-13	12:16:50	Speedboat	Stationary	92	43	50	10	6	30	N	22.27329	E	113.88206	1176.76	62.11
6-Jan-13	12:22:21	Speedboat	Traveling	113	45	50	260	33	20	N	22.26911	E	113.87103	127.19	312.55
6-Jan-13	12:22:29	Speedboat	Traveling	112	36	10	253	32	30	N	22.26904	E	113.87088	134.52	305.54
6-Jan-13	12:22:40	Speedboat	Traveling	111	21	30	245	31	40	N	22.26893	E	113.87071	143.21	297.52
6-Jan-13	12:25:34	Speedboat	Stationary	112	43	10	252	36	50	N	22.26902	E	113.87087	133.73	304.61
6-Jan-13	12:34:52	Speedboat	Traveling	115	57	0	276	26	0	N	22.26922	E	113.87136	115.01	328.43
6-Jan-13	12:35:14	Speedboat	Traveling	114	29	20	258	8	40	N	22.26905	E	113.87103	122.87	310.14
6-Jan-13	12:35:27	Speedboat	Traveling	113	45	40	245	47	50	N	22.26887	E	113.87085	127.13	297.79
6-Jan-13	12:44:22	Speedboat	Stationary	114	15	10	286	15	50	N	22.26937	E	113.87150	124.17	338.26
6-Jan-13	12:48:45	Police Vessel	Traveling	91	16	10	340	6	10	N	22.28775	E	113.88511	2546.98	32.10
6-Jan-13	12:49:20	Police Vessel	Traveling	91	8	20	342	52	10	N	22.28934	E	113.88776	2845.31	34.87
6-Jan-13	12:50:41	Other	Traveling	91	39	0	244	58	40	N	22.27630	E	113.85503	1951.85	296.97
6-Jan-13	12:51:53	Speedboat	Traveling	103	33	0	339	15	50	N	22.27012	E	113.87312	232.06	31.26
6-Jan-13	12:52:45	Speedboat	Traveling	97	27	20	352	30	50	N	22.27108	E	113.87486	427.43	44.51
6-Jan-13	12:53:22	Other	Traveling	91	37	20	263	55	40	N	22.28117	E	113.85851	1985.41	315.92
6-Jan-13	12:54:13	Speedboat	Traveling	93	16	0	359	47	30	N	22.27379	E	113.87944	981.01	51.79
6-Jan-13	12:55:42	Other	Traveling	91	23	50	275	47	40	N	22.28592	E	113.85997	2309.51	327.79
6-Jan-13	13:07:35	Speedboat	Traveling	93	10	0	9	55	40	N	22.27262	E	113.88062	1011.50	61.92
6-Jan-13	13:08:05	Police Vessel	Traveling	92	18	0	236	23	50	N	22.27229	E	113.85907	1395.09	288.39
6-Jan-13	13:08:38	Sand Barge		91	30	0	278	48	50	N	22.28521	E	113.86176	2147.74	330.81
6-Jan-13	13:09:01	Speedboat	Traveling	94	50	0	9	23	20	N	22.27118	E	113.87759	661.22	61.39
6-Jan-13	13:09:56	Speedboat	Traveling	97	31	50	5	11	10	N	22.27040	E	113.87540	422.78	57.18
6-Jan-13	13:10:22	Police Vessel	Traveling	92	15	50	259	7	40	N	22.27672	E	113.86156	1417.34	311.12
6-Jan-13	13:10:48	Speedboat	Traveling	106	33	10	337	54	30	N	22.26980	E	113.87286	188.00	29.91
6-Jan-13	13:11:29	Speedboat	Traveling	113	19	0	266	8	40	N	22.26920	E	113.87110	129.63	318.14
6-Jan-13	13:12:01	Sand Barge		91	40	30	265	23	0	N	22.28105	E	113.85930	1920.45	317.38
6-Jan-13	13:13:08	Police Vessel	Traveling	91	53	30	283	5	50	N	22.28220	E	113.86499	1698.36	335.09
6-Jan-13	13:13:23	Police Vessel	Traveling	91	26	0	278	54	0	N	22.28601	E	113.86131	2248.57	330.90
6-Jan-13	13:15:17	Police Vessel	Traveling	91	27	40	298	14	50	N	22.28789	E	113.86831	2205.01	350.24
6-Jan-13	13:15:29	Police Vessel	Traveling	91	53	30	248	23	0	N	22.27606	E	113.85770	1698.17	300.38
6-Jan-13	13:15:40	Sand Barge		91	40	40	248	28	40	N	22.27708	E	113.85588	1916.91	300.47
6-Jan-13	13:17:39	Police Vessel	Traveling	91	40	10	213	32	0	N	22.26698	E	113.85327	1926.40	265.53
6-Jan-13	13:17:57	Sand Barge		91	36	20	238	18	0	N	22.27459	E	113.85367	2003.92	290.30
6-Jan-13	13:18:21	Hi-Speed Ferry		91	39	20	338	53	50	N	22.28334	E	113.88165	1942.68	30.89
6-Jan-13	13:19:18	Hi-Speed Ferry		92	0	30	335	4	40	N	22.28114	E	113.87902	1598.42	27.07
6-Jan-13	13:21:50	Hi-Speed Ferry		94	11	40	309	39	40	N	22.27519	E	113.87216	762.08	1.66
6-Jan-13	13:23:40	Hi-Speed Ferry		95	44	20	248	24	50	N	22.27087	E	113.86728	555.86	300.41
6-Jan-13	13:24:47	Hi-Speed Ferry		93	59	0	217	50	50	N	22.26831	E	113.86414	802.57	269.84
6-Jan-13	13:25:09	Sand Barge		91	12	50	214	16	20	N	22.26677	E	113.84612	2661.25	266.27
6-Jan-13	13:36:20	Police Vessel	Traveling	91	17	40	341	27	30	N	22.28704	E	113.88530	2491.24	33.46
6-Jan-13	13:37:19	Police Vessel	Traveling	91	32	50	331	15	10	N	22.28552	E	113.87992	2078.51	23.25
6-Jan-13	13:37:44	Police Vessel	Traveling	91	26	50	329	17	40	N	22.28698	E	113.87980	2224.10	21.29
6-Jan-13	13:38:25	Police Vessel	Traveling	91	13	50	327	32	40	N	22.29058	E	113.88048	2622.83	19.54
6-Jan-13	13:39:05	Police Vessel	Traveling	91	2	40	330	57	30	N	22.29404	E	113.88371	3102.04	22.96
6-Jan-13	13:57:33	Police Vessel	Traveling	91	18	30	226	41	50	N	22.27168	E	113.84828	2461.83	278.69
6-Jan-13	13:59:12	Police Vessel	Traveling	91	20	30	230	32	20	N	22.27302	E	113.84917	2399.45	282.54
6-Jan-13	14:01:17	Speedboat	Traveling	92	15	0	1	2	30	N	22.27603	E	113.88300	1422.71	53.04
6-Jan-13	14:02:02	Speedboat	Traveling	92	57	50	4	39	50	N	22.27367	E	113.88070	1078.28	56.66
6-Jan-13	14:02:43	Speedboat	Traveling	94	21	40	6	45	40	N	22.27175	E	113.87803	731.39	58.76
6-Jan-13	14:03:23	Speedboat	Traveling	98	0	30	4	2	20	N	22.27033	E	113.87514	396.24	56.04
6-Jan-13	14:04:00	Speedboat	Traveling	111	37	10	323	49	10	N	22.26955	E	113.87232	140.63	15.82
6-Jan-13	14:04:20	Speedboat	Traveling	113	6	0	254	49	40	N	22.26904	E	113.87093	130.66	306.82
6-Jan-13	14:14:57	Hi-Speed Ferry		97	51	30	264	6	10	N	22.27095	E	113.86922	403.68	316.10
6-Jan-13	14:15:51	Hi-Speed Ferry		95	44	30	308	17	50	N	22.27332	E	113.87197	554.22	0.29
6-Jan-13	14:17:20	Hi-Speed Ferry		92	55	40	332	48	40	N	22.27724	E	113.87640	1090.86	24.81
6-Jan-13	14:18:18	Hi-Speed Ferry		92	9	10	338	0	50	N	22.27991	E	113.87917	1486.22	30.01
6-Jan-13	14:22:31	Speedboat	Traveling	108	21	0	265	7	40	N	22.26944	E	113.87083	167.89	317.12
6-Jan-13	14:22:49	Speedboat	Traveling	108	10	30	322	9	50	N	22.26981	E	113.87235	169.62	14.16
6-Jan-13	14:23:02	Speedboat	Traveling	102	45	30	352	27	30	N	22.26991	E	113.87362	245.93	44.46
6-Jan-13	14:23:24	Speedboat	Traveling	97	32	20	359	3	20	N	22.27071	E	113.87513	420.84	51.05
6-Jan-13	14:24:23	Speedboat	Traveling	93	27	0	359	27	20	N	22.27352	E	113.87898	924.68	51.45
6-Jan-13	14:33:04	Other	Stationary	91	26	0	346	30	10	N	22.28411	E	113.88551	2240.05	38.50
6-Jan-13	14:33:15	Other	Stationary	91	25	0	347	13	0	N	22.28414	E	113.88588	2266.77	39.21
6-Jan-13	14:33:44	Other	Stationary	91	34	30	345	20	30	N	22.28290	E	113.88395	2035.92	37.34
6-Jan-13	14:34:08	Other	Stationary	91	28	40	346	13	20	N	22.28369	E	113.88501	2171.62	38.22
6-Jan-13	14:34:22	Other	Stationary	91	28	50	347	5	10	N	22.28347	E	113.88523	2167.47	39.08
6-Jan-13	14:35:26	Other	Stationary	91	35	10	345	59	40	N	22.28267	E	113.88405	2021.32	37.99
7-Jan-13	8:57:38	Zero		128	1	40	0	0	0	N	22.26873	E	113.87250	71.87	52.00
7-Jan-13	9:00:05	Other	Stationary	91	27	0	347	11	10	N	22.28393	E	113.88569	2236.21	39.18
7-Jan-13	9:00:14	Other	Stationary	91	26	40	346	30	10	N	22.28414	E	113.88554	2244.94	38.50
7-Jan-13	9:00:26	Other	Stationary	91	36	0	345	21	20	N	22.28281	E	113.88389	2023.94	37.35
7-Jan-13	9:01:37	Other	Stationary	91	29	30	346	14	0	N	22.28369	E	113.88502	2172.92	38.23
7-Jan-13	9:01:44	Other	Stationary	91	29	50	347	4	10	N	22.28346	E	113.88521	2164.75	39.07
7-Jan-13	9:01:57	Other	Stationary	91	36	0	346	3	10	N	22.28268	E	113.88408	2023.97	38.05
7-Jan-13	9:02:15	Transportation boat	Traveling	91	57	0	273	38	40	N	22.28065	E	113.86285	1657.38	325.64
7-Jan-13	9:04:35	Transportation boat	Traveling	91	46	30	259	35	30	N	22.27922	E	113.85869	1822.41	311.59
7-Jan-13	9:04:53	Other	Stationary	91	8	20	245	43	20	N	22.28030	E	113.84732	2860.01	297.72
7-Jan-13	9:05:02	Other	Stationary	90	57	0	241	32	10	N	22.28071	E	113.84122	3446.31	293.53
7-Jan-13	9:05:25	Fishing Boat	Non-operating	91	34	10	267	30	10	N	22.28246	E	113.85891	2063.95	319.50
7-Jan-13	9:07:26	Fishing Boat	Non-operating	91	40	0	253	39	20	N	22.27852	E	113.85660	1942.21	305.65
7-Jan-13	9:07:35	Transportation boat	Stationary	91	27	10	248	39	0	N	22.27857	E	113.85327	2232.06	300.65
7-Jan-13	9:19:18	Sand Barge		91	37	0	258	40	30	N	22.28008	E	113.85717	2003.25	310.67
7-Jan-13	9:21:27	Sand Barge		91	25	30	270	16	50	N	22.28454	E	113.85840	2276.57	322.28
7-Jan-13	9:30:37	Transportation boat	Traveling	91	51	10	303	54	0	N	22.28400	E	113.87073	1745.69	355.90

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
7-Jan-13	9:33:35	Transportation boat	Traveling	91	55	30	282	14	10	N	22.28195	E	113.86484	1679.68	334.23
7-Jan-13	9:33:52	Police Vessel	Traveling	91	23	30	300	56	40	N	22.28916	E	113.86916	2332.27	352.94
7-Jan-13	9:34:55	Police Vessel	Traveling	92	14	0	288	7	50	N	22.28057	E	113.86716	1446.15	340.13
7-Jan-13	9:35:58	Police Vessel	Traveling	92	7	0	316	55	30	N	22.28190	E	113.87425	1526.46	8.92
7-Jan-13	9:37:18	Police Vessel	Traveling	91	20	0	327	25	0	N	22.28901	E	113.87982	2436.11	19.41
7-Jan-13	9:38:11	Transportation boat	Traveling	91	34	40	253	6	20	N	22.27896	E	113.85560	2053.66	305.10
7-Jan-13	9:44:37	Hi-Speed Ferry		91	28	30	337	34	40	N	22.28554	E	113.88250	2198.87	29.57
7-Jan-13	9:44:52	Transportation boat	Traveling	91	16	40	334	58	40	N	22.28874	E	113.88317	2544.17	26.97
7-Jan-13	9:46:26	Hi-Speed Ferry		92	10	10	325	29	40	N	22.28112	E	113.87630	1489.23	17.49
7-Jan-13	9:47:39	Transportation boat	Traveling	91	8	20	325	55	0	N	22.29284	E	113.88050	2861.38	17.91
7-Jan-13	9:47:49	Hi-Speed Ferry		93	7	20	306	34	0	N	22.27762	E	113.87169	1032.60	358.56
7-Jan-13	9:50:24	Hi-Speed Ferry		93	19	10	238	29	20	N	22.27139	E	113.86310	970.99	290.49
7-Jan-13	10:12:52	Hi-Speed Ferry		96	47	10	235	12	10	N	22.26959	E	113.86755	472.91	287.20
7-Jan-13	10:14:11	Hi-Speed Ferry		96	11	30	302	31	20	N	22.27298	E	113.87146	518.76	354.52
7-Jan-13	10:14:30	Transportation boat	Traveling	91	44	30	342	1	20	N	22.28220	E	113.88206	1859.09	34.02
7-Jan-13	10:15:54	Transportation boat	Traveling	92	2	20	331	11	40	N	22.28145	E	113.87802	1585.85	23.19
7-Jan-13	10:16:02	Hi-Speed Ferry		92	45	30	335	40	30	N	22.27766	E	113.87723	1169.94	27.67
7-Jan-13	10:19:00	Transportation boat	Traveling	92	29	10	294	17	30	N	22.27969	E	113.86895	1298.85	346.29
7-Jan-13	10:19:43	Fishing Boat	Non-operating	91	43	10	239	15	30	N	22.27448	E	113.85487	1883.48	291.26
7-Jan-13	10:24:11	Transportation boat	Traveling	91	28	0	250	48	40	N	22.27912	E	113.85386	2212.51	302.81
7-Jan-13	10:24:22	Fishing Boat	Non-operating	91	35	40	279	23	30	N	22.28439	E	113.86248	2032.98	331.39
7-Jan-13	10:32:07	Transportation boat	Traveling	92	3	30	270	29	0	N	22.27955	E	113.86264	1571.03	322.48
7-Jan-13	10:35:40	Transportation boat	Traveling	92	5	10	309	46	50	N	22.28228	E	113.87241	1550.01	1.78
7-Jan-13	10:38:37	Transportation boat	Traveling	91	35	20	332	57	30	N	22.28498	E	113.88032	2040.50	24.96
7-Jan-13	10:59:44	Fishing Boat	Non-operating	91	29	40	271	56	10	N	22.28412	E	113.85952	2170.78	323.93
7-Jan-13	11:00:51	Fishing Boat	Non-operating	91	24	40	278	36	30	N	22.28637	E	113.86096	2300.85	330.61
7-Jan-13	11:01:44	Transportation boat	Traveling	91	30	20	252	57	50	N	22.27944	E	113.85477	2154.49	304.96
7-Jan-13	11:02:22	Fishing Boat	Non-operating	91	16	40	286	20	0	N	22.28962	E	113.86280	2545.16	338.33
7-Jan-13	11:05:02	Transportation boat	Traveling	91	51	20	282	17	10	N	22.28247	E	113.86458	1743.95	334.28
7-Jan-13	11:06:40	Transportation boat	Traveling	91	49	30	301	28	50	N	22.28419	E	113.86999	1773.40	353.48
7-Jan-13	11:25:34	Speedboat	Traveling	113	49	50	328	21	50	N	22.26941	E	113.87238	127.35	20.36
7-Jan-13	11:25:42	Speedboat	Traveling	114	56	30	318	50	30	N	22.26940	E	113.87217	120.95	10.84
7-Jan-13	11:26:01	Speedboat	Traveling	116	21	40	271	30	40	N	22.26915	E	113.87129	113.50	323.51
7-Jan-13	11:38:32	Transportation boat	Traveling	91	34	20	308	59	10	N	22.28688	E	113.87229	2061.13	0.98
7-Jan-13	11:41:22	Transportation boat	Traveling	92	38	50	285	36	10	N	22.27845	E	113.86744	1215.88	337.60
7-Jan-13	11:42:13	Hi-Speed Ferry		91	33	30	339	48	40	N	22.28420	E	113.88258	2074.50	31.81
7-Jan-13	11:43:24	Transportation boat	Traveling	93	18	30	246	28	20	N	22.27250	E	113.86364	971.69	298.47
7-Jan-13	11:43:35	Hi-Speed Ferry		92	11	30	333	1	30	N	22.28032	E	113.87799	1470.17	25.02
7-Jan-13	11:44:44	Hi-Speed Ferry		93	14	30	320	54	30	N	22.27703	E	113.87410	991.70	12.91
7-Jan-13	11:45:11	Police Vessel	Traveling	91	21	10	337	56	30	N	22.28700	E	113.88357	2394.25	29.94
7-Jan-13	11:45:21	Police Vessel	Traveling	91	16	40	339	47	30	N	22.28774	E	113.88494	2537.29	31.79
7-Jan-13	11:47:04	Hi-Speed Ferry		95	7	10	243	31	30	N	22.27076	E	113.86645	626.36	295.52
7-Jan-13	11:47:22	Transportation boat	Traveling	91	18	10	339	42	40	N	22.28738	E	113.88466	2487.47	31.71
7-Jan-13	11:53:58	Transportation boat	Traveling	92	17	50	262	36	30	N	22.27719	E	113.86224	1401.42	314.61
7-Jan-13	11:54:12	Police Vessel	Traveling	91	5	20	335	40	0	N	22.29214	E	113.88543	2986.47	27.66
7-Jan-13	11:54:22	Police Vessel	Traveling	91	3	30	332	32	40	N	22.29351	E	113.88437	3074.97	24.54
7-Jan-13	11:54:40	Transportation boat	Traveling	92	7	40	254	23	50	N	22.27642	E	113.86009	1513.77	306.39
7-Jan-13	11:56:10	Transportation boat	Traveling	92	9	10	259	39	40	N	22.27728	E	113.86108	1495.95	311.66
7-Jan-13	11:59:51	Transportation boat	Traveling	92	23	30	290	59	40	N	22.27991	E	113.86812	1345.32	342.99
7-Jan-13	12:02:21	Transportation boat	Traveling	92	10	30	311	50	10	N	22.28162	E	113.87291	1480.08	3.83
7-Jan-13	12:34:59	Police Vessel	Traveling	92	58	10	235	37	40	N	22.27128	E	113.86193	1080.29	287.62
7-Jan-13	12:37:03	Police Vessel	Traveling	92	42	30	266	16	30	N	22.27629	E	113.86427	1184.88	318.27
7-Jan-13	12:38:44	Police Vessel	Traveling	91	48	30	243	50	30	N	22.27531	E	113.85637	1779.56	295.84
7-Jan-13	12:39:42	Police Vessel	Traveling	91	50	30	230	1	0	N	22.27160	E	113.85533	1746.96	282.01
7-Jan-13	12:44:42	Transportation boat	Traveling	93	13	10	245	52	0	N	22.27252	E	113.86339	995.50	297.86
7-Jan-13	12:45:14	Speedboat	Traveling	91	36	30	333	31	0	N	22.28460	E	113.88033	2002.68	25.51
7-Jan-13	12:46:32	Transportation boat	Traveling	92	41	50	282	7	50	N	22.27796	E	113.86690	1189.21	334.13
7-Jan-13	12:46:41	Speedboat	Traveling	92	15	20	323	50	10	N	22.28066	E	113.87572	1423.60	15.83
7-Jan-13	12:48:25	Speedboat	Traveling	93	41	50	298	42	20	N	22.27603	E	113.87058	866.10	350.70
7-Jan-13	12:48:34	Transportation boat	Traveling	91	50	30	303	25	0	N	22.28400	E	113.87059	1746.16	355.41
7-Jan-13	12:50:50	Speedboat	Traveling	93	22	40	228	1	20	N	22.26982	E	113.86286	948.31	280.02
7-Jan-13	13:42:05	Transportation boat	Traveling	92	8	50	262	55	50	N	22.27781	E	113.86167	1491.65	314.93
7-Jan-13	13:42:12	Transportation boat	Traveling	92	6	20	260	40	50	N	22.27761	E	113.86107	1521.37	312.68
7-Jan-13	13:44:27	Transportation boat	Traveling	92	23	30	281	33	20	N	22.27911	E	113.86615	1338.06	333.55
7-Jan-13	13:44:35	Transportation boat	Traveling	92	3	20	297	1	0	N	22.28210	E	113.86906	1558.47	349.01
7-Jan-13	14:09:58	Hi-Speed Ferry		96	48	20	245	56	10	N	22.27030	E	113.86794	466.64	297.93
7-Jan-13	14:10:42	Hi-Speed Ferry		96	48	20	288	29	0	N	22.27229	E	113.87043	466.62	340.48
7-Jan-13	14:12:55	Hi-Speed Ferry		92	31	0	334	2	40	N	22.27860	E	113.87736	1269.33	26.04
7-Jan-13	14:29:46	Police Vessel	Traveling	91	21	20	331	17	40	N	22.28791	E	113.88105	2368.88	23.29
7-Jan-13	14:30:18	Police Vessel	Traveling	91	13	20	325	14	40	N	22.29096	E	113.87953	2632.16	17.24
7-Jan-13	14:35:43	Other	Traveling	93	51	50	260	5	20	N	22.27330	E	113.86600	823.97	312.09
7-Jan-13	14:36:37	Speedboat	Traveling	112	38	20	278	26	50	N	22.26938	E	113.87130	133.31	330.44
7-Jan-13	14:36:48	Other	Traveling	93	27	40	234	58	20	N	22.27075	E	113.86338	920.30	286.97
7-Jan-13	14:36:58	Speedboat	Traveling	112	48	0	305	2	50	N	22.26952	E	113.87188	132.26	357.04
7-Jan-13	14:38:54	Speedboat	Traveling	100	37	20	358	36	30	N	22.27003	E	113.87417	296.44	50.61
7-Jan-13	14:41:12	Speedboat	Traveling	94	28	50	11	57	0	N	22.27114	E	113.87815	709.82	63.95
7-Jan-13	14:41:37	Other	Traveling	91	25	30	347	8	10	N	22.28404	E	113.88576	2250.29	39.13
7-Jan-13	14:41:44	Other	Traveling	91	25	30	346	27	20	N	22.28419	E	113.88555	2250.27	38.45
7-Jan-13	14:42:09	Other	Traveling	91	34	0	345	17	50	N	22.28297	E	113.88399	2044.12	37.29
7-Jan-13	14:42:57	Transportation boat	Traveling	91	40	20	324	51	50	N	22.28481	E	113.87734	1913.55	16.86
7-Jan-13	14:43:12	Speedboat	Traveling	94	31	50	12	30	20	N	22.27105	E	113.87811	701.87	64.50
7-Jan-13	14:45:34	Transportation boat	Traveling	92	6	40	303	22	20	N	22.28190	E	113.87076	1512.35	355.37
7-Jan-13	14:49:55	Transportation boat	Traveling	92	6	0	257	23	10	N	22.27701	E	113.86052	1520.07	309.38
8-Jan-13	9:01:55	Zero		91	12	10	0	0	0	N	22.28326	E	113.89259	2694.28	52.00
8-Jan-13	9:03:32	Police Vessel	Traveling	93	9	10	233	58	10	N	22.27085	E	113.86243	1018.15	285.97
8-Jan-13	9:04:01	Other	Stationary	91	26	40	347	12	20	N	22.28393	E	113.88569	2236.44	39.20
8-Jan-13	9:04:10	Other	Stationary	91	26	40	346	31	20	N	22.28408	E	113.88549	2236.44	38.52
8-Jan-13	9:04:20	Other	Stationary	91	35	10	345	21	30	N	22.28288	E	113.88395	2034.16	37.36
8-Jan-13	9:04:28	Other	Stationary	91	29	0	346	1	30	N	22.28377	E	113.88499	2177.00	38.02
8-Jan-13	9:04:34	Other	Stationary	91	29	40	347	4	30	N	22.28343	E	113.88519	2160.60	39.07
8-Jan-13	9:04:41	Other	Stationary	91	36	0	345	59	40	N	22.28263	E	113.88402	2016.31	37.99
8-Jan-13	9:04:51	Police Vessel	Traveling	93	21	0	269	46	30	N	22.27511	E	113.86618	957.95	321.77
8-Jan-13	9:05:17	Other	Stationary	91	59	0	253	47	20	N	22.27687	E	113.85914	1623.15	305.79
8-Jan-13	9:05:22	Other	Stationary	91	59	20	253	16	50	N	22.27675	E	113.85909	1618.58	305.28
8-Jan-13	9:05:33	Transportation boat	Stationary	92	0	30	252	54	50	N	22.27659	E	113.85916	1602.79	304.91
8-Jan-13	9:06:32	Police Vessel	Traveling	92	13	50	297	54	10	N	22.28111	E	113.86949	1442.02	349.90
8-Jan-13	9:28:59	Speedboat	Traveling	94	2	30	10	30	20	N	22.27163	E	113.87879	793.69	62.50
8-Jan-13	9:29:36	Speedboat	Traveling	95	12	30	11	23	10	N	22.27081	E	113.87729	615.02	63.38
8-Jan-13	9:30:32	Transportation boat	Traveling	92	6	0	252	40	0	N	22.27618	E	113.85968	1533.13	304.66
8-Jan-13	9:30:42	Speedboat	Traveling	99	54	10	6	53	0	N	22.26983	E	113.87462	321.01	58.88
8-Jan-13	9:31:32	Transportation boat	Traveling	92	20	20	265	29	50	N	22.27746	E	113.86291	1375.54	317.49

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
8-Jan-13	9:31:47	Speedboat	Traveling	111	42	50	314	55	20	N	22.26959	E	113.87211	140.71	6.92
8-Jan-13	9:32:32	Speedboat	Stationary	112	41	20	270	26	50	N	22.26929	E	113.87115	134.03	322.44
8-Jan-13	9:32:41	Transportation boat	Traveling	92	24	20	283	29	50	N	22.27928	E	113.86655	1337.21	335.49
8-Jan-13	9:35:47	Transportation boat	Traveling	91	45	20	321	40	30	N	22.28440	E	113.87617	1837.01	13.67
8-Jan-13	9:39:45	Police Vessel	Traveling	91	48	0	243	11	0	N	22.27519	E	113.85618	1791.36	295.18
8-Jan-13	9:41:24	Police Vessel	Traveling	91	40	40	223	24	30	N	22.26996	E	113.85332	1923.32	275.41
8-Jan-13	9:44:00	Speedboat	Traveling	113	45	10	326	35	20	N	22.26942	E	113.87234	127.37	18.59
8-Jan-13	9:44:30	Speedboat	Traveling	113	42	10	244	8	20	N	22.26884	E	113.87083	127.67	296.14
8-Jan-13	9:46:09	Hi-Speed Ferry		91	32	40	340	7	50	N	22.28427	E	113.88276	2091.63	32.13
8-Jan-13	9:48:45	Hi-Speed Ferry		93	19	20	323	33	10	N	22.27672	E	113.87447	966.91	15.55
8-Jan-13	9:51:12	Hi-Speed Ferry		95	36	40	240	40	50	N	22.27031	E	113.86682	570.84	292.68
8-Jan-13	9:58:11	Police Vessel	Traveling	93	15	10	224	28	30	N	22.26934	E	113.86240	987.86	276.47
8-Jan-13	9:58:45	Police Vessel	Traveling	94	20	0	251	4	40	N	22.27197	E	113.86591	740.48	303.07
8-Jan-13	9:59:21	Police Vessel	Traveling	93	54	0	286	34	50	N	22.27523	E	113.86902	823.21	338.58
8-Jan-13	10:02:28	Police Vessel	Traveling	91	44	50	323	18	30	N	22.28436	E	113.87669	1846.93	15.31
8-Jan-13	10:11:13	Transportation boat	Traveling	91	56	50	337	41	40	N	22.28128	E	113.87992	1655.87	29.69
8-Jan-13	10:13:01	Transportation boat	Traveling	92	29	50	321	23	30	N	22.27962	E	113.87485	1288.96	13.39
8-Jan-13	10:13:38	Hi-Speed Ferry		98	58	0	257	22	20	N	22.27036	E	113.86927	355.51	309.37
8-Jan-13	10:14:18	Transportation boat	Traveling	92	54	50	304	33	50	N	22.27825	E	113.87130	1103.74	356.56
8-Jan-13	10:14:29	Hi-Speed Ferry		96	43	50	307	17	0	N	22.27261	E	113.87189	475.40	359.28
8-Jan-13	10:16:39	Hi-Speed Ferry		92	27	20	339	14	0	N	22.27842	E	113.87856	1311.07	31.23
8-Jan-13	10:16:56	Transportation boat	Traveling	92	31	0	265	47	10	N	22.27686	E	113.86359	1279.05	317.78
8-Jan-13	10:21:12	Transportation boat	Stationary	92	1	50	253	31	40	N	22.27664	E	113.85938	1587.71	305.52
8-Jan-13	10:30:12	Fishing Boat	Non-operating	92	9	50	231	55	0	N	22.27156	E	113.85788	1489.46	283.91
8-Jan-13	10:31:35	Fishing Boat	Non-operating	92	21	30	247	33	40	N	22.27440	E	113.86039	1365.90	299.56
8-Jan-13	10:32:59	Fishing Boat	Non-operating	92	16	30	264	48	20	N	22.27762	E	113.86252	1416.31	316.80
8-Jan-13	10:36:48	Transportation boat	Traveling	92	30	40	276	43	0	N	22.27820	E	113.86547	1282.45	328.71
8-Jan-13	10:36:58	Fishing Boat	Non-operating	91	30	20	295	50	0	N	22.28724	E	113.86754	2148.75	347.83
8-Jan-13	10:42:06	Transportation boat	Traveling	91	42	50	332	18	50	N	22.28379	E	113.87949	1884.84	24.31
8-Jan-13	10:49:06	Speedboat	Traveling	94	48	30	355	57	50	N	22.27236	E	113.87677	667.66	47.96
8-Jan-13	10:50:00	Speedboat	Traveling	106	54	40	330	39	20	N	22.26987	E	113.87264	184.62	22.65
8-Jan-13	10:51:21	Speedboat	Stationary	112	43	0	308	13	30	N	22.26954	E	113.87195	134.08	0.22
8-Jan-13	10:59:06	Fishing Boat	Non-operating	91	46	40	242	8	0	N	22.27502	E	113.85582	1817.09	294.13
8-Jan-13	11:01:55	Fishing Boat	Non-operating	91	42	0	263	32	20	N	22.28054	E	113.85899	1901.22	315.54
8-Jan-13	11:27:56	Speedboat	Traveling	112	14	50	290	15	40	N	22.26951	E	113.87154	137.33	342.26
8-Jan-13	11:28:49	Speedboat	Stationary	111	49	40	303	45	20	N	22.26959	E	113.87184	140.26	355.75
8-Jan-13	11:29:46	Research Vessel	Traveling	91	26	0	322	5	10	N	22.28807	E	113.87730	2261.18	14.08
8-Jan-13	11:32:47	Research Vessel	Traveling	92	4	30	328	46	40	N	22.28142	E	113.87731	1555.85	20.77
8-Jan-13	11:34:53	Research Vessel	Traveling	92	58	30	337	13	40	N	22.27684	E	113.87709	1082.83	29.22
8-Jan-13	11:35:38	Research Vessel	Traveling	92	45	40	340	5	30	N	22.27723	E	113.87797	1167.19	32.09
8-Jan-13	11:38:14	Research Vessel	Traveling	91	53	50	329	51	10	N	22.28256	E	113.87811	1703.10	21.85
8-Jan-13	11:39:41	Research Vessel	Traveling	91	37	20	324	59	20	N	22.28550	E	113.87761	1995.06	16.99
8-Jan-13	11:40:17	Fishing Boat	Non-operating	92	9	30	251	11	0	N	22.27570	E	113.85977	1495.58	303.18
8-Jan-13	11:41:11	Transportation boat	Traveling	91	29	50	334	21	20	N	22.28578	E	113.88129	2163.88	26.35
8-Jan-13	11:41:21	Research Vessel	Traveling	91	22	30	320	41	0	N	22.28905	E	113.87698	2359.21	12.68
8-Jan-13	11:41:31	Fishing Boat	Non-operating	92	6	30	263	23	40	N	22.27814	E	113.86149	1531.35	315.39
8-Jan-13	11:42:22	Hi-Speed Ferry		91	16	50	341	36	30	N	22.28734	E	113.88560	2536.37	33.61
8-Jan-13	11:42:34	Transportation boat	Traveling	91	53	30	324	38	10	N	22.28306	E	113.87670	1708.30	16.63
8-Jan-13	11:43:24	Fishing Boat	Non-operating	91	47	40	277	15	50	N	22.28227	E	113.86299	1801.72	329.26
8-Jan-13	11:44:57	Hi-Speed Ferry		92	12	20	323	38	40	N	22.28101	E	113.87578	1463.26	15.64
8-Jan-13	11:45:06	Transportation boat	Traveling	92	43	30	288	58	10	N	22.27840	E	113.86819	1182.79	340.97
8-Jan-13	11:46:51	Hi-Speed Ferry		93	52	20	290	52	20	N	22.27548	E	113.86956	830.82	342.87
8-Jan-13	11:47:05	Transportation boat	Traveling	92	13	30	256	56	0	N	22.27653	E	113.86097	1450.20	308.93
8-Jan-13	11:47:54	Transportation boat	Stationary	92	0	50	253	40	20	N	22.27675	E	113.85928	1603.34	305.67
8-Jan-13	11:49:08	Hi-Speed Ferry		93	19	50	220	16	50	N	22.26868	E	113.86255	966.52	272.28
8-Jan-13	11:52:27	Transportation boat	Traveling	92	15	40	285	5	20	N	22.28016	E	113.86654	1426.45	337.09
8-Jan-13	11:54:12	Transportation boat	Traveling	92	3	50	309	53	0	N	22.28240	E	113.87244	1563.63	1.88
8-Jan-13	11:57:27	Transportation boat	Traveling	91	23	20	338	7	40	N	22.28650	E	113.88333	2333.38	30.12
8-Jan-13	11:57:35	Transportation boat	Traveling	91	25	0	333	47	0	N	22.28687	E	113.88162	2286.92	25.78
8-Jan-13	11:57:46	Other	Traveling	91	30	10	255	58	50	N	22.28026	E	113.85543	2154.03	307.98
8-Jan-13	11:58:05	Other	Traveling	91	21	40	324	33	10	N	22.28888	E	113.87854	2381.69	16.55
8-Jan-13	11:59:17	Transportation boat	Stationary	91	28	30	325	40	20	N	22.28715	E	113.87842	2194.97	17.67
8-Jan-13	11:59:34	Other	Traveling	91	23	40	264	31	40	N	22.28351	E	113.85640	2323.66	316.52
8-Jan-13	12:01:15	Other	Traveling	91	17	10	270	57	10	N	22.28645	E	113.85716	2522.59	322.95
8-Jan-13	12:01:26	Other	Traveling	91	34	40	332	12	10	N	22.28516	E	113.88012	2049.91	24.20
8-Jan-13	12:03:33	Other	Stationary	91	42	10	334	23	0	N	22.28363	E	113.88014	1897.54	26.38
8-Jan-13	12:03:44	Transportation boat	Stationary	91	37	40	332	36	10	N	22.28458	E	113.87998	1985.94	24.60
8-Jan-13	12:06:06	Transportation boat	Traveling	91	24	40	338	19	0	N	22.28616	E	113.88321	2294.93	30.31
8-Jan-13	12:35:51	Other	Traveling	91	39	0	249	29	30	N	22.27752	E	113.85573	1955.27	301.49
8-Jan-13	12:35:58	Other	Traveling	91	45	30	250	0	20	N	22.27708	E	113.85682	1833.55	302.00
8-Jan-13	12:37:52	Other	Traveling	91	35	10	238	44	40	N	22.27482	E	113.85344	2034.74	290.74
8-Jan-13	12:37:58	Other	Traveling	91	41	0	263	4	20	N	22.28054	E	113.85878	1915.90	315.07
8-Jan-13	13:07:04	Police Vessel	Traveling	91	51	50	253	55	40	N	22.27744	E	113.85835	1725.65	305.92
8-Jan-13	13:08:19	Police Vessel	Traveling	91	47	10	269	10	20	N	22.28096	E	113.86096	1801.39	321.17
8-Jan-13	13:20:57	Speedboat	Traveling	92	7	0	339	3	20	N	22.28003	E	113.87955	1516.77	31.05
8-Jan-13	13:22:33	Speedboat	Traveling	94	17	40	322	49	10	N	22.27481	E	113.87380	744.64	14.82
8-Jan-13	13:23:37	Speedboat	Traveling	98	15	50	272	30	20	N	22.27115	E	113.86977	384.75	324.50
8-Jan-13	13:42:56	Transportation boat	Traveling	92	4	10	302	33	30	N	22.28222	E	113.87051	1549.68	354.56
8-Jan-13	13:44:43	Transportation boat	Traveling	91	45	20	324	43	30	N	22.28410	E	113.87706	1829.21	16.72
8-Jan-13	13:59:01	Other	Traveling	91	31	20	276	15	10	N	22.28449	E	113.86114	2111.32	328.25
8-Jan-13	14:04:22	Other	Traveling	91	40	0	252	0	20	N	22.27802	E	113.85642	1925.63	304.00
8-Jan-13	14:09:46	Hi-Speed Ferry		94	42	50	227	9	0	N	22.26930	E	113.86545	676.19	279.15
8-Jan-13	14:09:54	Other	Traveling	91	26	40	228	1	50	N	22.27182	E	113.85064	2225.21	280.03
8-Jan-13	14:10:41	Hi-Speed Ferry		95	41	10	265	42	40	N	22.27206	E	113.86828	559.85	317.71
8-Jan-13	14:12:14	Hi-Speed Ferry		93	31	10	316	5	20	N	22.27641	E	113.87319	906.92	8.09
8-Jan-13	14:14:12	Hi-Speed Ferry		91	54	40	334	24	50	N	22.28184	E	113.87920	1676.12	26.41
8-Jan-13	14:46:22	Other	Stationary	91	27	0	346	56	20	N	22.28382	E	113.88546	2211.87	38.94
8-Jan-13	14:46:28	Other	Stationary	91	27	0	346	16	20	N	22.28396	E	113.88527	2211.86	38.27
8-Jan-13	14:47:08	Other	Stationary	91	36	30	345	57	50	N	22.28246	E	113.88386	1991.35	37.96
8-Jan-13	14:47:25	Other	Stationary	91	58	10	253	32	10	N	22.27682	E	113.85910	1622.94	305.53
8-Jan-13	14:47:30	Other	Stationary	91	58	10	253	2	20	N	22.27672	E	113.85902	1622.93	305.04
8-Jan-13	14:48:00	Speedboat	Stationary	112	10	0	257	27	10	N	22.26911	E	113.87092	136.47	309.45
9-Jan-13	8:55:45	Zero		91	13	20	0	0	0	N	22.28296	E	113.89218	2639.94	52.00
9-Jan-13	8:57:27	Sand Barge		91	25	0	336	49	50	N	22.28624	E	113.88260	2271.83	28.83
9-Jan-13	8:57:41	Transportation boat	Traveling	92	1	50	324	15	40	N	22.28197	E	113.87624	1578.75	16.26
9-Jan-13	8:58:08	Other	Stationary	91	26	40	347	12	10	N	22.28387	E	113.88564	2227.53	39.20
9-Jan-13	8:58:19	Other	Stationary	91	26	40	346	31	30	N	22.28402	E	113.88544	2227.54	38.52
9-Jan-13	8:58:52	Other	Stationary	91	37	0	344	52	40	N	22.28264	E	113.88354	1987.35	36.87
9-Jan-13	8:58:59	Other	Stationary	91	37	0	346	14	0	N	22.28238	E	113.88391	1987.35	38.23
9-Jan-13	8:59:19	Transportation boat	Traveling	91	32	40	336	5	40	N	22.28486	E	113.88148	2081.46	28.09
9-Jan-13	8:59:44	Police Vessel	Traveling	91	43	10	286	10	40	N	22.28393	E	113.86519	1867.32	338.17

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
9-Jan-13	9:00:05	Other	Stationary	91	58	50	253	47	50	N	22.27685	E	113.85917	1619.02	305.79
9-Jan-13	9:00:11	Other	Stationary	91	58	50	253	17	30	N	22.27675	E	113.85909	1619.03	305.29
9-Jan-13	9:00:24	Sand Barge		91	40	10	325	48	10	N	22.28482	E	113.87766	1923.88	17.80
9-Jan-13	9:03:34	Police Vessel	Traveling	92	31	10	251	16	20	N	22.27461	E	113.86161	1270.72	303.27
9-Jan-13	9:03:45	Sand Barge		92	7	0	310	35	0	N	22.28195	E	113.87261	1514.26	2.58
9-Jan-13	9:06:54	Sand Barge		92	51	30	291	35	50	N	22.27800	E	113.86887	1119.37	343.59
9-Jan-13	9:07:10	Police Vessel	Traveling	91	50	50	214	51	40	N	22.26748	E	113.85508	1737.22	266.86
9-Jan-13	9:12:53	Sand Barge		92	41	40	235	24	20	N	22.27153	E	113.86092	1187.99	287.40
9-Jan-13	9:19:49	Other	Traveling	91	32	50	261	45	10	N	22.28127	E	113.85734	2078.66	313.75
9-Jan-13	9:20:00	Speedboat	Stationary	113	8	50	291	12	40	N	22.26946	E	113.87158	130.54	343.21
9-Jan-13	9:24:35	Other	Traveling	91	25	40	234	4	10	N	22.27395	E	113.85087	2255.29	286.07
9-Jan-13	9:44:19	Hi-Speed Ferry		91	20	10	341	8	20	N	22.28652	E	113.88478	2413.65	33.14
9-Jan-13	9:48:23	Hi-Speed Ferry		94	1	10	312	44	10	N	22.27547	E	113.87258	795.43	4.73
9-Jan-13	10:11:30	Hi-Speed Ferry		102	53	30	258	4	40	N	22.26975	E	113.87013	244.14	310.07
9-Jan-13	10:13:46	Hi-Speed Ferry		93	12	20	346	18	50	N	22.27539	E	113.87797	999.08	38.31
9-Jan-13	10:29:01	Research Vessel	Traveling	91	32	30	276	56	20	N	22.28444	E	113.86146	2089.57	328.94
9-Jan-13	10:32:59	Research Vessel	Traveling	92	15	30	260	9	0	N	22.27692	E	113.86169	1421.53	312.15
9-Jan-13	10:33:18	Fishing Boat	Non-operating	91	33	0	249	20	30	N	22.27806	E	113.85468	2078.40	301.34
9-Jan-13	10:33:40	Police Vessel	Traveling	92	42	0	231	56	40	N	22.27091	E	113.86073	1187.73	283.94
9-Jan-13	10:34:21	Research Vessel	Stationary	92	16	50	257	50	50	N	22.27645	E	113.86143	1407.63	309.84
9-Jan-13	10:34:29	Fishing Boat	Non-operating	91	31	30	258	51	0	N	22.28077	E	113.85640	2112.97	310.85
9-Jan-13	10:34:43	Police Vessel	Traveling	92	52	20	249	59	20	N	22.27365	E	113.86274	1116.17	301.99
9-Jan-13	10:35:44	Fishing Boat	Non-operating	91	27	40	268	27	40	N	22.28365	E	113.85828	2206.71	320.46
9-Jan-13	10:35:52	Police Vessel	Traveling	92	29	30	267	54	20	N	22.27720	E	113.86388	1287.69	319.90
9-Jan-13	10:36:10	Fishing Boat	Non-operating	91	36	30	241	32	10	N	22.27553	E	113.85409	2002.24	293.53
9-Jan-13	10:39:03	Fishing Boat	Non-operating	91	34	30	262	19	20	N	22.28119	E	113.85771	2045.27	314.32
9-Jan-13	10:40:45	Research Vessel	Traveling	92	23	50	257	46	40	N	22.27604	E	113.86194	1338.89	309.77
9-Jan-13	10:43:14	Research Vessel	Traveling	91	50	30	251	20	0	N	22.27697	E	113.85775	1746.36	303.33
9-Jan-13	10:43:56	Transportation boat	Traveling	92	9	50	260	59	20	N	22.27744	E	113.86138	1484.38	312.99
9-Jan-13	10:49:36	Transportation boat	Traveling	91	40	20	342	15	0	N	22.28266	E	113.88248	1925.48	34.25
9-Jan-13	10:50:52	Transportation boat	Stationary	91	33	10	343	44	40	N	22.28349	E	113.88374	2075.47	35.74
9-Jan-13	10:55:22	Transportation boat	Traveling	90	55	0	348	8	10	N	22.29281	E	113.89425	3557.59	40.13
9-Jan-13	10:55:42	Research Vessel	Traveling	91	59	10	218	50	10	N	22.26854	E	113.85620	1618.75	270.83
9-Jan-13	10:58:30	Research Vessel	Traveling	92	59	40	216	28	20	N	22.26808	E	113.86153	1070.97	268.47
9-Jan-13	10:59:01	Research Vessel	Traveling	92	49	20	211	50	50	N	22.26724	E	113.86095	1136.68	263.84
9-Jan-13	11:45:23	Zero		97	53	50	3	49	50	N	22.27037	E	113.87519	403.75	55.83
9-Jan-13	11:45:42	Hi-Speed Ferry		91	53	0	337	56	30	N	22.28167	E	113.88024	1709.82	29.94
9-Jan-13	11:47:44	Hi-Speed Ferry		93	48	30	321	58	20	N	22.27569	E	113.87392	842.04	13.97
9-Jan-13	11:49:01	Hi-Speed Ferry		96	48	50	283	13	20	N	22.27216	E	113.87003	468.79	335.22
9-Jan-13	11:55:23	Sand Barge		91	27	10	262	4	40	N	22.28225	E	113.85641	2223.62	314.07
9-Jan-13	12:32:55	Other	Traveling	91	41	40	250	23	0	N	22.27751	E	113.85630	1904.46	302.38
9-Jan-13	12:37:08	Other	Traveling	91	18	30	270	18	30	N	22.28596	E	113.85722	2475.62	322.31
9-Jan-13	12:47:10	Sand Barge		91	31	20	265	53	20	N	22.28251	E	113.85810	2123.33	317.89
9-Jan-13	12:49:40	Sand Barge		91	43	20	251	9	50	N	22.27756	E	113.85669	1874.03	303.16
9-Jan-13	12:52:24	Sand Barge		91	39	20	233	19	10	N	22.27297	E	113.85365	1950.01	285.32
9-Jan-13	12:52:34	Police Vessel	Traveling	92	6	20	281	39	20	N	22.28067	E	113.86534	1529.85	333.65
9-Jan-13	12:53:50	Police Vessel	Traveling	92	58	20	244	1	30	N	22.27260	E	113.86249	1081.43	296.02
9-Jan-13	13:10:50	Research Vessel	Traveling	95	54	10	229	23	20	N	22.26930	E	113.86678	541.88	281.39
9-Jan-13	13:11:09	Police Vessel	Traveling	94	50	40	231	58	0	N	22.26977	E	113.86571	661.14	283.96
9-Jan-13	13:12:13	Research Vessel	Traveling	97	58	30	258	49	30	N	22.27069	E	113.86900	399.79	310.82
9-Jan-13	13:12:37	Police Vessel	Traveling	94	8	40	306	43	0	N	22.27529	E	113.87178	773.41	358.71
9-Jan-13	13:20:17	Research Vessel	Traveling	92	10	50	330	7	50	N	22.28062	E	113.87735	1474.40	22.13
9-Jan-13	13:23:11	Research Vessel	Traveling	91	39	50	324	52	0	N	22.28501	E	113.87741	1936.55	16.86
9-Jan-13	13:51:30	Other	Stationary	91	26	10	347	11	30	N	22.28399	E	113.88574	2244.10	39.19
9-Jan-13	13:51:36	Other	Stationary	91	26	10	346	31	0	N	22.28413	E	113.88554	2244.09	38.51
9-Jan-13	13:51:57	Other	Stationary	91	37	10	346	8	50	N	22.28240	E	113.88388	1986.86	38.14
9-Jan-13	13:52:10	Other	Stationary	91	37	10	344	50	0	N	22.28264	E	113.88353	1986.84	36.83
9-Jan-13	13:52:29	Other	Stationary	91	59	10	253	47	20	N	22.27684	E	113.85919	1616.77	305.79
9-Jan-13	13:52:37	Other	Stationary	91	59	0	253	17	10	N	22.27675	E	113.85909	1619.04	305.28
10-Jan-13	9:01:20	Zero		156	56	20	0	0	0	N	22.26847	E	113.87213	23.81	52.00
10-Jan-13	9:01:48	Other		91	26	30	347	7	40	N	22.28395	E	113.88568	2237.50	39.12
10-Jan-13	9:01:54	Other		91	26	30	346	26	50	N	22.28410	E	113.88547	2237.49	38.44
10-Jan-13	9:02:12	Other		91	36	0	346	8	20	N	22.28258	E	113.88404	2013.28	38.14
10-Jan-13	9:02:21	Other		91	36	0	344	46	20	N	22.28285	E	113.88366	2013.27	36.77
10-Jan-13	9:08:37	Police Vessel	Traveling	91	51	20	300	10	30	N	22.28378	E	113.86965	1732.90	352.17
10-Jan-13	9:09:57	Police Vessel	Traveling	93	34	10	256	33	20	N	22.27337	E	113.86512	897.18	308.55
10-Jan-13	9:10:45	Police Vessel	Traveling	93	43	30	229	38	0	N	22.26989	E	113.86376	859.51	281.63
10-Jan-13	9:17:37	Police Vessel	Traveling	93	12	40	222	23	50	N	22.26902	E	113.86227	997.53	274.39
10-Jan-13	9:22:07	Zero		91	12	10	0	0	0	N	22.28323	E	113.89254	2687.98	52.00
10-Jan-13	9:22:29	Transportation boat		91	26	10	349	3	50	N	22.28356	E	113.88628	2244.23	41.06
10-Jan-13	9:23:42	Transportation boat		91	39	10	346	32	20	N	22.28203	E	113.88374	1946.41	38.54
10-Jan-13	9:25:26	Police Vessel	Stationary	92	21	0	215	21	40	N	22.26777	E	113.85869	1364.77	267.36
10-Jan-13	9:26:46	Transportation boat	Traveling	91	35	40	348	37	0	N	22.28212	E	113.88472	2018.24	40.61
10-Jan-13	9:28:54	Transportation boat	Stationary	91	22	30	349	35	0	N	22.28412	E	113.88708	2344.98	41.58
10-Jan-13	9:35:18	Police Vessel	Traveling	92	56	50	233	25	10	N	22.27093	E	113.86176	1086.44	285.42
10-Jan-13	9:37:29	Police Vessel	Traveling	93	2	20	238	26	20	N	22.27164	E	113.86234	1053.42	290.44
10-Jan-13	9:45:11	Hi-Speed Ferry		91	16	0	342	28	10	N	22.28724	E	113.88597	2547.64	34.47
10-Jan-13	9:46:45	Police Vessel	Traveling	93	32	20	224	11	10	N	22.26921	E	113.86321	903.61	276.18
10-Jan-13	9:46:51	Police Vessel	Traveling	92	2	20	207	6	10	N	22.26566	E	113.85692	1573.38	259.10
10-Jan-13	9:47:12	Police Vessel	Traveling	91	55	0	215	4	30	N	22.26756	E	113.85568	1674.54	267.07
10-Jan-13	9:47:24	Police Vessel	Traveling	94	56	30	249	59	0	N	22.27141	E	113.86662	645.94	301.98
10-Jan-13	9:47:34	Police Vessel	Traveling	91	57	50	203	52	20	N	22.26474	E	113.85654	1633.91	255.87
10-Jan-13	9:47:53	Police Vessel	Traveling	92	11	30	225	6	0	N	22.26996	E	113.85783	1462.86	277.10
10-Jan-13	9:48:38	Hi-Speed Ferry		92	49	0	324	33	0	N	22.27814	E	113.87509	1136.51	16.55
10-Jan-13	9:48:47	Police Vessel	Traveling	93	55	40	289	7	20	N	22.27526	E	113.86938	813.67	341.12
10-Jan-13	9:50:07	Police Vessel	Traveling	92	27	30	265	47	20	N	22.27702	E	113.86343	1303.10	317.79
10-Jan-13	9:50:20	Police Vessel	Traveling	92	44	50	307	47	0	N	22.27882	E	113.87190	1165.33	359.78
10-Jan-13	9:50:28	Hi-Speed Ferry		95	26	10	285	6	20	N	22.27320	E	113.86972	586.76	337.10
10-Jan-13	9:53:03	Police Vessel	Traveling	92	51	30	291	24	40	N	22.27799	E	113.86884	1119.68	343.41
10-Jan-13	9:53:11	Police Vessel	Traveling	91	30	0	298	20	40	N	22.28736	E	113.86844	2144.95	350.34
10-Jan-13	9:54:05	Police Vessel	Traveling	93	26	20	240	30	0	N	22.27153	E	113.86359	929.83	292.50
10-Jan-13	10:04:58	Police Vessel	Traveling	95	27	0	234	33	10	N	22.26983	E	113.86649	585.41	286.55
10-Jan-13	10:05:50	Police Vessel	Traveling	94	34	20	299	55	0	N	22.27456	E	113.87099	698.58	351.91
10-Jan-13	10:11:36	Transportation boat	Traveling	91	41	0	353	27	40	N	22.28039	E	113.88518	1909.73	45.46
10-Jan-13	10:11:49	Research Vessel	Traveling	91	50	10	339	49	30	N	22.28171	E	113.88092	1749.31	31.82
10-Jan-13	10:12:50	Hi-Speed Ferry		94	32	50	224	43	50	N	22.26907	E	113.86516	702.59	276.73
10-Jan-13	10:13:11	Transportation boat	Traveling	92	26	20	353	44	50	N	22.27659	E	113.88110	1314.21	45.74
10-Jan-13	10:13:26	Research Vessel	Traveling	92	16	30	340	39	20	N	22.27901	E	113.87934	1409.52	32.65
10-Jan-13	10:14:48	Research Vessel	Traveling	92	48	20	340	22	50	N	22.27701	E	113.87789	1141.61	32.38
10-Jan-13	10:14:56	Transportation boat	Traveling	94	34	50	347	16	20	N	22.27319	E	113.87624	697.50	39.27
10-Jan-13	10:15:10	Hi-Speed Ferry		94	21	30	312	47	50	N	22.27491	E	113.87254	733.27	4.79

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
10-Jan-13	10:16:15	Transportation boat	Traveling	101	2	30	314	17	10	N	22.27089	E	113.87225	286.22	6.28
10-Jan-13	10:16:26	Hi-Speed Ferry		92	40	50	329	46	50	N	22.27832	E	113.87626	1195.20	21.78
10-Jan-13	10:16:37	Research Vessel	Traveling	92	14	50	330	52	40	N	22.28017	E	113.87734	1427.20	22.87
10-Jan-13	10:19:21	Hi-Speed Ferry		91	20	50	341	12	10	N	22.28636	E	113.88469	2393.93	33.20
10-Jan-13	10:19:32	Research Vessel	Traveling	91	36	30	323	38	20	N	22.28567	E	113.87719	2000.30	15.64
10-Jan-13	11:36:05	Fishing Boat	Non-operating	92	7	40	251	15	40	N	22.27579	E	113.85965	1511.52	303.26
10-Jan-13	11:37:03	Transportation boat	Traveling	91	39	50	346	28	50	N	22.28198	E	113.88367	1937.29	38.48
10-Jan-13	11:37:15	Fishing Boat	Non-operating	92	1	10	261	52	30	N	22.27827	E	113.86077	1593.29	313.87
10-Jan-13	11:37:27	Transportation boat	Stationary	91	38	50	345	8	50	N	22.28237	E	113.88344	1957.14	37.14
10-Jan-13	11:38:54	Fishing Boat	Non-operating	91	46	10	274	43	50	N	22.28203	E	113.86223	1820.64	326.73
10-Jan-13	11:40:42	Transportation boat	Traveling	91	31	0	350	6	0	N	22.28254	E	113.88582	2127.97	42.10
10-Jan-13	11:42:17	Transportation boat	Traveling	91	13	30	348	53	40	N	22.28632	E	113.88878	2644.01	40.89
10-Jan-13	11:42:59	Hi-Speed Ferry		91	46	10	335	9	50	N	22.28291	E	113.88003	1820.87	27.16
10-Jan-13	11:45:40	Hi-Speed Ferry		93	57	20	295	5	40	N	22.27544	E	113.87018	810.54	347.09
10-Jan-13	12:21:22	Fishing Boat	Non-operating	92	22	20	249	51	30	N	22.27478	E	113.86074	1356.61	301.86
10-Jan-13	12:22:50	Fishing Boat	Non-operating	92	22	50	261	51	0	N	22.27676	E	113.86246	1351.89	313.85
10-Jan-13	12:26:18	Fishing Boat	Non-operating	91	49	20	282	15	0	N	22.28268	E	113.86447	1769.93	334.25
10-Jan-13	12:59:38	Police Vessel	Traveling	91	45	10	259	8	50	N	22.27924	E	113.85845	1842.61	311.14
10-Jan-13	13:00:56	Police Vessel	Traveling	91	53	20	231	40	0	N	22.27196	E	113.85580	1708.68	283.66
10-Jan-13	13:06:18	Sand Barge		91	39	40	236	16	20	N	22.27382	E	113.85398	1945.79	288.27
10-Jan-13	13:09:56	Sand Barge		91	38	30	261	18	20	N	22.28049	E	113.85801	1969.32	313.30
10-Jan-13	13:12:37	Sand Barge		91	27	30	276	32	20	N	22.28538	E	113.86067	2220.44	328.54
10-Jan-13	13:12:57	Police Vessel	Traveling	92	16	30	220	29	0	N	22.26888	E	113.85818	1417.16	272.48
10-Jan-13	13:16:04	Sand Barge		91	9	20	288	32	20	N	22.29221	E	113.86282	2814.39	340.54
10-Jan-13	13:16:19	Police Vessel	Traveling	92	14	20	274	44	10	N	22.27917	E	113.86426	1440.32	326.73
10-Jan-13	14:00:28	Sand Barge		91	40	20	241	0	40	N	22.27514	E	113.85462	1935.67	293.01
10-Jan-13	14:09:12	Hi-Speed Ferry		95	29	40	228	46	20	N	22.26932	E	113.86636	584.80	280.77
10-Jan-13	14:10:19	Hi-Speed Ferry		96	18	50	284	7	20	N	22.27252	E	113.86994	508.35	336.12
10-Jan-13	14:12:06	Hi-Speed Ferry		92	53	40	328	59	40	N	22.27769	E	113.87583	1114.03	20.99
10-Jan-13	14:22:33	Transportation boat	Traveling	91	34	10	338	31	30	N	22.28434	E	113.88214	2064.84	30.52
10-Jan-13	14:26:25	Transportation boat	Traveling	92	26	50	294	53	0	N	22.27990	E	113.86903	1319.20	346.88
10-Jan-13	14:27:31	Transportation boat	Traveling	92	29	0	276	32	40	N	22.27831	E	113.86535	1299.93	328.54
10-Jan-13	14:29:09	Transportation boat	Traveling	92	4	20	254	49	50	N	22.27675	E	113.85980	1559.78	306.83
10-Jan-13	14:29:44	Transportation boat	Stationary	92	0	0	253	27	10	N	22.27677	E	113.85914	1616.58	305.45
10-Jan-13	14:43:22	Transportation boat	Traveling	92	24	30	268	0	30	N	22.27758	E	113.86356	1341.07	320.01
10-Jan-13	14:44:56	Transportation boat	Traveling	92	41	40	294	33	0	N	22.27882	E	113.86923	1197.92	346.55
10-Jan-13	14:47:58	Transportation boat	Traveling	91	46	20	331	8	0	N	22.28345	E	113.87892	1826.97	23.13
10-Jan-13	14:52:33	Transportation boat	Traveling	91	53	20	331	40	50	N	22.28245	E	113.87864	1713.25	23.68
10-Jan-13	14:53:57	Other	Traveling	92	28	20	235	41	20	N	22.27190	E	113.85984	1306.46	287.69
10-Jan-13	14:54:10	Transportation boat	Traveling	92	20	10	318	17	20	N	22.28058	E	113.87435	1383.07	10.29
10-Jan-13	14:55:29	Other	Traveling	92	8	30	281	33	20	N	22.28050	E	113.86541	1509.58	333.55
10-Jan-13	14:55:39	Transportation boat	Traveling	92	40	10	299	51	30	N	22.27911	E	113.87028	1209.44	351.86
10-Jan-13	14:58:56	Transportation boat	Traveling	92	12	0	258	1	30	N	22.27684	E	113.86100	1469.37	310.02
10-Jan-13	15:00:11	Transportation boat	Stationary	91	59	10	253	28	10	N	22.27684	E	113.85904	1628.92	305.47
10-Jan-13	15:18:12	Other	Stationary	91	26	40	347	9	30	N	22.28402	E	113.88575	2248.42	39.16
10-Jan-13	15:18:20	Other	Stationary	91	26	40	346	28	40	N	22.28417	E	113.88555	2248.42	38.47
10-Jan-13	15:18:45	Other	Stationary	91	36	0	344	59	40	N	22.28290	E	113.88381	2027.08	36.99
10-Jan-13	15:18:51	Other	Stationary	91	36	0	343	46	40	N	22.28313	E	113.88347	2027.09	35.77
10-Jan-13	15:19:10	Other	Stationary	91	59	20	253	47	50	N	22.27690	E	113.85911	1627.21	305.79
10-Jan-13	15:19:22	Other	Stationary	91	58	40	253	17	40	N	22.27684	E	113.85895	1636.43	305.29
10-Jan-13	15:24:52	Transportation boat	Traveling	91	40	10	326	21	30	N	22.28492	E	113.87789	1942.03	18.36
10-Jan-13	15:28:21	Transportation boat	Traveling	92	16	10	285	12	20	N	22.28015	E	113.86657	1424.90	337.20
10-Jan-13	15:29:06	Transportation boat	Traveling	92	16	0	273	59	50	N	22.27898	E	113.86418	1426.67	325.99
11-Jan-13	9:22:19	Zero		133	28	50	0	0	0	N	22.26867	E	113.87241	60.31	52.00
11-Jan-13	9:29:54	Other	Stationary	91	34	10	345	20	30	N	22.28336	E	113.88433	2100.13	37.34
11-Jan-13	9:30:44	Other	Stationary	91	31	20	346	21	30	N	22.28362	E	113.88502	2166.15	38.36
11-Jan-13	9:31:00	Other	Stationary	91	28	50	347	5	10	N	22.28390	E	113.88561	2227.96	39.08
11-Jan-13	9:31:15	Other	Stationary	91	34	50	345	58	50	N	22.28312	E	113.88442	2085.18	37.98
11-Jan-13	9:31:33	Other	Stationary	91	30	30	345	16	40	N	22.28399	E	113.88482	2186.36	37.27
11-Jan-13	9:31:56	Other	Stationary	91	26	10	346	30	50	N	22.28451	E	113.88586	2297.93	38.51
11-Jan-13	9:32:03	Other	Stationary	91	25	30	347	11	20	N	22.28449	E	113.88618	2316.12	39.19
11-Jan-13	9:32:33	Other	Stationary	91	0	40	241	27	30	N	22.28011	E	113.84260	3288.78	293.46
11-Jan-13	9:32:49	Other	Stationary	91	12	40	247	16	0	N	22.28036	E	113.84876	2733.13	299.26
11-Jan-13	9:33:34	Speedboat	Stationary	115	24	50	277	22	10	N	22.26927	E	113.87135	120.38	329.37
11-Jan-13	9:46:28	Fishing boat	Operating	91	23	0	272	10	40	N	22.28575	E	113.85836	2387.00	324.17
11-Jan-13	9:47:28	Speedboat	Traveling	114	43	50	273	19	20	N	22.26925	E	113.87126	124.18	325.32
11-Jan-13	9:47:36	Speedboat	Traveling	112	28	40	251	25	40	N	22.26902	E	113.87082	138.24	303.42
11-Jan-13	9:48:09	Transportation boat	Stationary	91	28	20	342	57	0	N	22.28486	E	113.88443	2240.75	34.95
11-Jan-13	9:48:20	Transportation boat	Stationary	91	29	20	349	28	40	N	22.28327	E	113.88621	2215.31	41.47
11-Jan-13	9:49:16	Hi-Speed Ferry		91	13	40	343	31	10	N	22.28808	E	113.88717	2695.27	35.52
11-Jan-13	9:50:12	Transportation boat	Traveling	91	8	50	344	16	50	N	22.28929	E	113.88857	2888.82	36.28
11-Jan-13	9:50:27	Fishing boat	Operating	91	34	10	265	15	30	N	22.28221	E	113.85808	2100.13	317.26
11-Jan-13	9:51:56	Hi-Speed Ferry		92	11	40	333	37	40	N	22.28048	E	113.87824	1497.19	25.62
11-Jan-13	9:52:33	Transportation boat	Traveling	91	31	10	342	53	40	N	22.28435	E	113.88402	2170.16	34.89
11-Jan-13	9:52:47	Fishing boat	Operating	91	44	0	272	15	0	N	22.28220	E	113.86115	1899.37	324.25
11-Jan-13	9:55:19	Hi-Speed Ferry		96	6	10	249	58	40	N	22.27088	E	113.86753	535.15	301.97
11-Jan-13	9:56:36	Hi-Speed Ferry		93	38	10	211	50	20	N	22.26746	E	113.86323	901.04	263.84
11-Jan-13	9:57:00	Transportation boat	Stationary	91	31	50	345	14	50	N	22.28377	E	113.88462	2154.19	37.24
11-Jan-13	9:57:12	Transportation boat	Traveling	91	53	20	338	25	20	N	22.28185	E	113.88052	1741.49	30.42
11-Jan-13	9:58:47	Fishing boat	Operating	114	21	20	319	26	0	N	22.26945	E	113.87219	126.35	11.43
11-Jan-13	9:59:24	Fishing boat	Operating	91	18	20	288	33	10	N	22.28982	E	113.86375	2531.70	340.55
11-Jan-13	9:59:37	Transportation boat	Traveling	92	35	0	315	27	10	N	22.27967	E	113.87355	1270.48	7.45
11-Jan-13	9:59:53	Fishing boat	Operating	114	51	50	299	59	10	N	22.26943	E	113.87178	123.42	351.98
11-Jan-13	10:02:13	Fishing boat	Operating	117	25	30	277	17	30	N	22.26919	E	113.87140	110.22	329.29
11-Jan-13	10:02:31	Transportation boat	Traveling	92	47	20	273	42	0	N	22.27708	E	113.86550	1176.33	325.70
11-Jan-13	10:05:09	Transportation boat	Traveling	92	0	50	253	47	50	N	22.27693	E	113.85907	1632.49	305.79
11-Jan-13	10:05:37	Transportation boat	Stationary	91	58	50	253	28	0	N	22.27700	E	113.85879	1660.20	305.46
11-Jan-13	10:07:47	Speedboat	Traveling	92	48	50	354	40	40	N	22.27553	E	113.88019	1165.83	46.67
11-Jan-13	10:08:06	Transportation boat	Traveling	91	42	10	333	55	30	N	22.28399	E	113.88017	1933.83	25.92
11-Jan-13	10:08:30	Transportation boat	Stationary	92	9	0	257	25	50	N	22.27707	E	113.86046	1528.37	309.43
11-Jan-13	10:08:47	Speedboat	Traveling	96	11	40	348	28	30	N	22.27194	E	113.87527	527.17	40.47
11-Jan-13	10:09:30	Speedboat	Traveling	109	55	40	293	24	0	N	22.26971	E	113.87156	157.77	345.40
11-Jan-13	10:09:40	Speedboat	Traveling	110	7	30	250	22	50	N	22.26909	E	113.87066	156.09	302.38
11-Jan-13	10:10:02	Transportation boat	Traveling	92	3	0	319	32	0	N	22.28247	E	113.87506	1603.51	11.53
11-Jan-13	10:10:23	Fishing boat	Operating	115	26	50	300	11	50	N	22.26941	E	113.87179	120.20	352.19
11-Jan-13	10:13:16	Scan_dolphin		93	35	30	277	2	20	N	22.27537	E	113.86738	912.24	329.04
11-Jan-13	10:13:58	Transportation boat	Traveling	92	27	0	277	4	50	N	22.27868	E	113.86525	1340.04	329.08
11-Jan-13	10:15:08	Hi-Speed Ferry		93	57	50	219	16	20	N	22.26850	E	113.86391	826.18	271.27
11-Jan-13	10:16:21	Hi-Speed Ferry		95	57	20	263	25	50	N	22.27185	E	113.86820	548.49	315.43
11-Jan-13	10:17:30	Dolphin	Surface	93	35	10	258	4	30	N	22.27363	E	113.86515	913.66	310.07
11-Jan-13	10:17:43	Dolphin	Surface	93	35	0	256	45	0	N	22.27348	E	113.86501	914.38	308.75

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
11-Jan-13	10:19:17	Dolphin	Surface	93	30	50	251	19	40	N	22.27294	E	113.86437	932.54	303.32
11-Jan-13	10:19:20	Dolphin	Surface	93	37	10	251	19	40	N	22.27281	E	113.86459	905.21	303.32
11-Jan-13	10:20:34	Hi-Speed Ferry		91	36	30	339	10	40	N	22.28411	E	113.88226	2048.73	31.17
11-Jan-13	10:20:50	Transportation boat	Traveling	91	32	20	235	11	50	N	22.27403	E	113.85204	2142.38	287.19
11-Jan-13	10:21:19	Dolphin	Surface	93	39	0	245	16	10	N	22.27203	E	113.86419	897.59	297.27
11-Jan-13	10:21:26	Dolphin	Surface	93	39	0	244	36	40	N	22.27195	E	113.86414	897.59	296.61
11-Jan-13	10:21:36	Dolphin	Surface	93	39	20	243	54	0	N	22.27186	E	113.86410	896.22	295.90
11-Jan-13	10:22:53	Transportation boat	Traveling	91	26	30	246	23	10	N	22.27812	E	113.85236	2288.94	298.38
11-Jan-13	10:23:03	Speedboat	Traveling	97	33	30	7	33	0	N	22.27030	E	113.87556	431.16	59.55
11-Jan-13	10:23:14	Speedboat	Traveling	98	51	20	4	59	50	N	22.27013	E	113.87494	367.17	56.99
11-Jan-13	10:23:48	Dolphin	Surface	93	33	50	235	42	10	N	22.27085	E	113.86343	919.39	287.70
11-Jan-13	10:24:33	Speedboat	Traveling	115	11	20	272	51	0	N	22.26923	E	113.87126	121.61	324.85
11-Jan-13	10:25:05	Transportation boat	Traveling	92	5	30	263	35	50	N	22.27844	E	113.86125	1571.32	315.59
11-Jan-13	10:25:42	Dolphin	Surface	93	30	0	228	53	50	N	22.26993	E	113.86300	936.25	280.89
11-Jan-13	10:25:47	Dolphin	Surface	93	33	10	228	28	10	N	22.26984	E	113.86312	922.28	280.47
11-Jan-13	10:25:55	Dolphin	Surface	93	32	0	227	45	50	N	22.26975	E	113.86306	927.38	279.76
11-Jan-13	10:26:39	Transportation boat	Traveling	92	19	50	283	18	30	N	22.27985	E	113.86622	1409.17	335.31
11-Jan-13	10:26:56	Speedboat	Stationary	116	27	30	285	41	20	N	22.26929	E	113.87152	114.93	337.69
11-Jan-13	10:27:08	Fishing boat	Operating	113	34	0	260	24	0	N	22.26913	E	113.87100	131.13	312.40
11-Jan-13	10:27:23	Transportation boat	Traveling	91	37	50	257	28	10	N	22.27989	E	113.85677	2020.48	309.47
11-Jan-13	10:29:27	Dolphin	Surface	93	16	50	214	51	50	N	22.26784	E	113.86224	999.20	266.86
11-Jan-13	10:29:33	Dolphin	Surface	93	8	50	214	10	40	N	22.26771	E	113.86184	1041.75	266.17
11-Jan-13	10:31:07	Transportation boat	Traveling	91	39	20	331	29	20	N	22.28475	E	113.87966	1989.61	23.49
11-Jan-13	10:31:22	Transportation boat	Traveling	92	7	10	262	17	0	N	22.27808	E	113.86115	1550.57	314.28
11-Jan-13	10:33:12	Transportation boat	Traveling	91	18	10	341	41	20	N	22.28733	E	113.88563	2537.20	33.69
11-Jan-13	10:33:25	Transportation boat	Traveling	92	25	20	287	26	30	N	22.27975	E	113.86731	1355.51	339.44
11-Jan-13	10:34:43	Dolphin	Surface	91	22	50	253	17	50	N	22.28077	E	113.85296	2391.88	305.29
11-Jan-13	10:35:26	Scan_dolphin		91	23	30	253	24	0	N	22.28070	E	113.85314	2372.47	305.40
11-Jan-13	10:38:37	Dolphin	Surface	91	18	20	258	49	20	N	22.28323	E	113.85331	2531.70	310.82
11-Jan-13	10:38:50	Dolphin	Surface	91	18	50	259	3	10	N	22.28320	E	113.85350	2515.36	311.05
11-Jan-13	10:38:59	Dolphin	Surface	91	18	50	259	17	50	N	22.28327	E	113.85356	2515.36	311.29
11-Jan-13	10:43:49	Fishing boat	Operating	91	32	40	268	45	0	N	22.28282	E	113.85915	2078.53	320.75
11-Jan-13	10:46:45	Fishing boat	Operating	91	46	0	263	6	50	N	22.27990	E	113.85949	1814.52	315.11
11-Jan-13	10:47:36	Other	Traveling	91	35	50	262	4	40	N	22.28091	E	113.85791	2009.29	314.07
11-Jan-13	10:48:25	Fishing boat	Operating	91	55	0	268	0	20	N	22.27986	E	113.86150	1671.35	320.00
11-Jan-13	10:48:33	Other	Traveling	91	31	40	270	5	50	N	22.28326	E	113.85939	2101.86	322.09
11-Jan-13	10:50:43	Speedboat	Traveling	116	24	10	272	51	20	N	22.26916	E	113.87132	112.23	324.85
11-Jan-13	10:51:19	Fishing boat	Operating	91	39	40	274	56	40	N	22.28290	E	113.86170	1931.40	326.94
11-Jan-13	10:51:45	Other	Traveling	91	12	20	289	19	40	N	22.29113	E	113.86362	2674.39	341.32
11-Jan-13	10:52:16	Speedboat	Traveling	104	2	50	347	47	20	N	22.26987	E	113.87333	222.71	39.79
11-Jan-13	10:53:14	Other	Traveling	91	24	40	315	54	10	N	22.28864	E	113.87499	2278.57	7.90
11-Jan-13	10:54:20	Fishing boat	Operating	91	26	10	279	30	10	N	22.28604	E	113.86156	2238.41	331.50
11-Jan-13	10:54:56	Speedboat	Traveling	95	39	50	7	27	10	N	22.27090	E	113.87665	562.13	59.45
11-Jan-13	10:55:34	Other	Traveling	91	26	10	334	42	0	N	22.28633	E	113.88173	2238.51	26.70
11-Jan-13	10:57:13	Speedboat	Traveling	93	35	20	8	58	50	N	22.27222	E	113.87951	889.54	60.98
11-Jan-13	10:57:51	Fishing boat	Non-operating	113	19	10	290	37	20	N	22.26944	E	113.87157	129.29	342.62
11-Jan-13	10:58:16	Other	Stationary	91	23	40	345	51	20	N	22.28472	E	113.88571	2306.64	37.85
11-Jan-13	10:58:48	Fishing boat	Non-operating	108	39	10	358	43	20	N	22.26927	E	113.87319	165.11	50.72
11-Jan-13	11:00:01	Other	Traveling	91	20	10	342	43	20	N	22.28615	E	113.88529	2409.17	34.72
11-Jan-13	11:01:29	Other	Traveling	91	8	20	345	22	40	N	22.28861	E	113.88868	2835.48	37.37
11-Jan-13	11:02:51	Other	Stationary	91	58	10	253	17	30	N	22.27679	E	113.85903	1627.04	305.29
11-Jan-13	11:03:02	Other	Stationary	91	57	50	253	49	10	N	22.27693	E	113.85908	1631.69	305.82
11-Jan-13	11:04:50	Fishing boat	Operating	95	46	40	19	11	30	N	22.26993	E	113.87702	551.16	71.19
11-Jan-13	11:12:41	Fishing boat	Operating	91	25	10	280	6	10	N	22.28636	E	113.86163	2266.60	332.10
11-Jan-13	11:15:14	Fishing boat	Operating	91	35	30	277	28	50	N	22.28398	E	113.86197	2018.42	329.48
11-Jan-13	11:19:25	Fishing boat	Operating	91	29	10	288	56	30	N	22.28674	E	113.86507	2164.02	340.94
11-Jan-13	11:21:46	Other	Traveling	91	26	10	323	50	0	N	22.28773	E	113.87789	2240.64	15.83
11-Jan-13	11:29:38	Other	Traveling	91	8	10	297	57	40	N	22.29355	E	113.86712	2845.50	349.96
11-Jan-13	11:30:20	Fishing boat	Non-operating	91	53	20	219	52	50	N	22.26883	E	113.85543	1698.73	271.88
11-Jan-13	11:30:39	Fishing boat	Non-operating	91	49	50	226	13	0	N	22.27059	E	113.85507	1753.39	278.21
11-Jan-13	11:30:56	Speedboat	Traveling	93	11	40	353	0	20	N	22.27470	E	113.87883	1001.16	45.00
11-Jan-13	11:31:15	Speedboat	Traveling	94	7	30	350	47	30	N	22.27345	E	113.87706	774.35	42.79
11-Jan-13	11:32:12	Speedboat	Traveling	105	41	10	326	44	20	N	22.27003	E	113.87257	198.71	18.74
11-Jan-13	11:33:14	Speedboat	Stationary	111	17	50	313	41	30	N	22.26962	E	113.87208	143.15	5.69
11-Jan-13	11:33:33	Fishing boat	Non-operating	92	20	10	250	38	50	N	22.27499	E	113.86071	1371.49	302.64
11-Jan-13	11:33:45	Fishing boat	Non-operating	92	10	10	254	57	20	N	22.27633	E	113.86046	1477.61	306.95
11-Jan-13	11:36:31	Fishing boat	Non-operating	91	56	10	279	59	10	N	22.28150	E	113.86437	1657.31	331.98
11-Jan-13	11:36:40	Fishing boat	Non-operating	91	46	50	280	44	40	N	22.28276	E	113.86391	1803.50	332.74
11-Jan-13	11:44:10	Fishing boat	Non-operating	97	14	30	6	29	40	N	22.27040	E	113.87559	439.45	58.49
11-Jan-13	11:45:42	Fishing boat	Non-operating	107	58	20	336	9	40	N	22.26970	E	113.87273	172.11	28.16
11-Jan-13	11:46:40	Fishing boat	Non-operating	115	30	50	254	19	0	N	22.26896	E	113.87103	116.98	306.31
11-Jan-13	11:47:32	Hi-Speed Ferry		92	7	20	337	2	40	N	22.28023	E	113.87908	1511.48	29.04
11-Jan-13	11:49:17	Hi-Speed Ferry		94	20	20	319	2	50	N	22.27484	E	113.87332	736.46	11.04
11-Jan-13	11:51:30	Hi-Speed Ferry		94	50	30	220	59	20	N	22.26864	E	113.86554	659.62	272.99
11-Jan-13	11:53:15	Transportation boat	Traveling	91	37	40	328	17	30	N	22.28501	E	113.87861	1975.85	20.29
11-Jan-13	11:57:03	Transportation boat	Traveling	92	29	10	277	55	50	N	22.27837	E	113.86566	1289.34	329.93
11-Jan-13	11:58:42	Transportation boat	Traveling	92	7	40	255	14	20	N	22.27655	E	113.86027	1508.11	307.24
11-Jan-13	11:59:24	Transportation boat	Stationary	91	58	10	253	27	40	N	22.27684	E	113.85903	1630.38	305.46
11-Jan-13	12:01:51	Transportation boat	Traveling	92	5	10	260	19	50	N	22.27766	E	113.86088	1538.64	312.33
11-Jan-13	12:04:02	Transportation boat	Traveling	92	17	30	294	21	20	N	22.28057	E	113.86873	1399.81	346.35
11-Jan-13	12:06:10	Transportation boat	Traveling	91	51	40	322	53	30	N	22.28335	E	113.87626	1726.56	14.89
11-Jan-13	12:37:46	Zero		99	45	50	0	0	10	N	22.27013	E	113.87444	325.08	52.00
11-Jan-13	13:08:39	Police Vessel	Traveling	91	48	30	234	52	50	N	22.27299	E	113.85537	1781.45	286.88
11-Jan-13	13:11:09	Police Vessel	Traveling	91	44	50	259	50	40	N	22.27941	E	113.85858	1844.56	311.84
11-Jan-13	13:12:49	Police Vessel	Traveling	91	35	40	274	14	20	N	22.28347	E	113.86101	2023.47	326.24
11-Jan-13	13:48:27	Speedboat	Traveling	113	58	40	302	49	20	N	22.26946	E	113.87183	126.08	354.82
11-Jan-13	13:48:42	Speedboat	Traveling	112	46	20	315	42	10	N	22.26952	E	113.87212	133.58	7.70
11-Jan-13	13:49:18	Speedboat	Stationary	112	16	20	317	35	20	N	22.26955	E	113.87217	136.92	9.59
11-Jan-13	13:50:59	Hi-Speed Ferry		91	29	50	339	16	30	N	22.28494	E	113.88285	2159.59	31.27
11-Jan-13	13:54:32	Hi-Speed Ferry		93	18	20	310	27	10	N	22.27708	E	113.87235	972.38	2.45
11-Jan-13	13:56:12	Hi-Speed Ferry		94	41	10	266	50	40	N	22.27297	E	113.86756	684.72	318.84
11-Jan-13	13:58:29	Hi-Speed Ferry		92	48	0	212	16	40	N	22.26730	E	113.86083	1149.07	264.27
11-Jan-13	14:11:32	Hi-Speed Ferry		96	6	40	234	3	30	N	22.26964	E	113.86704	524.38	286.06
11-Jan-13	14:12:40	Hi-Speed Ferry		96	39	30	292	45	30	N	22.27251	E	113.87071	480.93	344.76
11-Jan-13	14:13:39	Hi-Speed Ferry		93	53	0	320	55	40	N	22.27559	E	113.87374	827.62	12.92
11-Jan-13	14:15:29	Hi-Speed Ferry		92	2	10	335	3	0	N	22.28103	E	113.87895	1584.35	27.05
11-Jan-13	14:20:06	Speedboat	Traveling	115	42	0	279	52	50	N	22.26926	E	113.87141	116.65	331.88
11-Jan-13	14:20:18	Speedboat	Traveling	113	35	30	305	35	30	N	22.26949	E	113.87189	128.55	357.59
11-Jan-13	14:21:04	Speedboat	Stationary	112	53	0	308	49	30	N	22.26953	E	113.87196	133.01	0.82
11-Jan-13	14:24:54	Sand Barge		91	39	30	241	17	0	N	22.27527	E	113.85453	1949.70	293.28
11-Jan-13	14:26:40	Police Vessel	Traveling	91	27	50	327	55	0	N	22.28705	E	113.87927	2212.31	19.91

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
11-Jan-13	14:26:53	Sand Barge		91	38	30	254	14	0	N	22.27881	E	113.85649	1969.86	306.23
11-Jan-13	14:27:11	Police Vessel	Traveling	91	29	50	327	40	30	N	22.28666	E	113.87902	2162.42	19.67
11-Jan-13	14:28:02	Police Vessel	Traveling	95	40	50	233	30	40	N	22.26969	E	113.86665	564.79	285.51
11-Jan-13	14:28:27	Police Vessel	Traveling	97	9	40	265	11	50	N	22.27129	E	113.86899	447.08	317.19
11-Jan-13	14:28:48	Police Vessel	Stationary	91	30	0	327	49	40	N	22.28661	E	113.87906	2158.49	19.82
11-Jan-13	14:29:08	Police Vessel	Traveling	94	45	50	312	28	40	N	22.27438	E	113.87246	674.28	4.47
11-Jan-13	14:29:29	Sand Barge		91	27	0	268	21	20	N	22.28381	E	113.85808	2234.03	320.35
11-Jan-13	14:29:49	Police Vessel	Traveling	92	53	50	321	33	0	N	22.27806	E	113.87448	1111.56	13.55
11-Jan-13	14:30:39	Police Vessel	Traveling	91	53	0	320	30	40	N	22.28340	E	113.87556	1714.93	12.51
11-Jan-13	14:33:08	Speedboat	Stationary	114	52	50	282	56	20	N	22.26932	E	113.87145	121.11	334.94
11-Jan-13	14:33:30	Speedboat	Stationary	114	1	50	288	11	20	N	22.26940	E	113.87153	125.97	340.19
11-Jan-13	14:35:59	Other	Traveling	91	31	40	340	31	40	N	22.28441	E	113.88303	2119.27	32.52
11-Jan-13	14:37:07	Other	Traveling	91	37	10	343	0	30	N	22.28306	E	113.88309	1997.95	35.01
11-Jan-13	14:38:45	Other	Stationary	91	39	40	344	34	50	N	22.28241	E	113.88323	1947.38	36.58
11-Jan-13	14:42:12	Police Vessel	Traveling	91	59	0	325	24	10	N	22.28232	E	113.87668	1628.42	17.40
11-Jan-13	14:43:19	Police Vessel	Traveling	92	27	50	307	40	0	N	22.28011	E	113.87187	1308.87	359.66
11-Jan-13	14:44:51	Police Vessel	Traveling	92	49	50	261	36	20	N	22.27540	E	113.86393	1138.50	313.60
11-Jan-13	14:45:20	Hi-Speed Ferry		92	29	40	216	28	0	N	22.26802	E	113.85938	1292.83	268.46
11-Jan-13	14:45:46	Fishing boat	Non-operating	114	0	0	316	58	10	N	22.26946	E	113.87214	126.21	8.97
11-Jan-13	14:46:04	Fishing boat	Non-operating	110	40	10	338	15	0	N	22.26949	E	113.87267	148.95	30.25
11-Jan-13	14:46:38	Fishing boat	Non-operating	104	22	30	358	9	50	N	22.26960	E	113.87358	219.27	50.16
11-Jan-13	14:46:53	Police Vessel	Traveling	91	45	20	218	3	10	N	22.26835	E	113.85403	1842.07	270.05
11-Jan-13	14:47:05	Hi-Speed Ferry		93	35	30	244	0	10	N	22.27187	E	113.86411	896.25	296.00
11-Jan-13	14:47:27	Fishing boat	Non-operating	100	31	30	6	27	20	N	22.26976	E	113.87445	302.50	58.45
11-Jan-13	14:49:00	Fishing boat	Non-operating	98	10	40	10	50	20	N	22.26994	E	113.87533	391.09	62.84
11-Jan-13	14:49:28	Hi-Speed Ferry		93	35	50	304	41	30	N	22.27637	E	113.87144	894.78	356.69
11-Jan-13	14:50:51	Fishing boat	Non-operating	97	20	30	11	49	10	N	22.27007	E	113.87575	436.17	63.82
11-Jan-13	14:51:32	Hi-Speed Ferry		92	10	30	329	45	10	N	22.28074	E	113.87729	1483.75	21.75
11-Jan-13	14:51:46	Transportation boat	Traveling	91	51	40	342	14	30	N	22.28125	E	113.88144	1736.15	34.24
11-Jan-13	14:53:04	Transportation boat	Traveling	92	16	40	330	52	0	N	22.28008	E	113.87730	1416.17	22.86
11-Jan-13	14:53:16	Hi-Speed Ferry		91	34	50	339	51	20	N	22.28399	E	113.88245	2047.63	31.85
11-Jan-13	14:56:10	Transportation boat	Traveling	92	59	50	281	8	10	N	22.27696	E	113.86722	1074.28	333.13
11-Jan-13	14:57:41	Fishing boat	Non-operating	94	7	10	12	34	10	N	22.27135	E	113.87880	780.29	64.57
11-Jan-13	14:58:05	Transportation boat	Traveling	92	12	10	255	38	10	N	22.27638	E	113.86067	1464.12	307.63
11-Jan-13	14:59:06	Transportation boat	Stationary	91	59	30	253	26	40	N	22.27679	E	113.85911	1620.42	305.44
11-Jan-13	15:00:23	Transportation boat	Traveling	92	3	30	255	34	20	N	22.27693	E	113.85986	1567.36	307.57
11-Jan-13	15:00:48	Fishing boat	Non-operating	92	20	50	12	0	0	N	22.27375	E	113.88395	1373.13	64.00
11-Jan-13	15:01:33	Transportation boat	Traveling	92	15	10	269	26	10	N	22.27840	E	113.86327	1431.00	321.43
11-Jan-13	15:06:26	Transportation boat	Traveling	91	41	50	327	12	10	N	22.28451	E	113.87803	1903.25	19.20
11-Jan-13	15:08:44	Transportation boat	Traveling	91	16	50	339	28	40	N	22.28777	E	113.88480	2532.17	31.47
11-Jan-13	15:26:49	Police Vessel	Traveling	92	29	10	348	41	10	N	22.27716	E	113.88014	1293.20	40.68
11-Jan-13	15:27:23	Police Vessel	Traveling	93	3	50	343	42	10	N	22.27599	E	113.87789	1048.10	35.70
11-Jan-13	15:28:06	Police Vessel	Traveling	93	58	40	335	27	30	N	22.27477	E	113.87556	806.22	27.46
11-Jan-13	15:29:19	Police Vessel	Traveling	96	50	20	297	0	20	N	22.27246	E	113.87108	467.12	349.00
11-Jan-13	15:30:27	Police Vessel	Traveling	96	18	20	238	1	10	N	22.26989	E	113.86731	506.98	290.02
11-Jan-13	15:34:03	Zero		104	20	0	0	0	0	N	22.26955	E	113.87362	219.12	52.00
11-Jan-13	15:37:25	Fishing boat	Non-operating	96	53	20	13	41	30	N	22.27005	E	113.87605	463.39	65.69
11-Jan-13	15:38:01	Fishing boat	Non-operating	98	37	50	12	46	20	N	22.26975	E	113.87519	368.80	64.77
11-Jan-13	15:44:24	Fishing boat	Non-operating	116	45	30	308	34	20	N	22.26933	E	113.87196	110.94	0.57
11-Jan-13	15:45:02	Fishing boat	Non-operating	115	17	40	255	12	30	N	22.26898	E	113.87103	118.36	307.21
11-Jan-13	15:45:14	Speedboat	Stationary	113	26	50	255	0	20	N	22.26903	E	113.87094	128.96	307.00
11-Jan-13	15:45:42	Speedboat	Stationary	112	17	10	278	33	40	N	22.26940	E	113.87129	136.47	330.56
11-Jan-13	15:46:12	Other	Stationary	91	58	30	253	16	10	N	22.27679	E	113.85902	1627.90	305.27
11-Jan-13	15:46:23	Other	Stationary	91	58	40	253	47	50	N	22.27689	E	113.85912	1625.57	305.79
11-Jan-13	15:47:12	Other	Stationary	91	35	20	346	6	20	N	22.28269	E	113.88411	2027.74	38.10
12-Jan-13	9:09:25	Zero		103	29	40	0	0	0	N	22.27042	E	113.87204	232.00	2.47
12-Jan-13	9:21:53	Dolphin	Surface	107	56	20	5	54	0	N	22.26986	E	113.87219	171.97	8.37
12-Jan-13	9:22:19	Dolphin	Surface	108	31	10	358	59	40	N	22.26983	E	113.87199	166.20	1.46
12-Jan-13	9:23:28	Dolphin	Surface	106	8	30	330	15	50	N	22.26987	E	113.87109	192.36	332.73
12-Jan-13	9:23:34	Dolphin	Surface	105	53	50	328	30	40	N	22.26987	E	113.87102	195.48	330.98
12-Jan-13	9:23:42	Dolphin	Surface	105	27	0	326	16	50	N	22.26988	E	113.87093	201.43	328.75
12-Jan-13	9:23:59	Dolphin	Surface	105	0	50	323	53	0	N	22.26989	E	113.87083	207.57	326.35
12-Jan-13	9:25:16	Dolphin	Surface	101	51	50	312	54	10	N	22.27003	E	113.87013	265.03	315.37
12-Jan-13	9:25:39	Dolphin	Surface	101	42	50	313	4	20	N	22.27006	E	113.87012	268.52	315.54
12-Jan-13	9:25:46	Dolphin	Surface	101	36	50	312	55	40	N	22.27007	E	113.87009	270.90	315.39
12-Jan-13	9:25:55	Dolphin	Surface	101	26	10	311	18	0	N	22.27005	E	113.87001	275.23	313.77
12-Jan-13	9:26:31	Dolphin	Surface	100	31	0	306	43	50	N	22.27004	E	113.86968	299.92	309.20
12-Jan-13	9:27:11	Dolphin	Surface	100	9	0	303	52	50	N	22.26999	E	113.86951	311.00	306.35
12-Jan-13	9:27:27	Police Vessel	Traveling	97	36	10	325	43	40	N	22.27152	E	113.86981	417.18	328.19
12-Jan-13	9:27:32	Police Vessel	Traveling	97	36	20	318	3	30	N	22.27123	E	113.86937	417.02	320.53
12-Jan-13	9:28:07	Police Vessel	Traveling	95	39	20	274	44	20	N	22.26897	E	113.86652	562.40	277.21
12-Jan-13	9:30:26	Police Vessel	Traveling	93	46	50	276	56	40	N	22.26957	E	113.86385	843.32	279.41
12-Jan-13	9:48:00	Speedboat	Stationary	117	21	30	325	4	30	N	22.26915	E	113.87138	107.59	327.54
12-Jan-13	9:50:46	Hi-Speed Ferry		92	49	50	17	2	50	N	22.27790	E	113.87561	1127.97	19.51
12-Jan-13	9:53:01	Hi-Speed Ferry		95	43	50	320	49	0	N	22.27234	E	113.86872	554.99	323.28
12-Jan-13	9:54:33	Hi-Speed Ferry		94	7	50	272	7	50	N	22.26889	E	113.86447	771.52	274.60
12-Jan-13	9:57:47	Speedboat	Traveling	112	10	10	348	35	20	N	22.26955	E	113.87174	136.63	351.06
12-Jan-13	9:59:17	Speedboat	Stationary	95	43	50	72	29	0	N	22.26963	E	113.87716	554.99	74.95
12-Jan-13	10:14:07	Hi-Speed Ferry		94	59	50	274	54	50	N	22.26907	E	113.86580	637.03	277.38
12-Jan-13	10:16:36	Hi-Speed Ferry		93	31	40	22	48	0	N	22.27569	E	113.87570	904.05	25.27
12-Jan-13	10:24:03	Speedboat	Traveling	113	45	0	354	44	50	N	22.26947	E	113.87188	126.52	357.21
12-Jan-13	10:24:39	Speedboat	Traveling	112	42	50	305	53	50	N	22.26908	E	113.87093	133.00	308.36
12-Jan-13	10:27:44	Speedboat	Traveling	92	49	50	59	6	40	N	22.27316	E	113.88159	1127.97	61.58
12-Jan-13	10:27:54	Speedboat	Traveling	92	47	40	48	47	0	N	22.27477	E	113.88061	1142.62	51.25
12-Jan-13	10:29:10	Speedboat	Traveling	91	50	0	54	55	30	N	22.27680	E	113.88625	1746.70	57.39
12-Jan-13	10:29:17	Speedboat	Stationary	94	32	20	46	22	0	N	22.27249	E	113.87708	701.76	48.83
12-Jan-13	10:30:14	Speedboat	Traveling	98	30	30	36	4	10	N	22.27095	E	113.87420	372.20	38.54
12-Jan-13	10:31:02	Speedboat	Traveling	110	53	40	313	2	0	N	22.26927	E	113.87095	145.83	315.50
12-Jan-13	10:31:28	Transportation boat	Traveling	92	55	30	338	41	0	N	22.27763	E	113.86852	1091.36	341.15
12-Jan-13	10:44:17	Speedboat	Traveling	114	12	50	332	40	40	N	22.26934	E	113.87144	123.79	335.14
12-Jan-13	10:44:28	Speedboat	Traveling	114	21	10	315	0	0	N	22.26915	E	113.87114	123.00	317.47
12-Jan-13	10:48:20	Speedboat	Traveling	101	36	20	52	14	50	N	22.26974	E	113.87410	271.10	54.71
12-Jan-13	10:50:07	Speedboat	Traveling	94	57	40	62	26	40	N	22.27078	E	113.87760	641.70	64.91
12-Jan-13	10:55:24	Speedboat	Traveling	93	43	40	49	6	30	N	22.27312	E	113.87846	855.32	51.58
12-Jan-13	10:55:36	Speedboat	Traveling	94	45	20	50	7	50	N	22.27199	E	113.87712	669.60	52.60
12-Jan-13	10:56:02	Speedboat	Traveling	95	59	30	44	43	0	N	22.27158	E	113.87573	530.62	47.18
12-Jan-13	10:56:36	Speedboat	Traveling	103	37	30	17	44	40	N	22.27027	E	113.87272	229.69	20.21
12-Jan-13	10:56:59	Speedboat	Traveling	102	14	40	18	42	0	N	22.27049	E	113.87285	256.54	21.17
12-Jan-13	10:57:07	Speedboat	Traveling	106	56	20	301	44	40	N	22.26926	E	113.87047	182.79	304.21
12-Jan-13	10:57:18	Speedboat	Traveling	107	3	30	339	17	10	N	22.26988	E	113.87139	181.44	341.75
12-Jan-13	11:21:11	Fishing Boat	Non-operating	92	50	50	302	47	20	N	22.27416	E	113.86304	1121.33	305.26

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
12-Jan-13	11:24:01	Fishing Boat	Non-operating	92	16	50	336	15	10	N	22.28009	E	113.86700	1401.76	338.72
12-Jan-13	11:30:54	Fishing Boat	Non-operating	91	56	30	317	39	50	N	22.27972	E	113.86167	1648.40	320.13
12-Jan-13	11:32:34	Fishing Boat	Non-operating	91	42	20	331	1	30	N	22.28346	E	113.86379	1878.91	333.49
12-Jan-13	11:49:32	Transportation boat	Traveling	92	15	20	3	2	50	N	22.28103	E	113.87327	1417.41	5.51
12-Jan-13	11:49:48	Hi-Speed Ferry		91	57	40	31	24	0	N	22.28053	E	113.88079	1631.92	33.87
12-Jan-13	11:51:26	Hi-Speed Ferry		93	13	20	19	25	10	N	22.27660	E	113.87553	990.22	21.89
12-Jan-13	11:51:34	Transportation boat	Traveling	92	28	20	331	54	10	N	22.27882	E	113.86651	1292.43	334.37
12-Jan-13	11:53:34	Transportation boat	Stationary	91	59	0	308	34	50	N	22.27787	E	113.86011	1613.49	311.05
12-Jan-13	11:54:03	Other	Stationary	91	58	20	308	57	0	N	22.27799	E	113.86011	1622.65	311.42
12-Jan-13	11:54:10	Other	Stationary	91	58	20	308	27	10	N	22.27790	E	113.86002	1622.65	310.92
12-Jan-13	11:55:34	Transportation boat	Traveling	92	7	10	305	17	0	N	22.27665	E	113.86034	1509.09	307.75
12-Jan-13	11:59:59	Transportation boat	Traveling	91	58	40	14	26	0	N	22.28227	E	113.87652	1618.06	16.90
12-Jan-13	12:30:18	Speedboat	Traveling	96	44	20	70	48	0	N	22.26955	E	113.87633	471.28	73.27
12-Jan-13	12:31:45	Speedboat	Stationary	94	14	40	69	36	50	N	22.27041	E	113.87889	750.71	72.08
12-Jan-13	13:06:04	Police Vessel	Traveling	92	4	30	347	15	30	N	22.28198	E	113.86927	1541.66	349.73
12-Jan-13	13:06:20	Police Vessel	Traveling	92	59	40	284	52	20	N	22.27119	E	113.86205	1065.93	287.34
12-Jan-13	13:07:30	Police Vessel	Traveling	93	29	10	307	39	20	N	22.27364	E	113.86514	914.91	310.12
12-Jan-13	13:07:39	Police Vessel	Traveling	92	38	20	321	37	50	N	22.27716	E	113.86504	1210.35	324.10
12-Jan-13	13:09:36	Police Vessel	Traveling	91	56	10	299	6	0	N	22.27612	E	113.85825	1653.17	301.57
12-Jan-13	13:09:48	Police Vessel	Traveling	92	18	50	343	29	0	N	22.28039	E	113.86868	1381.44	345.95
12-Jan-13	13:14:36	Speedboat	Traveling	102	56	20	34	38	20	N	22.27007	E	113.87337	242.33	37.11
12-Jan-13	13:16:27	Speedboat	Traveling	94	23	30	53	33	30	N	22.27198	E	113.87779	725.41	56.03
12-Jan-13	13:28:58	Fishing Boat	Non-operating	92	51	10	290	19	30	N	22.27223	E	113.86191	1119.14	292.79
12-Jan-13	13:29:12	Speedboat	Traveling	92	32	40	292	56	30	N	22.27318	E	113.86092	1255.54	295.41
12-Jan-13	13:29:38	Police Vessel	Traveling	91	37	40	34	1	0	N	22.28259	E	113.88333	1969.70	36.48
12-Jan-13	13:29:54	Speedboat	Traveling	92	8	30	297	37	0	N	22.27507	E	113.85938	1493.32	300.08
12-Jan-13	13:31:05	Police Vessel	Traveling	94	52	50	1	15	40	N	22.27419	E	113.87236	652.35	3.73
12-Jan-13	13:31:14	Fishing Boat	Non-operating	93	5	30	315	50	30	N	22.27527	E	113.86527	1032.24	318.31
12-Jan-13	13:34:36	Fishing Boat	Non-operating	92	22	50	348	34	20	N	22.28040	E	113.86989	1357.02	351.04
12-Jan-13	13:36:56	Police Vessel	Traveling	98	15	0	296	10	30	N	22.27001	E	113.86863	388.17	298.64
12-Jan-13	13:37:55	Police Vessel	Traveling	95	21	50	3	46	20	N	22.27370	E	113.87258	599.61	6.24
12-Jan-13	14:07:27	Police Vessel	Traveling	93	34	30	4	33	0	N	22.27639	E	113.87302	901.68	7.02
12-Jan-13	14:08:21	Police Vessel	Traveling	94	47	30	335	19	20	N	22.27393	E	113.86948	671.69	337.79
12-Jan-13	14:08:55	Police Vessel	Traveling	94	46	20	300	11	10	N	22.27161	E	113.86642	674.45	302.65
12-Jan-13	14:10:43	Hi-Speed Ferry		96	25	20	301	0	50	N	22.27082	E	113.86789	500.08	303.48
12-Jan-13	14:11:55	Hi-Speed Ferry		95	35	30	0	33	0	N	22.27350	E	113.87224	575.01	3.02
12-Jan-13	14:13:11	Hi-Speed Ferry		93	2	10	24	52	50	N	22.27683	E	113.87669	1062.57	27.35
12-Jan-13	14:13:25	Transportation boat	Traveling	91	59	20	16	10	40	N	22.28220	E	113.87700	1626.35	18.64
12-Jan-13	14:29:31	Transportation boat	Stationary	92	0	10	308	0	30	N	22.27777	E	113.86000	1614.98	310.48
12-Jan-13	14:39:57	Police Vessel	Traveling	94	43	0	12	24	50	N	22.27427	E	113.87365	682.44	14.88
12-Jan-13	14:40:39	Police Vessel	Traveling	95	33	0	326	47	50	N	22.27281	E	113.86906	579.36	329.26
12-Jan-13	14:41:03	Police Vessel	Traveling	94	50	30	341	41	10	N	22.27409	E	113.87018	664.72	344.15
12-Jan-13	14:41:49	Police Vessel	Traveling	93	11	40	13	56	50	N	22.27705	E	113.87472	1009.65	16.41
12-Jan-13	14:52:39	Transportation boat	Traveling	92	20	10	320	12	10	N	22.27823	E	113.86379	1383.00	322.67
12-Jan-13	14:56:43	Transportation boat	Traveling	92	39	30	17	16	50	N	22.27862	E	113.87593	1214.43	19.75
12-Jan-13	14:57:43	Transportation boat	Traveling	92	4	0	315	54	0	N	22.27886	E	113.86184	1564.66	318.37
12-Jan-13	15:02:09	Transportation boat	Traveling	91	52	50	12	24	40	N	22.28330	E	113.87624	1720.87	14.88
12-Jan-13	15:03:36	Transportation boat	Traveling	91	35	40	26	27	30	N	22.28435	E	113.88151	2033.17	28.93
13-Jan-13	8:54:33	Zero		91	38	50	0	0	0	N	22.28580	E	113.87276	1942.67	2.47
13-Jan-13	8:57:06	Other	Stationary	91	59	30	307	50	20	N	22.27767	E	113.86005	1603.79	310.31
13-Jan-13	8:57:14	Other	Stationary	91	58	30	307	20	40	N	22.27765	E	113.85986	1617.43	309.81
13-Jan-13	8:57:29	Speedboat	Traveling	92	43	10	54	0	20	N	22.27416	E	113.88145	1172.19	56.47
13-Jan-13	8:58:43	Speedboat	Traveling	96	27	10	46	56	30	N	22.27121	E	113.87557	491.50	49.41
13-Jan-13	9:08:36	Speedboat	Traveling	96	29	10	61	52	0	N	22.27024	E	113.87623	488.95	64.33
13-Jan-13	9:09:22	Speedboat	Traveling	112	16	10	357	28	50	N	22.26955	E	113.87194	135.70	359.95
13-Jan-13	9:12:04	Speedboat	Stationary	112	17	10	320	42	20	N	22.26931	E	113.87115	135.59	323.17
13-Jan-13	9:18:48	Hi-Speed Ferry		93	15	30	39	27	10	N	22.27488	E	113.87829	977.43	41.92
13-Jan-13	9:21:00	Hi-Speed Ferry		100	14	30	343	28	30	N	22.27102	E	113.87122	307.60	345.94
13-Jan-13	9:22:10	Hi-Speed Ferry		96	45	20	275	35	0	N	22.26892	E	113.86743	469.26	278.05
13-Jan-13	9:28:13	Fishing Boat	Operating	92	35	50	325	0	0	N	22.27765	E	113.86552	1227.66	327.47
13-Jan-13	9:28:55	Fishing Boat	Operating	92	45	10	323	25	30	N	22.27696	E	113.86563	1157.92	325.89
13-Jan-13	9:30:06	Fishing Boat	Operating	92	58	0	329	52	30	N	22.27689	E	113.86710	1074.02	332.34
13-Jan-13	9:31:51	Fishing Boat	Operating	92	36	0	339	11	0	N	22.27881	E	113.86819	1226.35	341.65
13-Jan-13	9:32:03	Speedboat	Traveling	106	35	10	36	42	20	N	22.26964	E	113.87309	186.58	39.17
13-Jan-13	9:32:45	Speedboat	Traveling	113	20	50	341	10	40	N	22.26945	E	113.87159	128.74	343.64
13-Jan-13	9:43:16	Police Vessel	Traveling	92	13	40	21	23	40	N	22.28012	E	113.87758	1432.61	23.86
13-Jan-13	9:44:50	Hi-Speed Ferry		95	41	10	290	56	50	N	22.27033	E	113.86696	558.35	293.41
13-Jan-13	9:45:03	Police Vessel	Traveling	92	55	40	8	44	10	N	22.27794	E	113.87400	1088.36	11.20
13-Jan-13	9:46:29	Hi-Speed Ferry		94	19	50	9	11	10	N	22.27481	E	113.87339	734.38	11.65
13-Jan-13	9:46:36	Police Vessel	Traveling	93	50	0	351	13	30	N	22.27576	E	113.87106	830.16	353.69
13-Jan-13	9:47:32	Hi-Speed Ferry		92	40	30	26	20	50	N	22.27773	E	113.87753	1191.77	28.81
13-Jan-13	9:48:19	Police Vessel	Traveling	95	47	50	323	5	40	N	22.27240	E	113.86893	547.57	325.56
13-Jan-13	9:50:28	Police Vessel	Stationary	95	34	50	279	6	50	N	22.26936	E	113.86652	568.99	281.58
13-Jan-13	9:50:38	Police Vessel	Traveling	95	32	20	276	29	20	N	22.26914	E	113.86644	573.31	278.96
13-Jan-13	9:59:53	Fishing Boat	Non-operating	91	52	10	293	12	20	N	22.27500	E	113.85696	1709.56	295.67
13-Jan-13	10:05:12	Fishing Boat	Non-operating	91	34	20	339	30	50	N	22.28576	E	113.86582	2036.46	341.98
13-Jan-13	10:05:31	Fishing Boat	Operating	92	2	10	335	48	30	N	22.28145	E	113.86630	1568.50	338.28
13-Jan-13	10:07:11	Fishing Boat	Operating	92	16	20	338	46	0	N	22.28030	E	113.86755	1404.41	341.23
13-Jan-13	10:09:49	Fishing Boat	Operating	92	3	50	350	3	0	N	22.28214	E	113.86998	1547.23	352.52
13-Jan-13	10:28:53	Dolphin	Surface	93	37	40	338	14	10	N	22.27579	E	113.86912	877.43	340.70
13-Jan-13	10:29:06	Dolphin	Surface	93	37	10	337	23	30	N	22.27576	E	113.86900	879.46	339.86
13-Jan-13	10:30:10	Fishing Boat	Operating	92	11	30	339	39	10	N	22.28081	E	113.86760	1456.38	342.12
13-Jan-13	10:30:59	Dolphin	Surface	93	21	50	331	44	30	N	22.27600	E	113.86794	946.61	334.21
13-Jan-13	10:31:08	Dolphin	Surface	93	20	30	332	2	10	N	22.27607	E	113.86796	952.94	334.50
13-Jan-13	10:31:55	Fishing Boat	Operating	92	32	10	344	20	10	N	22.27935	E	113.86915	1257.42	346.80
13-Jan-13	10:33:13	Dolphin	Surface	93	32	20	327	57	50	N	22.27537	E	113.86763	899.58	330.43
13-Jan-13	10:33:26	Dolphin	Surface	93	28	40	327	27	0	N	22.27546	E	113.86748	915.46	329.92
13-Jan-13	10:34:14	Police Vessel	Traveling	96	45	20	334	30	50	N	22.27222	E	113.87016	469.26	336.98
13-Jan-13	10:34:27	Police Vessel	Traveling	96	26	10	342	5	40	N	22.27261	E	113.87067	492.78	344.56
13-Jan-13	10:52:35	Scan_Dolphin		92	4	50	261	39	30	N	22.26692	E	113.85710	1534.74	264.13
13-Jan-13	11:01:46	Fishing Boat	Operating	92	4	10	335	48	40	N	22.28123	E	113.86639	1543.04	338.28
13-Jan-13	11:02:00	Fishing Boat	Non-operating	91	47	20	303	45	0	N	22.27784	E	113.85792	1787.28	306.22
13-Jan-13	11:04:15	Fishing Boat	Operating	92	27	10	332	56	50	N	22.27897	E	113.86668	1300.40	335.41
13-Jan-13	11:04:25	Fishing Boat	Non-operating	91	41	0	325	29	50	N	22.28283	E	113.86214	1900.54	327.96
13-Jan-13	11:07:56	Zero		91	41	0	0	0	0	N	22.28542	E	113.87274	1900.54	2.47
13-Jan-13	11:08:27	Fishing Boat	Operating	92	5	0	351	29	30	N	22.28205	E	113.87038	1532.68	353.96
13-Jan-13	11:14:24	Hi-Speed Ferry		91	39	10	44	58	30	N	22.28012	E	113.88581	1936.07	47.44
13-Jan-13	11:16:07	Hi-Speed Ferry		92	41	0	35	58	50	N	22.27671	E	113.87913	1188.05	38.45
13-Jan-13	11:17:12	Fishing Boat	Non-operating	92	24	10	285	16	50	N	22.27197	E	113.85965	1327.62	287.75
13-Jan-13	11:18:18	Hi-Speed Ferry		97	37	10	349	50	10	N	22.27204	E	113.87140	415.50	352.30
13-Jan-13	11:19:26	Hi-Speed Ferry		96	30	30	286	50	20	N	22.26978	E	113.86747	487.27	289.31

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
13-Jan-13	11:19:36	Fishing Boat	Non-operating	92	34	40	316	0	0	N	22.27667	E	113.86397	1236.98	318.47
13-Jan-13	11:26:04	Fishing Boat	Non-operating	91	49	50	300	40	0	N	22.27692	E	113.85772	1746.22	303.13
13-Jan-13	11:28:58	Fishing Boat	Non-operating	91	43	40	326	52	40	N	22.28266	E	113.86277	1851.14	329.34
13-Jan-13	11:38:33	Dolphin	Surface	93	43	40	357	58	0	N	22.27602	E	113.87201	853.78	0.43
13-Jan-13	11:39:27	Dolphin	Surface	94	16	0	349	19	0	N	22.27497	E	113.87091	745.44	351.78
13-Jan-13	11:39:42	Dolphin	Surface	94	14	30	348	13	40	N	22.27499	E	113.87077	749.85	350.69
13-Jan-13	11:40:22	Dolphin	Surface	93	29	40	352	11	20	N	22.27650	E	113.87112	911.08	354.66
13-Jan-13	11:43:15	Dolphin	Surface	93	40	40	333	52	0	N	22.27547	E	113.86857	865.45	336.33
13-Jan-13	11:43:26	Dolphin	Surface	93	39	20	333	17	0	N	22.27548	E	113.86847	870.73	335.75
13-Jan-13	11:44:15	Tour boat	Traveling	92	50	20	7	20	10	N	22.27829	E	113.87380	1122.62	9.80
13-Jan-13	11:45:09	Dolphin	Surface	93	23	0	329	12	20	N	22.27579	E	113.86760	941.14	331.67
13-Jan-13	11:45:53	Tour boat	Traveling	93	54	10	347	20	10	N	22.27555	E	113.87054	815.31	349.80
13-Jan-13	11:47:36	Tour boat	Traveling	94	20	10	311	14	0	N	22.27289	E	113.86679	733.44	313.70
13-Jan-13	11:52:36	Dolphin	Surface	92	38	50	309	48	20	N	22.27562	E	113.86328	1204.35	312.27
13-Jan-13	11:52:41	Dolphin	Surface	92	41	20	309	53	10	N	22.27552	E	113.86342	1185.58	312.35
13-Jan-13	11:56:23	Fishing Boat	Non-operating	92	14	30	310	4	40	N	22.27700	E	113.86174	1423.68	312.54
13-Jan-13	11:57:21	Fishing Boat	Non-operating	92	10	40	320	52	10	N	22.27891	E	113.86343	1465.74	323.34
13-Jan-13	12:33:36	Zero		105	53	30	0	0	0	N	22.27009	E	113.87203	195.20	2.47
13-Jan-13	12:33:53	Sand Barge		91	36	20	318	1	30	N	22.28218	E	113.85961	1993.68	320.49
13-Jan-13	12:34:12	Other	Stationary	91	26	30	40	54	50	N	22.28288	E	113.88680	2223.45	43.38
13-Jan-13	12:34:19	Other	Stationary	91	26	30	40	12	20	N	22.28304	E	113.88660	2223.45	42.67
13-Jan-13	12:34:56	Other	Stationary	91	35	0	39	15	0	N	22.28192	E	113.88503	2022.00	41.72
13-Jan-13	12:35:03	Other	Stationary	91	28	40	40	7	40	N	22.28270	E	113.88622	2168.36	42.59
13-Jan-13	12:35:09	Other	Stationary	91	29	10	40	57	50	N	22.28242	E	113.88636	2156.04	43.43
13-Jan-13	12:35:18	Other	Stationary	91	34	50	39	53	0	N	22.28180	E	113.88522	2025.59	42.35
13-Jan-13	12:35:28	Sand Barge		91	40	50	308	52	30	N	22.27965	E	113.85804	1903.72	311.34
13-Jan-13	12:36:48	Sand Barge		91	40	0	300	35	0	N	22.27775	E	113.85630	1919.76	303.05
13-Jan-13	12:48:49	Police Vessel	Traveling	91	38	30	351	48	30	N	22.28579	E	113.87005	1949.32	354.28
13-Jan-13	12:49:49	Police Vessel	Traveling	92	0	30	343	1	0	N	22.28219	E	113.86807	1590.37	345.48
13-Jan-13	12:50:50	Police Vessel	Traveling	92	27	50	323	17	0	N	22.27796	E	113.86486	1294.50	325.75
13-Jan-13	12:52:21	Police Vessel	Traveling	92	18	10	281	17	50	N	22.27130	E	113.85886	1385.65	283.76
13-Jan-13	13:04:03	Police Vessel	Traveling	91	48	0	306	10	20	N	22.27831	E	113.85845	1776.14	308.64
13-Jan-13	13:08:31	Police Vessel	Traveling	91	13	30	347	58	40	N	22.29162	E	113.86771	2624.00	350.44
13-Jan-13	13:13:14	Hi-Speed Ferry		91	14	0	34	32	20	N	22.28706	E	113.88720	2605.92	37.01
13-Jan-13	13:14:32	Fishing Boat	Non-operating	92	6	40	287	44	30	N	22.27303	E	113.85814	1512.36	290.21
13-Jan-13	13:14:58	Hi-Speed Ferry		91	40	40	29	43	30	N	22.28286	E	113.88182	1906.90	32.19
13-Jan-13	13:17:02	Hi-Speed Ferry		92	56	20	17	54	20	N	22.27748	E	113.87562	1084.22	20.37
13-Jan-13	13:17:14	Fishing Boat	Non-operating	92	23	20	309	15	30	N	22.27633	E	113.86225	1335.39	311.73
13-Jan-13	13:19:29	Hi-Speed Ferry		96	31	0	304	31	30	N	22.27097	E	113.86816	486.64	306.99
13-Jan-13	13:19:38	Fishing Boat	Non-operating	92	19	30	329	54	20	N	22.27927	E	113.86576	1372.32	332.37
13-Jan-13	13:21:19	Fishing Boat	Non-operating	92	5	0	341	8	20	N	22.28157	E	113.86774	1532.68	343.61
13-Jan-13	13:25:27	Hi-Speed Ferry		91	45	50	44	5	20	N	22.27955	E	113.88475	1812.87	46.56
13-Jan-13	13:29:16	Hi-Speed Ferry		98	19	10	356	49	20	N	22.27175	E	113.87190	380.09	359.29
13-Jan-13	13:30:27	Hi-Speed Ferry		96	25	0	285	53	40	N	22.26973	E	113.86738	494.29	288.36
13-Jan-13	14:10:32	Hi-Speed Ferry		98	7	50	296	27	30	N	22.27003	E	113.86863	389.05	298.93
13-Jan-13	14:12:10	Hi-Speed Ferry		95	54	40	27	8	50	N	22.27253	E	113.87452	536.94	29.61
13-Jan-13	14:13:43	Hi-Speed Ferry		92	48	0	42	45	40	N	22.27555	E	113.87980	1138.29	45.23
13-Jan-13	14:29:19	Other	Stationary	91	27	20	40	54	30	N	22.28292	E	113.88684	2229.87	43.38
13-Jan-13	14:29:30	Other	Stationary	91	27	20	40	10	0	N	22.28310	E	113.88663	2229.87	42.63
13-Jan-13	14:29:40	Other	Stationary	91	35	50	39	15	0	N	22.28197	E	113.88508	2029.60	41.72
13-Jan-13	14:29:49	Other	Stationary	91	29	40	40	8	10	N	22.28271	E	113.88624	2171.04	42.60
13-Jan-13	14:29:55	Other	Stationary	91	30	0	40	57	50	N	22.28247	E	113.88641	2162.89	43.43
13-Jan-13	14:30:07	Other	Stationary	91	36	10	39	53	30	N	22.28178	E	113.88520	2022.48	42.36
13-Jan-13	14:30:19	Other	Stationary	91	59	10	307	41	0	N	22.27778	E	113.85984	1628.64	310.15
13-Jan-13	14:30:25	Other	Stationary	91	58	50	307	10	50	N	22.27771	E	113.85971	1633.25	309.65
13-Jan-13	14:35:47	Research Vessel	Traveling	92	11	20	322	54	0	N	22.27927	E	113.86378	1476.67	325.37
13-Jan-13	14:36:37	Research Vessel	Traveling	92	23	40	302	49	40	N	22.27535	E	113.86124	1349.10	305.29
13-Jan-13	14:41:43	Police Vessel	Traveling	91	23	20	27	15	30	N	22.28661	E	113.88322	2338.55	29.73
13-Jan-13	14:42:35	Police Vessel	Stationary	91	23	0	29	21	50	N	22.28629	E	113.88399	2348.09	31.83
14-Jan-13	8:50:16	Zero		105	28	10	0	0	0	N	22.26948	E	113.87353	206.49	52.00
14-Jan-13	8:50:57	Other	Stationary	91	26	20	346	13	30	N	22.28453	E	113.88573	2291.29	38.22
14-Jan-13	8:51:08	Other	Stationary	91	26	50	347	2	30	N	22.28426	E	113.88590	2277.90	39.04
14-Jan-13	8:51:27	Other	Stationary	91	35	40	345	20	20	N	22.28311	E	113.88412	2064.87	37.34
14-Jan-13	8:51:55	Other	Stationary	91	29	10	346	27	20	N	22.28396	E	113.88536	2217.44	38.45
14-Jan-13	8:52:04	Other	Stationary	91	30	0	347	5	10	N	22.28368	E	113.88541	2196.63	39.08
14-Jan-13	8:52:22	Other	Stationary	91	36	20	345	59	10	N	22.28288	E	113.88422	2050.40	37.98
14-Jan-13	8:52:43	Other	Stationary	91	59	20	253	16	20	N	22.27692	E	113.85883	1651.65	305.27
14-Jan-13	8:52:55	Other	Stationary	92	0	10	253	47	50	N	22.27697	E	113.85901	1640.10	305.79
14-Jan-13	8:53:30	Fishing boat	Operating	91	15	30	307	5	40	N	22.29196	E	113.87154	2626.07	359.09
14-Jan-13	8:54:51	Speedboat	Stationary	112	22	40	251	46	50	N	22.26903	E	113.87082	138.79	303.78
14-Jan-13	8:55:14	Fishing boat	Operating	91	16	20	310	24	10	N	22.29168	E	113.87300	2596.85	2.40
14-Jan-13	8:57:19	Transportation boat	Stationary	92	0	20	254	13	20	N	22.27704	E	113.85909	1637.81	306.22
14-Jan-13	8:58:07	Fishing boat	Operating	91	23	20	305	54	50	N	22.28969	E	113.87110	2375.07	357.91
14-Jan-13	9:05:13	Fishing boat	Operating	91	49	10	290	44	20	N	22.28386	E	113.86673	1806.91	342.74
14-Jan-13	9:07:58	Fishing boat	Operating	92	2	10	284	18	20	N	22.28163	E	113.86564	1613.03	336.30
14-Jan-13	9:12:39	Fishing boat	Operating	91	44	10	300	34	50	N	22.28524	E	113.86956	1894.54	352.58
14-Jan-13	9:14:14	Other	Traveling	91	23	20	215	55	20	N	22.26756	E	113.84886	2375.07	267.92
14-Jan-13	9:20:06	Fishing boat	Operating	91	17	30	319	15	50	N	22.29090	E	113.87680	2557.03	11.26
14-Jan-13	9:20:24	Other	Traveling	91	33	50	261	29	20	N	22.28137	E	113.85709	2105.72	313.49
14-Jan-13	9:22:18	Fishing boat	Operating	91	10	0	321	58	20	N	22.29311	E	113.87861	2836.91	13.97
14-Jan-13	9:22:37	Transportation boat	Traveling	91	20	0	345	14	30	N	22.28607	E	113.88652	2475.72	37.24
14-Jan-13	9:23:20	Fishing boat	Operating	91	6	40	319	34	20	N	22.29463	E	113.87776	2982.21	11.57
14-Jan-13	9:23:34	Transportation boat	Traveling	91	30	20	344	58	20	N	22.28407	E	113.88474	2188.41	36.97
14-Jan-13	9:23:49	Other	Traveling	91	12	50	279	59	0	N	22.28998	E	113.85950	2724.20	331.98
14-Jan-13	9:23:59	Other	Traveling	91	7	10	278	45	40	N	22.29157	E	113.85788	2959.47	330.76
14-Jan-13	9:24:25	Transportation boat	Stationary	91	34	40	345	24	50	N	22.28325	E	113.88428	2086.95	37.41
14-Jan-13	9:29:07	Other	Traveling	90	52	40	297	57	50	N	22.30204	E	113.86549	3803.69	349.96
14-Jan-13	9:29:22	Other	Traveling	91	26	30	263	0	50	N	22.28289	E	113.85622	2286.81	315.01
14-Jan-13	9:29:35	Fishing boat	Operating	91	21	40	308	59	50	N	22.29015	E	113.87235	2424.35	0.99
14-Jan-13	9:30:01	Transportation boat	Traveling	91	34	40	344	0	0	N	22.28353	E	113.88387	2086.95	36.00
14-Jan-13	9:31:35	Transportation boat	Stationary	91	34	40	345	25	40	N	22.28325	E	113.88428	2086.95	37.42
14-Jan-13	9:35:13	Transportation boat	Traveling	91	33	30	347	52	20	N	22.28293	E	113.88512	2113.33	39.87
14-Jan-13	9:35:32	Other	Traveling	91	32	10	234	52	10	N	22.27393	E	113.85199	2144.30	286.87
14-Jan-13	9:35:51	Fishing boat	Operating	91	42	30	294	56	0	N	22.28521	E	113.86771	1925.67	346.93
14-Jan-13	9:36:40	Transportation boat	Traveling	91	20	50	348	46	10	N	22.28503	E	113.88750	2449.76	40.77
14-Jan-13	9:38:40	Transportation boat	Traveling	91	30	30	349	44	50	N	22.28300	E	113.88609	2184.32	41.74
14-Jan-13	9:40:04	Fishing boat	Operating	91	55	30	281	35	0	N	22.28209	E	113.86456	1706.94	333.58
14-Jan-13	9:40:22	Other	Traveling	91	18	0	215	44	50	N	22.26743	E	113.84726	2540.34	267.74
14-Jan-13	9:44:01	Fishing boat	Operating	92	21	0	270	37	40	N	22.27832	E	113.86370	1396.14	322.62
14-Jan-13	9:44:31	Transportation boat	Stationary	91	29	40	349	37	50	N	22.28316	E	113.88619	2204.91	41.63
14-Jan-13	9:44:51	Hi-Speed Ferry		91	3	50	346	49	30	N	22.29019	E	113.89096	3118.12	38.82

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
14-Jan-13	9:45:15	Fishing boat	Operating	92	33	50	275	22	10	N	22.27803	E	113.86524	1278.98	327.37
14-Jan-13	9:47:41	Hi-Speed Ferry		91	44	50	336	56	20	N	22.28316	E	113.88080	1882.36	28.94
14-Jan-13	9:48:27	Fishing boat	Operating	92	14	10	291	6	10	N	22.28097	E	113.86779	1467.73	343.10
14-Jan-13	9:50:48	Hi-Speed Ferry		94	28	20	298	16	40	N	22.27482	E	113.87074	731.12	350.27
14-Jan-13	9:52:32	Hi-Speed Ferry		95	1	20	234	28	30	N	22.26999	E	113.86588	650.61	286.47
14-Jan-13	9:52:49	Fishing boat	Operating	91	40	30	301	19	10	N	22.28589	E	113.86972	1964.42	353.32
14-Jan-13	9:53:54	Hi-Speed Ferry		93	1	20	208	7	40	N	22.26666	E	113.86156	1084.05	260.12
14-Jan-13	9:54:17	Transportation boat	Traveling	91	20	0	348	59	0	N	22.28515	E	113.88773	2475.72	40.98
14-Jan-13	9:54:51	Transportation boat	Traveling	91	24	10	348	6	10	N	22.28452	E	113.88667	2351.19	40.10
14-Jan-13	9:55:35	Transportation boat	Stationary	91	26	50	347	0	20	N	22.28426	E	113.88589	2277.90	39.00
14-Jan-13	9:57:15	Fishing boat	Operating	91	19	40	309	48	40	N	22.29070	E	113.87271	2486.26	1.81
14-Jan-13	9:59:32	Fishing boat	Operating	91	18	30	315	22	0	N	22.29086	E	113.87509	2523.87	7.36
14-Jan-13	10:01:58	Fishing boat	Operating	91	26	20	312	7	30	N	22.28890	E	113.87355	2291.29	4.12
14-Jan-13	10:06:58	Transportation boat	Traveling	91	55	40	337	40	10	N	22.28166	E	113.88015	1704.46	29.67
14-Jan-13	10:07:36	Other	Traveling	91	23	30	220	43	0	N	22.26934	E	113.84892	2370.26	272.71
14-Jan-13	10:08:12	Fishing boat	Operating	91	50	40	299	28	50	N	22.28419	E	113.86938	1782.19	351.48
14-Jan-13	10:08:29	Transportation boat	Traveling	92	20	10	323	32	50	N	22.28051	E	113.87560	1404.49	15.54
14-Jan-13	10:09:59	Other	Traveling	91	37	0	238	13	30	N	22.27467	E	113.85336	2036.14	290.22
14-Jan-13	10:10:14	Transportation boat	Traveling	92	42	0	300	35	40	N	22.27917	E	113.87042	1214.15	352.59
14-Jan-13	10:12:55	Other	Traveling	91	23	40	233	48	20	N	22.27413	E	113.84981	2365.46	285.80
14-Jan-13	10:13:10	Transportation boat	Traveling	92	17	30	260	29	50	N	22.27704	E	113.86168	1431.91	312.49
14-Jan-13	10:14:16	Hi-Speed Ferry		95	5	20	224	16	40	N	22.26896	E	113.86574	642.03	276.27
14-Jan-13	10:14:40	Transportation boat	Stationary	91	58	20	253	20	50	N	22.27700	E	113.85873	1665.72	305.34
14-Jan-13	10:14:54	Other	Traveling	91	17	50	247	55	0	N	22.27976	E	113.85048	2545.88	299.91
14-Jan-13	10:15:08	Hi-Speed Ferry		96	21	40	263	57	0	N	22.27165	E	113.86848	512.76	315.95
14-Jan-13	10:15:20	Other	Traveling	91	23	0	281	5	50	N	22.28747	E	113.86145	2384.77	333.09
14-Jan-13	10:15:35	Fishing boat	Operating	92	30	20	277	1	50	N	22.27843	E	113.86539	1308.93	329.03
14-Jan-13	10:15:48	Speedboat	Traveling	95	13	30	6	29	0	N	22.27127	E	113.87713	625.20	58.48
14-Jan-13	10:16:00	Speedboat	Traveling	95	56	20	5	4	0	N	22.27102	E	113.87643	549.53	57.06
14-Jan-13	10:16:18	Speedboat	Traveling	97	17	50	2	30	30	N	22.27067	E	113.87548	446.36	54.51
14-Jan-13	10:16:30	Hi-Speed Ferry		94	4	0	317	4	0	N	22.27548	E	113.87318	804.44	9.06
14-Jan-13	10:16:44	Transportation boat	Traveling	91	43	40	342	7	50	N	22.28252	E	113.88233	1903.77	34.13
14-Jan-13	10:17:00	Speedboat	Traveling	104	47	40	339	32	0	N	22.26999	E	113.87304	216.37	31.53
14-Jan-13	10:17:16	Speedboat	Traveling	92	12	10	355	52	30	N	22.27733	E	113.88269	1490.10	47.87
14-Jan-13	10:17:40	Speedboat	Traveling	114	51	10	262	59	50	N	22.26912	E	113.87110	123.37	314.99
14-Jan-13	10:17:50	Fishing boat	Operating	92	15	20	271	19	0	N	22.27883	E	113.86349	1454.99	323.31
14-Jan-13	10:18:14	Transportation boat	Traveling	92	2	40	332	0	20	N	22.28154	E	113.87830	1606.40	24.00
14-Jan-13	10:18:23	Hi-Speed Ferry		92	3	50	336	16	40	N	22.28094	E	113.87927	1591.15	28.27
14-Jan-13	10:18:44	Speedboat	Traveling	92	37	30	358	37	20	N	22.27546	E	113.88133	1249.03	50.62
14-Jan-13	10:21:18	Hi-Speed Ferry		91	8	40	343	38	30	N	22.28949	E	113.88834	2893.28	35.64
14-Jan-13	10:21:33	Transportation boat	Traveling	92	47	20	297	33	50	N	22.27873	E	113.86987	1175.24	349.56
14-Jan-13	10:22:12	Speedboat	Stationary	114	16	50	273	45	0	N	22.26928	E	113.87125	126.67	325.75
14-Jan-13	10:22:45	Speedboat	Stationary	92	34	20	352	53	40	N	22.27646	E	113.88069	1274.81	44.89
14-Jan-13	10:24:59	Speedboat	Traveling	93	39	30	354	17	30	N	22.27390	E	113.87823	894.71	46.29
14-Jan-13	10:25:24	Transportation boat	Traveling	92	9	50	256	56	40	N	22.27691	E	113.86047	1517.08	308.94
14-Jan-13	10:25:51	Fishing boat	Non-operating	91	32	30	213	30	0	N	22.26682	E	113.85123	2136.47	265.50
14-Jan-13	10:26:34	Transportation boat	Traveling	92	9	20	263	11	20	N	22.27806	E	113.86151	1522.98	315.19
14-Jan-13	10:28:46	Zero		101	4	10	0	0	20	N	22.26995	E	113.87418	292.11	52.00
14-Jan-13	10:30:47	Fishing boat	Non-operating	91	51	40	260	15	10	N	22.27902	E	113.85923	1766.08	312.25
14-Jan-13	10:30:58	Transportation boat	Traveling	91	50	20	317	40	0	N	22.28419	E	113.87486	1787.62	9.66
14-Jan-13	10:31:13	Speedboat	Traveling	92	58	0	347	51	50	N	22.27596	E	113.87883	1104.45	39.86
14-Jan-13	10:31:34	Fishing boat	Operating	91	4	50	280	1	0	N	22.29272	E	113.85794	3068.74	332.01
14-Jan-13	10:31:55	Fishing boat	Operating	118	42	20	302	17	20	N	22.26927	E	113.87184	104.35	354.29
14-Jan-13	10:32:24	Speedboat	Traveling	92	22	30	353	50	50	N	22.27699	E	113.88158	1381.35	45.84
14-Jan-13	10:34:17	Transportation boat	Traveling	91	17	10	338	51	40	N	22.28817	E	113.88476	2568.29	30.86
14-Jan-13	10:34:39	Fishing boat	Non-operating	91	27	50	292	54	10	N	22.28790	E	113.86624	2251.59	344.90
14-Jan-13	10:35:20	Fishing boat	Non-operating	91	36	10	221	34	20	N	22.26948	E	113.85201	2054.00	273.57
14-Jan-13	10:35:38	Fishing boat	Non-operating	91	42	0	218	41	20	N	22.26854	E	113.85313	1935.22	270.69
14-Jan-13	10:36:35	Transportation boat	Traveling	91	55	50	251	21	20	N	22.27675	E	113.85812	1701.99	303.35
14-Jan-13	10:37:18	Transportation boat	Traveling	91	44	40	248	11	40	N	22.27687	E	113.85610	1885.39	300.19
14-Jan-13	10:37:42	Fishing boat	Non-operating	91	47	50	241	40	40	N	22.27494	E	113.85565	1829.47	293.67
14-Jan-13	10:37:52	Fishing boat	Non-operating	91	50	50	238	12	40	N	22.27386	E	113.85570	1779.48	290.21
14-Jan-13	10:38:13	Fishing boat	Operating	113	1	40	343	50	50	N	22.26931	E	113.87271	134.44	35.84
14-Jan-13	10:38:35	Speedboat	Traveling	92	12	10	357	8	30	N	22.27711	E	113.88290	1490.10	49.14
14-Jan-13	10:40:11	Transportation boat	Traveling	91	18	50	251	0	0	N	22.28065	E	113.85145	2513.01	303.00
14-Jan-13	10:41:46	Transportation boat	Traveling	91	29	40	261	40	40	N	22.28204	E	113.85643	2204.91	313.67
14-Jan-13	10:42:00	Fishing boat	Non-operating	91	30	20	277	27	10	N	22.28529	E	113.86113	2188.41	329.45
14-Jan-13	10:42:10	Fishing boat	Non-operating	91	38	0	276	8	0	N	22.28373	E	113.86160	2015.12	328.13
14-Jan-13	10:42:32	Fishing boat	Operating	118	58	20	292	55	0	N	22.26923	E	113.87168	103.21	344.91
14-Jan-13	10:43:51	Transportation boat	Traveling	91	50	20	278	36	0	N	22.28235	E	113.86341	1787.62	330.60
14-Jan-13	10:46:17	Fishing boat	Non-operating	91	4	50	297	23	30	N	22.29548	E	113.86645	3068.74	349.39
14-Jan-13	10:46:25	Fishing boat	Non-operating	91	9	0	296	40	30	N	22.29374	E	113.86644	2878.97	348.67
14-Jan-13	10:46:39	Transportation boat	Traveling	92	6	40	310	30	30	N	22.28232	E	113.87261	1555.29	2.51
14-Jan-13	10:51:03	Transportation boat	Stationary	91	34	0	345	24	20	N	22.28336	E	113.88436	2101.94	37.40
14-Jan-13	11:02:52	Transportation boat	Traveling	92	8	30	268	38	40	N	22.27900	E	113.86249	1532.93	320.64
14-Jan-13	11:05:03	Transportation boat	Traveling	92	3	50	303	52	20	N	22.28262	E	113.87083	1591.15	355.87
14-Jan-13	11:06:01	Other	Traveling	91	11	30	317	56	30	N	22.29294	E	113.87660	2776.09	9.94
14-Jan-13	11:06:35	Transportation boat	Traveling	91	40	10	321	55	10	N	22.28555	E	113.87655	1971.03	13.92
14-Jan-13	11:06:52	Fishing boat	Non-operating	91	33	20	244	30	20	N	22.27683	E	113.85352	2117.15	296.50
14-Jan-13	11:07:08	Fishing boat	Non-operating	91	55	50	224	33	50	N	22.27008	E	113.85550	1701.99	276.56
14-Jan-13	11:08:13	Other	Traveling	91	34	50	310	57	10	N	22.28706	E	113.87299	2083.24	2.95
14-Jan-13	11:08:48	Fishing boat	Non-operating	91	38	10	260	5	0	N	22.28047	E	113.85742	2011.66	312.08
14-Jan-13	11:09:03	Fishing boat	Non-operating	92	12	0	244	11	0	N	22.27426	E	113.85892	1492.00	296.18
14-Jan-13	11:09:20	Transportation boat	Traveling	91	8	30	339	47	20	N	22.29052	E	113.88680	2900.48	31.79
14-Jan-13	11:13:23	Other	Traveling	93	29	0	252	17	10	N	22.27310	E	113.86439	939.88	304.28
14-Jan-13	11:13:37	Fishing boat	Non-operating	91	15	30	292	19	40	N	22.29109	E	113.86504	2626.07	344.32
14-Jan-13	11:13:53	Fishing boat	Non-operating	91	36	30	290	31	0	N	22.28590	E	113.86596	2046.82	342.51
14-Jan-13	11:15:12	Other	Traveling	92	54	30	216	39	20	N	22.26809	E	113.86099	1126.72	268.65
14-Jan-13	11:16:14	Transportation boat	Traveling	91	13	40	345	6	40	N	22.28766	E	113.88775	2692.75	37.11
14-Jan-13	11:16:39	Transportation boat	Traveling	91	25	50	344	26	20	N	22.28502	E	113.88526	2304.84	36.44
14-Jan-13	11:17:25	Transportation boat	Traveling	91	24	10	344	39	30	N	22.28531	E	113.88560	2351.19	36.66
14-Jan-13	11:18:15	Transportation boat	Traveling	91	32	0	345	4	10	N	22.28376	E	113.88454	2148.24	37.07
14-Jan-13	11:18:26	Transportation boat	Traveling	91	9	0	344	55	0	N	22.28905	E	113.88876	2878.97	36.91
14-Jan-13	11:18:50	Transportation boat	Stationary	91	33	50	345	24	0	N	22.28339	E	113.88438	2105.72	37.40
14-Jan-13	11:19:26	Speedboat	Traveling	92	27	0	355	28	0	N	22.27648	E	113.88154	1338.80	47.46
14-Jan-13	11:19:39	Transportation boat	Traveling	91	29	10	348	17	40	N	22.28355	E	113.88589	2217.44	40.29
14-Jan-13	11:20:02	Transportation boat	Traveling	91	25	0	348	56	40	N	22.28416	E	113.88678	2327.78	40.94
14-Jan-13	11:20:32	Speedboat	Stationary	92	31	50	354	13	40	N	22.27640	E	113.88104	1295.93	46.22
14-Jan-13	11:20:55	Transportation boat	Traveling	91	14	20	348	14	30	N	22.28666	E	113.88871	2668.11	40.24
14-Jan-13	11:21:20	Fishing boat	Non-operating	91	55	20	213	40	0	N	22.26717	E	113.85537	1709.43	265.66
14-Jan-13	11:24:48	Fishing boat	Non-operating	92	16	20	251	59	0	N	22.27560	E	113.86030	1444.25	303.98

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
14-Jan-13	11:28:39	Fishing boat	Non-operating	91	39	30	289	38	20	N	22.28528	E	113.86586	1984.39	341.64
14-Jan-13	11:46:01	Hi-Speed Ferry		91	2	0	346	53	50	N	22.29084	E	113.89157	3212.96	38.89
14-Jan-13	11:49:58	Hi-Speed Ferry		91	57	10	335	20	20	N	22.28178	E	113.87946	1682.45	27.34
14-Jan-13	11:50:13	Transportation boat	Traveling	91	12	20	341	15	0	N	22.28898	E	113.88657	2743.42	33.25
14-Jan-13	11:52:32	Speedboat	Traveling	92	53	30	358	17	30	N	22.27485	E	113.88042	1133.25	50.29
14-Jan-13	11:52:44	Hi-Speed Ferry		94	26	40	304	6	30	N	22.27494	E	113.87146	735.72	356.11
14-Jan-13	11:52:54	Transportation boat	Traveling	91	45	30	326	58	30	N	22.28425	E	113.87786	1870.35	18.97
14-Jan-13	11:53:14	Speedboat	Traveling	93	26	50	358	2	20	N	22.27382	E	113.87902	949.78	50.04
14-Jan-13	11:54:59	Hi-Speed Ferry		94	17	50	225	12	20	N	22.26919	E	113.86460	761.06	277.20
14-Jan-13	11:55:13	Transportation boat	Traveling	92	23	50	300	37	10	N	22.28055	E	113.87023	1368.46	352.62
14-Jan-13	11:55:26	Speedboat	Traveling	97	56	10	350	40	40	N	22.27105	E	113.87465	410.00	42.67
14-Jan-13	11:55:39	Hi-Speed Ferry		93	22	0	212	24	40	N	22.26748	E	113.86253	972.62	264.41
14-Jan-13	11:57:07	Speedboat	Stationary	107	44	0	306	2	20	N	22.26994	E	113.87188	178.70	358.04
14-Jan-13	11:57:29	Transportation boat	Traveling	92	20	50	265	8	30	N	22.27755	E	113.86270	1397.80	317.14
14-Jan-13	11:57:57	Speedboat	Traveling	109	58	40	284	44	40	N	22.26963	E	113.87134	157.19	336.74
14-Jan-13	11:58:10	Speedboat	Traveling	111	49	0	267	41	40	N	22.26931	E	113.87105	142.75	319.69
14-Jan-13	11:58:19	Speedboat	Traveling	112	16	40	250	19	20	N	22.26900	E	113.87080	139.48	302.32
14-Jan-13	11:58:38	Transportation boat	Traveling	92	1	40	253	55	30	N	22.27688	E	113.85919	1619.71	305.92
14-Jan-13	11:59:03	Transportation boat	Stationary	91	57	40	253	26	10	N	22.27707	E	113.85867	1675.24	305.43
14-Jan-13	12:00:19	Transportation boat	Traveling	91	59	50	255	43	40	N	22.27739	E	113.85929	1644.70	307.72
14-Jan-13	12:00:39	Transportation boat	Traveling	91	16	20	344	18	40	N	22.28717	E	113.88690	2596.85	36.31
14-Jan-13	12:00:55	Transportation boat	Traveling	92	7	0	260	51	50	N	22.27783	E	113.86089	1551.18	312.86
14-Jan-13	12:01:58	Transportation boat	Traveling	91	30	50	344	36	50	N	22.28405	E	113.88457	2176.20	36.61
14-Jan-13	12:02:38	Transportation boat	Stationary	91	34	0	345	24	40	N	22.28336	E	113.88436	2101.94	37.41
14-Jan-13	12:02:52	Transportation boat	Traveling	92	14	0	291	42	30	N	22.28103	E	113.86793	1469.57	343.71
14-Jan-13	12:05:01	Transportation boat	Traveling	91	23	20	343	36	10	N	22.28571	E	113.88539	2375.07	35.60
14-Jan-13	12:05:23	Transportation boat	Traveling	91	44	10	324	42	50	N	22.28466	E	113.87724	1894.54	16.71
14-Jan-13	12:06:12	Transportation boat	Traveling	91	10	0	344	49	20	N	22.28877	E	113.88848	2836.91	36.82
14-Jan-13	12:07:46	Transportation boat	Traveling	91	14	0	340	3	30	N	22.28878	E	113.88578	2680.37	32.06
14-Jan-13	12:15:07	Transportation boat	Traveling	91	20	20	342	53	0	N	22.28653	E	113.88566	2465.27	34.88
14-Jan-13	12:18:49	Transportation boat	Traveling	91	9	30	332	59	50	N	22.29164	E	113.88369	2857.79	24.99
14-Jan-13	12:25:34	Other	Traveling	92	14	30	210	42	10	N	22.26666	E	113.85782	1464.07	262.70
14-Jan-13	12:27:39	Other	Traveling	92	50	40	243	26	30	N	22.27279	E	113.86183	1152.17	295.44
14-Jan-13	12:29:14	Other	Traveling	92	39	40	273	35	50	N	22.27748	E	113.86517	1231.99	325.59
14-Jan-13	12:31:47	Other	Traveling	91	47	40	304	32	10	N	22.28479	E	113.87087	1832.33	356.53
14-Jan-13	12:34:07	Other	Traveling	91	15	30	316	31	10	N	22.29171	E	113.87573	2626.07	8.52
14-Jan-13	12:34:52	Fishing boat	Non-operating	91	24	10	269	17	40	N	22.28484	E	113.85764	2351.19	321.29
14-Jan-13	12:38:04	Fishing boat	Non-operating	91	35	10	249	46	20	N	22.27789	E	113.85526	2017.70	301.77
14-Jan-13	12:39:45	Fishing boat	Non-operating	91	30	0	239	17	30	N	22.27531	E	113.85260	2135.24	291.29
14-Jan-13	12:40:34	Speedboat	Traveling	92	23	0	326	46	40	N	22.27974	E	113.87613	1338.22	18.77
14-Jan-13	12:41:37	Speedboat	Traveling	94	38	0	300	53	10	N	22.27446	E	113.87112	686.02	352.88
14-Jan-13	12:43:03	Speedboat	Traveling	93	34	30	215	47	30	N	22.26802	E	113.86329	890.36	267.79
14-Jan-13	12:43:24	Sand Barge		90	56	50	288	51	40	N	22.29738	E	113.86105	3416.15	340.86
14-Jan-13	12:43:34	Sand Barge		91	4	10	295	2	40	N	22.29477	E	113.86537	3014.83	347.04
14-Jan-13	12:45:57	Speedboat	Traveling	119	3	0	294	35	20	N	22.26921	E	113.87172	100.05	346.59
14-Jan-13	12:46:15	Speedboat	Traveling	113	44	20	339	5	50	N	22.26931	E	113.87258	126.37	31.09
14-Jan-13	12:46:42	Police Vessel	Traveling	91	22	20	335	42	50	N	22.28696	E	113.88252	2337.93	27.71
14-Jan-13	12:47:07	Police Vessel	Traveling	91	13	30	340	7	0	N	22.28834	E	113.88551	2624.28	32.11
14-Jan-13	12:47:45	Police Vessel	Traveling	91	3	10	344	13	40	N	22.29058	E	113.88956	3064.49	36.22
14-Jan-13	12:47:57	Sand Barge		91	11	30	277	33	40	N	22.28928	E	113.85864	2699.33	329.56
14-Jan-13	12:48:09	Sand Barge		91	26	20	278	11	50	N	22.28573	E	113.86117	2228.16	330.19
14-Jan-13	12:52:00	Sand Barge		91	28	40	262	53	0	N	22.28211	E	113.85700	2169.13	314.88
14-Jan-13	12:52:13	Sand Barge		91	37	50	253	38	20	N	22.27863	E	113.85643	1963.47	305.64
14-Jan-13	12:54:58	Sand Barge		91	37	40	248	57	20	N	22.27744	E	113.85554	1967.14	300.95
14-Jan-13	12:55:13	Sand Barge		91	29	20	235	53	30	N	22.27428	E	113.85202	2153.07	287.89
14-Jan-13	12:55:33	Sand Barge		91	32	0	225	25	50	N	22.27076	E	113.85179	2089.88	277.43
14-Jan-13	12:57:35	Speedboat	Traveling	98	44	10	13	22	50	N	22.26969	E	113.87514	361.92	65.38
14-Jan-13	12:58:16	Speedboat	Traveling	95	7	10	14	43	50	N	22.27054	E	113.87749	621.02	66.73
14-Jan-13	12:58:40	Sand Barge		91	30	0	231	16	40	N	22.27275	E	113.85172	2137.28	283.27
14-Jan-13	12:58:48	Sand Barge		91	13	40	220	2	20	N	22.26917	E	113.84648	2619.78	272.04
14-Jan-13	12:59:04	Sand Barge		91	38	40	248	55	20	N	22.27734	E	113.85570	1947.38	300.92
14-Jan-13	12:59:42	Speedboat	Stationary	94	41	40	14	30	20	N	22.27076	E	113.87799	677.65	66.50
14-Jan-13	13:00:39	Transportation boat	Traveling	91	22	30	337	19	40	N	22.28665	E	113.88307	2334.78	29.32
14-Jan-13	13:00:55	Sand Barge		91	22	40	221	39	40	N	22.26967	E	113.84933	2330.03	273.66
14-Jan-13	13:01:15	Sand Barge		91	30	10	262	28	50	N	22.28179	E	113.85714	2133.56	314.48
14-Jan-13	13:01:36	Transportation boat	Traveling	91	22	50	341	10	40	N	22.28585	E	113.88432	2325.35	33.17
14-Jan-13	13:03:41	Sand Barge		91	18	20	274	40	10	N	22.28684	E	113.85879	2461.49	326.67
14-Jan-13	13:03:55	Transportation boat	Traveling	91	23	20	349	43	50	N	22.28386	E	113.88691	2311.45	41.73
14-Jan-13	13:06:36	Transportation boat	Stationary	91	26	30	351	23	40	N	22.28289	E	113.88682	2225.89	43.39
14-Jan-13	13:09:48	Other	Traveling	91	17	10	305	10	40	N	22.29081	E	113.87075	2500.15	357.17
14-Jan-13	13:10:19	Police Vessel	Traveling	91	4	20	296	41	50	N	22.29490	E	113.86620	3010.92	348.69
14-Jan-13	13:11:38	Police Vessel	Traveling	91	24	20	282	18	40	N	22.28686	E	113.86231	2284.52	334.31
14-Jan-13	13:11:49	Other	Traveling	91	40	30	295	37	0	N	22.28515	E	113.86795	1912.69	347.61
14-Jan-13	13:13:35	Police Vessel	Traveling	91	46	10	243	41	50	N	22.27539	E	113.85609	1809.73	295.69
14-Jan-13	13:14:11	Other	Traveling	92	18	10	276	57	40	N	22.27903	E	113.86499	1387.69	328.96
14-Jan-13	13:16:54	Other	Traveling	92	24	20	276	10	30	N	22.27849	E	113.86513	1328.21	328.17
14-Jan-13	13:17:46	Other	Traveling	91	57	50	253	16	0	N	22.27680	E	113.85901	1629.35	305.26
14-Jan-13	13:19:44	Other	Traveling	92	42	20	256	27	0	N	22.27494	E	113.86295	1180.30	308.45
14-Jan-13	13:21:10	Police Vessel	Traveling	91	49	50	241	36	0	N	22.27463	E	113.85635	1749.41	293.60
14-Jan-13	13:21:27	Other	Traveling	92	30	50	228	44	30	N	22.27046	E	113.85980	1270.93	280.74
14-Jan-13	13:22:59	Other	Traveling	92	3	50	209	41	10	N	22.26631	E	113.85703	1550.20	261.68
14-Jan-13	13:23:16	Police Vessel	Traveling	91	38	0	266	14	10	N	22.28151	E	113.85923	1963.17	318.23
14-Jan-13	13:26:38	Police Vessel	Traveling	91	11	40	293	9	30	N	22.29180	E	113.86522	2698.21	345.16
14-Jan-13	13:26:59	Transportation boat	Traveling	91	17	10	339	28	0	N	22.28754	E	113.88465	2502.33	31.46
14-Jan-13	13:28:05	Transportation boat	Traveling	91	22	10	333	17	50	N	22.28743	E	113.88170	2347.67	25.29
14-Jan-13	13:28:22	Transportation boat	Traveling	91	34	20	332	46	30	N	22.28501	E	113.88026	2040.93	24.77
14-Jan-13	13:30:26	Speedboat	Traveling	96	27	10	13	15	40	N	22.27019	E	113.87630	492.62	65.26
14-Jan-13	13:31:05	Transportation boat	Traveling	92	12	40	307	32	50	N	22.28135	E	113.87183	1446.84	359.54
14-Jan-13	13:31:15	Transportation boat	Traveling	91	41	50	321	53	30	N	22.28484	E	113.87635	1889.23	13.89
14-Jan-13	13:31:29	Speedboat	Traveling	103	59	40	3	34	20	N	22.26947	E	113.87374	223.51	55.57
14-Jan-13	13:32:24	Speedboat	Traveling	119	12	0	278	23	50	N	22.26911	E	113.87147	99.67	330.39
14-Jan-13	13:35:02	Transportation boat	Traveling	92	2	40	254	12	0	N	22.27666	E	113.85965	1566.01	306.20
14-Jan-13	13:35:16	Transportation boat	Traveling	92	12	20	298	46	50	N	22.28122	E	113.86968	1450.82	350.78
14-Jan-13	13:35:47	Transportation boat	Stationary	91	58	40	253	27	10	N	22.27678	E	113.85912	1619.28	305.45
14-Jan-13	13:39:28	Police Vessel	Traveling	91	28	30	336	28	0	N	22.28557	E	113.88204	2178.50	28.46
14-Jan-13	13:39:56	Transportation boat	Traveling	91	53	40	252	15	0	N	22.27690	E	113.85835	1691.49	304.25
14-Jan-13	13:40:09	Transportation boat	Traveling	92	9	0	260	17	20	N	22.27735	E	113.86123	1488.94	312.29
14-Jan-13	13:41:17	Police Vessel	Stationary	91	35	40	333	11	10	N	22.28473	E	113.88028	2013.46	25.18
14-Jan-13	13:42:18	Transportation boat	Stationary	91	59	0	253	28	40	N	22.27677	E	113.85915	1615.24	305.47
14-Jan-13	13:43:26	Transportation boat	Traveling	91	44	10	250	13	0	N	22.27720	E	113.85674	1847.61	302.21
14-Jan-13	13:44:54	Transportation boat	Stationary	92	1	30	251	43	10	N	22.27624	E	113.85915	1581.95	303.72

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
14-Jan-13	13:45:03	Transportation boat	Stationary	92	0	40	251	18	0	N	22.27620	E	113.85900	1592.97	303.30
14-Jan-13	13:46:09	Police Vessel	Traveling	91	35	50	330	55	20	N	22.28500	E	113.87956	2010.41	22.92
14-Jan-13	13:47:18	Transportation boat	Traveling	92	1	0	248	28	50	N	22.27558	E	113.85863	1588.73	300.48
14-Jan-13	13:47:28	Transportation boat	Stationary	91	56	50	250	55	10	N	22.27638	E	113.85851	1645.87	302.92
14-Jan-13	13:47:44	Other	Traveling	92	15	0	235	34	30	N	22.27220	E	113.85875	1422.86	287.57
14-Jan-13	13:48:03	Police Vessel	Traveling	91	27	50	326	56	20	N	22.28703	E	113.87888	2196.22	18.94
14-Jan-13	13:48:52	Other	Traveling	92	12	0	251	8	10	N	22.27549	E	113.86009	1455.50	303.13
14-Jan-13	13:50:49	Transportation boat	Traveling	91	42	10	250	34	10	N	22.27746	E	113.85650	1884.86	302.57
14-Jan-13	13:51:07	Transportation boat	Traveling	91	53	20	250	23	0	N	22.27651	E	113.85800	1697.46	302.38
14-Jan-13	13:51:50	Other	Traveling	91	46	40	285	45	50	N	22.28337	E	113.86530	1804.64	337.76
14-Jan-13	13:52:07	Police Vessel	Stationary	91	32	10	323	9	10	N	22.28651	E	113.87726	2092.03	15.15
14-Jan-13	13:52:33	Sand Barge		91	40	0	233	41	10	N	22.27302	E	113.85391	1926.32	285.68
14-Jan-13	13:57:33	Transportation boat	Traveling	91	43	20	254	55	50	N	22.27841	E	113.85745	1863.99	306.93
14-Jan-13	13:57:37	Transportation boat	Traveling	91	43	20	255	51	20	N	22.27863	E	113.85763	1864.00	307.85
14-Jan-13	13:59:15	Sand Barge		91	20	20	279	40	20	N	22.28739	E	113.86084	2405.93	331.67
14-Jan-13	13:59:28	Police Vessel	Traveling	91	13	20	317	26	50	N	22.29177	E	113.87616	2640.04	9.44
14-Jan-13	14:05:11	Transportation boat	Traveling	91	29	0	297	56	50	N	22.28755	E	113.86826	2168.91	349.94
14-Jan-13	14:05:25	Transportation boat	Traveling	92	13	30	319	43	40	N	22.28102	E	113.87479	1440.24	11.72
14-Jan-13	14:08:45	Transportation boat	Traveling	91	39	20	346	28	20	N	22.28201	E	113.88369	1940.98	38.47
14-Jan-13	14:11:00	Transportation boat	Stationary	91	22	30	349	37	0	N	22.28410	E	113.88708	2343.11	41.61
14-Jan-13	14:13:32	Hi-Speed Ferry		96	30	50	277	30	20	N	22.27213	E	113.86953	489.02	329.50
14-Jan-13	14:16:21	Hi-Speed Ferry		92	23	20	333	15	30	N	22.27925	E	113.87751	1341.54	25.26
14-Jan-13	14:19:07	Hi-Speed Ferry		91	19	0	343	10	50	N	22.28635	E	113.88567	2449.69	35.18
14-Jan-13	14:49:43	Other	Stationary	91	35	0	345	20	0	N	22.28289	E	113.88394	2034.76	37.33
14-Jan-13	14:50:05	Other	Stationary	91	28	40	346	28	30	N	22.28371	E	113.88515	2182.11	38.47
14-Jan-13	14:50:14	Other	Stationary	91	29	20	347	4	50	N	22.28346	E	113.88522	2165.61	39.08
14-Jan-13	14:50:31	Other	Stationary	91	35	40	345	58	40	N	22.28267	E	113.88404	2020.49	37.97
14-Jan-13	14:51:09	Other	Stationary	91	27	0	346	18	40	N	22.28404	E	113.88536	2224.62	38.31
14-Jan-13	14:51:20	Other	Stationary	91	26	30	347	2	10	N	22.28398	E	113.88565	2237.69	39.03
14-Jan-13	14:51:38	Other	Stationary	91	58	40	253	16	0	N	22.27678	E	113.85904	1625.47	305.26
14-Jan-13	14:51:45	Other	Stationary	91	58	50	253	47	50	N	22.27688	E	113.85914	1623.18	305.79
15-Jan-13	9:27:07	Zero		114	57	0	0	0	0	N	22.26901	E	113.87288	122.60	52.00
15-Jan-13	9:27:23	Speedboat	Traveling	92	31	30	353	59	50	N	22.27644	E	113.88101	1296.47	45.99
15-Jan-13	9:27:40	Fishing Boat	Operating	91	24	20	309	54	0	N	22.28940	E	113.87270	2342.25	1.90
15-Jan-13	9:28:19	Speedboat	Stationary	92	41	40	347	11	40	N	22.27680	E	113.87941	1214.49	39.19
15-Jan-13	9:28:41	Other	Stationary	91	27	10	347	1	10	N	22.28417	E	113.88581	2264.98	39.02
15-Jan-13	9:28:52	Other	Stationary	91	26	30	346	16	40	N	22.28446	E	113.88570	2282.70	38.27
15-Jan-13	9:29:06	Other	Stationary	91	35	30	345	21	30	N	22.28310	E	113.88413	2064.80	37.36
15-Jan-13	9:29:14	Other	Stationary	91	29	40	346	14	20	N	22.28389	E	113.88519	2200.94	38.24
15-Jan-13	9:29:25	Other	Stationary	91	29	50	347	4	20	N	22.28368	E	113.88541	2196.80	39.07
15-Jan-13	9:29:33	Other	Stationary	91	35	50	345	59	40	N	22.28293	E	113.88426	2057.53	37.99
15-Jan-13	9:29:47	Sand Barge		91	31	0	224	53	10	N	22.27067	E	113.85101	2168.26	276.88
15-Jan-13	9:29:58	Fishing Boat	Non-operating	91	31	0	236	27	20	N	22.27451	E	113.85194	2168.26	288.45
15-Jan-13	9:30:06	Fishing Boat	Non-operating	91	27	10	234	17	0	N	22.27405	E	113.85080	2264.98	286.28
15-Jan-13	9:30:22	Fishing Boat	Operating	91	16	20	314	35	20	N	22.29151	E	113.87484	2592.18	6.59
15-Jan-13	9:30:40	Speedboat	Stationary	115	8	10	273	52	50	N	22.26924	E	113.87128	121.57	325.88
15-Jan-13	9:31:05	Other	Stationary	91	59	20	253	49	50	N	22.27702	E	113.85894	1648.69	305.83
15-Jan-13	9:31:12	Other	Stationary	91	59	20	253	14	30	N	22.27689	E	113.85885	1648.69	305.24
15-Jan-13	9:31:21	Transportation boat	Stationary	91	46	50	259	11	30	N	22.27926	E	113.85845	1843.46	311.19
15-Jan-13	9:31:30	Transportation boat	Stationary	91	58	50	254	0	50	N	22.27709	E	113.85892	1655.68	306.01
15-Jan-13	9:31:46	Sand Barge		91	39	10	239	53	10	N	22.27500	E	113.85401	1987.57	291.88
15-Jan-13	9:31:54	Fishing Boat	Non-operating	91	39	10	251	33	50	N	22.27822	E	113.85584	1987.57	303.56
15-Jan-13	9:32:00	Fishing Boat	Non-operating	91	37	40	248	7	10	N	22.27745	E	113.85496	2018.45	300.12
15-Jan-13	9:33:02	Fishing Boat	Operating	91	9	30	313	34	40	N	22.29388	E	113.87464	2852.63	5.57
15-Jan-13	9:41:55	Sand Barge		90	58	10	297	51	30	N	22.29808	E	113.86619	3357.58	349.86
15-Jan-13	9:42:05	Fishing Boat	Operating	91	27	10	296	2	10	N	22.28788	E	113.86747	2220.62	348.03
15-Jan-13	9:42:16	Hi-Speed Ferry		91	25	10	352	29	20	N	22.28293	E	113.88744	2273.53	44.49
15-Jan-13	9:45:06	Hi-Speed Ferry		93	3	40	335	54	10	N	22.27666	E	113.87671	1047.38	27.90
15-Jan-13	9:45:21	Fishing Boat	Operating	91	36	50	288	40	50	N	22.28528	E	113.86552	1995.98	340.68
15-Jan-13	9:46:00	Hi-Speed Ferry		93	5	40	334	4	10	N	22.27671	E	113.87637	1036.01	26.07
15-Jan-13	9:46:27	Police Vessel	Stationary	91	22	0	334	42	40	N	22.28732	E	113.88227	2362.38	26.71
15-Jan-13	9:46:39	Hi-Speed Ferry		93	9	40	327	2	0	N	22.27696	E	113.87516	1014.03	19.03
15-Jan-13	9:48:24	Hi-Speed Ferry		94	57	0	274	29	10	N	22.27318	E	113.86848	646.02	326.48
15-Jan-13	9:48:32	Fishing Boat	Operating	91	42	40	279	57	20	N	22.28327	E	113.86334	1881.14	331.95
15-Jan-13	9:50:11	Hi-Speed Ferry		93	38	50	217	30	10	N	22.26826	E	113.86341	878.16	269.50
15-Jan-13	9:51:10	Fishing Boat	Operating	91	50	20	272	49	20	N	22.28120	E	113.86214	1749.01	324.82
15-Jan-13	9:53:22	Fishing Boat	Operating	92	4	0	276	34	30	N	22.28027	E	113.86406	1554.59	328.57
15-Jan-13	9:56:19	Fishing Boat	Operating	91	55	40	288	37	40	N	22.28249	E	113.86656	1667.37	340.62
15-Jan-13	9:58:12	Fishing Boat	Operating	91	42	0	293	5	20	N	22.28479	E	113.86721	1892.94	345.09
15-Jan-13	9:59:01	Speedboat	Traveling	102	5	30	354	5	40	N	22.26996	E	113.87377	260.95	46.09
15-Jan-13	9:59:15	Fishing Boat	Operating	91	37	40	290	46	10	N	22.28533	E	113.86625	1977.81	342.77
15-Jan-13	9:59:28	Speedboat	Traveling	99	26	20	359	35	20	N	22.27021	E	113.87451	336.29	51.59
15-Jan-13	10:07:27	Fishing Boat	Operating	92	7	50	266	7	10	N	22.27843	E	113.86216	1506.91	318.12
15-Jan-13	10:08:39	Fishing Boat	Operating	92	20	0	268	56	30	N	22.27794	E	113.86352	1375.03	320.94
15-Jan-13	10:09:18	Research Vessel	Traveling	91	6	10	347	41	20	N	22.28868	E	113.89019	2938.06	39.69
15-Jan-13	10:09:37	Research Vessel	Traveling	91	7	10	345	35	50	N	22.28896	E	113.88911	2893.23	37.59
15-Jan-13	10:10:09	Transportation boat	Traveling	91	9	20	343	58	50	N	22.28873	E	113.88795	2800.69	35.98
15-Jan-13	10:12:13	Hi-Speed Ferry		104	58	0	269	54	0	N	22.26981	E	113.87069	209.02	321.90
15-Jan-13	10:12:25	Fishing Boat	Operating	92	6	20	286	23	50	N	22.28109	E	113.86648	1524.67	338.39
15-Jan-13	10:12:39	Transportation boat	Stationary	91	26	20	346	16	0	N	22.28416	E	113.88544	2240.01	38.26
15-Jan-13	10:13:03	Research Vessel	Traveling	91	28	20	349	38	50	N	22.28305	E	113.88609	2188.55	41.64
15-Jan-13	10:13:16	Research Vessel	Traveling	91	27	0	340	36	50	N	22.28518	E	113.88359	2222.55	32.61
15-Jan-13	10:13:33	Hi-Speed Ferry		95	21	0	350	2	10	N	22.27232	E	113.87583	596.90	42.03
15-Jan-13	10:15:54	Hi-Speed Ferry		92	1	20	354	30	30	N	22.27817	E	113.88315	1587.81	46.51
15-Jan-13	10:16:09	Research Vessel	Traveling	92	2	20	346	52	40	N	22.27937	E	113.88156	1574.71	38.87
15-Jan-13	10:16:21	Research Vessel	Traveling	91	55	50	338	19	10	N	22.28126	E	113.88011	1663.81	30.32
15-Jan-13	10:17:59	Fishing Boat	Operating	91	34	0	302	12	50	N	22.28673	E	113.86993	2054.58	354.21
15-Jan-13	10:18:44	Research Vessel	Traveling	92	45	50	339	29	20	N	22.27723	E	113.87783	1159.29	31.49
15-Jan-13	10:19:50	Research Vessel	Traveling	92	57	30	329	43	40	N	22.27738	E	113.87584	1082.67	21.72
15-Jan-13	10:21:12	Research Vessel	Traveling	91	56	20	326	52	0	N	22.28244	E	113.87715	1656.32	18.86
15-Jan-13	10:21:35	Research Vessel	Traveling	93	55	50	320	21	0	N	22.27549	E	113.87364	813.68	12.35
15-Jan-13	10:22:37	Speedboat	Traveling	97	15	50	344	15	10	N	22.27151	E	113.87446	438.31	36.25
15-Jan-13	10:22:49	Fishing Boat	Operating	91	17	0	307	46	0	N	22.29097	E	113.87184	2515.36	359.76
15-Jan-13	10:24:56	Research Vessel	Traveling	96	38	30	276	5	30	N	22.27200	E	113.86948	479.79	328.09
15-Jan-13	10:27:59	Research Vessel	Traveling	94	50	10	221	58	30	N	22.26874	E	113.86554	660.43	273.97
15-Jan-13	10:28:38	Other	Traveling	91	25	50	245	14	10	N	22.27761	E	113.85247	2252.02	297.23
15-Jan-13	10:28:52	Fishing Boat	Operating	91	35	10	294	56	0	N	22.28611	E	113.86748	2028.33	346.93
15-Jan-13	10:30:37	Other	Traveling	91	22	40	257	18	10	N	22.28167	E	113.85434	2339.47	309.30
15-Jan-13	10:34:16	Speedboat	Traveling	104	42	40	346	36	50	N	22.26983	E	113.87323	212.66	38.61
15-Jan-13	10:34:32	Fishing Boat	Operating	91	56	10	279	16	50	N	22.28142	E	113.86420	1657.96	331.28
15-Jan-13	10:34:47	Other	Traveling	91	10	0	278	6	30	N	22.28995	E	113.85851	2771.07	330.11

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
15-Jan-13	10:37:09	Fishing Boat	Operating	92	11	40	283	17	10	N	22.28028	E	113.86600	1461.24	335.28
15-Jan-13	10:38:58	Fishing Boat	Operating	92	3	40	290	22	30	N	22.28168	E	113.86736	1556.38	342.37
15-Jan-13	10:39:16	Fishing Boat	Non-operating	91	47	40	244	31	0	N	22.27552	E	113.85637	1789.80	296.51
15-Jan-13	10:43:29	Fishing Boat	Non-operating	91	31	0	278	1	30	N	22.28487	E	113.86164	2121.34	330.02
15-Jan-13	10:43:40	Fishing Boat	Operating	91	39	20	302	41	30	N	22.28573	E	113.87020	1941.29	354.69
15-Jan-13	10:45:24	Speedboat	Traveling	97	13	50	342	4	30	N	22.27161	E	113.87434	440.01	34.07
15-Jan-13	10:46:30	Fishing Boat	Operating	91	27	20	307	42	20	N	22.28823	E	113.87183	2211.42	359.70
15-Jan-13	10:48:55	Fishing Boat	Operating	91	21	20	303	19	50	N	22.28965	E	113.87006	2376.95	355.33
15-Jan-13	10:52:12	Fishing Boat	Operating	91	31	40	297	22	20	N	22.28695	E	113.86817	2105.08	349.37
15-Jan-13	10:52:49	Transportation boat	Traveling	93	44	30	349	18	20	N	22.27411	E	113.87743	854.06	41.30
15-Jan-13	10:54:14	Fishing Boat	Operating	91	39	50	294	2	10	N	22.28519	E	113.86741	1930.76	346.03
15-Jan-13	10:54:25	Transportation boat	Traveling	95	22	10	339	49	50	N	22.27287	E	113.87499	593.90	31.83
15-Jan-13	10:55:34	Fishing Boat	Non-operating	92	20	40	234	36	40	N	22.27185	E	113.85921	1366.28	286.61
15-Jan-13	10:56:00	Other	Traveling	91	24	0	229	20	0	N	22.27240	E	113.85002	2299.75	281.33
15-Jan-13	10:56:18	Transportation boat	Traveling	98	52	20	311	39	30	N	22.27154	E	113.87217	357.46	3.66
15-Jan-13	10:56:29	Fishing Boat	Operating	91	42	0	286	57	50	N	22.28420	E	113.86535	1889.16	338.96
15-Jan-13	10:56:48	Research Vessel	Traveling	91	30	0	296	27	50	N	22.28724	E	113.86777	2144.24	348.46
15-Jan-13	10:57:30	Fishing Boat	Operating	91	38	30	283	34	0	N	22.28437	E	113.86407	1956.97	335.56
15-Jan-13	10:57:40	Research Vessel	Traveling	91	42	0	283	50	0	N	22.28384	E	113.86442	1889.08	335.83
15-Jan-13	10:58:13	Research Vessel	Traveling	91	37	20	280	34	30	N	22.28415	E	113.86307	1980.65	332.57
15-Jan-13	10:58:23	Fishing Boat	Operating	91	35	0	281	18	10	N	22.28465	E	113.86307	2029.87	333.30
15-Jan-13	10:58:37	Fishing Boat	Non-operating	92	7	10	275	21	20	N	22.27979	E	113.86401	1512.21	327.35
15-Jan-13	10:58:52	Other	Traveling	91	27	50	244	0	0	N	22.27700	E	113.85273	2197.72	296.00
15-Jan-13	10:59:32	Fishing Boat	Non-operating	91	50	20	241	29	50	N	22.27459	E	113.85638	1744.92	293.49
15-Jan-13	11:00:56	Fishing Boat	Operating	91	22	0	278	5	0	N	22.28671	E	113.86051	2356.34	330.08
15-Jan-13	11:01:05	Research Vessel	Traveling	91	22	30	276	29	10	N	22.28630	E	113.86004	2341.82	328.48
15-Jan-13	11:01:20	Fishing Boat	Non-operating	91	31	50	295	56	0	N	22.28682	E	113.86767	2100.55	347.93
15-Jan-13	11:01:29	Fishing Boat	Non-operating	91	43	40	261	1	0	N	22.27974	E	113.85873	1858.15	313.01
15-Jan-13	11:01:35	Other	Traveling	91	22	10	257	30	40	N	22.28179	E	113.85430	2351.43	309.51
15-Jan-13	11:05:08	Fishing Boat	Non-operating	91	17	50	286	8	0	N	22.28908	E	113.86294	2484.32	338.13
15-Jan-13	11:05:17	Other	Traveling	91	16	0	274	21	20	N	22.28740	E	113.85823	2545.35	326.35
15-Jan-13	11:05:48	Transportation boat	Traveling	92	12	20	337	50	40	N	22.27967	E	113.87897	1452.40	29.84
15-Jan-13	11:08:58	Transportation boat	Traveling	95	0	0	315	8	40	N	22.27403	E	113.87272	637.76	7.14
15-Jan-13	11:10:59	Transportation boat	Traveling	98	58	40	247	15	20	N	22.26989	E	113.86895	353.01	299.25
15-Jan-13	11:32:38	Other	Traveling	93	10	10	223	8	10	N	22.26914	E	113.86218	1007.69	275.13
15-Jan-13	11:39:30	Other	Traveling	92	59	50	324	9	40	N	22.27754	E	113.87483	1065.64	16.16
15-Jan-13	11:41:40	Transportation boat	Traveling	92	7	30	260	48	30	N	22.27754	E	113.86120	1506.00	312.81
15-Jan-13	11:41:59	Hi-Speed Ferry		91	25	0	350	55	10	N	22.28328	E	113.88697	2268.69	42.92
15-Jan-13	11:42:11	Other	Traveling	92	7	30	341	1	10	N	22.27970	E	113.87992	1505.98	33.02
15-Jan-13	11:44:45	Transportation boat	Traveling	92	9	40	310	46	50	N	22.28164	E	113.87264	1480.50	2.78
15-Jan-13	11:44:53	Hi-Speed Ferry		93	15	20	335	21	50	N	22.27617	E	113.87633	980.50	27.36
15-Jan-13	11:46:40	Hi-Speed Ferry		97	14	10	279	38	40	N	22.27181	E	113.86992	438.75	331.64
15-Jan-13	11:46:59	Transportation boat	Traveling	92	6	10	265	22	30	N	22.27841	E	113.86192	1521.76	317.37
15-Jan-13	11:47:57	Hi-Speed Ferry		94	50	30	220	48	40	N	22.26862	E	113.86555	657.87	272.81
15-Jan-13	11:49:37	Transportation boat	Traveling	92	16	10	289	43	30	N	22.28037	E	113.86765	1409.12	341.72
15-Jan-13	11:59:03	Transportation boat	Traveling	105	58	10	256	8	20	N	22.26941	E	113.87046	194.54	308.14
15-Jan-13	12:00:02	Speedboat	Traveling	94	36	30	344	59	10	N	22.27342	E	113.87609	708.14	36.98
15-Jan-13	12:01:40	Transportation boat	Traveling	96	18	50	340	24	30	N	22.27225	E	113.87463	515.68	32.41
15-Jan-13	12:05:15	Transportation boat	Traveling	92	36	30	349	53	40	N	22.27674	E	113.88009	1254.59	41.89
15-Jan-13	12:12:33	Sand Barge		91	20	40	276	34	50	N	22.28714	E	113.85952	2449.45	328.58
15-Jan-13	12:17:50	Sand Barge		91	38	0	252	39	40	N	22.27862	E	113.85586	2010.30	304.66
15-Jan-13	12:53:28	Other	Traveling	91	18	40	266	59	40	N	22.28537	E	113.85593	2509.36	318.99
15-Jan-13	12:53:39	Sand Barge		91	20	10	272	26	0	N	22.28635	E	113.85802	2461.58	324.43
15-Jan-13	13:00:10	Other	Traveling	91	25	30	237	55	50	N	22.27523	E	113.85138	2249.15	289.93
15-Jan-13	13:00:18	Sand Barge		91	30	10	240	40	40	N	22.27573	E	113.85282	2131.14	292.67
15-Jan-13	13:00:31	Police Vessel	Traveling	93	2	40	316	23	10	N	22.27765	E	113.87343	1046.11	8.38
15-Jan-13	13:01:23	Police Vessel	Traveling	94	2	0	290	57	30	N	22.27512	E	113.86970	788.52	342.96
15-Jan-13	13:01:31	Other	Traveling	91	37	10	227	18	20	N	22.27121	E	113.85298	1975.68	279.30
15-Jan-13	13:02:29	Police Vessel	Traveling	94	5	10	243	31	10	N	22.27135	E	113.86511	778.25	295.52
15-Jan-13	13:02:38	Sand Barge		91	25	40	229	6	10	N	22.27222	E	113.85053	2244.52	281.10
15-Jan-13	13:02:44	Other	Traveling	91	21	10	227	12	50	N	22.27175	E	113.84918	2370.94	279.21
15-Jan-13	13:02:51	Other	Traveling	91	40	30	235	59	10	N	22.27364	E	113.85428	1909.34	287.98
15-Jan-13	13:16:12	Police Vessel	Traveling	92	36	20	272	31	20	N	22.27730	E	113.86504	1223.52	324.52
15-Jan-13	13:19:13	Police Vessel	Traveling	91	32	0	298	44	30	N	22.28689	E	113.86868	2088.70	350.74
15-Jan-13	13:24:31	Other	Traveling	91	16	20	270	49	0	N	22.28644	E	113.85710	2525.24	322.81
15-Jan-13	13:26:43	Other	Traveling	91	25	20	262	12	0	N	22.28248	E	113.85622	2254.94	314.20
15-Jan-13	13:29:29	Other	Traveling	91	33	10	248	10	30	N	22.27766	E	113.85460	2063.10	300.17
15-Jan-13	13:35:05	Research Vessel	Traveling	96	0	20	222	47	0	N	22.26873	E	113.86682	528.76	274.78
15-Jan-13	13:37:44	Research Vessel	Traveling	99	17	20	296	1	20	N	22.27133	E	113.87126	340.07	348.02
15-Jan-13	13:40:34	Research Vessel	Traveling	94	6	40	340	22	20	N	22.27422	E	113.87598	774.46	32.37
15-Jan-13	13:43:20	Research Vessel	Traveling	92	25	50	350	39	0	N	22.27703	E	113.88060	1313.63	42.65
15-Jan-13	13:44:33	Transportation boat	Traveling	92	28	20	324	59	50	N	22.27945	E	113.87562	1291.43	16.99
15-Jan-13	13:45:13	Transportation boat	Traveling	92	53	30	319	14	20	N	22.27807	E	113.87403	1103.18	11.24
15-Jan-13	13:45:42	Transportation boat	Traveling	94	28	50	221	42	0	N	22.26875	E	113.86505	710.42	273.70
15-Jan-13	13:45:54	Research Vessel	Traveling	91	46	10	353	28	0	N	22.27975	E	113.88449	1809.07	45.46
15-Jan-13	13:46:10	Transportation boat	Traveling	93	25	30	314	11	0	N	22.27666	E	113.87292	930.65	6.18
15-Jan-13	13:46:56	Other	Traveling	93	6	50	327	16	20	N	22.27703	E	113.87523	1024.14	19.27
15-Jan-13	13:49:03	Other	Traveling	91	49	30	349	8	50	N	22.28022	E	113.88317	1753.71	41.14
15-Jan-13	13:49:11	Other	Traveling	93	41	30	314	40	20	N	22.27605	E	113.87292	863.22	6.67
15-Jan-13	13:49:35	Research Vessel	Stationary	91	24	10	352	50	0	N	22.28294	E	113.88764	2288.86	44.83
15-Jan-13	13:50:51	Research Vessel	Stationary	91	24	10	352	35	10	N	22.28300	E	113.88757	2288.98	44.58
15-Jan-13	13:51:19	Transportation boat	Stationary	91	24	10	353	9	10	N	22.28286	E	113.88773	2289.02	45.15
15-Jan-13	13:51:28	Transportation boat	Traveling	92	5	50	332	49	0	N	22.28079	E	113.87817	1524.45	24.81
15-Jan-13	13:53:19	Transportation boat	Traveling	91	31	50	338	53	50	N	22.28452	E	113.88241	2095.53	30.89
15-Jan-13	13:53:27	Transportation boat	Traveling	92	15	0	273	0	10	N	22.27880	E	113.86402	1420.35	325.00
15-Jan-13	13:55:37	Transportation boat	Traveling	92	16	10	307	15	50	N	22.28101	E	113.87177	1408.22	359.26
15-Jan-13	13:58:15	Transportation boat	Traveling	91	37	30	336	21	40	N	22.28396	E	113.88106	1972.70	28.36
15-Jan-13	14:11:42	Hi-Speed Ferry		96	38	10	274	2	0	N	22.27191	E	113.86934	478.82	326.03
15-Jan-13	14:13:10	Hi-Speed Ferry		93	36	40	323	39	0	N	22.27599	E	113.87426	883.45	15.65
15-Jan-13	14:13:19	Speedboat	Traveling	99	45	0	350	48	50	N	22.27047	E	113.87409	324.16	42.81
15-Jan-13	14:14:51	Speedboat	Traveling	112	41	30	255	35	10	N	22.26906	E	113.87092	133.21	307.58
15-Jan-13	14:15:01	Police Vessel	Traveling	94	30	40	294	7	10	N	22.27451	E	113.87030	706.45	346.12
15-Jan-13	14:15:16	Hi-Speed Ferry		91	46	50	339	4	10	N	22.28221	E	113.88098	1799.88	31.07
15-Jan-13	14:17:36	Police Vessel	Traveling	91	30	10	337	7	50	N	22.28513	E	113.88206	2136.94	29.13
15-Jan-13	14:59:20	Zero		95	20	50	352	35	40	N	22.27216	E	113.87602	596.46	44.59
15-Jan-13	14:59:35	Speedboat	Traveling	101	0	30	0	0	0	N	22.26992	E	113.87414	286.88	52.00
15-Jan-13	15:00:19	Speedboat	Traveling	93	22	30	352	36	0	N	22.27440	E	113.87841	947.42	44.60
15-Jan-13	15:13:09	Other	Stationary	92	11	50	352	33	30	N	22.27769	E	113.88190	1459.53	44.56
15-Jan-13	15:13:16	Other	Stationary	91	26	10	347	0	50	N	22.28402	E	113.88567	2242.77	39.01
15-Jan-13	15:13:26	Other	Stationary	91	25	30	346	19	10	N	22.28429	E	113.88558	2260.53	38.32
15-Jan-13	15:13:37	Other	Stationary	91	34	40	345	21	10	N	22.28292	E	113.88397	2038.85	37.35

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
15-Jan-13	15:13:42	Other	Stationary	91	28	50	346	13	50	N	22.28371	E	113.88503	2174.54	38.23
15-Jan-13	15:13:56	Other	Stationary	91	29	20	347	4	10	N	22.28344	E	113.88520	2162.22	39.07
15-Jan-13	15:14:06	Other	Stationary	91	34	50	345	58	50	N	22.28277	E	113.88412	2035.26	37.98
15-Jan-13	15:14:11	Other	Stationary	91	39	0	348	50	0	N	22.28160	E	113.88434	1948.62	40.83
15-Jan-13	15:14:26	Other	Stationary	91	39	0	348	14	10	N	22.28172	E	113.88419	1948.64	40.23
15-Jan-13	15:14:30	Other	Stationary	91	58	20	253	51	50	N	22.27691	E	113.85912	1627.47	305.86
15-Jan-13	15:14:57	Fishing Boat	Non-operating	91	58	20	253	26	20	N	22.27682	E	113.85905	1627.50	305.44
15-Jan-13	15:19:34	Fishing Boat	Non-operating	91	9	10	293	57	30	N	22.29283	E	113.86532	2806.03	345.96
15-Jan-13	15:22:55	Fishing Boat	Non-operating	91	37	0	268	50	30	N	22.28222	E	113.85972	1989.99	320.84
16-Jan-13	9:00:58	Zero		107	28	10	0	0	0	N	22.26996	E	113.87202	180.63	2.47
16-Jan-13	9:01:39	Speedboat	Stationary	114	27	0	331	37	30	N	22.26935	E	113.87141	125.03	334.09
16-Jan-13	9:04:12	Other	Stationary	92	0	0	309	0	40	N	22.27807	E	113.86004	1633.83	311.48
16-Jan-13	9:04:28	Other	Stationary	91	59	40	308	36	10	N	22.27802	E	113.85993	1638.42	311.07
16-Jan-13	9:45:58	Hi-Speed Ferry		92	9	20	32	10	40	N	22.27955	E	113.88032	1515.04	34.64
16-Jan-13	9:47:46	Hi-Speed Ferry		94	28	30	19	40	20	N	22.27439	E	113.87461	726.87	22.14
16-Jan-13	9:49:37	Hi-Speed Ferry		98	8	0	292	9	10	N	22.26982	E	113.86843	397.84	294.62
16-Jan-13	9:52:01	Transportation boat	Traveling	92	58	20	5	47	0	N	22.27810	E	113.87347	1096.64	8.25
16-Jan-13	9:57:13	Transportation boat	Traveling	93	28	10	319	53	20	N	22.27502	E	113.86637	938.75	322.36
16-Jan-13	10:01:08	Transportation boat	Traveling	92	3	0	309	19	0	N	22.27789	E	113.86039	1593.66	311.78
16-Jan-13	10:05:52	Transportation boat	Traveling	91	51	50	15	39	20	N	22.28334	E	113.87725	1754.22	18.12
16-Jan-13	10:08:44	Transportation boat	Traveling	92	11	20	327	55	10	N	22.28000	E	113.86478	1491.81	330.39
16-Jan-13	10:08:53	Transportation boat	Traveling	92	29	40	347	10	20	N	22.27991	E	113.86966	1307.95	349.64
16-Jan-13	10:12:46	Zero		92	29	50	0	0	0	N	22.28008	E	113.87249	1306.49	2.47
16-Jan-13	10:12:57	Transportation boat	Traveling	91	44	10	17	40	10	N	22.28426	E	113.87825	1884.64	20.14
16-Jan-13	10:13:06	Hi-Speed Ferry		97	26	40	307	53	10	N	22.27087	E	113.86872	435.15	310.35
16-Jan-13	10:15:07	Hi-Speed Ferry		93	23	30	20	18	10	N	22.27630	E	113.87556	960.39	22.77
16-Jan-13	10:21:51	Other	Traveling	92	18	20	304	36	50	N	22.27583	E	113.86123	1380.85	307.08
16-Jan-13	10:26:20	Other	Traveling	91	42	40	340	32	0	N	22.28438	E	113.86664	1865.14	343.00
16-Jan-13	10:26:31	Transportation boat	Traveling	92	26	40	339	48	30	N	22.27949	E	113.86809	1301.91	342.28
16-Jan-13	10:30:16	Research Vessel	Traveling	92	12	40	314	25	10	N	22.27779	E	113.86237	1440.23	316.89
16-Jan-13	10:30:30	Transportation boat	Traveling	91	51	10	25	32	50	N	22.28201	E	113.87981	1721.19	28.01
16-Jan-13	10:33:05	Research Vessel	Traveling	91	43	10	302	21	0	N	22.27787	E	113.85713	1856.00	304.82
16-Jan-13	10:35:12	Speedboat	Traveling	116	58	0	7	24	30	N	22.26930	E	113.87213	108.98	9.88
16-Jan-13	10:35:30	Research Vessel	Traveling	91	26	0	294	34	40	N	22.27746	E	113.85262	2231.50	297.04
16-Jan-13	10:37:02	Speedboat	Traveling	116	41	30	340	13	20	N	22.26928	E	113.87163	110.28	342.69
16-Jan-13	10:47:35	Research Vessel	Traveling	92	14	10	273	7	0	N	22.26958	E	113.85816	1424.02	275.58
16-Jan-13	10:49:30	Research Vessel	Traveling	93	5	20	270	16	50	N	22.26878	E	113.86195	1028.99	272.75
16-Jan-13	10:50:06	Transportation boat	Traveling	92	10	10	359	3	30	N	22.28154	E	113.87232	1468.09	1.53
16-Jan-13	10:53:14	Transportation boat	Traveling	92	14	0	314	32	10	N	22.27772	E	113.86249	1425.80	317.00
16-Jan-13	10:53:34	Police Vessel	Traveling	93	22	40	273	5	50	N	22.26915	E	113.86284	940.58	275.56
16-Jan-13	10:54:01	Police Vessel	Traveling	94	37	0	26	37	40	N	22.27374	E	113.87519	687.08	29.09
16-Jan-13	10:54:38	Fishing Boat	Non-operating	92	15	40	296	21	20	N	22.27444	E	113.85995	1408.17	298.82
16-Jan-13	10:54:51	Police Vessel	Traveling	93	13	20	288	50	50	N	22.27156	E	113.86301	986.21	291.31
16-Jan-13	10:55:08	Police Vessel	Traveling	97	0	50	339	17	40	N	22.27219	E	113.87057	450.79	341.76
16-Jan-13	10:55:32	Police Vessel	Traveling	92	50	0	285	13	30	N	22.27140	E	113.86155	1122.29	287.69
16-Jan-13	10:55:42	Police Vessel	Traveling	94	24	20	1	46	40	N	22.27480	E	113.87246	720.19	4.24
16-Jan-13	10:56:22	Fishing Boat	Non-operating	92	7	0	314	36	20	N	22.27825	E	113.86198	1504.96	317.07
16-Jan-13	10:56:31	Transportation boat	Traveling	92	16	0	314	9	0	N	22.27752	E	113.86256	1404.69	316.62
16-Jan-13	10:56:43	Police Vessel	Traveling	92	32	30	18	50	50	N	22.27883	E	113.87637	1251.83	21.31
16-Jan-13	11:00:49	Transportation boat	Traveling	92	4	50	12	4	0	N	22.28167	E	113.87568	1531.28	14.53
16-Jan-13	11:06:05	Fishing Boat	Non-operating	92	24	40	282	26	40	N	22.27139	E	113.85954	1320.02	284.91
16-Jan-13	11:07:06	Fishing Boat	Non-operating	92	12	0	283	40	50	N	22.27196	E	113.85842	1447.55	286.15
16-Jan-13	11:07:29	Fishing Boat	Non-operating	92	19	40	286	28	0	N	22.27233	E	113.85936	1367.58	288.93
16-Jan-13	11:09:40	Fishing Boat	Non-operating	92	18	10	325	32	30	N	22.27889	E	113.86482	1382.52	328.01
16-Jan-13	11:09:46	Fishing Boat	Non-operating	92	20	20	315	41	0	N	22.27746	E	113.86311	1361.04	318.15
16-Jan-13	11:09:55	Fishing Boat	Non-operating	92	11	40	316	39	30	N	22.27821	E	113.86271	1451.25	319.13
16-Jan-13	11:45:15	Hi-Speed Ferry		92	21	0	29	40	30	N	22.27865	E	113.87895	1354.57	32.14
16-Jan-13	11:47:43	Hi-Speed Ferry		96	34	0	334	32	30	N	22.27232	E	113.87011	481.81	337.01
16-Jan-13	11:48:36	Transportation boat	Traveling	92	9	10	359	19	50	N	22.28164	E	113.87240	1479.53	1.80
16-Jan-13	11:48:47	Hi-Speed Ferry		95	26	20	278	44	40	N	22.26935	E	113.86639	582.61	281.21
16-Jan-13	11:51:03	Transportation boat	Traveling	92	22	40	323	58	10	N	22.27837	E	113.86475	1338.64	326.44
16-Jan-13	11:55:38	Transportation boat	Traveling	92	9	50	315	21	30	N	22.27815	E	113.86233	1471.88	317.83
16-Jan-13	11:58:04	Transportation boat	Traveling	92	16	30	355	43	20	N	22.28092	E	113.87151	1399.52	358.19
16-Jan-13	12:35:58	Police Vessel	Traveling	92	32	40	26	35	20	N	22.27817	E	113.87785	1250.45	29.06
16-Jan-13	12:36:50	Police Vessel	Traveling	96	10	40	7	11	0	N	22.27288	E	113.87278	512.42	9.65
16-Jan-13	12:51:03	Transportation boat	Traveling	91	51	0	10	20	10	N	22.28346	E	113.87566	1723.79	12.80
16-Jan-13	12:54:52	Transportation boat	Traveling	92	18	10	323	43	0	N	22.27867	E	113.86446	1382.52	326.18
16-Jan-13	13:00:24	Transportation boat	Traveling	92	34	30	323	23	30	N	22.27754	E	113.86520	1235.53	325.86
16-Jan-13	13:03:22	Transportation boat	Traveling	92	12	0	5	47	30	N	22.28123	E	113.87397	1447.55	8.26
16-Jan-13	13:03:39	Speedboat	Traveling	94	5	50	53	46	50	N	22.27221	E	113.87821	774.68	56.25
16-Jan-13	13:03:57	Speedboat	Traveling	96	6	20	290	17	10	N	22.27014	E	113.86729	518.53	292.75
16-Jan-13	13:04:16	Speedboat	Traveling	106	24	20	23	1	20	N	22.26986	E	113.87273	188.33	25.49
16-Jan-13	13:04:29	Speedboat	Traveling	113	38	30	305	54	30	N	22.26904	E	113.87098	126.66	308.38
16-Jan-13	13:04:36	Speedboat	Traveling	94	40	40	303	15	30	N	22.27190	E	113.86659	678.05	305.73
16-Jan-13	13:13:39	Speedboat	Stationary	116	8	0	315	14	0	N	22.26909	E	113.87120	113.01	317.70
16-Jan-13	13:22:21	Speedboat	Traveling	114	50	50	344	9	30	N	22.26938	E	113.87168	119.74	346.63
16-Jan-13	13:24:13	Speedboat	Traveling	116	30	20	2	52	0	N	22.26933	E	113.87204	111.18	5.33
16-Jan-13	13:37:12	Speedboat	Traveling	100	30	50	311	30	40	N	22.27020	E	113.86985	298.79	313.98
16-Jan-13	13:37:23	Police Vessel	Stationary	94	53	40	279	31	50	N	22.26955	E	113.86578	647.86	282.00
16-Jan-13	13:37:32	Speedboat	Traveling	97	51	30	9	48	50	N	22.27187	E	113.87278	401.81	12.28
16-Jan-13	13:45:31	Police Vessel	Traveling	94	14	40	279	43	10	N	22.26975	E	113.86484	747.67	282.19
16-Jan-13	13:46:42	Police Vessel	Traveling	92	58	20	280	36	20	N	22.27051	E	113.86181	1069.59	283.07
16-Jan-13	14:10:59	Hi-Speed Ferry		101	22	20	315	56	50	N	22.27019	E	113.87016	275.70	318.41
16-Jan-13	14:12:44	Hi-Speed Ferry		93	43	30	38	20	0	N	22.27414	E	113.87736	852.50	40.80
16-Jan-13	14:15:53	Police Vessel	Traveling	93	49	0	311	52	20	N	22.27357	E	113.86616	831.92	314.34
16-Jan-13	14:16:10	Other	Traveling	96	39	30	287	34	40	N	22.26980	E	113.86760	475.11	290.04
16-Jan-13	14:17:47	Police Vessel	Traveling	92	14	50	353	28	0	N	22.28105	E	113.87097	1416.93	355.93
16-Jan-13	14:20:21	Other	Traveling	94	16	50	27	6	10	N	22.27414	E	113.87550	741.33	29.57
16-Jan-13	14:28:31	Zero		94	16	50	0	0	0	N	22.27500	E	113.87225	741.33	2.47
16-Jan-13	14:30:58	Research Vessel	Traveling	93	4	40	292	48	10	N	22.27230	E	113.86286	1032.73	295.27
16-Jan-13	14:33:42	Research Vessel	Traveling	93	38	10	329	55	10	N	22.27530	E	113.86801	873.44	332.39
16-Jan-13	14:45:58	Police Vessel	Traveling	92	32	20	12	23	40	N	22.27923	E	113.87507	1253.20	14.86
16-Jan-13	14:46:51	Police Vessel	Traveling	93	40	10	359	14	40	N	22.27612	E	113.87220	865.47	1.71
16-Jan-13	14:47:20	Police Vessel	Traveling	93	44	50	9	43	10	N	22.27579	E	113.87368	847.42	12.19
17-Jan-13	8:56:45	Zero		145	18	40	0	0	10	N	22.26855	E	113.87224	39.09	52.00
17-Jan-13	8:57:12	Other	Stationary	91	27	30	346	19	30	N	22.28411	E	113.88542	2233.95	38.32
17-Jan-13	8:57:21	Other	Stationary	91	27	20	347	2	30	N	22.28398	E	113.88566	2238.26	39.04
17-Jan-13	8:57:52	Other	Stationary	91	36	20	345	21	0	N	22.28283	E	113.88390	2026.47	37.35
17-Jan-13	8:58:07	Other	Stationary	91	29	50	346	29	40	N	22.28365	E	113.88511	2175.02	38.49
17-Jan-13	8:58:17	Other	Stationary	91	30	10	347	5	40	N	22.28347	E	113.88523	2166.85	39.09
17-Jan-13	8:58:31	Other	Stationary	91	36	30	345	59	40	N	22.28268	E	113.88405	2022.86	37.99

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
17-Jan-13	8:59:12	Other	Stationary	92	0	0	253	26	10	N	22.27680	E	113.85908	1623.15	305.43
17-Jan-13	8:59:18	Other	Stationary	92	0	30	253	52	50	N	22.27686	E	113.85921	1616.35	305.88
17-Jan-13	9:00:29	Other	Stationary	90	58	0	241	36	20	N	22.28058	E	113.84164	3400.58	293.60
17-Jan-13	9:00:56	Other	Stationary	91	7	30	246	58	10	N	22.28101	E	113.84719	2909.43	298.97
17-Jan-13	9:02:26	Transportation boat	Stationary	91	36	50	346	11	10	N	22.28259	E	113.88406	2015.39	38.18
17-Jan-13	9:02:44	Transportation boat	Stationary	91	59	40	253	10	10	N	22.27677	E	113.85901	1627.40	305.17
17-Jan-13	9:03:17	Fishing boat	Non-operating	94	50	50	228	15	10	N	22.26940	E	113.86557	666.22	280.25
17-Jan-13	9:03:33	Speedboat	Stationary	93	17	20	340	34	10	N	22.27580	E	113.87709	983.86	32.57
17-Jan-13	9:04:06	Transportation boat	Traveling	91	55	20	265	37	0	N	22.27956	E	113.86087	1688.95	317.61
17-Jan-13	9:04:19	Transportation boat	Traveling	92	15	50	267	1	30	N	22.27806	E	113.86281	1432.23	319.02
17-Jan-13	9:04:33	Transportation boat	Traveling	92	4	10	304	16	30	N	22.28241	E	113.87095	1567.80	356.27
17-Jan-13	9:06:13	Transportation boat	Traveling	91	55	50	254	27	50	N	22.27733	E	113.85879	1681.40	306.46
17-Jan-13	9:06:17	Transportation boat	Traveling	92	6	20	254	20	30	N	22.27655	E	113.85988	1540.57	306.34
17-Jan-13	9:06:25	Transportation boat	Traveling	92	15	0	292	46	30	N	22.28085	E	113.86826	1440.97	344.77
17-Jan-13	9:06:47	Transportation boat	Stationary	91	59	30	253	2	30	N	22.27675	E	113.85897	1629.33	305.04
17-Jan-13	9:06:57	Transportation boat	Stationary	92	1	40	253	5	0	N	22.27661	E	113.85921	1600.07	305.08
17-Jan-13	9:07:48	Transportation boat	Traveling	91	53	10	251	18	10	N	22.27684	E	113.85795	1721.23	303.30
17-Jan-13	9:09:17	Transportation boat	Traveling	92	18	50	272	37	20	N	22.27861	E	113.86406	1400.71	324.62
17-Jan-13	9:10:32	Transportation boat	Traveling	91	28	10	249	12	20	N	22.27866	E	113.85352	2215.24	301.20
17-Jan-13	9:12:25	Transportation boat	Traveling	92	2	30	254	14	0	N	22.27678	E	113.85948	1588.64	306.23
17-Jan-13	9:13:00	Transportation boat	Stationary	92	1	40	253	42	0	N	22.27673	E	113.85931	1599.55	305.70
17-Jan-13	9:22:14	Research Vessel	Traveling	90	58	10	337	35	10	N	22.29484	E	113.88821	3386.53	29.58
17-Jan-13	9:23:36	Research Vessel	Traveling	90	52	50	332	38	40	N	22.29893	E	113.88712	3741.09	24.64
17-Jan-13	9:27:26	Speedboat	Stationary	114	53	10	272	31	40	N	22.26922	E	113.87126	121.56	324.52
17-Jan-13	9:27:49	Dolphin	Surface	108	34	0	267	58	50	N	22.26949	E	113.87089	167.89	319.98
17-Jan-13	9:28:30	Dolphin	Surface	108	32	20	289	51	10	N	22.26977	E	113.87144	168.15	341.85
17-Jan-13	9:28:42	Dolphin	Surface	108	14	10	295	3	20	N	22.26983	E	113.87157	171.14	347.05
17-Jan-13	9:28:51	Dolphin	Surface	108	14	10	302	20	0	N	22.26987	E	113.87178	171.14	354.33
17-Jan-13	9:29:09	Speedboat	Traveling	115	17	10	269	50	20	N	22.26918	E	113.87123	119.36	321.84
17-Jan-13	9:29:23	Speedboat	Traveling	114	4	50	257	8	0	N	22.26905	E	113.87099	126.17	309.13
17-Jan-13	9:30:13	Dolphin	Surface	109	17	0	341	55	20	N	22.26954	E	113.87282	161.16	33.92
17-Jan-13	9:30:33	Dolphin	Surface	109	55	20	346	53	0	N	22.26942	E	113.87289	155.57	38.88
17-Jan-13	9:31:11	Dolphin	Surface	106	33	30	346	34	10	N	22.26967	E	113.87309	189.63	38.57
17-Jan-13	9:31:17	Dolphin	Surface	105	53	0	348	41	50	N	22.26969	E	113.87320	198.15	40.69
17-Jan-13	9:31:48	Dolphin	Surface	104	46	40	357	52	30	N	22.26957	E	113.87353	213.73	49.87
17-Jan-13	9:31:56	Dolphin	Surface	104	7	50	1	9	30	N	22.26954	E	113.87369	223.95	53.16
17-Jan-13	9:32:08	Dolphin	Surface	103	21	20	1	36	30	N	22.26960	E	113.87380	237.48	53.61
17-Jan-13	9:32:42	Dolphin	Surface	101	18	30	5	13	10	N	22.26971	E	113.87425	281.94	57.22
17-Jan-13	9:32:52	Dolphin	Surface	100	39	40	4	55	0	N	22.26980	E	113.87438	299.50	56.91
17-Jan-13	9:33:22	Dolphin	Surface	99	39	40	8	5	0	N	22.26982	E	113.87474	331.19	60.08
17-Jan-13	9:33:32	Dolphin	Surface	99	17	10	8	34	0	N	22.26986	E	113.87486	344.82	60.56
17-Jan-13	9:33:54	Dolphin	Surface	99	2	10	9	17	40	N	22.26987	E	113.87497	354.52	61.29
17-Jan-13	9:34:10	Dolphin	Surface	99	8	0	11	35	10	N	22.26974	E	113.87500	350.68	63.58
17-Jan-13	9:34:42	Dolphin	Surface	98	51	20	11	24	10	N	22.26979	E	113.87509	361.86	63.40
17-Jan-13	9:34:51	Dolphin	Surface	98	55	30	11	52	20	N	22.26976	E	113.87508	359.00	63.87
17-Jan-13	9:35:02	Dolphin	Surface	99	2	50	12	57	20	N	22.26968	E	113.87506	354.06	64.95
17-Jan-13	9:35:33	Dolphin	Surface	98	55	20	12	4	40	N	22.26975	E	113.87509	359.10	64.07
17-Jan-13	9:35:58	Dolphin	Surface	98	48	20	12	50	20	N	22.26973	E	113.87515	363.92	64.84
17-Jan-13	9:36:05	Dolphin	Surface	98	37	30	12	17	20	N	22.26978	E	113.87520	371.66	64.29
17-Jan-13	9:36:39	Dolphin	Surface	98	3	50	11	46	50	N	22.26992	E	113.87542	397.91	63.78
17-Jan-13	9:37:18	Dolphin	Surface	97	53	10	17	44	40	N	22.26960	E	113.87566	406.98	69.74
17-Jan-13	9:37:28	Dolphin	Surface	97	51	40	17	10	40	N	22.26964	E	113.87566	408.29	69.17
17-Jan-13	9:37:32	Dolphin	Surface	97	48	20	17	4	30	N	22.26966	E	113.87568	411.23	69.07
17-Jan-13	9:37:39	Dolphin	Surface	97	47	10	16	26	50	N	22.26970	E	113.87567	412.27	68.44
17-Jan-13	9:37:51	Dolphin	Surface	97	47	10	15	44	30	N	22.26974	E	113.87565	412.27	67.74
17-Jan-13	9:38:40	Dolphin	Surface	97	34	50	16	14	50	N	22.26975	E	113.87577	423.57	68.24
17-Jan-13	9:38:54	Dolphin	Surface	97	27	30	15	20	50	N	22.26983	E	113.87581	430.59	67.34
17-Jan-13	9:39:00	Dolphin	Surface	97	15	50	14	25	30	N	22.26993	E	113.87589	442.25	66.42
17-Jan-13	9:39:13	Dolphin	Surface	97	6	30	13	48	20	N	22.27000	E	113.87595	452.03	65.80
17-Jan-13	9:39:20	Dolphin	Surface	96	56	30	13	13	40	N	22.27008	E	113.87603	463.00	65.22
17-Jan-13	9:39:31	Dolphin	Surface	96	45	0	12	46	40	N	22.27016	E	113.87613	476.28	64.77
17-Jan-13	9:39:45	Dolphin	Surface	96	32	40	12	16	20	N	22.27025	E	113.87625	491.38	64.27
17-Jan-13	9:40:34	Dolphin	Surface	95	52	40	12	29	20	N	22.27046	E	113.87675	547.60	64.49
17-Jan-13	9:41:11	Dolphin	Surface	95	26	50	10	33	40	N	22.27079	E	113.87705	591.19	62.56
17-Jan-13	9:41:38	Dolphin	Surface	95	11	30	9	4	0	N	22.27103	E	113.87723	620.48	61.06
17-Jan-13	9:42:40	Dolphin	Surface	94	56	50	10	38	20	N	22.27103	E	113.87757	651.31	62.64
17-Jan-13	9:43:13	Speedboat	Traveling	92	11	30	356	44	30	N	22.27710	E	113.88274	1476.69	48.74
17-Jan-13	9:43:37	Speedboat	Traveling	92	35	0	356	33	40	N	22.27579	E	113.88107	1251.47	48.56
17-Jan-13	9:44:46	Dolphin	Surface	94	25	40	11	6	10	N	22.27130	E	113.87826	728.10	63.10
17-Jan-13	9:44:58	Speedboat	Traveling	96	58	30	347	50	30	N	22.27152	E	113.87481	460.63	39.84
17-Jan-13	9:45:13	Hi-Speed Ferry		92	8	50	333	5	10	N	22.28062	E	113.87816	1507.31	25.08
17-Jan-13	9:45:30	Dolphin	Surface	94	5	20	11	44	40	N	22.27147	E	113.87882	788.75	63.74
17-Jan-13	9:45:51	Speedboat	Traveling	109	45	40	248	49	10	N	22.26906	E	113.87063	156.81	300.82
17-Jan-13	9:46:04	Hi-Speed Ferry		92	51	0	326	20	40	N	22.27802	E	113.87541	1133.62	18.34
17-Jan-13	9:46:27	Transportation boat	Traveling	91	25	40	343	51	10	N	22.28494	E	113.88491	2276.44	35.85
17-Jan-13	9:47:02	Dolphin	Surface	93	43	50	12	1	20	N	22.27174	E	113.87950	864.84	64.02
17-Jan-13	9:47:16	Dolphin	Surface	93	37	10	11	7	10	N	22.27196	E	113.87968	891.51	63.12
17-Jan-13	9:47:27	Dolphin	Surface	93	33	20	11	12	50	N	22.27201	E	113.87982	907.60	63.21
17-Jan-13	9:47:58	Dolphin	Surface	93	24	10	10	40	20	N	22.27225	E	113.88014	948.52	62.67
17-Jan-13	9:48:13	Dolphin	Surface	93	19	0	10	4	10	N	22.27244	E	113.88031	973.26	62.07
17-Jan-13	9:48:27	Dolphin	Surface	93	16	50	9	15	30	N	22.27259	E	113.88033	984.01	61.26
17-Jan-13	9:49:21	Dolphin	Surface	93	0	30	9	0	0	N	22.27302	E	113.88107	1073.46	61.00
17-Jan-13	9:49:44	Transportation boat	Traveling	91	32	0	347	48	0	N	22.28297	E	113.88512	2117.24	39.80
17-Jan-13	9:49:54	Hi-Speed Ferry		93	39	10	211	43	50	N	22.26746	E	113.86341	883.21	263.73
17-Jan-13	9:52:00	Transportation boat	Traveling	92	0	50	339	12	20	N	22.28071	E	113.88004	1607.31	31.20
17-Jan-13	9:52:32	Transportation boat	Stationary	92	36	20	267	45	30	N	22.27685	E	113.86415	1240.14	319.76
17-Jan-13	9:54:07	Dolphin	Surface	92	20	10	10	15	50	N	22.27413	E	113.88386	1383.98	62.26
17-Jan-13	9:54:23	Dolphin	Surface	92	19	30	9	45	40	N	22.27425	E	113.88386	1390.61	61.76
17-Jan-13	9:57:55	Hi-Speed Ferry		96	5	50	251	31	10	N	22.27095	E	113.86767	527.24	303.52
17-Jan-13	10:00:51	Dolphin	Surface	92	13	40	5	21	20	N	22.27538	E	113.88383	1451.22	57.35
17-Jan-13	10:02:15	Hi-Speed Ferry		92	3	20	335	1	20	N	22.28095	E	113.87890	1573.61	27.02
17-Jan-13	10:04:08	Transportation boat	Traveling	92	1	40	307	54	40	N	22.28269	E	113.87192	1595.18	359.91
17-Jan-13	10:04:32	Hi-Speed Ferry		91	21	50	341	28	20	N	22.28622	E	113.88472	2382.46	33.47
17-Jan-13	10:05:14	Fishing boat	Operating	94	10	20	301	30	20	N	22.27524	E	113.87109	772.10	353.50
17-Jan-13	10:08:54	Transportation boat	Traveling	92	14	0	256	41	10	N	22.27647	E	113.86096	1446.95	308.68
17-Jan-13	10:09:07	Hi-Speed Ferry		93	11	40	215	3	40	N	22.26787	E	113.86214	1009.55	267.06
17-Jan-13	10:09:22	Transportation boat	Traveling	92	3	20	239	6	10	N	22.27343	E	113.85767	1573.01	291.10
17-Jan-13	10:10:34	Speedboat	Traveling	91	49	40	357	28	40	N	22.27869	E	113.88503	1770.71	49.47
17-Jan-13	10:11:49	Hi-Speed Ferry		94	56	10	309	46	10	N	22.27420	E	113.87214	651.76	1.77
17-Jan-13	10:12:12	Speedboat	Traveling	92	13	30	358	19	10	N	22.27668	E	113.88281	1452.15	50.32
17-Jan-13	10:14:17	Speedboat	Traveling	92	3	30	226	4	30	N	22.27032	E	113.85682	1570.46	278.07

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
17-Jan-13	10:14:28	Speedboat	Traveling	91	55	30	216	6	20	N	22.26783	E	113.85561	1680.14	268.10
17-Jan-13	10:15:23	Speedboat	Traveling	92	1	10	351	37	30	N	22.27876	E	113.88269	1600.85	43.62
17-Jan-13	10:15:42	Hi-Speed Ferry		91	25	0	341	52	50	N	22.28545	E	113.88436	2290.96	33.88
17-Jan-13	10:17:25	Police Vessel	Traveling	91	47	30	229	16	20	N	22.27151	E	113.85472	1806.09	281.27
17-Jan-13	10:17:42	Transportation boat	Traveling	93	29	10	272	37	30	N	22.27512	E	113.86674	924.27	324.62
17-Jan-13	10:21:44	Dolphin	Surface	92	11	30	239	42	20	N	22.27324	E	113.85863	1473.64	291.70
17-Jan-13	10:21:50	Dolphin	Fluke up	92	10	20	239	35	10	N	22.27326	E	113.85850	1486.92	291.58
17-Jan-13	10:22:16	Scan_dolphin		92	10	20	239	35	10	N	22.27325	E	113.85850	1486.89	291.58
17-Jan-13	10:23:15	Dolphin	Surface	92	1	50	239	37	10	N	22.27361	E	113.85756	1591.35	291.62
17-Jan-13	10:24:27	Dolphin	Surface	91	59	20	239	2	40	N	22.27358	E	113.85720	1624.85	291.04
17-Jan-13	10:24:46	Dolphin	Surface	92	0	0	238	32	0	N	22.27343	E	113.85723	1615.72	290.53
17-Jan-13	10:25:06	Dolphin	Surface	92	0	10	238	11	50	N	22.27334	E	113.85722	1613.44	290.19
17-Jan-13	10:25:26	Dolphin	Surface	92	0	30	237	51	40	N	22.27325	E	113.85723	1608.91	289.86
17-Jan-13	10:25:37	Dolphin	Surface	92	0	30	237	37	50	N	22.27320	E	113.85721	1608.89	289.63
17-Jan-13	10:27:08	Fishing boat	Non-operating	91	44	30	229	17	50	N	22.27161	E	113.85423	1857.49	281.29
17-Jan-13	10:27:33	Fishing boat	Non-operating	91	47	0	233	17	10	N	22.27263	E	113.85493	1813.62	285.28
17-Jan-13	10:29:26	Dolphin	Surface	92	40	10	226	29	0	N	22.26994	E	113.86033	1207.91	278.48
17-Jan-13	10:29:42	Dolphin	Surface	92	40	0	226	32	10	N	22.26995	E	113.86032	1209.16	278.53
17-Jan-13	10:30:07	Dolphin	Surface	92	41	10	226	17	40	N	22.26989	E	113.86039	1200.33	278.29
17-Jan-13	10:30:31	Dolphin	Surface	92	43	40	225	18	0	N	22.26968	E	113.86054	1181.87	277.30
17-Jan-13	10:30:36	Dolphin	Surface	92	43	40	225	5	40	N	22.26965	E	113.86054	1181.86	277.09
17-Jan-13	10:30:49	Dolphin	Breach	92	44	0	225	10	30	N	22.26966	E	113.86056	1179.43	277.17
17-Jan-13	10:32:34	Dolphin	Surface	92	42	20	225	20	40	N	22.26970	E	113.86045	1191.50	277.34
17-Jan-13	10:33:22	Other	Traveling	91	31	0	232	29	50	N	22.27314	E	113.85184	2135.80	284.49
17-Jan-13	10:33:35	Fishing boat	Non-operating	91	31	40	287	36	50	N	22.28622	E	113.86476	2120.04	339.61
17-Jan-13	10:33:53	Transportation boat	Traveling	95	45	50	270	10	0	N	22.27229	E	113.86862	556.91	322.16
17-Jan-13	10:34:12	Police Vessel	Stationary	91	36	50	323	36	30	N	22.28572	E	113.87719	2005.48	15.61
17-Jan-13	10:34:33	Transportation boat	Traveling	95	37	10	250	41	0	N	22.27111	E	113.86727	571.31	302.68
17-Jan-13	10:34:45	Other	Traveling	91	34	40	241	59	20	N	22.27584	E	113.85371	2051.88	293.99
17-Jan-13	10:35:45	Transportation boat	Traveling	94	22	20	224	32	0	N	22.26909	E	113.86484	735.39	276.53
17-Jan-13	10:36:04	Other	Traveling	91	34	10	251	2	50	N	22.27845	E	113.85513	2062.77	303.04
17-Jan-13	10:37:15	Dolphin	Breach	92	40	20	232	48	0	N	22.27111	E	113.86060	1206.14	284.80
17-Jan-13	10:37:18	Dolphin	Breach	92	40	20	232	43	50	N	22.27109	E	113.86060	1206.14	284.73
17-Jan-13	10:37:37	Dolphin	Surface	92	40	40	232	29	10	N	22.27104	E	113.86061	1203.60	284.48
17-Jan-13	10:37:41	Dolphin	Surface	92	40	30	232	31	50	N	22.27105	E	113.86060	1204.85	284.53
17-Jan-13	10:40:03	Dolphin	Surface	92	43	0	233	46	40	N	22.27123	E	113.86084	1186.12	285.77
17-Jan-13	10:40:08	Dolphin	Surface	92	43	0	233	41	40	N	22.27122	E	113.86084	1186.12	285.69
17-Jan-13	10:41:51	Dolphin	breach	92	42	10	235	39	50	N	22.27159	E	113.86090	1192.13	287.66
17-Jan-13	10:43:31	Dolphin	Surface	92	37	30	236	47	20	N	22.27189	E	113.86064	1227.55	288.79
17-Jan-13	10:43:47	Dolphin	Surface	92	36	40	236	49	50	N	22.27192	E	113.86059	1234.10	288.83
17-Jan-13	10:44:13	Dolphin	Surface	92	34	40	237	10	10	N	22.27203	E	113.86046	1250.12	289.17
17-Jan-13	10:44:46	Dolphin	Surface	92	32	40	238	39	20	N	22.27235	E	113.86042	1266.55	290.65
17-Jan-13	10:44:51	Dolphin	Surface	92	32	40	238	56	50	N	22.27241	E	113.86044	1266.55	290.94
17-Jan-13	10:47:17	Dolphin	Surface	92	18	20	240	56	0	N	22.27324	E	113.85942	1398.45	292.93
17-Jan-13	10:47:22	Dolphin	Breach	92	18	20	240	41	0	N	22.27319	E	113.85940	1398.44	292.68
17-Jan-13	10:47:39	Dolphin	Surface	92	19	20	240	38	30	N	22.27314	E	113.85948	1388.32	292.64
17-Jan-13	10:48:00	Dolphin	Surface	92	30	50	240	14	10	N	22.27270	E	113.86041	1281.81	292.23
17-Jan-13	10:48:51	Dolphin	Surface	92	33	20	240	17	50	N	22.27264	E	113.86060	1260.74	292.29
17-Jan-13	10:48:55	Dolphin	Surface	92	33	20	240	11	0	N	22.27262	E	113.86059	1260.73	292.18
17-Jan-13	10:49:06	Dolphin	Surface	92	32	50	240	8	40	N	22.27262	E	113.86055	1264.87	292.14
17-Jan-13	10:49:21	Dolphin	Surface	92	32	10	240	1	30	N	22.27262	E	113.86049	1270.42	292.02
17-Jan-13	10:49:41	Dolphin	Surface	92	32	0	240	1	0	N	22.27262	E	113.86048	1271.80	292.01
17-Jan-13	10:50:03	Dolphin	Surface	92	32	0	239	48	40	N	22.27258	E	113.86046	1271.78	291.81
17-Jan-13	10:50:29	Dolphin	Surface	92	32	50	239	43	10	N	22.27254	E	113.86052	1264.77	291.72
17-Jan-13	10:50:45	Dolphin	Surface	92	32	50	239	37	30	N	22.27253	E	113.86051	1264.76	291.62
17-Jan-13	10:50:57	Dolphin	Surface	92	32	30	239	38	30	N	22.27254	E	113.86049	1267.52	291.64
17-Jan-13	10:51:23	Dolphin	Surface	92	29	40	239	34	50	N	22.27261	E	113.86026	1291.63	291.58
17-Jan-13	10:51:46	Dolphin	Surface	92	29	20	239	15	0	N	22.27255	E	113.86021	1294.50	291.25
17-Jan-13	10:52:03	Dolphin	Surface	92	29	20	238	56	20	N	22.27250	E	113.86019	1294.48	290.94
17-Jan-13	10:52:25	Dolphin	Surface	92	29	30	238	40	30	N	22.27244	E	113.86018	1293.01	290.67
17-Jan-13	10:52:44	Dolphin	Surface	92	29	40	238	19	40	N	22.27237	E	113.86017	1291.54	290.32
17-Jan-13	10:53:04	Dolphin	Surface	92	29	40	238	0	10	N	22.27231	E	113.86014	1291.51	290.00
17-Jan-13	10:53:49	Dolphin	Surface	92	32	40	237	56	30	N	22.27222	E	113.86037	1265.94	289.94
17-Jan-13	10:53:52	Dolphin	Surface	92	32	50	237	54	0	N	22.27221	E	113.86038	1264.54	289.90
17-Jan-13	10:54:03	Dolphin	Surface	92	32	30	237	51	0	N	22.27220	E	113.86035	1267.31	289.85
17-Jan-13	10:55:03	Dolphin	Surface	92	34	10	237	19	50	N	22.27207	E	113.86044	1253.46	289.33
17-Jan-13	10:55:13	Dolphin	Surface	92	34	10	237	8	0	N	22.27203	E	113.86043	1253.45	289.13
17-Jan-13	10:55:30	Dolphin	Surface	92	34	50	236	49	0	N	22.27195	E	113.86046	1248.01	288.81
17-Jan-13	10:56:41	Dolphin	Surface	92	39	10	236	50	40	N	22.27186	E	113.86077	1213.76	288.84
17-Jan-13	10:56:55	Dolphin	Surface	92	39	10	236	37	20	N	22.27182	E	113.86076	1213.75	288.62
17-Jan-13	10:57:16	Dolphin	Surface	92	39	20	236	18	0	N	22.27176	E	113.86075	1212.45	288.30
17-Jan-13	10:57:32	Dolphin	Surface	92	38	50	236	17	10	N	22.27177	E	113.86071	1216.27	288.28
17-Jan-13	10:58:02	Dolphin	Surface	92	37	50	236	13	40	N	22.27178	E	113.86064	1223.99	288.22
17-Jan-13	10:58:26	Dolphin	Surface	92	37	10	235	56	10	N	22.27174	E	113.86057	1229.18	287.93
17-Jan-13	11:00:11	Police Vessel	Traveling	92	48	20	272	24	50	N	22.27673	E	113.86545	1147.10	324.41
17-Jan-13	11:00:32	Police Vessel	Traveling	92	50	30	269	10	20	N	22.27627	E	113.86504	1132.43	321.17
17-Jan-13	11:01:52	Dolphin	Surface	92	39	10	239	8	50	N	22.27227	E	113.86094	1213.43	291.14
17-Jan-13	11:03:24	Police Vessel	Stationary	92	52	50	243	34	40	N	22.27267	E	113.86215	1116.89	295.57
17-Jan-13	11:03:39	Dolphin	Surface	92	33	0	234	53	20	N	22.27163	E	113.86020	1262.49	286.89
17-Jan-13	11:03:42	Dolphin	Surface	92	35	10	234	53	20	N	22.27159	E	113.86036	1244.76	286.89
17-Jan-13	11:03:45	Dolphin	Surface	92	35	10	234	53	20	N	22.27159	E	113.86036	1244.76	286.89
17-Jan-13	11:04:15	Transportation boat	Traveling	96	6	40	225	11	0	N	22.26892	E	113.86689	524.17	277.18
17-Jan-13	11:04:33	Transportation boat	Traveling	97	17	50	239	11	0	N	22.26976	E	113.86797	438.20	291.18
17-Jan-13	11:05:40	Dolphin	Surface	92	35	0	235	27	0	N	22.27169	E	113.86039	1245.98	287.45
17-Jan-13	11:05:43	Dolphin	Surface	92	35	0	235	19	30	N	22.27167	E	113.86038	1245.97	287.32
17-Jan-13	11:05:49	Dolphin	breach	92	35	0	235	19	0	N	22.27167	E	113.86038	1245.97	287.31
17-Jan-13	11:07:04	Transportation boat	Traveling	92	56	20	336	12	30	N	22.27701	E	113.87697	1094.39	28.21
17-Jan-13	11:07:15	Police Vessel	Traveling	93	47	30	280	21	10	N	22.27509	E	113.86812	847.18	332.35
17-Jan-13	11:07:35	Police Vessel	Stationary	93	1	40	246	27	50	N	22.27289	E	113.86286	1062.07	298.46
17-Jan-13	11:07:50	Dolphin	Surface	92	31	30	234	47	20	N	22.27165	E	113.86008	1274.78	286.79
17-Jan-13	11:08:11	Dolphin	Surface	92	36	0	234	16	20	N	22.27145	E	113.86039	1237.78	286.27
17-Jan-13	11:08:26	Dolphin	Surface	92	35	20	234	34	30	N	22.27152	E	113.86036	1243.10	286.57
17-Jan-13	11:09:01	Dolphin	Surface	92	32	0	233	56	50	N	22.27147	E	113.86006	1270.48	285.94
17-Jan-13	11:09:24	Police Vessel	Stationary	93	8	30	249	10	50	N	22.27310	E	113.86343	1023.28	301.18
17-Jan-13	11:09:29	Police Vessel	Stationary	93	6	50	249	10	40	N	22.27314	E	113.86335	1032.45	301.17
17-Jan-13	11:10:42	Police Vessel	Traveling	93	3	0	246	52	10	N	22.27291	E	113.86297	1054.12	298.87
17-Jan-13	11:10:51	Police Vessel	Traveling	93	26	50	247	30	30	N	22.27246	E	113.86406	932.08	299.51
17-Jan-13	11:11:21	Police Vessel	Traveling	92	53	20	236	26	50	N	22.27150	E	113.86168	1113.17	288.44
17-Jan-13	11:11:29	Police Vessel	Traveling	93	32	30	236	14	0	N	22.27089	E	113.86357	907.08	288.23
17-Jan-13	11:12:02	Dolphin	Breach	92	21	0	237	28	40	N	22.27244	E	113.85938	1370.00	289.47
17-Jan-13	11:13:00	Police Vessel	Traveling	92	12	40	216	28	20	N	22.26798	E	113.85778	1456.58	268.47

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
17-Jan-13	11:13:07	Police Vessel	Traveling	93	3	20	215	9	30	N	22.26786	E	113.86173	1052.06	267.16
17-Jan-13	11:13:21	Dolphin	Surface	92	18	30	238	47	0	N	22.27279	E	113.85926	1394.80	290.78
17-Jan-13	11:13:26	Dolphin	Surface	92	18	40	238	37	20	N	22.27275	E	113.85926	1393.10	290.62
17-Jan-13	11:13:33	Dolphin	Surface	92	18	10	238	39	50	N	22.27277	E	113.85922	1398.17	290.66
17-Jan-13	11:13:36	Dolphin	Surface	92	18	10	238	39	50	N	22.27277	E	113.85922	1398.16	290.66
17-Jan-13	11:15:39	Police Vessel	Stationary	92	51	40	210	6	0	N	22.26694	E	113.86112	1123.78	262.10
17-Jan-13	11:17:55	Dolphin	Surface	92	39	50	286	38	10	N	22.27845	E	113.86767	1207.29	338.63
17-Jan-13	11:18:00	Dolphin	Surface	92	41	0	286	28	30	N	22.27837	E	113.86767	1198.49	338.47
17-Jan-13	11:18:06	Dolphin	breach	92	39	50	286	14	40	N	22.27842	E	113.86759	1207.28	338.24
17-Jan-13	11:31:51	Dolphin	Surface	92	33	40	286	57	40	N	22.27887	E	113.86756	1255.08	338.96
17-Jan-13	11:33:18	Dolphin	Surface	92	37	10	287	58	30	N	22.27871	E	113.86786	1226.88	339.97
17-Jan-13	11:33:21	Dolphin	Surface	92	37	10	288	17	30	N	22.27873	E	113.86792	1226.87	340.29
17-Jan-13	11:33:25	Dolphin	breach	92	35	10	288	24	0	N	22.27887	E	113.86789	1242.77	340.40
17-Jan-13	11:33:34	Dolphin	Surface	92	34	30	288	18	10	N	22.27891	E	113.86785	1248.16	340.30
17-Jan-13	11:33:58	Speedboat	Traveling	92	9	30	292	17	40	N	22.28125	E	113.86802	1490.76	344.29
17-Jan-13	11:34:14	Speedboat	Traveling	92	13	0	287	59	30	N	22.28060	E	113.86711	1451.24	339.99
17-Jan-13	11:34:29	Speedboat	Traveling	92	14	50	284	48	10	N	22.28017	E	113.86646	1431.35	336.80
17-Jan-13	11:35:35	Dolphin	Surface	92	34	20	286	36	40	N	22.27880	E	113.86751	1249.38	338.61
17-Jan-13	11:35:49	Speedboat	Stationary	92	25	0	287	43	50	N	22.27956	E	113.86746	1330.27	339.73
17-Jan-13	11:37:23	Dolphin	breach	92	53	30	292	0	50	N	22.27794	E	113.86897	1110.54	344.01
17-Jan-13	11:37:33	Dolphin	Surface	92	53	30	291	38	50	N	22.27792	E	113.86890	1110.53	343.64
17-Jan-13	11:38:25	Dolphin	Surface	92	37	40	285	42	20	N	22.27851	E	113.86743	1222.63	337.70
17-Jan-13	11:38:38	Speedboat	Traveling	92	34	20	279	52	0	N	22.27825	E	113.86622	1249.17	331.86
17-Jan-13	11:38:52	Speedboat	Traveling	92	35	50	279	20	50	N	22.27810	E	113.86618	1237.06	331.34
17-Jan-13	11:39:02	Dolphin	Surface	92	34	40	285	45	10	N	22.27872	E	113.86735	1246.44	337.75
17-Jan-13	11:40:04	Dolphin	breach	92	33	30	284	54	0	N	22.27873	E	113.86715	1255.90	336.90
17-Jan-13	11:40:11	Dolphin	Surface	92	33	30	284	54	30	N	22.27873	E	113.86715	1255.89	336.91
17-Jan-13	11:40:14	Dolphin	Surface	92	33	30	284	51	0	N	22.27873	E	113.86714	1255.88	336.85
17-Jan-13	11:40:55	Police Vessel	Traveling	94	49	10	281	15	10	N	22.27367	E	113.86904	664.46	333.25
17-Jan-13	11:41:48	Dolphin	Surface	92	55	0	288	44	0	N	22.27768	E	113.86841	1100.72	340.73
17-Jan-13	11:41:51	Dolphin	Breach	92	55	0	288	43	0	N	22.27768	E	113.86841	1100.71	340.71
17-Jan-13	11:42:23	Speedboat	Traveling	93	0	0	289	35	20	N	22.27747	E	113.86866	1069.95	341.59
17-Jan-13	11:44:07	Dolphin	Surface	92	40	0	285	50	50	N	22.27837	E	113.86753	1204.33	337.84
17-Jan-13	11:45:09	Dolphin	Surface	93	5	40	288	43	40	N	22.27714	E	113.86862	1036.98	340.72
17-Jan-13	11:45:15	Dolphin	Fluke Up	93	4	50	288	25	50	N	22.27717	E	113.86855	1041.68	340.43
17-Jan-13	11:45:29	Dolphin	Surface	93	2	50	288	39	20	N	22.27728	E	113.86855	1053.11	340.65
17-Jan-13	11:46:57	Dolphin	Surface	93	10	20	292	5	40	N	22.27709	E	113.86925	1011.33	344.09
17-Jan-13	11:47:23	Dolphin	Surface	93	13	30	292	59	10	N	22.27698	E	113.86944	994.68	344.98
17-Jan-13	11:47:27	Dolphin	Surface	93	13	30	292	15	0	N	22.27695	E	113.86932	994.68	344.25
17-Jan-13	11:48:08	Dolphin	Surface	93	14	20	291	40	0	N	22.27689	E	113.86924	990.35	343.66
17-Jan-13	11:48:32	Dolphin	Surface	93	15	10	291	57	0	N	22.27686	E	113.86929	986.08	343.95
17-Jan-13	11:49:59	Dolphin	Surface	92	56	20	285	36	50	N	22.27742	E	113.86790	1091.87	337.61
17-Jan-13	11:51:36	Dolphin	Surface	92	58	30	282	24	40	N	22.27709	E	113.86741	1078.45	334.41
17-Jan-13	11:52:56	Fishing boat	Non-operating	92	20	30	281	11	20	N	22.27935	E	113.86593	1371.89	333.19
17-Jan-13	11:53:09	Transportation boat	Traveling	92	52	0	301	12	50	N	22.27834	E	113.87066	1119.33	353.21
17-Jan-13	11:53:18	Speedboat	Stationary	92	4	30	305	46	30	N	22.28227	E	113.87136	1549.47	357.77
17-Jan-13	11:53:32	Fishing boat	Non-operating	92	27	50	277	10	10	N	22.27840	E	113.86545	1303.38	329.17
17-Jan-13	11:53:44	Transportation boat	Traveling	92	52	40	290	23	20	N	22.27790	E	113.86866	1114.95	342.39
17-Jan-13	11:54:50	Dolphin	Surface	93	2	30	277	2	30	N	22.27647	E	113.86667	1054.52	329.04
17-Jan-13	11:55:26	Fishing boat	Non-operating	92	50	50	262	34	0	N	22.27545	E	113.86414	1126.88	314.56
17-Jan-13	11:55:35	Transportation boat	Traveling	92	26	0	260	48	30	N	22.27640	E	113.86253	1319.70	312.81
17-Jan-13	11:55:59	Dolphin	Breach	93	12	0	276	11	10	N	22.27600	E	113.86681	1002.02	328.18
17-Jan-13	11:56:54	Fishing boat	Non-operating	93	3	40	248	25	10	N	22.27311	E	113.86316	1047.67	300.42
17-Jan-13	11:57:04	Transportation boat	Traveling	91	59	40	254	29	30	N	22.27696	E	113.85934	1612.23	306.49
17-Jan-13	11:57:30	Transportation boat	Stationary	91	58	50	253	56	40	N	22.27691	E	113.85916	1623.59	305.94
17-Jan-13	12:01:22	Dolphin	breach	93	33	50	273	31	50	N	22.27500	E	113.86700	898.98	325.53
17-Jan-13	12:03:25	Dolphin	Surface	93	33	40	272	5	30	N	22.27489	E	113.86681	899.59	324.09
17-Jan-13	12:03:33	Dolphin	Surface	93	35	30	272	23	50	N	22.27486	E	113.86689	891.89	324.39
17-Jan-13	12:03:36	Dolphin	Breach	93	36	50	272	20	10	N	22.27481	E	113.86692	886.38	324.33
17-Jan-13	12:03:42	Dolphin	Breach	93	37	20	272	11	40	N	22.27479	E	113.86691	884.32	324.19
17-Jan-13	12:03:50	Dolphin	Surface	93	38	20	272	11	40	N	22.27476	E	113.86694	880.25	324.19
17-Jan-13	12:05:45	Dolphin	Surface	93	48	0	274	24	50	N	22.27465	E	113.86741	842.66	326.41
17-Jan-13	12:05:48	Dolphin	Breach	93	52	0	274	34	0	N	22.27455	E	113.86751	828.06	326.56
17-Jan-13	12:06:03	Dolphin	Surface	93	53	50	274	7	10	N	22.27447	E	113.86749	821.52	326.12
17-Jan-13	12:07:44	Scan_dolphin		94	1	40	276	33	10	N	22.27443	E	113.86791	794.69	328.55
17-Jan-13	12:09:52	Dolphin	Surface	94	59	50	270	38	40	N	22.27291	E	113.86817	639.68	322.64
17-Jan-13	12:12:29	Dolphin	Surface	94	19	40	271	47	20	N	22.27370	E	113.86770	739.14	323.79
17-Jan-13	12:12:39	Dolphin	Breach	94	15	50	272	9	40	N	22.27381	E	113.86767	750.26	324.16
17-Jan-13	12:12:42	Dolphin	Surface	94	15	50	272	4	0	N	22.27380	E	113.86766	750.26	324.06
17-Jan-13	12:14:11	Dolphin	Surface	94	14	30	270	5	40	N	22.27369	E	113.86744	754.15	322.09
17-Jan-13	12:14:18	Dolphin	Surface	94	15	40	269	52	50	N	22.27365	E	113.86744	750.69	321.88
17-Jan-13	12:14:38	Dolphin	Surface	94	17	50	269	13	30	N	22.27356	E	113.86741	744.33	321.22
17-Jan-13	12:14:52	Dolphin	Surface	94	14	40	269	54	0	N	22.27367	E	113.86742	753.63	321.90
17-Jan-13	12:14:57	Dolphin	Breach	94	12	20	269	49	50	N	22.27371	E	113.86737	760.63	321.83
17-Jan-13	12:15:09	Dolphin	Surface	94	13	40	269	11	10	N	22.27364	E	113.86733	756.60	321.18
17-Jan-13	12:15:51	Dolphin	breach	94	23	20	270	29	20	N	22.27353	E	113.86763	728.66	322.49
17-Jan-13	12:16:03	Dolphin	Surface	94	23	10	269	52	10	N	22.27349	E	113.86757	729.11	321.87
17-Jan-13	12:17:06	Dolphin	Surface	94	20	30	268	20	20	N	22.27344	E	113.86737	736.58	320.34
17-Jan-13	12:24:53	Dolphin	Surface	93	15	10	262	38	50	N	22.27456	E	113.86513	984.15	314.64
17-Jan-13	12:24:59	Dolphin	Surface	93	13	30	262	29	10	N	22.27459	E	113.86506	992.67	314.48
17-Jan-13	12:25:05	Dolphin	Surface	93	12	40	262	40	30	N	22.27464	E	113.86505	996.98	314.67
17-Jan-13	12:54:46	Police Vessel	Traveling	91	43	10	251	32	20	N	22.27761	E	113.85681	1866.81	303.54
17-Jan-13	12:56:05	Police Vessel	Traveling	91	44	30	232	8	50	N	22.27238	E	113.85457	1842.62	284.14
17-Jan-13	12:56:20	Police Vessel	Traveling	92	16	0	220	30	30	N	22.26889	E	113.85822	1412.74	272.51
17-Jan-13	12:57:49	Police Vessel	Traveling	91	32	0	210	16	50	N	22.26580	E	113.85175	2095.85	262.28
17-Jan-13	12:58:01	Police Vessel	Traveling	92	34	50	250	44	40	N	22.27437	E	113.86180	1239.80	302.74
17-Jan-13	13:00:41	Police Vessel	Traveling	91	44	40	286	13	20	N	22.28370	E	113.86531	1839.19	338.22
17-Jan-13	13:03:26	Fishing boat	Operating	95	26	30	17	55	30	N	22.27014	E	113.87729	585.41	69.92
17-Jan-13	13:05:35	Speedboat	Traveling	96	34	10	234	7	30	N	22.26954	E	113.86742	484.11	286.12
17-Jan-13	13:06:34	Speedboat	Traveling	96	39	0	292	31	0	N	22.27248	E	113.87070	478.17	344.51
17-Jan-13	13:06:56	Fishing boat	Operating	96	27	30	18	35	0	N	22.26981	E	113.87646	492.48	70.58
17-Jan-13	13:07:37	Speedboat	Traveling	93	45	40	321	22	40	N	22.27576	E	113.87385	848.58	13.37
17-Jan-13	13:09:45	Police Vessel	Traveling	91	20	50	330	54	20	N	22.28813	E	113.88098	2388.36	22.90
17-Jan-13	13:14:39	Speedboat	Traveling	105	17	40	311	26	30	N	22.27016	E	113.87206	203.72	3.44
17-Jan-13	13:14:51	Speedboat	Traveling	99	47	50	330	43	40	N	22.27101	E	113.87316	322.64	22.72
17-Jan-13	13:15:01	Speedboat	Traveling	97	14	30	339	48	10	N	22.27169	E	113.87419	438.51	31.80
17-Jan-13	13:15:28	Speedboat	Traveling	94	11	10	349	4	50	N	22.27350	E	113.87681	761.69	41.08
17-Jan-13	13:16:16	Speedboat	Traveling	92	22	50	354	8	40	N	22.27671	E	113.88136	1343.28	46.14
17-Jan-13	13:18:14	Speedboat	Traveling	93	4	0	304	35	50	N	22.27769	E	113.87134	1041.18	356.59
17-Jan-13	13:19:14	Speedboat	Traveling	95	21	30	284	2	50	N	22.27322	E	113.86960	594.07	336.04
17-Jan-13	13:19:40	Fishing boat	Non-operating	94	19	40	12	36	30	N	22.27118	E	113.87841	736.46	64.61

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
17-Jan-13	13:20:06	Speedboat	Traveling	97	28	0	235	45	40	N	22.26950	E	113.86801	425.03	287.76
17-Jan-13	13:46:26	Zero		114	56	50	359	59	50	N	22.26900	E	113.87286	119.55	51.99
17-Jan-13	13:48:43	Speedboat	Traveling	93	35	30	327	14	10	N	22.27587	E	113.87479	886.84	19.23
17-Jan-13	13:49:02	Speedboat	Traveling	94	38	20	315	39	20	N	22.27445	E	113.87283	685.72	7.65
17-Jan-13	13:49:42	Speedboat	Traveling	96	36	50	263	9	0	N	22.27139	E	113.86865	479.68	315.15
17-Jan-13	13:50:05	Speedboat	Traveling	95	12	10	231	17	40	N	22.26960	E	113.86616	610.93	283.29
17-Jan-13	13:58:17	Speedboat	Traveling	111	2	30	281	56	0	N	22.26950	E	113.87133	144.47	333.93
17-Jan-13	13:58:27	Speedboat	Traveling	105	41	50	308	31	0	N	22.27011	E	113.87196	197.76	0.51
17-Jan-13	13:58:39	Speedboat	Traveling	100	17	10	325	37	10	N	22.27096	E	113.87285	306.27	17.62
17-Jan-13	13:59:07	Speedboat	Traveling	95	41	20	334	47	0	N	22.27282	E	113.87439	558.11	26.78
17-Jan-13	13:59:54	Speedboat	Traveling	93	11	50	337	8	10	N	22.27616	E	113.87666	996.21	29.13
17-Jan-13	14:11:10	Hi-Speed Ferry		95	21	20	294	11	0	N	22.27351	E	113.87057	592.71	346.18
17-Jan-13	14:11:56	Hi-Speed Ferry		93	47	20	315	21	30	N	22.27583	E	113.87299	839.40	7.36
17-Jan-13	14:12:51	Hi-Speed Ferry		92	39	30	328	14	40	N	22.27845	E	113.87598	1198.45	20.24
17-Jan-13	14:13:51	Hi-Speed Ferry		91	57	10	334	36	20	N	22.28149	E	113.87906	1634.76	26.60
17-Jan-13	14:31:05	Transportation boat	Traveling	91	25	30	345	17	30	N	22.28444	E	113.88520	2249.56	37.29
17-Jan-13	14:32:20	Transportation boat	stationary	91	34	50	346	2	40	N	22.28269	E	113.88408	2025.43	38.04
17-Jan-13	14:37:06	Transportation boat	Traveling	92	37	40	316	26	50	N	22.27913	E	113.87368	1213.43	8.44
17-Jan-13	14:38:14	Transportation boat	Traveling	92	45	20	301	21	20	N	22.27867	E	113.87064	1156.91	353.35
17-Jan-13	14:40:38	Transportation boat	Traveling	92	22	40	271	41	10	N	22.27806	E	113.86421	1341.97	323.68
17-Jan-13	14:42:14	Transportation boat	Traveling	92	1	30	257	37	50	N	22.27739	E	113.86013	1577.63	309.63
17-Jan-13	14:43:30	Transportation boat	Stationary	91	58	20	254	30	50	N	22.27701	E	113.85928	1620.27	306.51
17-Jan-13	14:45:38	Transportation boat	Traveling	91	22	50	344	49	40	N	22.28508	E	113.88549	2324.36	36.82
17-Jan-13	14:46:13	Transportation boat	Traveling	91	27	50	345	20	20	N	22.28400	E	113.88486	2190.18	37.34
17-Jan-13	14:46:55	Transportation boat	Stationary	91	29	20	346	10	30	N	22.28356	E	113.88489	2152.96	38.17
17-Jan-13	14:51:28	Police Vessel	Traveling	93	2	20	232	15	20	N	22.27066	E	113.86206	1049.03	284.25
17-Jan-13	14:52:23	Police Vessel	Traveling	93	33	50	272	42	30	N	22.27490	E	113.86692	893.83	324.71
17-Jan-13	14:54:12	Speedboat	Traveling	117	2	40	273	31	20	N	22.26914	E	113.87134	108.93	325.52
17-Jan-13	14:54:43	Police Vessel	Traveling	91	50	0	324	32	40	N	22.28339	E	113.87678	1744.86	16.54
17-Jan-13	14:55:02	Speedboat	Traveling	113	8	50	288	10	30	N	22.26943	E	113.87152	130.09	340.17
17-Jan-13	14:55:50	Speedboat	Stationary	112	7	40	283	42	20	N	22.26946	E	113.87140	136.77	335.70
17-Jan-13	14:56:24	Other	Stationary	91	58	30	253	25	0	N	22.27677	E	113.85911	1618.75	305.41
17-Jan-13	14:56:36	Other	Stationary	91	58	40	253	51	40	N	22.27685	E	113.85920	1616.47	305.86
17-Jan-13	14:57:27	Other	Stationary	91	26	30	346	49	20	N	22.28394	E	113.88551	2225.36	38.82
17-Jan-13	14:57:39	Other	Stationary	91	26	10	347	32	20	N	22.28384	E	113.88578	2234.11	39.54
17-Jan-13	14:58:01	Other	Stationary	91	34	50	345	20	20	N	22.28284	E	113.88390	2027.37	37.34
17-Jan-13	14:58:17	Other	Stationary	91	28	30	346	29	20	N	22.28365	E	113.88511	2174.43	38.49
17-Jan-13	14:58:28	Other	Stationary	91	29	20	347	5	10	N	22.28338	E	113.88515	2153.88	39.08
17-Jan-13	14:58:48	Other	Stationary	91	35	40	345	58	50	N	22.28259	E	113.88397	2009.55	37.98
18-Jan-13	8:53:59	Zero		91	9	40	0	0	0	N	22.28394	E	113.89353	2816.03	52.00
18-Jan-13	8:54:33	Other	Stationary	91	27	30	346	50	40	N	22.28398	E	113.88556	2232.79	38.84
18-Jan-13	8:54:42	Other	Stationary	91	27	20	347	32	30	N	22.28386	E	113.88580	2237.10	39.54
18-Jan-13	8:54:59	Other	Stationary	91	36	20	345	20	20	N	22.28283	E	113.88389	2025.45	37.34
18-Jan-13	8:55:12	Other	Stationary	91	29	40	346	29	0	N	22.28368	E	113.88513	2178.03	38.48
18-Jan-13	8:55:20	Other	Stationary	91	30	20	347	5	0	N	22.28343	E	113.88520	2161.72	39.08
18-Jan-13	8:55:38	Other	Stationary	91	37	0	346	0	10	N	22.28260	E	113.88399	2011.31	38.00
18-Jan-13	8:55:59	Other	Stationary	91	59	30	253	25	20	N	22.27683	E	113.85903	1629.22	305.42
18-Jan-13	8:56:07	Other	Stationary	92	0	20	253	51	50	N	22.27686	E	113.85919	1617.84	305.86
18-Jan-13	8:56:41	Other	Stationary	91	2	10	241	25	0	N	22.27965	E	113.84370	3164.54	293.41
18-Jan-13	8:57:01	Other	Stationary	91	7	0	246	57	50	N	22.28110	E	113.84701	2930.41	298.96
18-Jan-13	8:57:31	Transportation boat	Stationary	91	33	50	346	28	30	N	22.28299	E	113.88453	2079.86	38.47
18-Jan-13	8:57:50	Transportation boat	Stationary	92	0	50	253	19	20	N	22.27671	E	113.85916	1610.97	305.32
18-Jan-13	8:58:06	Other	Traveling	91	20	40	328	53	30	N	22.28872	E	113.88035	2424.63	20.89
18-Jan-13	9:00:29	Other	Traveling	91	16	50	339	14	30	N	22.28793	E	113.88479	2547.53	31.24
18-Jan-13	9:04:15	Other	Traveling	90	58	20	346	2	40	N	22.29227	E	113.89219	3377.91	38.04
18-Jan-13	9:13:45	Speedboat	Traveling	92	13	20	285	44	10	N	22.28047	E	113.86657	1457.86	337.73
18-Jan-13	9:14:04	Transportation boat	Traveling	91	42	10	281	1	20	N	22.28363	E	113.86353	1906.95	333.02
18-Jan-13	9:14:17	Speedboat	Traveling	92	32	20	274	23	10	N	22.27789	E	113.86508	1274.92	326.38
18-Jan-13	9:15:20	Speedboat	Traveling	92	52	0	243	8	10	N	22.27265	E	113.86201	1128.33	295.13
18-Jan-13	9:16:06	Speedboat	Traveling	92	35	0	220	36	0	N	22.26884	E	113.85977	1252.76	272.60
18-Jan-13	9:16:23	Transportation boat	Traveling	91	49	40	267	15	0	N	22.28043	E	113.86067	1775.08	319.25
18-Jan-13	9:18:22	Transportation boat	Traveling	91	52	20	257	19	10	N	22.27821	E	113.85891	1732.41	309.32
18-Jan-13	9:19:15	Police Vessel	Traveling	91	20	20	336	15	20	N	22.28762	E	113.88314	2432.62	28.25
18-Jan-13	9:19:43	Police Vessel	Traveling	91	22	30	335	14	20	N	22.28728	E	113.88248	2367.64	27.24
18-Jan-13	9:20:06	Police Vessel	Stationary	91	22	50	335	8	10	N	22.28722	E	113.88240	2357.92	27.13
18-Jan-13	9:20:28	Transportation boat	Stationary	91	57	40	252	58	40	N	22.27686	E	113.85877	1653.06	304.97
18-Jan-13	9:26:12	Fishing boat	Non-operating	91	18	50	267	14	0	N	22.28523	E	113.85620	2478.96	319.23
18-Jan-13	9:28:06	Fishing boat	Non-operating	91	22	10	256	43	0	N	22.28171	E	113.85391	2376.53	308.71
18-Jan-13	9:32:27	Fishing boat	Non-operating	91	15	40	233	44	20	N	22.27464	E	113.84776	2583.94	285.74
18-Jan-13	9:32:49	Transportation boat	Traveling	91	24	50	338	40	50	N	22.28614	E	113.88336	2300.20	30.68
18-Jan-13	9:33:51	Transportation boat	Traveling	91	25	50	343	42	40	N	22.28494	E	113.88485	2272.89	35.71
18-Jan-13	9:35:48	Transportation boat	Traveling	91	25	30	348	10	30	N	22.28402	E	113.88626	2281.69	40.17
18-Jan-13	9:36:34	Transportation boat	Stationary	91	27	10	347	34	10	N	22.28385	E	113.88580	2237.35	39.57
18-Jan-13	9:40:32	Transportation boat	Traveling	91	28	20	348	1	20	N	22.28354	E	113.88575	2207.00	40.02
18-Jan-13	9:41:19	Transportation boat	Traveling	91	27	50	344	21	20	N	22.28442	E	113.88474	2219.67	36.35
18-Jan-13	9:44:17	Transportation boat	Traveling	91	21	20	330	52	50	N	22.28823	E	113.88102	2399.59	22.88
18-Jan-13	9:47:06	Hi-Speed Ferry		91	33	20	336	24	0	N	22.28485	E	113.88160	2086.63	28.40
18-Jan-13	9:50:52	Hi-Speed Ferry		96	18	10	300	55	40	N	22.27289	E	113.87133	510.05	352.92
18-Jan-13	9:52:07	Hi-Speed Ferry		96	46	30	234	28	10	N	22.26954	E	113.86752	474.15	286.47
18-Jan-13	9:52:18	Speedboat	Traveling	112	44	50	301	28	50	N	22.26953	E	113.87180	134.31	353.48
18-Jan-13	9:52:32	Speedboat	Traveling	104	5	40	335	52	10	N	22.27012	E	113.87296	224.29	27.87
18-Jan-13	9:52:47	Speedboat	Traveling	99	21	10	349	29	10	N	22.27064	E	113.87415	341.94	41.48
18-Jan-13	9:53:24	Speedboat	Traveling	94	49	10	358	19	10	N	22.27217	E	113.87695	668.25	50.32
18-Jan-13	9:54:28	Speedboat	Traveling	92	39	20	359	51	30	N	22.27509	E	113.88125	1216.47	51.86
18-Jan-13	9:54:55	Other	Traveling	91	33	10	241	10	10	N	22.27573	E	113.85326	2089.70	293.17
18-Jan-13	9:58:02	Other	Traveling	91	31	30	257	14	10	N	22.28044	E	113.85591	2127.97	309.23
18-Jan-13	9:58:54	Speedboat	Traveling	92	17	40	350	13	40	N	22.27772	E	113.88115	1408.90	42.22
18-Jan-13	9:59:48	Speedboat	Traveling	94	13	50	342	50	50	N	22.27396	E	113.87618	761.62	34.84
18-Jan-13	10:00:02	Other	Traveling	91	24	0	265	58	20	N	22.28384	E	113.85683	2320.61	317.97
18-Jan-13	10:00:48	Speedboat	Traveling	102	43	30	267	8	40	N	22.27003	E	113.87036	249.29	319.14
18-Jan-13	10:01:03	Speedboat	Traveling	100	6	0	232	14	30	N	22.26903	E	113.86897	316.05	284.24
18-Jan-13	10:09:25	Speedboat	Traveling	104	6	30	275	19	30	N	22.27003	E	113.87077	223.89	327.32
18-Jan-13	10:09:38	Speedboat	Traveling	100	18	20	315	3	30	N	22.27110	E	113.87231	309.50	7.06
18-Jan-13	10:09:49	Speedboat	Traveling	97	1	50	330	22	10	N	22.27213	E	113.87363	456.39	22.37
18-Jan-13	10:11:11	Speedboat	Traveling	91	54	50	351	26	10	N	22.27938	E	113.88325	1690.47	43.43
18-Jan-13	10:12:38	Hi-Speed Ferry		93	45	30	217	12	30	N	22.26823	E	113.86361	857.35	269.21
18-Jan-13	10:14:57	Hi-Speed Ferry		94	19	30	307	42	0	N	22.27503	E	113.87191	744.41	359.70
18-Jan-13	10:17:16	Hi-Speed Ferry		91	51	10	336	0	20	N	22.28221	E	113.87992	1746.28	28.00
18-Jan-13	10:18:37	Transportation boat	Traveling	91	43	20	341	26	20	N	22.28245	E	113.88202	1879.90	33.44
18-Jan-13	10:18:50	Hi-Speed Ferry	Traveling	91	19	0	341	50	50	N	22.28678	E	113.88531	2467.96	33.84
18-Jan-13	10:19:51	Fishing boat	Non-operating	92	6	30	224	54	40	N	22.26999	E	113.85715	1532.79	276.91

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
18-Jan-13	10:20:18	Transportation boat	Traveling	92	6	0	330	12	50	N	22.28115	E	113.87760	1538.88	22.21
18-Jan-13	10:22:27	Fishing boat	Non-operating	92	18	0	254	47	0	N	22.27590	E	113.86101	1404.04	306.78
18-Jan-13	10:22:50	Transportation boat	Traveling	92	42	30	302	57	50	N	22.27901	E	113.87093	1191.17	354.96
18-Jan-13	10:23:12	Sand Barge		91	21	30	219	7	0	N	22.26875	E	113.84870	2390.53	271.11
18-Jan-13	10:26:33	Fishing boat	Non-operating	91	37	10	290	49	0	N	22.28553	E	113.86620	1999.89	342.81
18-Jan-13	10:26:46	Transportation boat	Traveling	92	11	10	254	46	40	N	22.27629	E	113.86044	1477.42	306.77
18-Jan-13	10:26:59	Sand Barge		91	36	50	245	23	40	N	22.27664	E	113.85462	2006.81	297.39
18-Jan-13	10:28:39	Transportation boat	Traveling	91	40	20	246	47	10	N	22.27672	E	113.85544	1935.88	298.78
18-Jan-13	10:30:04	Transportation boat	Traveling	91	26	20	249	17	0	N	22.27886	E	113.85321	2254.00	301.28
18-Jan-13	10:32:07	Sand Barge		91	18	30	280	41	10	N	22.28818	E	113.86086	2482.51	332.68
18-Jan-13	10:32:23	Transportation boat	Traveling	91	29	10	257	24	0	N	22.28079	E	113.85555	2181.15	309.40
18-Jan-13	10:33:16	Speedboat	Traveling	92	17	30	359	44	20	N	22.27618	E	113.88270	1408.51	51.74
18-Jan-13	10:33:38	Other	Traveling	91	9	20	345	7	0	N	22.28855	E	113.88848	2817.56	37.11
18-Jan-13	10:33:55	Speedboat	Traveling	92	57	50	0	11	30	N	22.27433	E	113.88030	1087.42	52.19
18-Jan-13	10:35:07	Speedboat	Traveling	96	22	0	358	44	40	N	22.27120	E	113.87574	503.91	50.74
18-Jan-13	10:35:18	Speedboat	Traveling	97	45	30	355	6	20	N	22.27086	E	113.87488	412.64	47.10
18-Jan-13	10:35:39	Other	Traveling	91	20	0	342	24	30	N	22.28641	E	113.88532	2434.78	34.41
18-Jan-13	10:36:40	Transportation boat	Traveling	91	53	20	293	23	0	N	22.28323	E	113.86774	1711.15	345.38
18-Jan-13	10:36:57	Other	Traveling	91	29	20	342	21	40	N	22.28450	E	113.88389	2176.59	34.36
18-Jan-13	10:38:58	Other	Stationary	91	32	20	345	30	40	N	22.28336	E	113.88441	2104.76	37.51
18-Jan-13	10:41:54	Transportation boat	Traveling	91	38	0	340	41	10	N	22.28334	E	113.88235	1981.36	32.68
18-Jan-13	10:44:29	Transportation boat	Stationary	91	34	40	345	23	40	N	22.28300	E	113.88406	2051.74	37.39
18-Jan-13	10:45:18	Fishing boat	Non-operating	91	29	40	334	15	10	N	22.28583	E	113.88127	2167.60	26.25
18-Jan-13	10:48:59	Fishing boat	Non-operating	91	49	10	341	27	30	N	22.28167	E	113.88147	1776.12	33.46
18-Jan-13	10:49:33	Transportation boat	Stationary	91	26	50	347	25	30	N	22.28390	E	113.88577	2238.92	39.42
18-Jan-13	10:53:31	Fishing boat	Operating	92	7	40	337	54	50	N	22.28016	E	113.87930	1516.45	29.91
18-Jan-13	10:55:07	Fishing boat	Operating	91	55	50	334	42	50	N	22.28178	E	113.87926	1672.55	26.71
18-Jan-13	10:59:13	Fishing boat	Operating	91	32	40	328	6	50	N	22.28604	E	113.87895	2095.23	20.11
18-Jan-13	10:59:47	Transportation boat	Traveling	91	22	10	348	33	40	N	22.28452	E	113.88691	2367.03	40.56
18-Jan-13	11:01:25	Transportation boat	Traveling	91	7	50	346	50	10	N	22.28851	E	113.88950	2877.81	38.83
18-Jan-13	11:02:08	Fishing boat	Operating	91	41	10	324	12	10	N	22.28490	E	113.87715	1916.95	16.20
18-Jan-13	11:05:43	Fishing boat	Operating	92	0	30	333	33	10	N	22.28138	E	113.87868	1606.50	25.55
18-Jan-13	11:09:24	Fishing boat	Operating	92	19	30	329	35	50	N	22.27993	E	113.87691	1386.01	21.59
18-Jan-13	11:12:52	Fishing boat	Operating	91	46	10	326	28	50	N	22.28391	E	113.87757	1824.90	18.48
18-Jan-13	11:14:11	Other	Traveling	91	31	30	347	18	30	N	22.28310	E	113.88501	2120.91	39.31
18-Jan-13	11:17:29	Fishing boat	Operating	91	23	20	320	16	0	N	22.28884	E	113.87676	2331.56	12.26
18-Jan-13	11:17:47	Other	Traveling	91	35	0	346	7	20	N	22.28279	E	113.88420	2041.48	38.12
18-Jan-13	11:22:27	Fishing boat	Operating	91	26	20	317	34	40	N	22.28829	E	113.87558	2248.84	9.57
18-Jan-13	11:24:23	Other	Stationary	91	35	0	346	6	10	N	22.28279	E	113.88419	2040.89	38.10
18-Jan-13	11:29:00	Fishing boat	Operating	92	21	50	326	18	10	N	22.27997	E	113.87610	1361.89	18.30
18-Jan-13	11:31:27	Fishing boat	Operating	92	16	50	318	55	10	N	22.28081	E	113.87454	1411.84	10.92
18-Jan-13	11:35:28	Fishing boat	Operating	91	44	10	315	40	10	N	22.28491	E	113.87436	1858.46	7.67
18-Jan-13	11:39:34	Fishing boat	Operating	91	23	30	310	18	0	N	22.28924	E	113.87285	2324.58	2.30
18-Jan-13	11:42:33	Hi-Speed Ferry		91	18	40	342	50	10	N	22.28657	E	113.88566	2469.52	34.83
18-Jan-13	11:42:56	Other	Traveling	91	30	10	313	17	0	N	22.28760	E	113.87387	2149.99	5.28
18-Jan-13	11:43:21	Police Vessel	Traveling	91	34	0	324	15	20	N	22.28614	E	113.87755	2061.16	16.25
18-Jan-13	11:44:35	Hi-Speed Ferry		91	58	50	335	57	30	N	22.28126	E	113.87936	1626.46	27.96
18-Jan-13	11:44:55	Fishing boat	Operating	92	1	50	296	44	10	N	22.28233	E	113.86893	1586.06	348.73
18-Jan-13	11:45:16	Police Vessel	Traveling	92	5	10	298	0	50	N	22.28201	E	113.86934	1543.48	350.01
18-Jan-13	11:47:44	Hi-Speed Ferry		95	43	0	289	14	50	N	22.27310	E	113.87019	559.94	341.24
18-Jan-13	11:47:56	Other	Traveling	91	56	10	284	37	40	N	22.28208	E	113.86552	1663.87	336.62
18-Jan-13	11:48:10	Transportation boat	Traveling	91	57	30	321	22	40	N	22.28273	E	113.87564	1644.81	13.37
18-Jan-13	11:48:30	Police Vessel	Stationary	92	8	40	298	15	0	N	22.28165	E	113.86947	1500.97	350.25
18-Jan-13	11:48:44	Fishing boat	Non-operating	92	8	10	299	18	40	N	22.28174	E	113.86973	1506.86	351.31
18-Jan-13	11:49:33	Hi-Speed Ferry		94	21	50	218	44	10	N	22.26842	E	113.86480	734.71	270.73
18-Jan-13	11:49:46	Other	Traveling	92	2	30	271	25	20	N	22.27973	E	113.86280	1577.03	323.42
18-Jan-13	11:50:00	Transportation boat	Traveling	92	25	40	299	40	0	N	22.28013	E	113.87008	1324.62	351.66
18-Jan-13	11:52:47	Other	Traveling	92	5	20	256	58	10	N	22.27705	E	113.86029	1540.91	308.97
18-Jan-13	11:53:04	Transportation boat	Traveling	92	12	10	256	20	0	N	22.27649	E	113.86080	1460.65	308.33
18-Jan-13	11:53:46	Transportation boat	Stationary	92	4	30	255	58	40	N	22.27692	E	113.86005	1551.23	307.97
18-Jan-13	11:54:07	Other	Stationary	92	2	30	255	9	0	N	22.27690	E	113.85972	1576.73	307.15
18-Jan-13	11:55:03	Transportation boat	Traveling	92	8	30	260	43	30	N	22.27751	E	113.86121	1502.51	312.72
18-Jan-13	11:56:08	Other	Traveling	92	7	40	254	34	40	N	22.27644	E	113.86013	1512.31	306.57
18-Jan-13	11:56:28	Other	Traveling	92	7	0	254	35	20	N	22.27649	E	113.86007	1520.29	306.59
18-Jan-13	11:56:36	Other	Traveling	92	8	20	255	28	20	N	22.27657	E	113.86033	1504.37	307.47
18-Jan-13	11:58:27	Transportation boat	Traveling	92	8	20	312	37	40	N	22.28183	E	113.87312	1504.25	4.62
18-Jan-13	12:00:51	Fishing boat	Non-operating	92	0	0	306	7	20	N	22.28281	E	113.87143	1609.37	358.12
18-Jan-13	12:01:03	Police Vessel	Stationary	92	0	10	304	18	10	N	22.28277	E	113.87094	1607.11	356.30
18-Jan-13	12:01:37	Transportation boat	Traveling	91	21	10	338	4	0	N	22.28695	E	113.88359	2390.18	30.06
18-Jan-13	12:02:14	Other	Traveling	92	45	20	285	12	10	N	22.27800	E	113.86755	1165.59	337.20
18-Jan-13	12:02:57	Transportation boat	Traveling	92	26	40	279	22	20	N	22.27872	E	113.86582	1314.79	331.37
18-Jan-13	12:07:12	Police Vessel	Traveling	91	40	40	332	3	30	N	22.28412	E	113.87956	1921.11	24.06
18-Jan-13	12:07:26	Police Vessel	Traveling	91	32	10	336	1	40	N	22.28502	E	113.88154	2100.47	28.02
18-Jan-13	12:07:45	Fishing boat	Non-operating	92	9	50	301	4	20	N	22.28161	E	113.87020	1486.14	353.07
18-Jan-13	12:08:53	Other	Traveling	92	28	0	324	51	20	N	22.27955	E	113.87562	1302.54	16.85
18-Jan-13	12:10:41	Transportation boat	Traveling	92	13	40	320	50	30	N	22.28099	E	113.87506	1443.04	12.84
18-Jan-13	12:11:08	Other	Traveling	92	13	50	332	17	30	N	22.28015	E	113.87771	1441.20	24.29
18-Jan-13	12:11:14	Other	Traveling	92	12	30	333	16	30	N	22.28018	E	113.87799	1455.80	25.27
18-Jan-13	12:11:42	Fishing boat	Non-operating	92	59	20	291	38	50	N	22.27760	E	113.86900	1073.70	343.64
18-Jan-13	12:14:44	Fishing boat	Non-operating	93	6	10	282	0	50	N	22.27670	E	113.86754	1033.95	334.01
18-Jan-13	12:16:00	Other	Stationary	91	43	30	346	15	50	N	22.28153	E	113.88319	1867.24	38.26
18-Jan-13	12:16:17	Other	Stationary	91	45	30	345	34	30	N	22.28140	E	113.88281	1831.46	37.57
18-Jan-13	12:16:22	Other	Stationary	91	45	30	346	0	30	N	22.28132	E	113.88291	1831.45	38.01
18-Jan-13	12:16:33	Transportation boat	Stationary	91	45	0	346	14	10	N	22.28134	E	113.88302	1840.25	38.23
18-Jan-13	12:16:50	Fishing boat	Non-operating	92	30	50	287	55	10	N	22.27913	E	113.86768	1277.48	339.92
18-Jan-13	12:17:41	Other	Stationary	91	31	40	296	25	10	N	22.28694	E	113.86782	2111.12	348.42
18-Jan-13	12:18:39	Other	Stationary	92	1	10	297	18	40	N	22.28242	E	113.86907	1592.51	349.31
18-Jan-13	12:19:26	Fishing boat	Non-operating	92	3	30	290	27	20	N	22.28174	E	113.86736	1562.14	342.45
18-Jan-13	12:19:46	Other	Traveling	91	56	0	290	24	20	N	22.28261	E	113.86705	1663.96	342.40
18-Jan-13	12:23:36	Other	Traveling	92	23	50	271	33	30	N	22.27803	E	113.86421	1339.64	323.56
18-Jan-13	12:23:55	Fishing boat	Non-operating	92	48	40	279	27	20	N	22.27736	E	113.86664	1141.35	331.45
18-Jan-13	12:24:54	Other	Traveling	92	26	10	236	1	50	N	22.27200	E	113.85976	1318.05	288.03
18-Jan-13	12:25:34	Other	Traveling	92	9	20	219	3	30	N	22.26858	E	113.85745	1490.76	271.06
18-Jan-13	12:25:55	Fishing boat	Non-operating	92	53	30	271	44	40	N	22.27638	E	113.86556	1109.29	323.74
18-Jan-13	12:26:56	Fishing boat	Non-operating	92	34	30	275	5	20	N	22.27775	E	113.86536	1246.44	327.09
18-Jan-13	12:33:31	Fishing boat	Non-operating	91	44	50	293	42	10	N	22.28439	E	113.86752	1841.83	345.70
18-Jan-13	12:34:07	Police Vessel	Stationary	91	20	50	335	39	50	N	22.28744	E	113.88277	2396.78	27.66
18-Jan-13	12:40:39	Fishing boat	Non-operating	92	6	20	277	19	20	N	22.28014	E	113.86437	1525.42	329.32
18-Jan-13	12:46:16	Fishing boat	Non-operating	92	32	50	261	45	40	N	22.27617	E	113.86310	1259.05	313.76
18-Jan-13	12:46:41	Other	Traveling	92	8	0	222	35	10	N	22.26941	E	113.85736	1505.01	274.58
18-Jan-13	12:47:36	Other	Traveling	92	6	0	247	25	0	N	22.27509	E	113.85899	1529.02	299.41

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
18-Jan-13	12:48:43	Other	Traveling	91	50	10	274	22	10	N	22.28145	E	113.86251	1750.65	326.37
18-Jan-13	12:48:55	Fishing boat	Non-operating	92	7	30	272	58	50	N	22.27947	E	113.86351	1510.81	324.98
18-Jan-13	12:51:58	Police Vessel	Traveling	92	2	40	212	13	50	N	22.26691	E	113.85675	1570.59	264.23
18-Jan-13	12:58:28	Other	Traveling	91	50	30	270	18	40	N	22.28076	E	113.86157	1744.58	322.31
18-Jan-13	12:58:52	Fishing boat	Non-operating	91	32	50	304	3	40	N	22.28701	E	113.87055	2080.49	356.06
18-Jan-13	12:59:10	Police Vessel	Traveling	92	41	10	231	3	10	N	22.27076	E	113.86064	1192.92	283.05
18-Jan-13	13:04:15	Other	Traveling	92	5	10	230	59	20	N	22.27144	E	113.85737	1538.16	282.99
18-Jan-13	13:04:29	Police Vessel	Traveling	92	43	30	255	29	10	N	22.27477	E	113.86287	1175.53	307.48
18-Jan-13	13:06:13	Police Vessel	Traveling	91	21	50	280	58	10	N	22.28728	E	113.86150	2363.67	332.97
18-Jan-13	13:07:57	Police Vessel	Traveling	91	43	20	290	8	20	N	22.28432	E	113.86638	1866.03	342.14
18-Jan-13	13:08:07	Police Vessel	Traveling	91	48	50	246	13	40	N	22.27587	E	113.85677	1770.80	298.22
18-Jan-13	13:09:02	Police Vessel	Traveling	91	26	50	297	13	30	N	22.28801	E	113.86790	2225.27	349.22
18-Jan-13	13:09:17	Police Vessel	Traveling	91	35	20	222	27	40	N	22.26975	E	113.85232	2024.33	274.46
18-Jan-13	13:10:04	Fishing boat	Non-operating	91	29	10	309	46	10	N	22.28782	E	113.87259	2166.13	1.77
18-Jan-13	13:16:50	Other	Traveling	91	26	40	331	49	40	N	22.28668	E	113.88070	2228.84	23.82
18-Jan-13	13:18:33	Other	Traveling	91	13	50	325	15	10	N	22.29088	E	113.87951	2623.20	17.25
18-Jan-13	13:20:24	Fishing boat	Non-operating	91	24	50	313	44	30	N	22.28873	E	113.87416	2277.38	5.74
18-Jan-13	13:33:18	Other	Traveling	91	27	50	337	9	0	N	22.28560	E	113.88235	2197.22	29.15
18-Jan-13	13:35:07	Other	Traveling	91	19	30	328	8	40	N	22.28887	E	113.88009	2431.12	20.14
18-Jan-13	13:35:44	Fishing boat	Non-Operating	91	42	40	313	46	50	N	22.28513	E	113.87378	1875.98	5.78
18-Jan-13	13:38:55	Speedboat	Traveling	105	30	50	313	53	10	N	22.27013	E	113.87214	200.88	5.88
18-Jan-13	13:39:07	Speedboat	Traveling	100	15	0	331	56	30	N	22.27087	E	113.87316	308.38	23.94
18-Jan-13	13:39:23	Speedboat	Traveling	96	41	20	342	17	50	N	22.27187	E	113.87455	475.58	34.29
18-Jan-13	13:39:43	Fishing boat	Non-operating	92	18	40	316	28	20	N	22.28066	E	113.87393	1385.25	8.47
18-Jan-13	13:39:57	Speedboat	Traveling	93	50	40	347	53	30	N	22.27407	E	113.87712	830.51	39.89
18-Jan-13	13:41:21	Fishing boat	Non-operating	92	37	50	314	52	10	N	22.27920	E	113.87336	1216.00	6.87
18-Jan-13	13:44:40	Fishing boat	Non-operating	92	4	10	309	39	40	N	22.28226	E	113.87238	1547.89	1.66
18-Jan-13	13:48:25	Fishing boat	Non-operating	91	40	20	306	39	20	N	22.28560	E	113.87151	1919.01	358.65
18-Jan-13	13:50:08	Fishing boat	Non-operating	91	50	0	305	17	10	N	22.28405	E	113.87114	1748.61	357.28
18-Jan-13	14:01:28	Zero		91	11	30	0	0	0	N	22.28332	E	113.89268	2705.45	52.00
18-Jan-13	14:09:59	Hi-Speed Ferry		94	41	40	221	5	0	N	22.26866	E	113.86536	678.52	273.08
18-Jan-13	14:11:23	Hi-Speed Ferry		96	21	50	285	17	0	N	22.27248	E	113.87007	499.40	337.28
18-Jan-13	14:14:31	Hi-Speed Ferry		91	54	50	338	12	40	N	22.28134	E	113.88013	1672.57	30.21
18-Jan-13	14:15:08	Fishing boat	Non-operating	92	32	50	255	13	40	N	22.27516	E	113.86223	1254.15	307.22
18-Jan-13	14:17:31	Fishing boat	Non-operating	92	19	30	251	54	20	N	22.27523	E	113.86085	1374.64	303.90
18-Jan-13	14:23:19	Fishing boat	Non-operating	91	53	20	271	37	0	N	22.28061	E	113.86217	1694.25	323.61
18-Jan-13	14:49:46	Other	Traveling	92	30	10	234	34	40	N	22.27161	E	113.86006	1274.61	286.57
18-Jan-13	14:53:42	Speedboat	Traveling	94	19	0	240	39	50	N	22.27089	E	113.86533	736.83	292.66
18-Jan-13	14:53:55	Other	Traveling	92	12	10	277	41	50	N	22.27959	E	113.86483	1449.12	329.69
18-Jan-13	14:54:08	Speedboat	Traveling	94	14	10	256	5	40	N	22.27250	E	113.86620	750.90	308.09
18-Jan-13	14:54:58	Speedboat	Traveling	93	22	50	277	35	50	N	22.27564	E	113.86731	941.96	329.59
18-Jan-13	14:55:08	Other	Traveling	91	57	30	286	20	40	N	22.28198	E	113.86609	1631.37	338.34
18-Jan-13	14:55:41	Other	Stationary	91	25	40	346	49	40	N	22.28408	E	113.88564	2245.43	38.82
18-Jan-13	14:55:50	Other	Stationary	91	25	0	347	32	40	N	22.28404	E	113.88596	2263.29	39.54
18-Jan-13	14:56:06	Other	Stationary	91	41	0	344	36	50	N	22.28206	E	113.88297	1900.55	36.61
18-Jan-13	14:56:14	Other	Stationary	91	40	30	344	59	50	N	22.28206	E	113.88312	1910.12	36.99
18-Jan-13	14:56:45	Other	Stationary	91	34	30	345	20	20	N	22.28288	E	113.88394	2032.88	37.34
18-Jan-13	14:56:59	Other	Stationary	91	28	10	346	29	0	N	22.28370	E	113.88514	2180.91	38.48
18-Jan-13	14:57:08	Other	Stationary	91	28	30	347	5	0	N	22.28351	E	113.88526	2172.59	39.08
18-Jan-13	14:57:20	Other	Stationary	91	34	50	345	59	20	N	22.28270	E	113.88407	2025.69	37.99
19-Jan-13	9:12:21	Zero		168	25	40	0	0	0	N	22.26840	E	113.87203	11.52	52.00
19-Jan-13	9:13:00	Other	Stationary	91	26	50	346	56	10	N	22.28404	E	113.88565	2243.15	38.93
19-Jan-13	9:13:11	Other	Stationary	91	26	20	347	40	30	N	22.28396	E	113.88595	2256.31	39.67
19-Jan-13	9:13:25	Other	Stationary	91	42	40	344	44	50	N	22.28199	E	113.88296	1893.21	36.74
19-Jan-13	9:13:33	Other	Stationary	91	41	50	345	7	50	N	22.28203	E	113.88315	1908.86	37.13
19-Jan-13	9:13:46	Other	Stationary	91	35	30	345	28	10	N	22.28288	E	113.88400	2036.94	37.47
19-Jan-13	9:13:59	Other	Stationary	91	29	10	346	36	50	N	22.28369	E	113.88520	2183.54	38.61
19-Jan-13	9:14:09	Other	Stationary	91	29	50	347	12	50	N	22.28344	E	113.88527	2167.10	39.21
19-Jan-13	9:14:27	Other	Stationary	91	36	30	346	8	0	N	22.28260	E	113.88405	2015.52	38.13
19-Jan-13	9:14:49	Other	Stationary	90	57	0	241	40	0	N	22.28079	E	113.84121	3449.87	293.66
19-Jan-13	9:15:07	Other	Stationary	91	5	30	247	5	10	N	22.28141	E	113.84653	2989.85	299.08
19-Jan-13	9:15:49	Other	Stationary	91	53	20	339	0	40	N	22.28155	E	113.88053	1713.21	31.01
19-Jan-13	9:16:08	Other	Stationary	91	52	10	337	58	30	N	22.28183	E	113.88036	1731.17	29.97
19-Jan-13	9:16:29	Transportation boat	Stationary	91	35	40	345	27	30	N	22.28286	E	113.88397	2033.12	37.46
19-Jan-13	9:17:08	Fishing boat	Operating	95	9	0	296	37	0	N	22.27384	E	113.87075	624.65	348.61
19-Jan-13	9:20:23	Fishing boat	Operating	94	28	40	303	20	30	N	22.27478	E	113.87138	718.93	355.34
19-Jan-13	9:21:20	Fishing boat	Operating	94	5	0	307	17	40	N	22.27543	E	113.87185	788.73	359.29
19-Jan-13	9:22:00	Transportation boat	Traveling	91	46	40	340	49	30	N	22.28210	E	113.88154	1820.86	32.82
19-Jan-13	9:22:36	Transportation boat	Stationary	91	50	30	340	44	30	N	22.28163	E	113.88119	1757.06	32.74
19-Jan-13	9:22:47	Transportation boat	Traveling	91	53	50	339	41	50	N	22.28139	E	113.88066	1705.13	31.69
19-Jan-13	9:23:51	Transportation boat	Stationary	91	53	30	338	29	0	N	22.28160	E	113.88038	1710.11	30.48
19-Jan-13	9:26:07	Fishing boat	Operating	94	12	10	311	10	50	N	22.27522	E	113.87236	766.05	3.18
19-Jan-13	9:29:20	Transportation boat	Traveling	91	16	30	348	52	40	N	22.28568	E	113.88817	2549.77	40.87
19-Jan-13	9:32:03	Transportation boat	Traveling	91	32	0	349	55	10	N	22.28249	E	113.88568	2113.84	41.92
19-Jan-13	9:32:23	Transportation boat	Traveling	91	44	30	341	5	30	N	22.28234	E	113.88181	1858.22	33.09
19-Jan-13	9:33:31	Transportation boat	Traveling	91	34	30	344	33	40	N	22.28320	E	113.88386	2057.10	36.56
19-Jan-13	9:37:07	Speedboat	Stationary	110	59	30	258	8	20	N	22.26918	E	113.87086	146.53	310.14
19-Jan-13	9:40:33	Fishing boat	Operating	95	25	10	308	38	20	N	22.27367	E	113.87201	592.82	0.64
19-Jan-13	9:42:52	Fishing boat	Operating	95	30	10	265	59	10	N	22.27224	E	113.86814	583.73	317.98
19-Jan-13	9:43:45	Transportation boat	Traveling	91	19	40	342	47	0	N	22.28641	E	113.88551	2445.20	34.78
19-Jan-13	9:44:08	Hi-Speed Ferry		91	4	50	344	53	50	N	22.29005	E	113.88957	3017.79	36.89
19-Jan-13	9:44:24	Transportation boat	Stationary	91	32	40	346	22	50	N	22.28313	E	113.88461	2097.38	38.38
19-Jan-13	9:46:05	Fishing boat	Operating	93	58	50	270	13	30	N	22.27408	E	113.86713	808.39	322.22
19-Jan-13	9:46:22	Hi-Speed Ferry		91	33	30	336	50	20	N	22.28472	E	113.88169	2078.28	28.84
19-Jan-13	9:47:21	Speedboat	Traveling	113	26	10	255	22	10	N	22.26904	E	113.87094	129.64	307.37
19-Jan-13	9:49:39	Hi-Speed Ferry		94	50	20	312	10	10	N	22.27429	E	113.87241	664.19	4.17
19-Jan-13	9:50:23	Fishing boat	Non-operating	91	58	10	225	37	10	N	22.27029	E	113.85613	1640.23	277.62
19-Jan-13	9:51:00	Hi-Speed Ferry		97	57	10	251	48	0	N	22.27035	E	113.86869	402.31	303.80
19-Jan-13	9:51:13	Speedboat	Traveling	93	0	40	11	17	30	N	22.27266	E	113.88124	1069.90	63.29
19-Jan-13	9:51:52	Hi-Speed Ferry		95	21	40	212	42	40	N	22.26784	E	113.86614	599.04	264.71
19-Jan-13	9:52:17	Speedboat	Traveling	94	7	40	15	51	0	N	22.27098	E	113.87896	779.21	67.85
19-Jan-13	9:55:14	Speedboat	Traveling	94	45	10	14	40	50	N	22.27074	E	113.87798	676.14	66.68
19-Jan-13	9:55:36	Fishing boat	Non-operating	91	58	40	268	28	20	N	22.27967	E	113.86184	1632.91	320.47
19-Jan-13	9:56:59	Speedboat	Stationary	94	21	50	14	35	50	N	22.27097	E	113.87852	736.70	66.59
19-Jan-13	9:58:25	Transportation boat	Traveling	91	5	40	349	0	0	N	22.28855	E	113.89094	2976.77	41.00
19-Jan-13	9:58:58	Fishing boat	Non-operating	91	35	20	289	9	0	N	22.28568	E	113.86554	2036.78	341.15
19-Jan-13	10:00:37	Transportation boat	Traveling	91	23	0	349	10	10	N	22.28421	E	113.88695	2343.79	41.17
19-Jan-13	10:01:42	Transportation boat	Stationary	91	26	40	347	41	30	N	22.28387	E	113.88588	2243.05	39.69
19-Jan-13	10:03:55	Transportation boat	Traveling	91	34	50	345	34	10	N	22.28294	E	113.88408	2047.23	37.57
19-Jan-13	10:04:11	Transportation boat	Traveling	91	43	10	343	7	0	N	22.28217	E	113.88246	1880.04	35.11
19-Jan-13	10:05:14	Transportation boat	Traveling	91	50	0	339	24	40	N	22.28187	E	113.88087	1762.05	31.41

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
19-Jan-13	10:05:40	Transportation boat	Stationary	91	50	40	338	48	20	N	22.28187	E	113.88067	1751.31	30.80
19-Jan-13	10:06:02	Transportation boat	Stationary	91	34	50	345	32	10	N	22.28294	E	113.88407	2047.06	37.53
19-Jan-13	10:13:20	Hi-Speed Ferry		95	34	20	221	16	10	N	22.26863	E	113.86636	575.69	273.27
19-Jan-13	10:14:28	Hi-Speed Ferry		97	12	20	281	18	10	N	22.27190	E	113.87000	444.14	333.30
19-Jan-13	10:15:35	Hi-Speed Ferry		94	17	30	325	7	10	N	22.27477	E	113.87409	748.59	17.12
19-Jan-13	10:17:01	Hi-Speed Ferry		92	24	10	341	25	20	N	22.27841	E	113.87913	1341.04	33.42
19-Jan-13	10:17:54	Speedboat	Traveling	112	12	20	336	51	20	N	22.26942	E	113.87259	137.50	28.85
19-Jan-13	10:18:22	Speedboat	Traveling	117	8	20	271	5	20	N	22.26912	E	113.87130	109.50	323.09
19-Jan-13	10:18:38	Hi-Speed Ferry		91	31	40	342	38	40	N	22.28401	E	113.88365	2117.59	34.64
19-Jan-13	10:19:25	Hi-Speed Ferry		91	18	40	344	57	0	N	22.28612	E	113.88640	2473.21	36.95
19-Jan-13	10:29:39	Transportation boat	Traveling	91	34	20	336	14	50	N	22.28463	E	113.88141	2056.05	28.24
19-Jan-13	10:30:25	Transportation boat	Traveling	91	41	50	335	47	10	N	22.28348	E	113.88057	1902.88	27.78
19-Jan-13	10:31:13	Transportation boat	Traveling	93	0	40	229	10	30	N	22.27020	E	113.86175	1068.16	281.17
19-Jan-13	10:31:28	Transportation boat	Traveling	91	50	20	338	18	50	N	22.28197	E	113.88056	1754.80	30.31
19-Jan-13	10:31:59	Transportation boat	Stationary	91	50	30	338	22	20	N	22.28194	E	113.88056	1752.09	30.37
19-Jan-13	10:33:51	Transportation boat	Traveling	93	18	0	261	19	10	N	22.27435	E	113.86505	974.10	313.32
19-Jan-13	10:34:16	Fishing boat	Operating	93	54	10	282	45	30	N	22.27503	E	113.86853	822.96	334.76
19-Jan-13	10:35:27	Fishing boat	Non-operating	91	21	0	221	47	40	N	22.26976	E	113.84866	2399.18	273.79
19-Jan-13	10:36:21	Fishing boat	Operating	93	24	10	272	58	40	N	22.27529	E	113.86667	944.44	324.97
19-Jan-13	10:36:36	Transportation boat	Traveling	92	37	20	290	45	50	N	22.27888	E	113.86841	1227.20	342.76
19-Jan-13	10:37:33	Fishing boat	Non-operating	91	31	40	234	46	20	N	22.27383	E	113.85224	2115.95	286.77
19-Jan-13	10:37:51	Fishing boat	Operating	93	51	0	278	8	30	N	22.27484	E	113.86791	834.18	330.14
19-Jan-13	10:38:39	Fishing boat	Operating	94	16	10	284	35	0	N	22.27454	E	113.86904	751.80	336.58
19-Jan-13	10:40:36	Fishing boat	Non-operating	91	38	0	258	14	20	N	22.27983	E	113.85726	1977.34	310.24
19-Jan-13	10:43:56	Fishing boat	Operating	94	24	50	281	0	40	N	22.27416	E	113.86874	726.91	333.01
19-Jan-13	10:44:17	Fishing boat	Non-operating	91	21	10	283	6	20	N	22.28787	E	113.86214	2393.31	335.10
19-Jan-13	10:44:52	Transportation boat	Traveling	91	42	30	341	26	30	N	22.28252	E	113.88207	1889.25	33.44
19-Jan-13	10:45:42	Transportation boat	Traveling	91	38	30	346	3	30	N	22.28227	E	113.88374	1966.77	38.06
19-Jan-13	10:46:53	Transportation boat	Traveling	91	31	20	351	0	40	N	22.28230	E	113.88603	2122.96	43.01
19-Jan-13	10:47:56	Transportation boat	Traveling	91	23	10	353	2	50	N	22.28318	E	113.88801	2334.49	45.04
19-Jan-13	10:48:17	Fishing boat	Non-operating	91	1	30	299	5	40	N	22.29658	E	113.86716	3177.55	351.09
19-Jan-13	10:53:22	Transportation boat	Traveling	91	51	0	337	16	40	N	22.28201	E	113.88023	1742.60	29.27
19-Jan-13	10:54:09	Transportation boat	Traveling	91	50	30	340	44	10	N	22.28158	E	113.88115	1750.50	32.73
19-Jan-13	10:54:36	Transportation boat	Traveling	91	47	10	339	54	0	N	22.28213	E	113.88122	1805.44	31.90
19-Jan-13	10:55:41	Transportation boat	Stationary	91	47	10	340	5	0	N	22.28210	E	113.88127	1805.36	32.08
19-Jan-13	10:59:56	Fishing boat	Operating	94	20	50	286	58	10	N	22.27453	E	113.86937	737.64	338.97
19-Jan-13	11:00:27	Police Vessel	Traveling	91	58	10	223	24	20	N	22.26972	E	113.85611	1635.54	275.40
19-Jan-13	11:00:59	Fishing boat	Operating	94	8	40	271	52	20	N	22.27396	E	113.86751	773.89	323.87
19-Jan-13	11:02:23	Fishing boat	Operating	93	36	10	267	33	20	N	22.27443	E	113.86632	890.82	319.55
19-Jan-13	11:02:34	Police Vessel	Traveling	91	47	30	269	41	20	N	22.28104	E	113.86110	1799.20	321.69
19-Jan-13	11:03:51	Police Vessel	Traveling	91	27	40	286	20	0	N	22.28683	E	113.86400	2211.46	338.33
19-Jan-13	11:04:05	Fishing boat	Operating	93	8	30	268	58	20	N	22.27548	E	113.86568	1022.18	320.97
19-Jan-13	11:05:12	Fishing boat	Operating	93	5	0	275	43	50	N	22.27626	E	113.86654	1041.57	327.73
19-Jan-13	11:06:10	Dolphin	Surface	95	29	10	237	10	20	N	22.27006	E	113.86658	583.53	289.17
19-Jan-13	11:06:28	Dolphin	Surface	95	37	10	238	49	20	N	22.27016	E	113.86677	569.58	290.82
19-Jan-13	11:06:33	Dolphin	Surface	95	41	20	238	58	50	N	22.27015	E	113.86684	562.57	290.98
19-Jan-13	11:06:39	Dolphin	Surface	95	41	20	239	52	40	N	22.27022	E	113.86687	562.57	291.87
19-Jan-13	11:06:44	Dolphin	Fluke Up	95	45	40	240	24	40	N	22.27024	E	113.86695	555.46	292.41
19-Jan-13	11:08:23	Dolphin	Surface	96	54	10	251	11	30	N	22.27061	E	113.86818	462.82	303.19
19-Jan-13	11:08:39	Dolphin	Fluke Up	97	3	0	252	10	50	N	22.27062	E	113.86830	453.05	304.18
19-Jan-13	11:10:16	Dolphin	Surface	98	7	50	267	11	50	N	22.27100	E	113.86945	392.12	319.19
19-Jan-13	11:10:25	Dolphin	Surface	98	12	50	268	48	0	N	22.27104	E	113.86956	388.09	320.80
19-Jan-13	11:10:37	Dolphin	Surface	98	14	30	270	39	50	N	22.27110	E	113.86966	386.76	322.66
19-Jan-13	11:11:41	Speedboat	Stationary	113	38	10	267	14	20	N	22.26921	E	113.87113	127.97	319.24
19-Jan-13	11:11:52	Dolphin	Surface	99	3	50	282	25	30	N	22.27118	E	113.87047	351.13	334.42
19-Jan-13	11:12:11	Dolphin	Surface	99	23	50	285	7	50	N	22.27114	E	113.87067	338.45	337.13
19-Jan-13	11:12:23	Dolphin	Surface	99	32	20	287	35	0	N	22.27114	E	113.87081	333.33	339.58
19-Jan-13	11:12:30	Dolphin	Surface	99	40	50	289	15	0	N	22.27113	E	113.87092	328.35	341.25
19-Jan-13	11:12:46	Speedboat	Traveling	111	43	10	321	11	40	N	22.26957	E	113.87226	140.59	13.19
19-Jan-13	11:12:51	Speedboat	Traveling	110	50	0	328	51	10	N	22.26957	E	113.87245	147.17	20.85
19-Jan-13	11:12:58	Speedboat	Traveling	109	51	50	337	29	0	N	22.26955	E	113.87269	155.02	29.48
19-Jan-13	11:13:08	Speedboat	Traveling	107	39	0	350	7	30	N	22.26951	E	113.87309	176.02	42.12
19-Jan-13	11:14:22	Dolphin	Surface	100	8	40	310	57	50	N	22.27115	E	113.87210	313.01	2.96
19-Jan-13	11:14:45	Speedboat	Traveling	107	56	30	259	41	30	N	22.26937	E	113.87069	172.95	311.69
19-Jan-13	11:14:50	Speedboat	Traveling	109	7	0	277	35	20	N	22.26959	E	113.87115	161.57	329.59
19-Jan-13	11:14:55	Speedboat	Traveling	107	19	40	297	28	30	N	22.26992	E	113.87163	179.49	349.47
19-Jan-13	11:15:00	Speedboat	Traveling	104	32	50	309	35	0	N	22.27027	E	113.87200	215.81	1.58
19-Jan-13	11:15:07	Speedboat	Traveling	101	55	20	322	32	0	N	22.27064	E	113.87259	265.24	14.53
19-Jan-13	11:15:13	Speedboat	Traveling	99	44	40	329	45	40	N	22.27106	E	113.87312	326.12	21.76
19-Jan-13	11:15:29	Speedboat	Traveling	94	22	10	12	9	30	N	22.27121	E	113.87836	733.40	64.16
19-Jan-13	11:15:37	Speedboat	Traveling	95	32	0	342	9	50	N	22.27264	E	113.87510	578.29	34.16
19-Jan-13	11:15:43	Dolphin	Breach	99	2	30	322	23	50	N	22.27140	E	113.87280	351.95	14.39
19-Jan-13	11:15:46	Dolphin	Breach	99	2	30	323	2	30	N	22.27139	E	113.87283	351.95	15.04
19-Jan-13	11:15:57	Dolphin	Breach	98	44	30	324	1	40	N	22.27148	E	113.87292	364.23	16.02
19-Jan-13	11:16:07	Dolphin	Surface	98	33	0	324	16	40	N	22.27155	E	113.87296	372.52	16.27
19-Jan-13	11:16:16	Dolphin	Surface	98	28	10	325	24	40	N	22.27156	E	113.87304	376.12	17.41
19-Jan-13	11:16:28	Dolphin	Surface	98	24	40	327	13	0	N	22.27155	E	113.87316	378.76	19.21
19-Jan-13	11:16:38	Dolphin	Surface	98	10	10	328	48	30	N	22.27162	E	113.87329	390.13	20.81
19-Jan-13	11:17:58	Dolphin	Surface	96	53	20	335	2	30	N	22.27205	E	113.87399	463.58	27.04
19-Jan-13	11:18:15	Dolphin	Surface	96	38	0	335	38	50	N	22.27217	E	113.87412	481.61	27.64
19-Jan-13	11:18:29	Dolphin	Fluke Up	96	24	40	335	56	10	N	22.27230	E	113.87422	498.46	27.93
19-Jan-13	11:20:01	Dolphin	Surface	95	8	20	336	5	30	N	22.27328	E	113.87480	622.88	28.09
19-Jan-13	11:21:17	Dolphin	Surface	94	27	40	334	24	30	N	22.27412	E	113.87505	718.08	26.41
19-Jan-13	11:21:29	Dolphin	Surface	94	21	50	334	5	0	N	22.27427	E	113.87508	734.16	26.08
19-Jan-13	11:21:36	Dolphin	Surface	94	19	0	334	7	0	N	22.27433	E	113.87512	742.23	26.11
19-Jan-13	11:24:18	Dolphin	Surface	93	21	20	331	35	50	N	22.27622	E	113.87567	955.93	23.59
19-Jan-13	11:24:21	Dolphin	Surface	93	21	20	331	40	10	N	22.27621	E	113.87568	955.92	23.67
19-Jan-13	11:25:21	Dolphin	Surface	93	5	0	330	32	40	N	22.27698	E	113.87582	1040.71	22.54
19-Jan-13	11:25:28	Dolphin	Surface	93	3	20	330	28	40	N	22.27707	E	113.87585	1050.21	22.47
19-Jan-13	11:27:23	Dolphin	Surface	92	39	20	327	43	0	N	22.27858	E	113.87591	1209.20	19.71
19-Jan-13	11:27:28	Dolphin	Surface	92	39	20	327	40	30	N	22.27858	E	113.87590	1209.19	19.67
19-Jan-13	11:27:49	Dolphin	Surface	92	34	40	327	9	30	N	22.27892	E	113.87592	1245.87	19.16
19-Jan-13	11:27:55	Dolphin	Surface	92	33	20	327	3	20	N	22.27902	E	113.87593	1256.76	19.05
19-Jan-13	11:28:06	Dolphin	Surface	92	32	20	326	53	30	N	22.27910	E	113.87593	1265.05	18.89
19-Jan-13	11:38:46	Dolphin	Surface	91	36	30	319	47	40	N	22.28598	E	113.87593	2003.65	11.79
19-Jan-13	11:38:56	Dolphin	Surface	91	35	30	319	54	10	N	22.28616	E	113.87601	2024.87	11.90
19-Jan-13	11:41:33	Dolphin	Surface	91	25	10	320	22	20	N	22.28832	E	113.87668	2273.82	12.37
19-Jan-13	11:41:59	Dolphin	Surface	91	25	10	320	15	10	N	22.28833	E	113.87664	2273.78	12.25
19-Jan-13	11:42:50	Dolphin	Surface	91	23	0	319	34	10	N	22.28891	E	113.87650	2333.98	11.57
19-Jan-13	11:42:55	Dolphin	Surface	91	22	10	319	32	50	N	22.28912	E	113.87653	2358.02	11.54
19-Jan-13	11:43:08	Dolphin	Surface	91	22	10	319	25	20	N	22.28913	E	113.87649	2358.00	11.42

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
19-Jan-13	11:43:22	Dolphin	Surface	91	22	10	319	16	30	N	22.28914	E	113.87643	2357.98	11.27
19-Jan-13	11:43:43	Dolphin	Surface	91	20	30	319	12	0	N	22.28959	E	113.87649	2407.57	11.20
19-Jan-13	11:45:15	Hi-Speed Ferry		92	29	20	324	25	40	N	22.27947	E	113.87549	1289.71	16.42
19-Jan-13	11:46:36	Hi-Speed Ferry		91	31	50	339	40	10	N	22.28446	E	113.88270	2106.09	31.67
19-Jan-13	11:46:54	Hi-Speed Ferry		94	32	50	299	24	40	N	22.27459	E	113.87092	703.67	351.41
19-Jan-13	11:47:16	Hi-Speed Ferry		91	45	10	336	51	50	N	22.28280	E	113.88056	1836.16	28.86
19-Jan-13	11:49:13	Hi-Speed Ferry		94	0	0	217	13	20	N	22.26823	E	113.86416	800.41	269.22
19-Jan-13	11:49:25	Hi-Speed Ferry		93	18	50	325	44	40	N	22.27662	E	113.87481	967.01	17.74
19-Jan-13	11:49:43	Dolphin	Surface	91	8	0	319	13	40	N	22.29357	E	113.87736	2859.03	11.22
19-Jan-13	11:49:56	Dolphin	Surface	91	8	20	319	25	40	N	22.29343	E	113.87743	2844.73	11.42
19-Jan-13	11:50:03	Dolphin	Surface	91	7	40	319	33	0	N	22.29367	E	113.87754	2873.41	11.55
19-Jan-13	11:52:18	Hi-Speed Ferry		95	41	40	226	31	0	N	22.26908	E	113.86655	560.97	278.51
19-Jan-13	11:52:41	Fishing boat	Operating	92	51	40	292	4	50	N	22.27803	E	113.86895	1120.72	344.08
19-Jan-13	11:53:06	Fishing boat	Operating	92	46	20	291	45	30	N	22.27833	E	113.86880	1156.82	343.76
19-Jan-13	11:53:20	Dolphin	Surface	91	3	0	319	29	30	N	22.29560	E	113.87793	3091.46	11.49
19-Jan-13	11:53:29	Dolphin	Surface	91	2	20	319	30	20	N	22.29589	E	113.87801	3125.43	11.50
19-Jan-13	11:58:56	Fishing boat	Operating	92	0	30	311	17	30	N	22.28271	E	113.87284	1599.78	3.29
19-Jan-13	12:02:02	Transportation boat	Traveling	91	18	0	345	30	20	N	22.28607	E	113.88665	2484.22	37.50
19-Jan-13	12:02:51	Transportation boat	Traveling	91	25	20	345	2	30	N	22.28462	E	113.88523	2267.32	37.04
19-Jan-13	12:03:04	Other	Stationary	91	56	40	335	16	20	N	22.28155	E	113.87931	1652.50	27.27
19-Jan-13	12:03:19	Other	Stationary	91	57	0	341	2	0	N	22.28077	E	113.88068	1647.74	33.03
19-Jan-13	12:04:00	Transportation boat	Traveling	91	33	0	341	7	10	N	22.28399	E	113.88299	2077.84	33.12
19-Jan-13	12:04:35	Fishing boat	Operating	95	12	20	275	23	0	N	22.27299	E	113.86873	613.73	327.38
19-Jan-13	12:04:58	Fishing boat	Operating	91	54	40	315	28	20	N	22.28334	E	113.87407	1681.44	7.47
19-Jan-13	12:05:07	Transportation boat	Traveling	91	42	50	332	8	50	N	22.28375	E	113.87941	1876.88	24.14
19-Jan-13	12:08:37	Transportation boat	Traveling	92	0	30	293	52	50	N	22.28229	E	113.86815	1599.14	345.88
19-Jan-13	12:10:33	Fishing boat	Operating	96	41	10	277	25	40	N	22.27203	E	113.86959	476.76	329.42
19-Jan-13	12:10:47	Transportation boat	Traveling	91	42	30	271	6	50	N	22.28188	E	113.86095	1882.61	323.11
19-Jan-13	12:12:10	Other	Stationary	91	48	10	338	48	20	N	22.28211	E	113.88082	1782.91	30.80
19-Jan-13	12:12:26	Transportation boat	Traveling	91	26	30	258	57	40	N	22.28152	E	113.85553	2235.41	310.96
19-Jan-13	12:14:32	Transportation boat	Stationary	91	24	30	256	47	50	N	22.28124	E	113.85459	2288.92	308.79
19-Jan-13	12:15:42	Fishing boat	Non-operating	91	17	30	219	19	0	N	22.26885	E	113.84765	2499.13	271.31
19-Jan-13	12:15:53	Transportation boat	Traveling	91	27	50	258	44	30	N	22.28126	E	113.85573	2200.68	310.74
19-Jan-13	12:17:36	Transportation boat	Traveling	91	41	0	275	8	30	N	22.28277	E	113.86186	1910.34	327.14
19-Jan-13	12:17:49	Fishing boat	Non-operating	91	33	0	233	17	10	N	22.27326	E	113.85246	2076.66	285.28
19-Jan-13	12:19:52	Transportation boat	Traveling	91	42	50	301	11	50	N	22.28509	E	113.86978	1875.75	353.19
19-Jan-13	12:20:03	Fishing boat	Non-operating	91	43	30	253	41	50	N	22.27812	E	113.85723	1863.52	305.69
19-Jan-13	12:21:47	Transportation boat	Traveling	91	29	30	320	7	50	N	22.28733	E	113.87636	2158.61	12.13
19-Jan-13	12:21:55	Fishing boat	Non-operating	91	39	0	271	34	0	N	22.28244	E	113.86069	1949.02	323.56
19-Jan-13	12:24:28	Transportation boat	Traveling	91	10	0	338	15	30	N	22.28988	E	113.88553	2771.53	30.26
19-Jan-13	12:24:38	Fishing boat	Non-operating	91	19	30	290	18	40	N	22.28920	E	113.86475	2434.27	342.31
19-Jan-13	12:40:34	Other	Stationary	91	32	0	342	31	0	N	22.28389	E	113.88350	2097.56	34.51
19-Jan-13	12:41:13	Fishing boat	Operating	94	4	30	321	22	30	N	22.27520	E	113.87371	783.93	13.37
19-Jan-13	12:41:31	Fishing boat	Operating	91	49	20	309	51	50	N	22.28418	E	113.87250	1761.58	1.86
19-Jan-13	13:04:55	Sand Barge		91	28	50	265	21	0	N	22.28270	E	113.85764	2171.17	317.35
19-Jan-13	13:11:35	Sand Barge		91	28	50	231	47	30	N	22.27299	E	113.85144	2170.58	283.79
19-Jan-13	13:15:15	Sand Barge		91	15	50	216	48	30	N	22.26785	E	113.84716	2548.80	268.81
19-Jan-13	13:21:36	Fishing boat	Non-operating	91	55	50	309	57	10	N	22.28326	E	113.87249	1659.13	1.95
19-Jan-13	13:22:29	Fishing boat	Non-operating	92	13	40	308	1	20	N	22.28126	E	113.87195	1436.15	0.02
19-Jan-13	13:23:30	Fishing boat	Non-operating	91	32	20	246	37	10	N	22.27732	E	113.85413	2086.20	298.62
19-Jan-13	13:24:31	Fishing boat	Non-operating	91	36	40	254	45	30	N	22.27906	E	113.85643	1991.47	306.76
19-Jan-13	13:24:46	Fishing boat	Non-operating	93	35	40	296	53	40	N	22.27617	E	113.87028	887.71	348.89
19-Jan-13	13:26:07	Fishing boat	Non-operating	95	25	0	280	27	20	N	22.27302	E	113.86930	587.69	332.45
19-Jan-13	13:26:21	Fishing boat	Non-operating	91	35	40	270	19	30	N	22.28267	E	113.85998	2012.39	322.32
19-Jan-13	13:27:37	Fishing boat	Non-operating	91	29	10	279	44	30	N	22.28546	E	113.86199	2160.92	331.74
19-Jan-13	13:27:51	Fishing boat	Non-operating	97	35	30	228	58	20	N	22.26905	E	113.86795	417.98	280.97
19-Jan-13	13:28:11	Fishing boat	Non-operating	93	0	30	336	37	10	N	22.27672	E	113.87689	1061.43	28.62
19-Jan-13	13:29:09	Fishing boat	Non-operating	95	12	50	328	16	20	N	22.27349	E	113.87400	610.63	20.27
19-Jan-13	13:30:15	Fishing boat	Non-operating	104	44	50	254	31	20	N	22.26947	E	113.87029	211.58	306.52
19-Jan-13	13:30:23	Fishing boat	Non-operating	104	6	20	237	35	50	N	22.26900	E	113.86991	221.63	289.59
19-Jan-13	14:02:30	Speedboat	Traveling	93	17	40	341	11	10	N	22.27562	E	113.87709	967.45	33.18
19-Jan-13	14:03:12	Speedboat	Traveling	97	40	10	304	45	10	N	22.27204	E	113.87172	413.09	356.75
19-Jan-13	14:03:35	Speedboat	Traveling	98	41	40	247	16	30	N	22.26993	E	113.86886	363.74	299.27
19-Jan-13	14:03:51	Speedboat	Traveling	96	0	0	220	18	20	N	22.26852	E	113.86680	529.33	272.30
19-Jan-13	14:08:04	Zero		91	9	30	0	0	0	N	22.28374	E	113.89325	2779.96	52.00
19-Jan-13	14:09:05	Hi-Speed Ferry		94	40	0	224	16	50	N	22.26900	E	113.86536	681.58	276.28
19-Jan-13	14:10:01	Hi-Speed Ferry		96	6	30	265	8	10	N	22.27176	E	113.86851	519.73	317.13
19-Jan-13	14:11:45	Hi-Speed Ferry		93	10	40	321	20	10	N	22.27711	E	113.87419	1002.77	13.33
19-Jan-13	14:12:47	Fishing boat	Operating	115	25	40	268	27	10	N	22.26914	E	113.87122	116.93	320.45
19-Jan-13	14:13:41	Hi-Speed Ferry		91	43	20	336	2	20	N	22.28309	E	113.88044	1857.85	28.04
19-Jan-13	14:15:41	Hi-Speed Ferry		91	10	40	343	57	20	N	22.28824	E	113.88755	2732.20	35.95
19-Jan-13	14:19:33	Fishing boat	Operating	116	13	40	322	37	10	N	22.26932	E	113.87222	112.81	14.62
19-Jan-13	14:23:40	Fishing boat	Operating	114	19	40	276	42	30	N	22.26928	E	113.87132	122.91	328.71
19-Jan-13	14:28:13	Speedboat	Traveling	115	1	50	290	19	40	N	22.26935	E	113.87159	118.98	342.32
19-Jan-13	14:28:38	Speedboat	Traveling	105	35	50	329	5	50	N	22.27000	E	113.87264	199.03	21.09
19-Jan-13	14:29:26	Speedboat	Traveling	97	41	20	351	26	20	N	22.27102	E	113.87470	411.59	43.44
19-Jan-13	14:29:55	Speedboat	Traveling	95	37	10	356	5	0	N	22.27173	E	113.87603	564.85	48.08
19-Jan-13	14:30:11	Fishing boat	Operating	113	6	40	320	48	50	N	22.26948	E	113.87223	130.17	12.81
19-Jan-13	14:32:16	Speedboat	Traveling	92	27	10	358	44	20	N	22.27574	E	113.88173	1299.87	50.74
19-Jan-13	14:46:07	Police Vessel	Traveling	91	39	50	335	46	10	N	22.28363	E	113.88065	1921.11	27.77
19-Jan-13	14:46:46	Police Vessel	Traveling	92	31	10	335	35	20	N	22.27842	E	113.87764	1264.51	27.59
19-Jan-13	14:47:48	Police Vessel	Traveling	96	32	20	280	37	50	N	22.27220	E	113.86978	484.46	332.63
19-Jan-13	14:48:17	Police Vessel	Traveling	95	1	10	230	33	10	N	22.26957	E	113.86594	632.38	282.55
19-Jan-13	14:48:35	Police Vessel	Traveling	93	37	30	214	36	30	N	22.26787	E	113.86343	877.16	266.61
19-Jan-13	15:03:08	Other	Stationary	90	55	30	242	6	40	N	22.28118	E	113.84092	3495.41	294.11
19-Jan-13	15:03:21	Other	Stationary	91	5	40	246	57	30	N	22.28114	E	113.84693	2939.42	298.96
19-Jan-13	15:03:38	Other	Stationary	91	25	10	346	50	10	N	22.28414	E	113.88570	2254.93	38.83
19-Jan-13	15:03:46	Other	Stationary	91	25	0	347	32	20	N	22.28401	E	113.88593	2259.40	39.54
19-Jan-13	15:04:05	Other	Stationary	91	41	0	344	37	10	N	22.28204	E	113.88295	1897.27	36.62
19-Jan-13	15:04:15	Other	Stationary	91	40	30	345	0	0	N	22.28204	E	113.88310	1906.80	37.00
19-Jan-13	15:04:31	Other	Stationary	91	34	40	345	20	50	N	22.28283	E	113.88389	2025.67	37.34
19-Jan-13	15:04:57	Other	Stationary	91	27	40	346	29	30	N	22.28376	E	113.88520	2189.59	38.49
19-Jan-13	15:05:08	Other	Stationary	91	28	20	347	5	10	N	22.28351	E	113.88527	2172.81	39.08
19-Jan-13	15:05:24	Other	Stationary	91	34	40	345	59	40	N	22.28270	E	113.88407	2025.60	37.99
19-Jan-13	15:05:38	Other	Stationary	91	37	50	345	53	10	N	22.28225	E	113.88365	1959.25	37.88
20-Jan-13	8:56:15	Zero		113	34	10	0	0	0	N	22.26905	E	113.87293	128.82	52.00
20-Jan-13	8:56:30	Speedboat	Traveling	94	45	50	356	37	20	N	22.27235	E	113.87687	674.76	48.62
20-Jan-13	8:56:44	Speedboat	Stationary	95	38	10	304	54	10	N	22.27345	E	113.87164	569.70	356.90
20-Jan-13	8:57:11	Speedboat	Traveling	99	30	20	344	5	30	N	22.27077	E	113.87387	335.67	36.09
20-Jan-13	8:57:23	Other	Traveling	91	32	40	269	19	20	N	22.28307	E	113.85920	2097.07	321.32
20-Jan-13	8:57:49	Other	Stationary	91	40	0	344	24	10	N	22.28240	E	113.88315	1941.50	36.40

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
20-Jan-13	8:57:56	Other	Stationary	91	40	0	345	51	20	N	22.28213	E	113.88353	1941.50	37.85
20-Jan-13	8:58:07	Other	Stationary	91	27	10	347	32	40	N	22.28382	E	113.88576	2231.23	39.54
20-Jan-13	8:58:16	Other	Stationary	91	27	30	346	49	20	N	22.28392	E	113.88549	2222.61	38.82
20-Jan-13	8:58:27	Other	Stationary	91	29	40	346	14	10	N	22.28366	E	113.88499	2168.15	38.23
20-Jan-13	8:58:33	Other	Stationary	91	29	40	347	4	30	N	22.28348	E	113.88524	2168.15	39.07
20-Jan-13	8:58:39	Other	Stationary	91	36	20	346	0	0	N	22.28263	E	113.88402	2016.25	38.00
20-Jan-13	8:59:06	Other	Stationary	90	57	30	241	31	50	N	22.28060	E	113.84150	3414.12	293.53
20-Jan-13	9:02:10	Speedboat	Traveling	94	47	10	268	48	40	N	22.27302	E	113.86782	671.57	320.81
20-Jan-13	9:04:36	Speedboat	Traveling	93	20	10	346	50	30	N	22.27510	E	113.87783	965.23	38.84
20-Jan-13	9:05:35	Speedboat	Traveling	100	30	40	322	7	30	N	22.27098	E	113.87266	302.89	14.12
20-Jan-13	9:17:19	Hi-Speed Ferry		91	33	0	341	33	20	N	22.28400	E	113.88317	2089.04	33.55
20-Jan-13	9:18:39	Hi-Speed Ferry		92	14	40	336	35	40	N	22.27969	E	113.87864	1437.67	28.59
20-Jan-13	9:21:15	Hi-Speed Ferry		96	56	0	275	15	10	N	22.27183	E	113.86951	462.15	327.25
20-Jan-13	9:23:46	Speedboat	Traveling	92	8	40	295	23	0	N	22.28155	E	113.86875	1505.12	347.38
20-Jan-13	9:26:03	Speedboat	Traveling	92	31	50	215	42	20	N	22.26787	E	113.85956	1274.06	267.70
20-Jan-13	9:42:10	Hi-Speed Ferry		95	4	50	247	44	10	N	22.27115	E	113.86661	632.16	299.73
20-Jan-13	9:43:02	Hi-Speed Ferry		95	3	40	282	12	20	N	22.27348	E	113.86926	634.60	334.20
20-Jan-13	9:44:15	Hi-Speed Ferry		93	22	30	314	11	50	N	22.27687	E	113.87295	953.68	6.19
20-Jan-13	9:44:28	Speedboat	Traveling	93	2	0	352	13	50	N	22.27518	E	113.87915	1061.65	44.23
20-Jan-13	9:46:15	Hi-Speed Ferry		91	51	30	333	6	30	N	22.28250	E	113.87912	1738.49	25.11
20-Jan-13	9:46:28	Speedboat	Traveling	94	1	40	352	37	40	N	22.27345	E	113.87740	798.40	44.62
20-Jan-13	9:48:21	Hi-Speed Ferry		91	14	10	341	3	0	N	22.28816	E	113.88588	2628.18	33.05
20-Jan-13	9:48:35	Speedboat	Traveling	96	8	10	350	30	50	N	22.27180	E	113.87538	522.66	42.51
20-Jan-13	9:50:56	Speedboat	Traveling	103	39	30	336	36	0	N	22.27016	E	113.87302	231.15	28.60
20-Jan-13	9:52:36	Speedboat	Traveling	118	42	40	271	29	20	N	22.26908	E	113.87135	102.54	323.49
20-Jan-13	10:17:19	Fishing Boat	Non-operating	91	56	30	219	24	10	N	22.26870	E	113.85581	1659.89	271.40
20-Jan-13	10:19:32	Fishing Boat	Non-operating	92	3	30	240	22	30	N	22.27369	E	113.85787	1564.96	292.37
20-Jan-13	10:25:09	Fishing Boat	Non-operating	91	29	10	284	31	50	N	22.28628	E	113.86352	2174.53	336.53
20-Jan-13	10:25:43	Other	Traveling	91	26	20	244	54	0	N	22.27748	E	113.85246	2246.89	296.90
20-Jan-13	10:26:31	Fishing Boat	Non-operating	91	20	40	290	53	40	N	22.28904	E	113.86506	2407.23	342.89
20-Jan-13	10:28:57	Other	Traveling	91	21	0	265	6	40	N	22.28414	E	113.85608	2396.98	317.11
20-Jan-13	10:31:41	Other	Traveling	91	13	10	279	31	40	N	22.28936	E	113.85962	2658.35	331.52
20-Jan-13	10:45:05	Speedboat	Traveling	109	40	30	285	40	10	N	22.26964	E	113.87137	156.65	337.67
20-Jan-13	10:46:03	Speedboat	Traveling	99	7	30	1	36	0	N	22.27020	E	113.87467	348.76	53.60
20-Jan-13	10:46:48	Speedboat	Traveling	95	28	50	7	57	0	N	22.27097	E	113.87686	584.01	59.95
20-Jan-13	10:47:04	Speedboat	Traveling	95	10	10	10	28	20	N	22.27091	E	113.87729	619.40	62.47
20-Jan-13	10:47:23	Speedboat	Traveling	94	53	50	10	45	0	N	22.27103	E	113.87760	654.05	62.75
20-Jan-13	10:47:44	Speedboat	Stationary	94	53	20	11	7	40	N	22.27100	E	113.87763	655.17	63.12
20-Jan-13	10:56:27	Speedboat	Traveling	91	22	40	249	50	10	N	22.27947	E	113.85256	2345.95	301.83
20-Jan-13	10:57:36	Speedboat	Traveling	91	29	20	237	57	0	N	22.27499	E	113.85212	2168.31	289.95
20-Jan-13	11:01:47	Speedboat	Traveling	91	36	40	353	19	30	N	22.28100	E	113.88579	2001.55	45.32
20-Jan-13	11:03:53	Speedboat	Traveling	93	48	50	350	53	20	N	22.27388	E	113.87751	840.56	42.89
20-Jan-13	11:04:42	Speedboat	Traveling	98	7	0	340	43	0	N	22.27131	E	113.87401	392.59	32.71
20-Jan-13	11:05:26	Speedboat	Traveling	110	58	40	259	17	40	N	22.26920	E	113.87088	146.00	311.29
20-Jan-13	11:08:58	Fishing Boat	Non-operating	91	39	20	231	46	40	N	22.27250	E	113.85356	1946.79	283.77
20-Jan-13	11:09:11	Other	Traveling	91	11	50	221	33	50	N	22.26984	E	113.84568	2705.68	273.56
20-Jan-13	11:10:10	Sand Barge		91	6	40	281	18	50	N	22.29181	E	113.85919	2920.23	333.31
20-Jan-13	11:11:09	Fishing Boat	Non-operating	91	45	20	248	40	20	N	22.27675	E	113.85660	1834.63	300.67
20-Jan-13	11:11:28	Other	Traveling	91	19	40	231	3	30	N	22.27328	E	113.84888	2434.68	283.06
20-Jan-13	11:11:38	Sand Barge		91	12	0	277	43	50	N	22.28931	E	113.85871	2699.09	329.73
20-Jan-13	11:15:08	Fishing Boat	Non-operating	91	29	20	277	8	30	N	22.28507	E	113.86113	2167.17	329.14
20-Jan-13	11:15:14	Other	Traveling	91	25	20	251	14	30	N	22.27953	E	113.85348	2270.24	303.24
20-Jan-13	11:15:20	Sand Barge		91	25	20	264	43	10	N	22.28321	E	113.85681	2270.24	316.72
20-Jan-13	11:16:52	Fishing Boat	Non-operating	91	19	0	285	22	50	N	22.28873	E	113.86276	2455.18	337.38
20-Jan-13	11:17:04	Other	Traveling	91	22	50	261	8	0	N	22.28273	E	113.85534	2339.71	313.13
20-Jan-13	11:17:13	Hi-Speed Ferry		91	14	20	343	40	10	N	22.28743	E	113.88676	2612.23	35.67
20-Jan-13	11:18:25	Other	Traveling	91	20	30	268	6	20	N	22.28496	E	113.85692	2408.55	320.10
20-Jan-13	11:18:32	Sand Barge		91	32	30	249	21	50	N	22.27813	E	113.85457	2091.80	301.36
20-Jan-13	11:18:39	Hi-Speed Ferry		91	37	30	337	28	20	N	22.28387	E	113.88143	1983.25	29.47
20-Jan-13	11:20:38	Hi-Speed Ferry		92	51	30	324	50	40	N	22.27800	E	113.87511	1122.60	16.84
20-Jan-13	11:20:50	Other	Traveling	91	14	10	278	50	30	N	22.28891	E	113.85954	2617.94	330.84
20-Jan-13	11:21:09	Sand Barge		91	30	10	236	3	20	N	22.27432	E	113.85210	2146.49	288.05
20-Jan-13	11:22:44	Hi-Speed Ferry		95	44	50	265	17	20	N	22.27201	E	113.86828	556.13	317.29
20-Jan-13	11:23:54	Hi-Speed Ferry		94	13	10	222	23	50	N	22.26886	E	113.86459	758.92	274.39
20-Jan-13	11:24:04	Sand Barge		91	22	50	222	52	0	N	22.27012	E	113.84928	2339.22	274.86
20-Jan-13	11:43:54	Hi-Speed Ferry		94	32	0	221	0	30	N	22.26867	E	113.86509	705.68	273.01
20-Jan-13	11:44:43	Hi-Speed Ferry		96	10	0	254	50	30	N	22.27113	E	113.86792	517.67	306.84
20-Jan-13	11:45:02	Other	Traveling	91	39	0	336	16	30	N	22.28380	E	113.88093	1951.31	28.27
20-Jan-13	11:46:02	Hi-Speed Ferry		94	18	20	313	21	10	N	22.27499	E	113.87262	743.18	5.35
20-Jan-13	11:46:17	Other	Traveling	91	59	20	331	26	10	N	22.28168	E	113.87819	1615.86	23.43
20-Jan-13	11:47:37	Hi-Speed Ferry		92	12	30	334	15	30	N	22.28007	E	113.87820	1454.09	26.26
20-Jan-13	11:47:45	Other	Traveling	92	35	0	324	4	20	N	22.27907	E	113.87529	1241.78	16.07
20-Jan-13	11:50:27	Hi-Speed Ferry		91	9	0	344	9	40	N	22.28879	E	113.88810	2815.77	36.16
20-Jan-13	11:50:39	Other	Traveling	94	54	50	285	55	0	N	22.27376	E	113.86957	650.59	337.91
20-Jan-13	11:52:47	Other	Traveling	94	32	20	232	56	50	N	22.26997	E	113.86532	704.63	284.94
20-Jan-13	11:54:15	Speedboat	Traveling	95	38	0	236	48	0	N	22.26998	E	113.86673	566.92	288.80
20-Jan-13	11:54:29	Other	Traveling	93	5	20	208	44	10	N	22.26683	E	113.86199	1037.35	260.73
20-Jan-13	11:54:38	Speedboat	Traveling	96	19	10	262	1	50	N	22.27149	E	113.86841	504.90	314.03
20-Jan-13	11:56:14	Speedboat	Traveling	92	48	20	327	52	30	N	22.27800	E	113.87572	1142.62	19.87
20-Jan-13	11:57:27	Speedboat	Traveling	91	42	0	339	53	10	N	22.28280	E	113.88167	1892.60	31.88
20-Jan-13	11:58:26	Police Vessel	Traveling	91	37	30	342	32	20	N	22.28302	E	113.88287	1980.89	34.54
20-Jan-13	12:11:56	Research Vessel	Traveling	91	23	40	281	16	0	N	22.28692	E	113.86183	2312.23	333.26
20-Jan-13	12:12:47	Research Vessel	Traveling	91	37	0	269	48	50	N	22.28241	E	113.85998	1990.36	321.81
20-Jan-13	12:14:59	Research Vessel	Traveling	91	52	0	228	26	40	N	22.27114	E	113.85548	1721.13	280.44
20-Jan-13	12:22:59	Other	Traveling	93	10	10	225	17	0	N	22.26948	E	113.86220	1010.00	277.28
20-Jan-13	12:23:11	Other	Traveling	91	21	50	218	59	40	N	22.26870	E	113.84896	2364.07	270.99
20-Jan-13	12:23:23	Sand Barge		91	19	40	213	47	40	N	22.26673	E	113.84838	2429.43	265.79
20-Jan-13	12:24:59	Other	Traveling	94	0	40	264	25	50	N	22.27353	E	113.86660	797.10	316.43
20-Jan-13	12:25:55	Sand Barge		91	32	10	229	46	10	N	22.27218	E	113.85200	2095.23	281.77
20-Jan-13	12:26:06	Other	Traveling	91	21	30	240	39	20	N	22.27656	E	113.85064	2373.69	292.65
20-Jan-13	12:26:19	Speedboat	Traveling	93	10	40	343	24	30	N	22.27572	E	113.87762	1007.24	35.41
20-Jan-13	12:26:52	Speedboat	Traveling	95	47	50	327	12	0	N	22.27301	E	113.87370	550.24	19.20
20-Jan-13	12:27:00	Other	Traveling	93	11	30	304	40	30	N	22.27734	E	113.87138	1002.81	356.67
20-Jan-13	12:27:49	Speedboat	Traveling	95	46	0	214	46	50	N	22.26805	E	113.86657	553.17	266.78
20-Jan-13	12:27:59	Other	Traveling	91	16	30	253	29	0	N	22.28155	E	113.85190	2531.47	305.48
20-Jan-13	12:28:11	Sand Barge		91	37	10	247	7	0	N	22.27703	E	113.85507	1985.99	299.11
20-Jan-13	12:29:56	Other	Traveling	91	51	10	329	50	10	N	22.28281	E	113.87821	1733.37	21.83
20-Jan-13	12:30:09	Other	Traveling	91	6	30	264	55	10	N	22.28753	E	113.85254	2920.69	316.92
20-Jan-13	12:30:19	Sand Barge		91	34	40	263	57	40	N	22.28152	E	113.85816	2038.95	315.96
20-Jan-13	12:33:04	Other	Traveling	91	14	30	340	26	20	N	22.28808	E	113.88551	2600.34	32.44
20-Jan-13	12:33:10	Sand Barge		91	19	20	281	18	10	N	22.28794	E	113.86129	2439.10	333.30

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
20-Jan-13	12:37:48	Police Vessel	Traveling	92	46	10	348	8	30	N	22.27629	E	113.87919	1156.16	40.14
20-Jan-13	12:37:53	Police Vessel	Traveling	93	37	0	341	1	30	N	22.27500	E	113.87663	884.15	33.02
20-Jan-13	12:38:00	Police Vessel	Traveling	93	5	50	342	12	0	N	22.27602	E	113.87759	1033.21	34.20
20-Jan-13	12:38:08	Police Vessel	Traveling	92	12	0	328	12	0	N	22.28064	E	113.87684	1457.43	20.20
20-Jan-13	12:38:15	Police Vessel	Traveling	94	53	0	338	30	50	N	22.27340	E	113.87517	653.76	30.51
20-Jan-13	12:38:23	Police Vessel	Traveling	98	6	20	308	22	40	N	22.27186	E	113.87197	392.04	0.37
20-Jan-13	12:38:31	Police Vessel	Traveling	96	9	0	320	59	50	N	22.27288	E	113.87308	518.25	12.99
20-Jan-13	12:38:49	Police Vessel	Traveling	92	17	20	328	7	20	N	22.28017	E	113.87663	1400.43	20.12
20-Jan-13	12:39:04	Police Vessel	Traveling	96	35	0	213	39	10	N	22.26800	E	113.86725	483.84	265.65
20-Jan-13	12:39:12	Police Vessel	Traveling	95	44	20	219	10	0	N	22.26843	E	113.86654	555.68	271.16
20-Jan-13	12:39:43	Police Vessel	Traveling	91	38	10	341	3	10	N	22.28315	E	113.88237	1964.85	33.05
20-Jan-13	12:39:52	Police Vessel	Traveling	93	14	0	317	32	50	N	22.27711	E	113.87354	989.45	9.54
20-Jan-13	12:41:17	Police Vessel	Traveling	95	11	40	276	35	10	N	22.27305	E	113.86883	614.31	328.58
20-Jan-13	12:41:28	Speedboat	Traveling	108	1	30	312	58	50	N	22.26987	E	113.87209	171.54	4.98
20-Jan-13	13:04:01	Other	Traveling	92	44	30	325	25	30	N	22.27835	E	113.87534	1167.02	17.42
20-Jan-13	13:05:54	Other	Traveling	94	6	40	309	27	20	N	22.27532	E	113.87214	776.66	1.45
20-Jan-13	13:08:12	Police Vessel	Traveling	91	58	0	250	20	40	N	22.27618	E	113.85855	1630.27	302.34
20-Jan-13	13:08:17	Other	Traveling	96	15	40	259	24	40	N	22.27136	E	113.86824	508.53	311.41
20-Jan-13	13:09:07	Speedboat	Traveling	108	48	20	322	41	10	N	22.26976	E	113.87235	163.78	14.68
20-Jan-13	13:09:19	Other	Traveling	95	15	20	234	43	0	N	22.26990	E	113.86629	606.61	286.71
20-Jan-13	13:09:25	Police Vessel	Traveling	91	52	10	266	8	50	N	22.27983	E	113.86081	1715.75	318.14
20-Jan-13	13:09:43	Speedboat	Traveling	96	47	30	350	58	20	N	22.27142	E	113.87505	468.42	42.97
20-Jan-13	13:10:13	Police Vessel	Traveling	91	40	30	339	13	40	N	22.28309	E	113.88161	1916.97	31.22
20-Jan-13	13:10:26	Speedboat	Traveling	93	40	20	357	54	40	N	22.27337	E	113.87842	869.86	49.91
20-Jan-13	13:10:40	Police Vessel	Traveling	91	40	40	343	26	30	N	22.28236	E	113.88274	1913.74	35.44
20-Jan-13	13:11:32	Speedboat	Traveling	92	8	40	357	50	50	N	22.27700	E	113.88305	1493.97	49.84
20-Jan-13	13:11:44	Police Vessel	Traveling	91	25	30	287	50	20	N	22.28741	E	113.86437	2257.85	339.84
20-Jan-13	13:20:17	Hi-Speed Ferry		92	28	20	334	46	10	N	22.27873	E	113.87761	1294.34	26.77
20-Jan-13	13:22:55	Hi-Speed Ferry		97	50	30	297	0	20	N	22.27191	E	113.87119	404.87	349.00
20-Jan-13	13:23:49	Hi-Speed Ferry		98	1	40	244	16	50	N	22.26991	E	113.86850	395.35	296.28
20-Jan-13	13:25:53	Hi-Speed Ferry		91	32	0	337	18	30	N	22.28478	E	113.88192	2095.31	29.31
20-Jan-13	13:28:56	Hi-Speed Ferry		93	34	0	313	25	0	N	22.27635	E	113.87277	895.24	5.41
20-Jan-13	13:31:13	Hi-Speed Ferry		94	53	30	237	3	10	N	22.27025	E	113.86595	651.61	289.05
20-Jan-13	13:52:38	Speedboat	Traveling	107	7	50	325	43	20	N	22.26988	E	113.87248	180.72	17.72
20-Jan-13	13:53:57	Speedboat	Traveling	93	11	20	355	33	20	N	22.27441	E	113.87913	1001.09	47.55
20-Jan-13	14:09:31	Hi-Speed Ferry		94	25	0	224	7	30	N	22.26903	E	113.86497	721.29	276.12
20-Jan-13	14:10:26	Hi-Speed Ferry		95	41	40	257	54	40	N	22.27156	E	113.86778	558.52	309.91
20-Jan-13	14:14:12	Hi-Speed Ferry		91	55	50	335	14	30	N	22.28160	E	113.87932	1657.75	27.24
20-Jan-13	14:18:14	Speedboat	Traveling	92	16	0	348	43	50	N	22.27795	E	113.88089	1410.05	40.73
20-Jan-13	14:19:59	Speedboat	Traveling	99	31	10	324	56	0	N	22.27119	E	113.87288	331.93	16.93
20-Jan-13	14:29:03	Speedboat	Traveling	91	37	0	335	57	30	N	22.28409	E	113.88098	1982.24	27.96
20-Jan-13	14:29:22	Speedboat	Traveling	92	2	20	329	53	0	N	22.28143	E	113.87763	1568.25	21.88
20-Jan-13	14:30:10	Speedboat	Traveling	94	22	30	289	7	50	N	22.27453	E	113.86966	727.74	341.13
20-Jan-13	14:30:48	Speedboat	Traveling	93	38	50	224	6	50	N	22.26917	E	113.86350	873.75	276.11
20-Jan-13	14:44:57	Sand Barge		91	39	30	259	14	40	N	22.27979	E	113.85782	1930.95	311.24
20-Jan-13	14:49:42	Sand Barge		91	34	10	231	58	0	N	22.27277	E	113.85268	2041.35	283.96
20-Jan-13	14:49:56	Other	Traveling	91	39	0	344	23	0	N	22.28239	E	113.88314	1940.53	36.38
20-Jan-13	14:50:00	Other	Traveling	91	39	0	345	51	20	N	22.28212	E	113.88353	1940.52	37.85
20-Jan-13	14:50:09	Other	Traveling	91	26	40	346	50	0	N	22.28390	E	113.88548	2220.43	38.83
20-Jan-13	14:50:15	Other	Traveling	91	26	10	347	32	0	N	22.28384	E	113.88577	2233.50	39.53
20-Jan-13	14:50:27	Other	Traveling	91	41	10	344	37	20	N	22.28205	E	113.88296	1898.48	36.62
20-Jan-13	14:50:32	Other	Traveling	91	41	10	344	59	20	N	22.28198	E	113.88305	1898.48	36.99
20-Jan-13	14:50:41	Other	Traveling	91	28	30	346	14	10	N	22.28370	E	113.88503	2173.75	38.23
20-Jan-13	14:50:47	Other	Traveling	91	28	40	347	4	10	N	22.28349	E	113.88524	2169.60	39.07
20-Jan-13	14:50:55	Other	Traveling	91	34	50	345	59	10	N	22.28271	E	113.88408	2026.74	37.98
20-Jan-13	14:51:10	Sand Barge		91	27	10	225	31	20	N	22.27093	E	113.85066	2207.44	277.52
21-Jan-13	8:51:12	Zero		154	16	40	0	0	0	N	22.26848	E	113.87215	27.01	52.00
21-Jan-13	8:52:27	Other	Stationary	91	27	20	346	52	20	N	22.28390	E	113.88551	2221.89	38.87
21-Jan-13	8:52:35	Other	Stationary	91	26	50	347	33	40	N	22.28384	E	113.88579	2234.86	39.56
21-Jan-13	8:52:44	Other	Stationary	91	42	30	344	38	10	N	22.28198	E	113.88291	1889.37	36.63
21-Jan-13	8:52:51	Other	Stationary	91	42	0	345	1	20	N	22.28198	E	113.88306	1898.73	37.02
21-Jan-13	8:53:20	Other	Stationary	91	36	30	345	21	40	N	22.28270	E	113.88380	2008.20	37.36
21-Jan-13	8:53:31	Other	Stationary	91	29	10	346	30	40	N	22.28365	E	113.88512	2175.57	38.51
21-Jan-13	8:53:44	Other	Stationary	91	29	40	347	6	20	N	22.28344	E	113.88521	2163.27	39.10
21-Jan-13	8:53:58	Other	Stationary	91	35	40	346	1	30	N	22.28270	E	113.88408	2025.91	38.02
21-Jan-13	8:54:24	Other	Stationary	90	57	30	241	37	50	N	22.28062	E	113.84159	3406.38	293.63
21-Jan-13	8:54:38	Other	Stationary	91	6	30	246	59	0	N	22.28112	E	113.84699	2933.10	298.98
21-Jan-13	8:54:52	Other	Stationary	91	39	50	345	45	10	N	22.28214	E	113.88350	1940.39	37.75
21-Jan-13	8:55:06	Transportation boat	Stationary	91	30	20	346	53	50	N	22.28337	E	113.88506	2147.09	38.89
21-Jan-13	8:55:58	Police Vessel	Traveling	91	22	0	325	33	10	N	22.28866	E	113.87889	2368.67	17.55
21-Jan-13	8:56:14	Police Vessel	Traveling	91	39	10	281	6	40	N	22.28401	E	113.86335	1953.58	333.11
21-Jan-13	8:56:25	Police Vessel	Traveling	91	24	40	335	12	50	N	22.28668	E	113.88214	2292.92	27.21
21-Jan-13	8:56:49	Police Vessel	Traveling	91	15	30	339	37	30	N	22.28808	E	113.88508	2576.34	31.62
21-Jan-13	8:57:13	Police Vessel	Traveling	91	20	0	296	6	30	N	22.28972	E	113.86708	2428.89	348.11
21-Jan-13	8:57:41	Transportation boat	Traveling	91	34	10	343	7	20	N	22.28349	E	113.88346	2058.58	35.12
21-Jan-13	8:58:39	Transportation boat	Traveling	91	42	30	343	34	20	N	22.28216	E	113.88263	1889.37	35.57
21-Jan-13	8:59:10	Transportation boat	Traveling	91	42	30	344	26	20	N	22.28201	E	113.88286	1889.37	36.44
21-Jan-13	9:01:08	Transportation boat	Stationary	91	43	10	344	34	0	N	22.28190	E	113.88282	1877.03	36.56
21-Jan-13	9:20:28	Speedboat	Traveling	93	15	30	240	19	0	N	22.27170	E	113.86308	985.74	292.31
21-Jan-13	9:20:51	Speedboat	Traveling	93	19	40	256	7	0	N	22.27369	E	113.86456	965.06	308.11
21-Jan-13	9:21:19	Speedboat	Traveling	93	2	40	276	26	20	N	22.27643	E	113.86657	1055.32	328.44
21-Jan-13	9:22:10	Speedboat	Traveling	92	16	10	299	38	50	N	22.28096	E	113.86994	1418.05	351.64
21-Jan-13	9:22:58	Speedboat	Traveling	91	38	0	307	25	30	N	22.28611	E	113.87175	1975.98	359.42
21-Jan-13	9:23:19	Police Vessel	Traveling	91	11	10	335	49	30	N	22.29010	E	113.88436	2734.90	27.82
21-Jan-13	9:24:02	Police Vessel	Traveling	91	10	10	321	21	50	N	22.29263	E	113.87818	2774.68	13.36
21-Jan-13	9:25:56	Other	Traveling	91	8	10	289	2	40	N	22.29266	E	113.86291	2857.82	341.04
21-Jan-13	9:29:06	Other	Traveling	91	20	50	276	59	10	N	22.28686	E	113.85991	2401.65	328.98
21-Jan-13	9:31:44	Police Vessel	Traveling	91	20	40	324	50	10	N	22.28906	E	113.87872	2406.53	16.83
21-Jan-13	9:33:37	Police Vessel	Traveling	91	24	0	333	58	10	N	22.28702	E	113.88178	2309.41	25.97
21-Jan-13	9:33:53	Other	Traveling	91	25	10	250	15	50	N	22.27927	E	113.85322	2277.27	302.26
21-Jan-13	9:34:19	Speedboat	Traveling	93	30	20	11	22	0	N	22.27203	E	113.87990	915.55	63.36
21-Jan-13	9:34:45	Police Vessel	Stationary	91	22	30	335	1	40	N	22.28719	E	113.88234	2351.99	27.02
21-Jan-13	9:34:59	Speedboat	Traveling	95	4	40	10	13	40	N	22.27098	E	113.87737	630.81	62.22
21-Jan-13	9:36:12	Speedboat	Stationary	109	44	40	335	2	40	N	22.26958	E	113.87263	156.08	27.04
21-Jan-13	9:36:41	Speedboat	Stationary	112	50	20	245	53	20	N	22.26889	E	113.87080	133.01	297.89
21-Jan-13	9:41:43	Hi-Speed Ferry		91	1	30	346	32	50	N	22.29068	E	113.89118	3174.73	38.54
21-Jan-13	9:43:44	Hi-Speed Ferry		91	23	30	340	26	20	N	22.28598	E	113.88406	2322.81	32.44
21-Jan-13	9:45:42	Hi-Speed Ferry		92	8	20	331	4	20	N	22.28079	E	113.87768	1504.27	23.07
21-Jan-13	9:48:19	Hi-Speed Ferry		95	31	40	289	27	10	N	22.27327	E	113.87015	578.91	341.45
21-Jan-13	9:49:09	Hi-Speed Ferry		95	56	10	251	31	10	N	22.27101	E	113.86758	538.79	303.52
21-Jan-13	9:49:30	Research Vessel	Traveling	90	56	20	346	54	30	N	22.29267	E	113.89317	3474.80	38.91

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
21-Jan-13	9:49:53	Hi-Speed Ferry		94	33	0	224	57	0	N	22.26910	E	113.86515	704.15	276.95
21-Jan-13	9:50:23	Hi-Speed Ferry		93	39	20	214	20	50	N	22.26783	E	113.86343	877.43	266.34
21-Jan-13	9:50:38	Research Vessel	Traveling	90	59	10	340	49	50	N	22.29331	E	113.88936	3302.96	32.83
21-Jan-13	9:51:20	Research Vessel	Traveling	90	57	0	337	14	20	N	22.29529	E	113.88825	3432.61	29.24
21-Jan-13	9:52:15	Research Vessel	Traveling	90	53	30	333	32	10	N	22.29810	E	113.88731	3665.45	25.53
21-Jan-13	9:52:48	Transportation boat	Traveling	90	55	40	348	46	0	N	22.29231	E	113.89428	3517.56	40.76
21-Jan-13	9:53:46	Fishing boat	Non-operating	91	16	20	211	50	20	N	22.26587	E	113.84735	2544.09	263.84
21-Jan-13	9:54:49	Transportation boat	Traveling	91	6	50	346	23	30	N	22.28889	E	113.88954	2913.90	38.39
21-Jan-13	9:55:43	Fishing boat	Non-operating	91	24	50	219	54	10	N	22.26901	E	113.84974	2285.00	271.90
21-Jan-13	9:56:01	Transportation boat	Traveling	91	16	0	345	19	20	N	22.28662	E	113.88701	2555.31	37.32
21-Jan-13	9:56:33	Research Vessel	Traveling	90	55	50	348	38	20	N	22.29228	E	113.89415	3506.33	40.64
21-Jan-13	9:57:30	Transportation boat	Traveling	91	28	30	344	3	0	N	22.28426	E	113.88447	2188.87	36.05
21-Jan-13	9:58:23	Fishing boat	Non-operating	91	37	50	233	15	40	N	22.27302	E	113.85339	1977.48	285.26
21-Jan-13	9:58:39	Transportation boat	Traveling	91	37	20	342	45	10	N	22.28303	E	113.88296	1987.74	34.75
21-Jan-13	9:58:56	Research Vessel	Traveling	91	4	50	346	2	50	N	22.28963	E	113.88996	3005.74	38.04
21-Jan-13	10:00:51	Transportation boat	Traveling	91	42	30	343	55	10	N	22.28208	E	113.88271	1886.35	35.92
21-Jan-13	10:01:07	Research Vessel	Traveling	91	16	0	343	3	50	N	22.28715	E	113.88622	2554.95	35.06
21-Jan-13	10:01:21	Fishing boat	Non-operating	91	44	50	251	45	50	N	22.27755	E	113.85704	1843.90	303.76
21-Jan-13	10:03:43	Fishing boat	Non-operating	91	38	40	266	26	0	N	22.28153	E	113.85929	1960.30	318.43
21-Jan-13	10:03:55	Transportation boat	Stationary	91	44	20	343	37	50	N	22.28189	E	113.88244	1852.70	35.63
21-Jan-13	10:04:04	Research Vessel	Traveling	91	41	10	339	39	30	N	22.28297	E	113.88170	1911.31	31.66
21-Jan-13	10:06:33	Research Vessel	Traveling	92	17	40	332	33	20	N	22.27980	E	113.87761	1400.81	24.55
21-Jan-13	10:06:56	Fishing boat	Non-operating	91	24	40	282	1	30	N	22.28685	E	113.86219	2288.86	334.02
21-Jan-13	10:08:44	Research Vessel	Traveling	93	16	10	320	37	0	N	22.27695	E	113.87403	981.09	12.61
21-Jan-13	10:08:57	Fishing boat	Non-operating	91	15	50	289	22	0	N	22.29016	E	113.86399	2560.12	341.36
21-Jan-13	10:10:23	Hi-Speed Ferry		95	10	20	213	0	0	N	22.26785	E	113.86595	618.62	265.00
21-Jan-13	10:10:42	Research Vessel	Traveling	94	53	40	299	22	0	N	22.27415	E	113.87099	653.95	351.36
21-Jan-13	10:10:56	Fishing boat	Non-operating	91	8	0	295	12	10	N	22.29344	E	113.86578	2861.46	347.20
21-Jan-13	10:11:20	Hi-Speed Ferry		99	6	50	251	14	10	N	22.27005	E	113.86911	348.92	303.23
21-Jan-13	10:11:45	Hi-Speed Ferry		100	3	30	282	41	50	N	22.27090	E	113.87063	315.55	334.69
21-Jan-13	10:11:55	Research Vessel	Traveling	96	1	40	275	28	40	N	22.27236	E	113.86917	530.20	327.47
21-Jan-13	10:12:39	Hi-Speed Ferry		95	52	30	328	30	10	N	22.27292	E	113.87380	544.09	20.50
21-Jan-13	10:12:58	Research Vessel	Traveling	95	49	30	250	48	40	N	22.27101	E	113.86746	548.79	302.81
21-Jan-13	10:15:12	Hi-Speed Ferry		92	1	40	353	16	20	N	22.27838	E	113.88290	1586.07	45.27
21-Jan-13	10:15:27	Research Vessel	Traveling	93	36	10	214	55	20	N	22.26790	E	113.86330	889.74	266.92
21-Jan-13	10:16:24	Hi-Speed Ferry		91	30	30	354	32	0	N	22.28157	E	113.88704	2138.74	46.53
21-Jan-13	10:17:33	Hi-Speed Ferry		91	13	40	351	54	10	N	22.28543	E	113.88972	2636.28	43.90
21-Jan-13	10:19:01	Hi-Speed Ferry		90	59	20	348	24	20	N	22.29088	E	113.89269	3290.83	40.40
21-Jan-13	10:19:22	Other	Traveling	91	33	30	272	10	40	N	22.28343	E	113.86017	2069.08	324.17
21-Jan-13	10:20:37	Other	Traveling	91	45	0	255	25	40	N	22.27840	E	113.85773	1839.98	307.42
21-Jan-13	10:22:28	Other	Traveling	91	44	40	227	26	0	N	22.27105	E	113.85424	1845.81	279.43
21-Jan-13	10:23:33	Other	Traveling	91	34	20	213	14	0	N	22.26680	E	113.85208	2050.34	265.23
21-Jan-13	10:25:45	Research Vessel	Traveling	90	56	0	334	38	10	N	22.29643	E	113.88717	3492.72	26.63
21-Jan-13	10:26:06	Transportation boat	Traveling	91	11	0	348	50	0	N	22.28697	E	113.88935	2736.75	40.83
21-Jan-13	10:27:12	Research Vessel	Traveling	90	59	50	340	57	30	N	22.29296	E	113.88920	3261.75	32.96
21-Jan-13	10:27:30	Transportation boat	Traveling	91	18	20	350	10	10	N	22.28485	E	113.88811	2475.69	42.17
21-Jan-13	10:28:11	Research Vessel	Traveling	90	58	40	344	39	0	N	22.29237	E	113.89127	3328.56	36.65
21-Jan-13	10:28:57	Research Vessel	Traveling	91	0	10	343	8	50	N	22.29220	E	113.89010	3242.98	35.14
21-Jan-13	10:29:13	Transportation boat	Traveling	91	29	20	350	42	30	N	22.28266	E	113.88623	2166.30	42.71
21-Jan-13	10:29:43	Transportation boat	Traveling	91	31	40	349	48	0	N	22.28249	E	113.88562	2110.40	41.80
21-Jan-13	10:30:00	Research Vessel	Traveling	91	3	10	338	57	50	N	22.29214	E	113.88738	3084.56	30.96
21-Jan-13	10:31:24	Transportation boat	Stationary	91	32	40	349	15	50	N	22.28245	E	113.88533	2087.24	41.26
21-Jan-13	10:31:40	Research Vessel	Traveling	91	7	50	331	19	30	N	22.29203	E	113.88298	2867.02	23.32
21-Jan-13	10:35:02	Research Vessel	Traveling	91	13	0	312	54	30	N	22.29218	E	113.87416	2659.58	4.91
21-Jan-13	10:35:53	Research Vessel	Traveling	91	12	30	309	20	10	N	22.29243	E	113.87255	2678.23	1.33
21-Jan-13	10:37:14	Research Vessel	Traveling	91	7	30	314	40	50	N	22.29409	E	113.87520	2881.08	6.68
21-Jan-13	10:50:20	Transportation boat	Traveling	91	4	30	346	34	10	N	22.28956	E	113.89024	3017.42	38.57
21-Jan-13	10:52:46	Transportation boat	Traveling	91	24	50	344	0	50	N	22.28494	E	113.88499	2281.44	36.01
21-Jan-13	10:53:47	Transportation boat	Traveling	91	32	0	345	24	30	N	22.28335	E	113.88436	2101.28	37.41
21-Jan-13	10:55:06	Transportation boat	Stationary	91	34	40	345	27	10	N	22.28292	E	113.88402	2041.27	37.45
21-Jan-13	10:56:14	Transportation boat	Traveling	91	31	10	343	2	20	N	22.28396	E	113.88378	2120.59	35.04
21-Jan-13	10:56:58	Transportation boat	Stationary	91	30	50	343	2	10	N	22.28402	E	113.88383	2128.44	35.03
21-Jan-13	11:10:04	Transportation boat	Traveling	91	19	40	349	17	30	N	22.28477	E	113.88754	2430.71	41.29
21-Jan-13	11:11:50	Transportation boat	Traveling	91	11	50	348	8	0	N	22.28692	E	113.88888	2700.95	40.13
21-Jan-13	11:13:40	Other	Traveling	90	51	40	312	50	30	N	22.30234	E	113.87506	3792.27	4.84
21-Jan-13	11:18:55	Speedboat	Traveling	96	37	40	356	28	20	N	22.27120	E	113.87545	480.92	48.47
21-Jan-13	11:19:24	Speedboat	Traveling	104	58	30	332	26	50	N	22.27004	E	113.87278	208.86	24.44
21-Jan-13	11:19:44	Speedboat	Traveling	111	48	30	257	40	20	N	22.26914	E	113.87090	139.61	309.67
21-Jan-13	11:20:00	Other	Traveling	91	7	50	318	27	50	N	22.29367	E	113.87700	2863.23	10.46
21-Jan-13	11:26:21	Other	Traveling	91	25	0	334	42	50	N	22.28662	E	113.88189	2274.82	26.71
21-Jan-13	11:28:14	Other	Traveling	91	17	30	338	34	0	N	22.28769	E	113.88430	2498.64	30.56
21-Jan-13	11:33:53	Other	Traveling	91	0	10	343	51	20	N	22.29194	E	113.89039	3237.19	35.85
21-Jan-13	11:40:38	Hi-Speed Ferry		91	13	0	342	36	40	N	22.28800	E	113.88661	2654.80	34.61
21-Jan-13	11:42:29	Speedboat	Traveling	91	22	40	333	24	0	N	22.28735	E	113.88170	2339.00	25.40
21-Jan-13	11:42:38	Hi-Speed Ferry		91	51	20	336	18	30	N	22.28204	E	113.87992	1730.46	28.31
21-Jan-13	11:43:48	Speedboat	Traveling	91	5	50	343	30	30	N	22.28995	E	113.88861	2950.43	35.51
21-Jan-13	11:44:00	Police Vessel	Traveling	91	14	50	339	28	50	N	22.28820	E	113.88509	2588.25	31.48
21-Jan-13	11:44:22	Police Vessel	Traveling	91	7	10	342	13	0	N	22.28984	E	113.88775	2890.39	34.21
21-Jan-13	11:44:47	Police Vessel	Traveling	90	59	50	344	55	20	N	22.29175	E	113.89096	3254.79	36.92
21-Jan-13	11:44:59	Hi-Speed Ferry		94	12	10	311	41	10	N	22.27516	E	113.87242	760.28	3.68
21-Jan-13	11:46:05	Transportation boat	Traveling	91	31	0	343	53	40	N	22.28380	E	113.88404	2121.64	35.89
21-Jan-13	11:46:40	Hi-Speed Ferry		95	40	50	244	39	10	N	22.27060	E	113.86706	561.42	296.65
21-Jan-13	11:47:07	Transportation boat	Traveling	91	22	50	344	55	50	N	22.28512	E	113.88558	2333.92	36.93
21-Jan-13	11:47:47	Hi-Speed Ferry		93	37	50	212	51	30	N	22.26762	E	113.86341	880.69	264.86
21-Jan-13	11:50:03	Transportation boat	Traveling	91	7	20	346	53	50	N	22.28852	E	113.88955	2882.62	38.89
21-Jan-13	11:50:35	Transportation boat	Traveling	91	3	0	346	8	20	N	22.29018	E	113.89048	3086.10	38.14
21-Jan-13	11:52:26	Transportation boat	Traveling	91	10	40	344	57	30	N	22.28806	E	113.88799	2743.44	36.96
21-Jan-13	11:54:19	Transportation boat	Traveling	91	21	50	344	35	50	N	22.28540	E	113.88564	2362.44	36.59
21-Jan-13	11:55:17	Transportation boat	Traveling	91	14	30	350	1	40	N	22.28571	E	113.88887	2599.25	42.02
21-Jan-13	11:55:57	Transportation boat	Stationary	91	28	50	344	13	0	N	22.28411	E	113.88443	2173.51	36.21
21-Jan-13	11:56:07	Transportation boat	Traveling	91	24	50	350	42	40	N	22.28339	E	113.88697	2277.50	42.71
21-Jan-13	11:57:08	Transportation boat	Traveling	91	40	20	348	28	0	N	22.28149	E	113.88407	1921.43	40.46
21-Jan-13	11:58:09	Transportation boat	Stationary	91	42	0	346	15	10	N	22.28169	E	113.88332	1889.65	38.25
21-Jan-13	12:00:30	Sand Barge		91	6	50	288	4	40	N	22.29290	E	113.86232	2903.87	340.07
21-Jan-13	12:05:48	Sand Barge		91	22	30	269	13	40	N	22.28477	E	113.85768	2342.31	321.22
21-Jan-13	12:06:57	Other	Traveling	91	23	40	219	44	10	N	22.26896	E	113.84950	2309.06	271.73
21-Jan-13	12:11:00	Other	Traveling	91	39	40	245	4	30	N	22.27625	E	113.85520	1933.69	297.07
21-Jan-13	12:11:10	Sand Barge		91	31	10	242	24	20	N	22.27620	E	113.85320	2116.26	294.40
21-Jan-13	12:11:24	Police Vessel	Traveling	91	20	0	336	33	0	N	22.28743	E	113.88318	2416.35	28.55
21-Jan-13	12:12:40	Police Vessel	Stationary	91	22	40	334	54	30	N	22.28709	E	113.88223	2337.07	26.91
21-Jan-13	12:13:07	Sand Barge		91	27	0	232	41	50	N	22.27340	E	113.85107	2218.92	284.69

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
21-Jan-13	12:13:17	Other	Traveling	91	36	50	261	3	10	N	22.28056	E	113.85780	1990.81	313.05
21-Jan-13	12:15:36	Fishing boat	Non-operating	114	7	0	331	4	40	N	22.26936	E	113.87242	124.60	23.07
21-Jan-13	12:16:01	Fishing boat	Non-operating	108	6	30	357	45	0	N	22.26933	E	113.87321	170.57	49.75
21-Jan-13	12:16:17	Other	Traveling	91	21	20	276	27	50	N	22.28655	E	113.85986	2375.77	328.46
21-Jan-13	12:16:25	Sand Barge		91	16	40	218	29	0	N	22.26852	E	113.84741	2522.96	270.48
21-Jan-13	12:18:15	Fishing boat	Non-operating	95	39	20	15	3	50	N	22.27031	E	113.87699	563.44	67.06
21-Jan-13	12:19:27	Fishing boat	Non-operating	94	3	20	12	26	30	N	22.27139	E	113.87885	787.28	64.44
21-Jan-13	12:20:35	Fishing boat	Non-operating	93	13	20	7	37	20	N	22.27285	E	113.88027	991.98	59.62
21-Jan-13	12:20:59	Other	Traveling	91	1	0	291	28	30	N	22.29583	E	113.86312	3187.52	343.47
21-Jan-13	12:22:31	Fishing boat	Non-operating	92	23	20	2	21	30	N	22.27536	E	113.88254	1340.12	54.36
21-Jan-13	12:32:15	Sand Barge		91	43	30	234	14	30	N	22.27301	E	113.85458	1860.24	286.24
21-Jan-13	12:34:49	Sand Barge		91	47	10	255	26	50	N	22.27816	E	113.85808	1795.84	307.44
21-Jan-13	12:35:04	Other	Traveling	91	27	30	223	12	30	N	22.27013	E	113.85059	2204.74	275.21
21-Jan-13	12:37:32	Speedboat	Traveling	91	55	30	294	36	50	N	22.28291	E	113.86819	1665.00	346.61
21-Jan-13	12:37:50	Sand Barge		91	31	30	276	41	20	N	22.28453	E	113.86129	2106.91	328.69
21-Jan-13	12:38:02	Other	Traveling	91	38	10	242	20	30	N	22.27561	E	113.85456	1962.13	294.34
21-Jan-13	12:38:14	Speedboat	Traveling	92	47	30	284	1	30	N	22.27775	E	113.86742	1145.25	336.02
21-Jan-13	12:39:00	Speedboat	Traveling	94	26	50	254	42	10	N	22.27219	E	113.86635	717.22	306.70
21-Jan-13	12:39:34	Speedboat	Traveling	94	53	50	215	52	50	N	22.26812	E	113.86562	650.94	267.88
21-Jan-13	12:42:16	Sand Barge		91	7	50	295	11	50	N	22.29340	E	113.86579	2856.76	347.19
21-Jan-13	12:42:26	Other	Traveling	91	32	20	272	23	10	N	22.28360	E	113.86012	2087.39	324.38
21-Jan-13	12:42:41	Sand Barge		91	12	30	281	12	30	N	22.28977	E	113.86024	2668.94	333.21
21-Jan-13	12:45:03	Sand Barge		90	57	10	302	5	30	N	22.29882	E	113.86853	3405.91	354.09
21-Jan-13	12:45:14	Sand Barge		91	21	50	271	33	20	N	22.28541	E	113.85831	2359.15	323.55
21-Jan-13	12:45:24	Other	Traveling	91	19	0	286	45	10	N	22.28884	E	113.86332	2445.19	338.75
21-Jan-13	12:47:42	Other	Traveling	91	8	50	294	35	20	N	22.29297	E	113.86560	2813.89	346.59
21-Jan-13	12:47:53	Sand Barge		91	32	40	259	10	20	N	22.28065	E	113.85672	2079.47	311.17
21-Jan-13	12:52:51	Sand Barge		90	40	30	317	11	0	N	22.31176	E	113.87953	4888.66	9.18
21-Jan-13	12:53:05	Sand Barge		91	29	40	230	25	10	N	22.27249	E	113.85153	2149.67	282.42
21-Jan-13	12:53:19	Other	Traveling	90	50	50	307	7	0	N	22.30294	E	113.87137	3846.43	359.11
21-Jan-13	13:06:09	Zero		91	9	30	0	0	0	N	22.28376	E	113.89329	2784.88	52.00
21-Jan-13	13:12:52	Police Vessel	Traveling	92	0	50	216	37	40	N	22.26799	E	113.85649	1589.38	268.62
21-Jan-13	13:13:13	Police Vessel	Traveling	91	13	30	291	51	50	N	22.29107	E	113.86483	2629.69	343.86
21-Jan-13	13:14:26	Police Vessel	Traveling	92	21	30	238	14	0	N	22.27255	E	113.85957	1355.67	290.23
21-Jan-13	13:14:43	Police Vessel	Traveling	91	26	30	282	10	20	N	22.28638	E	113.86250	2228.17	334.17
21-Jan-13	13:16:25	Police Vessel	Traveling	91	43	20	267	30	50	N	22.28107	E	113.86019	1861.02	319.51
21-Jan-13	13:16:43	Police Vessel	Traveling	92	13	50	273	9	30	N	22.27892	E	113.86398	1433.76	325.16
21-Jan-13	13:18:42	Police Vessel	Traveling	92	0	30	240	7	40	N	22.27373	E	113.85759	1593.56	292.12
21-Jan-13	13:18:54	Police Vessel	Traveling	91	41	50	296	3	50	N	22.28496	E	113.86814	1888.60	348.06
21-Jan-13	13:21:22	Police Vessel	Traveling	91	10	50	304	2	50	N	22.29284	E	113.87011	2730.17	356.04
21-Jan-13	13:21:52	Police Vessel	Traveling	91	30	50	207	13	20	N	22.26476	E	113.85169	2120.02	259.22
21-Jan-13	13:25:11	Speedboat	Traveling	92	58	30	319	34	50	N	22.27779	E	113.87404	1072.95	11.58
21-Jan-13	13:25:57	Speedboat	Traveling	94	28	20	284	39	20	N	22.27422	E	113.86920	712.28	336.65
21-Jan-13	13:26:23	Speedboat	Traveling	94	35	20	255	22	20	N	22.27212	E	113.86658	694.06	307.37
21-Jan-13	13:26:44	Speedboat	Traveling	94	0	30	234	35	0	N	22.27038	E	113.86453	795.15	286.58
21-Jan-13	13:26:56	Research Vessel	Traveling	91	38	30	266	33	40	N	22.28151	E	113.85937	1952.80	318.56
21-Jan-13	13:27:17	Speedboat	Traveling	107	0	50	270	57	10	N	22.26964	E	113.87088	181.93	322.95
21-Jan-13	13:28:21	Speedboat	Traveling	99	28	30	320	54	40	N	22.27126	E	113.87267	333.60	12.91
21-Jan-13	13:28:38	Research Vessel	Traveling	91	22	40	283	12	40	N	22.28739	E	113.86243	2332.21	335.21
21-Jan-13	13:29:36	Speedboat	Stationary	96	41	30	331	4	50	N	22.27226	E	113.87375	474.60	23.08
21-Jan-13	13:29:50	Research Vessel	Traveling	91	12	10	291	25	50	N	22.29143	E	113.86452	2678.05	343.43
21-Jan-13	13:37:23	Zero		91	9	20	0	0	10	N	22.28379	E	113.89332	2789.32	52.00
21-Jan-13	13:39:01	Transportation boat	Traveling	91	28	20	344	3	40	N	22.28419	E	113.88442	2179.82	36.06
21-Jan-13	13:40:05	Transportation boat	Stationary	91	37	20	344	47	20	N	22.28257	E	113.88345	1975.77	36.79
21-Jan-13	13:40:53	Other	Traveling	91	0	10	316	33	40	N	22.29704	E	113.87661	3225.87	8.56
21-Jan-13	13:41:25	Transportation boat	Traveling	91	32	20	343	46	30	N	22.28355	E	113.88379	2084.02	35.77
21-Jan-13	13:44:20	Transportation boat	Stationary	91	29	0	343	1	20	N	22.28427	E	113.88402	2162.96	35.02
21-Jan-13	13:44:27	Other	Traveling	91	17	50	325	39	40	N	22.28959	E	113.87926	2478.47	17.66
21-Jan-13	13:47:11	Other	Traveling	91	28	20	339	27	40	N	22.28506	E	113.88301	2179.34	31.46
21-Jan-13	13:47:36	Speedboat	Traveling	94	22	10	324	11	20	N	22.27463	E	113.87392	728.69	16.19
21-Jan-13	13:48:34	Speedboat	Traveling	96	14	10	326	8	40	N	22.27269	E	113.87349	509.33	18.14
21-Jan-13	13:48:58	Other	Stationary	91	32	30	344	37	40	N	22.28335	E	113.88401	2079.79	36.62
21-Jan-13	13:49:58	Speedboat	Traveling	104	44	40	307	46	0	N	22.27024	E	113.87194	211.41	359.76
21-Jan-13	13:50:27	Other	Traveling	91	32	0	342	27	10	N	22.28385	E	113.88345	2091.15	34.45
21-Jan-13	13:50:37	Speedboat	Traveling	113	32	40	268	38	40	N	22.26922	E	113.87116	127.68	320.64
21-Jan-13	13:50:51	Speedboat	Stationary	112	37	10	258	58	20	N	22.26912	E	113.87096	133.52	310.97
21-Jan-13	13:51:27	Speedboat	Traveling	105	6	20	251	20	10	N	22.26935	E	113.87027	206.11	303.33
21-Jan-13	13:52:12	Other	Traveling	91	19	0	343	19	50	N	22.28625	E	113.88567	2440.71	35.33
21-Jan-13	13:54:31	Other	Traveling	91	4	30	346	1	10	N	22.28962	E	113.88993	3002.17	38.02
21-Jan-13	13:59:57	Other	Traveling	91	22	30	335	33	40	N	22.28696	E	113.88245	2334.99	27.56
21-Jan-13	14:01:32	Other	Traveling	91	16	30	328	19	50	N	22.28961	E	113.88046	2521.27	20.33
21-Jan-13	14:02:48	Research Vessel	Traveling	91	26	40	244	5	0	N	22.27712	E	113.85255	2220.90	296.08
21-Jan-13	14:05:58	Research Vessel	Traveling	91	36	10	263	28	40	N	22.28116	E	113.85831	1998.60	315.47
21-Jan-13	14:06:16	Speedboat	Traveling	117	51	30	301	11	20	N	22.26927	E	113.87182	105.21	353.19
21-Jan-13	14:09:15	Hi-Speed Ferry		94	35	20	229	31	50	N	22.26958	E	113.86534	693.25	281.53
21-Jan-13	14:10:10	Hi-Speed Ferry		95	24	30	267	47	10	N	22.27237	E	113.86825	587.59	319.78
21-Jan-13	14:11:08	Hi-Speed Ferry		94	9	40	304	53	30	N	22.27521	E	113.87154	764.88	356.89
21-Jan-13	14:12:22	Hi-Speed Ferry		92	36	50	328	0	40	N	22.27865	E	113.87601	1220.45	20.01
21-Jan-13	14:16:18	Zero		91	8	40	0	0	0	N	22.28392	E	113.89351	2814.00	52.00
21-Jan-13	14:27:49	Speedboat	Traveling	109	53	50	280	6	30	N	22.26955	E	113.87125	153.56	332.11
21-Jan-13	14:28:31	Speedboat	Traveling	101	17	20	352	39	50	N	22.27012	E	113.87385	278.44	44.66
21-Jan-13	14:29:55	Speedboat	Traveling	95	8	0	7	44	40	N	22.27114	E	113.87714	618.95	59.74
21-Jan-13	14:31:33	Speedboat	Stationary	94	58	30	15	22	30	N	22.27054	E	113.87768	638.75	67.37
21-Jan-13	14:34:45	Speedboat	Traveling	99	23	40	352	16	10	N	22.27050	E	113.87422	335.90	44.27
21-Jan-13	14:35:55	Speedboat	Traveling	95	40	20	342	15	0	N	22.27250	E	113.87501	559.67	34.25
21-Jan-13	14:37:27	Speedboat	Traveling	93	36	20	339	21	30	N	22.27512	E	113.87641	882.73	31.36
21-Jan-13	14:39:33	Speedboat	Stationary	93	32	20	338	56	30	N	22.27528	E	113.87644	899.39	30.94
21-Jan-13	14:43:16	Other	Traveling	92	29	50	241	8	10	N	22.27285	E	113.86053	1276.72	293.13
21-Jan-13	14:44:42	Other	Traveling	92	31	20	274	40	10	N	22.27784	E	113.86519	1263.94	326.67
21-Jan-13	14:46:04	Other	Traveling	92	0	10	300	19	50	N	22.28255	E	113.86987	1594.20	352.33
21-Jan-13	15:04:17	Fishing boat	Non-operating	95	46	40	9	16	10	N	22.27071	E	113.87663	548.95	61.27
21-Jan-13	15:05:01	Fishing boat	Non-operating	97	36	10	6	14	0	N	22.27030	E	113.87538	416.05	58.23
21-Jan-13	15:07:14	Fishing boat	Non-operating	119	11	50	282	27	0	N	22.26914	E	113.87153	99.35	334.45
21-Jan-13	15:07:28	Fishing boat	Non-operating	118	35	20	257	54	0	N	22.26892	E	113.87118	101.87	309.90
21-Jan-13	15:07:56	Other	Stationary	91	26	10	347	0	30	N	22.28393	E	113.88559	2229.98	39.01
21-Jan-13	15:08:07	Other	Stationary	91	25	40	347	42	30	N	22.28386	E	113.88588	2243.17	39.71
21-Jan-13	15:08:22	Other	Stationary	91	41	30	344	37	20	N	22.28198	E	113.88290	1889.20	36.62
21-Jan-13	15:08:30	Other	Stationary	91	41	10	345	0	20	N	22.28196	E	113.88304	1895.48	37.00
21-Jan-13	15:09:01	Other	Stationary	91	28	30	346	29	30	N	22.28362	E	113.88508	2170.30	38.49
21-Jan-13	15:09:11	Other	Stationary	91	29	0	347	5	40	N	22.28341	E	113.88518	2157.93	39.09
21-Jan-13	15:09:21	Other	Stationary	91	35	30	345	59	50	N	22.28258	E	113.88397	2009.22	37.99

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
21-Jan-13	15:09:45	Other	Stationary	91	39	20	345	39	20	N	22.28209	E	113.88342	1930.79	37.65
22-Jan-13	8:55:23	Zero		91	12	10	0	0	0	N	22.28340	E	113.89278	2718.68	52.00
22-Jan-13	8:55:57	Other	Stationary	91	27	10	346	59	40	N	22.28402	E	113.88567	2243.39	38.99
22-Jan-13	8:56:05	Other	Stationary	91	26	40	347	42	0	N	22.28396	E	113.88596	2256.52	39.70
22-Jan-13	8:56:19	Other	Stationary	91	43	0	344	36	30	N	22.28202	E	113.88293	1894.59	36.61
22-Jan-13	8:56:25	Other	Stationary	91	42	10	344	59	50	N	22.28206	E	113.88312	1910.21	36.99
22-Jan-13	8:56:53	Other	Stationary	91	36	10	345	15	10	N	22.28288	E	113.88390	2030.79	37.25
22-Jan-13	8:57:07	Other	Stationary	91	30	0	346	28	40	N	22.28363	E	113.88509	2171.78	38.47
22-Jan-13	8:57:14	Other	Stationary	91	30	30	347	4	50	N	22.28342	E	113.88518	2159.62	39.08
22-Jan-13	8:57:29	Other	Stationary	91	36	20	345	59	0	N	22.28271	E	113.88408	2027.24	37.98
22-Jan-13	8:57:38	Other	Stationary	91	39	40	345	22	40	N	22.28234	E	113.88351	1958.66	37.37
22-Jan-13	8:58:08	Other	Stationary	90	57	50	241	36	10	N	22.28063	E	113.84153	3412.49	293.60
22-Jan-13	8:58:37	Other	Stationary	91	8	10	244	35	0	N	22.27994	E	113.84688	2881.87	296.58
22-Jan-13	8:58:53	Transportation boat	Stationary	91	34	50	346	10	20	N	22.28291	E	113.88432	2059.69	38.17
22-Jan-13	8:59:05	Transportation boat	Stationary	91	40	40	344	23	50	N	22.28238	E	113.88313	1938.99	36.39
22-Jan-13	8:59:59	Dolphin	Surface	97	3	40	238	47	30	N	22.26979	E	113.86780	456.26	290.79
22-Jan-13	9:00:07	Dolphin	Surface	97	9	10	239	34	30	N	22.26982	E	113.86787	450.35	291.57
22-Jan-13	9:00:23	Dolphin	Surface	97	11	40	240	53	0	N	22.26990	E	113.86793	447.72	292.88
22-Jan-13	9:01:28	Dolphin	Surface	99	48	50	251	10	30	N	22.26994	E	113.86929	326.68	303.17
22-Jan-13	9:01:53	Dolphin	Surface	100	1	20	256	51	10	N	22.27014	E	113.86952	319.75	308.85
22-Jan-13	9:02:14	Dolphin	Surface	100	20	20	261	27	10	N	22.27025	E	113.86976	309.75	313.45
22-Jan-13	9:02:42	Dolphin	Surface	100	57	0	268	2	10	N	22.27035	E	113.87012	292.06	320.03
22-Jan-13	9:02:51	Dolphin	Surface	100	54	30	268	34	30	N	22.27037	E	113.87013	293.21	320.57
22-Jan-13	9:03:06	Dolphin	Surface	100	57	50	268	35	10	N	22.27036	E	113.87014	291.68	320.58
22-Jan-13	9:03:16	Dolphin	Surface	100	56	0	268	34	40	N	22.27037	E	113.87014	292.52	320.57
22-Jan-13	9:03:30	Dolphin	Surface	100	57	30	271	55	40	N	22.27046	E	113.87027	291.83	323.92
22-Jan-13	9:03:45	Dolphin	Surface	100	58	20	276	7	20	N	22.27056	E	113.87045	291.46	328.12
22-Jan-13	9:03:58	Dolphin	Surface	100	58	20	279	24	20	N	22.27064	E	113.87059	291.46	331.40
22-Jan-13	9:04:14	Dolphin	Surface	100	51	30	283	39	50	N	22.27075	E	113.87076	294.59	335.66
22-Jan-13	9:04:30	Dolphin	Surface	100	45	40	287	27	0	N	22.27084	E	113.87093	297.32	339.45
22-Jan-13	9:04:40	Dolphin	Surface	100	32	30	289	58	20	N	22.27093	E	113.87103	303.65	341.97
22-Jan-13	9:05:07	Dolphin	Surface	100	26	10	292	35	0	N	22.27099	E	113.87115	306.80	344.58
22-Jan-13	9:05:35	Dolphin	Surface	100	23	0	292	12	50	N	22.27100	E	113.87113	308.39	344.21
22-Jan-13	9:05:48	Dolphin	Surface	100	23	10	294	17	10	N	22.27103	E	113.87123	308.31	346.28
22-Jan-13	9:06:08	Dolphin	Surface	100	22	10	298	47	40	N	22.27108	E	113.87146	308.81	350.79
22-Jan-13	9:06:21	Dolphin	Surface	100	6	0	300	6	50	N	22.27116	E	113.87152	317.23	352.11
22-Jan-13	9:06:38	Dolphin	Surface	99	44	40	303	2	30	N	22.27128	E	113.87167	329.05	355.04
22-Jan-13	9:06:57	Dolphin	Surface	99	30	0	306	8	50	N	22.27137	E	113.87184	337.68	358.14
22-Jan-13	9:07:28	Dolphin	Surface	98	53	30	309	56	10	N	22.27158	E	113.87206	361.21	1.93
22-Jan-13	9:07:43	Speedboat	Traveling	104	11	0	316	9	0	N	22.27033	E	113.87225	223.57	8.15
22-Jan-13	9:07:49	Speedboat	Traveling	105	59	30	312	3	30	N	22.27010	E	113.87208	197.16	4.06
22-Jan-13	9:07:53	Speedboat	Traveling	107	9	30	309	23	40	N	22.26998	E	113.87199	183.00	1.39
22-Jan-13	9:07:59	Speedboat	Traveling	109	1	50	303	49	50	N	22.26980	E	113.87183	163.81	355.83
22-Jan-13	9:08:04	Speedboat	Traveling	109	44	40	300	45	0	N	22.26974	E	113.87175	157.42	352.75
22-Jan-13	9:08:09	Speedboat	Traveling	110	28	30	298	38	30	N	22.26968	E	113.87171	151.32	350.64
22-Jan-13	9:08:22	Dolphin	Surface	99	29	10	316	45	0	N	22.27134	E	113.87244	338.19	8.75
22-Jan-13	9:08:32	Dolphin	Surface	99	10	30	317	55	20	N	22.27143	E	113.87253	349.87	9.92
22-Jan-13	9:09:09	Scan_dolphin		97	45	50	318	25	50	N	22.27200	E	113.87267	414.50	10.43
22-Jan-13	9:10:17	Dolphin	Surface	96	51	50	320	38	0	N	22.27246	E	113.87294	469.51	12.63
22-Jan-13	9:10:23	Dolphin	Surface	96	52	30	321	18	30	N	22.27244	E	113.87299	468.75	13.31
22-Jan-13	9:10:35	Dolphin	Surface	96	45	0	322	4	40	N	22.27250	E	113.87307	477.52	14.07
22-Jan-13	9:10:47	Dolphin	Surface	96	35	10	322	30	10	N	22.27260	E	113.87314	489.52	14.50
22-Jan-13	9:10:58	Dolphin	Surface	96	29	0	323	12	40	N	22.27265	E	113.87321	497.35	15.21
22-Jan-13	9:11:13	Dolphin	Surface	96	20	40	324	15	10	N	22.27273	E	113.87333	508.34	16.25
22-Jan-13	9:11:25	Dolphin	Surface	96	12	40	325	2	20	N	22.27280	E	113.87342	519.35	17.04
22-Jan-13	9:13:00	Dolphin	Surface	95	21	30	326	11	10	N	22.27349	E	113.87377	602.69	18.18
22-Jan-13	9:13:04	Dolphin	Surface	95	18	10	326	9	50	N	22.27354	E	113.87379	609.04	18.16
22-Jan-13	9:13:15	Dolphin	Surface	95	16	20	326	48	40	N	22.27355	E	113.87387	612.60	18.81
22-Jan-13	9:13:24	Dolphin	Surface	95	11	10	327	23	40	N	22.27362	E	113.87396	622.84	19.39
22-Jan-13	9:13:38	Dolphin	Surface	95	6	40	327	48	20	N	22.27368	E	113.87403	632.04	19.80
22-Jan-13	9:13:51	Dolphin	Surface	95	3	10	328	29	40	N	22.27372	E	113.87412	639.38	20.49
22-Jan-13	9:14:07	Dolphin	Surface	94	59	50	329	11	50	N	22.27376	E	113.87422	646.53	21.19
22-Jan-13	9:14:23	Dolphin	Surface	94	54	40	329	9	20	N	22.27386	E	113.87425	657.94	21.15
22-Jan-13	9:14:47	Dolphin	Surface	94	47	40	330	23	10	N	22.27394	E	113.87444	674.05	22.38
22-Jan-13	9:15:01	Dolphin	Fluke Up	94	43	20	330	36	40	N	22.27402	E	113.87450	684.42	22.61
22-Jan-13	9:17:15	Dolphin	Surface	94	26	50	333	34	20	N	22.27423	E	113.87500	726.99	25.57
22-Jan-13	9:17:22	Dolphin	Surface	94	24	30	334	4	30	N	22.27426	E	113.87508	733.44	26.07
22-Jan-13	9:17:31	Dolphin	Surface	94	23	40	334	43	50	N	22.27425	E	113.87516	735.77	26.73
22-Jan-13	9:17:41	Dolphin	Surface	94	23	50	335	26	30	N	22.27421	E	113.87524	735.30	27.44
22-Jan-13	9:17:58	Dolphin	Surface	94	18	50	335	59	0	N	22.27429	E	113.87536	749.58	27.98
22-Jan-13	9:18:07	Dolphin	Surface	94	17	20	336	31	50	N	22.27429	E	113.87545	753.97	28.53
22-Jan-13	9:18:25	Dolphin	Surface	94	14	10	337	34	40	N	22.27431	E	113.87561	763.42	29.57
22-Jan-13	9:18:36	Dolphin	Surface	94	10	40	337	5	30	N	22.27442	E	113.87560	774.13	29.09
22-Jan-13	9:18:52	Dolphin	Surface	94	7	30	337	47	20	N	22.27446	E	113.87573	784.09	29.79
22-Jan-13	9:19:11	Dolphin	Surface	94	1	30	338	20	0	N	22.27458	E	113.87589	803.67	30.33
22-Jan-13	9:19:28	Dolphin	Fluke Up	93	57	20	338	33	50	N	22.27467	E	113.87599	817.85	30.56
22-Jan-13	9:21:33	Dolphin	Surface	93	33	20	338	1	30	N	22.27543	E	113.87637	910.34	30.02
22-Jan-13	9:21:53	Dolphin	Surface	93	29	20	338	50	20	N	22.27550	E	113.87657	927.82	30.84
22-Jan-13	9:22:16	Dolphin	Surface	93	28	10	339	44	50	N	22.27547	E	113.87672	933.05	31.74
22-Jan-13	9:22:32	Dolphin	Surface	93	28	30	339	40	10	N	22.27547	E	113.87670	931.55	31.67
22-Jan-13	9:22:48	Dolphin	Surface	93	28	40	340	6	50	N	22.27543	E	113.87676	930.80	32.11
22-Jan-13	9:23:08	Dolphin	Surface	93	27	0	340	23	10	N	22.27546	E	113.87683	938.33	32.38
22-Jan-13	9:23:22	Dolphin	Surface	93	27	10	340	52	20	N	22.27542	E	113.87689	937.58	32.87
22-Jan-13	9:23:27	Dolphin	Surface	93	26	30	340	49	50	N	22.27545	E	113.87690	940.62	32.83
22-Jan-13	9:23:36	Dolphin	Surface	93	25	50	340	49	20	N	22.27547	E	113.87692	943.68	32.82
22-Jan-13	9:23:45	Dolphin	Surface	93	25	30	340	25	30	N	22.27551	E	113.87687	945.22	32.42
22-Jan-13	9:23:49	Dolphin	Surface	93	25	0	340	22	10	N	22.27554	E	113.87688	947.53	32.37
22-Jan-13	9:23:54	Dolphin	Surface	93	24	30	340	39	20	N	22.27553	E	113.87693	949.86	32.65
22-Jan-13	9:23:58	Dolphin	Surface	93	25	10	340	45	20	N	22.27550	E	113.87693	946.76	32.75
22-Jan-13	9:24:05	Dolphin	Surface	93	25	20	340	38	30	N	22.27550	E	113.87691	945.99	32.64
22-Jan-13	9:24:09	Dolphin	Fluke Up	93	25	0	340	37	50	N	22.27551	E	113.87691	947.53	32.63
22-Jan-13	9:32:27	Dolphin	Fluke Up	96	19	50	307	50	10	N	22.27292	E	113.87193	509.46	359.83
22-Jan-13	9:33:52	Dolphin	Surface	96	30	10	301	30	20	N	22.27277	E	113.87140	495.85	353.50
22-Jan-13	9:34:03	Dolphin	Surface	96	31	40	300	46	0	N	22.27274	E	113.87134	493.93	352.76
22-Jan-13	9:34:13	Dolphin	Fluke Up	96	32	40	299	46	50	N	22.27272	E	113.87126	492.66	351.78
22-Jan-13	9:35:53	Dolphin	Surface	98	8	30	295	11	30	N	22.27180	E	113.87109	395.02	347.19
22-Jan-13	9:36:04	Dolphin	Surface	98	13	20	294	4	0	N	22.27175	E	113.87103	391.09	346.06
22-Jan-13	9:36:20	Dolphin	Surface	98	11	40	293	59	40	N	22.27176	E	113.87102	392.44	345.99
22-Jan-13	9:36:36	Dolphin	Surface	98	16	10	294	3	30	N	22.27173	E	113.87103	388.83	346.06
22-Jan-13	9:36:44	Dolphin	Surface	98	24	0	294	57	30	N	22.27169	E	113.87110	382.70	346.96
22-Jan-13	9:36:57	Dolphin	Surface	98	28	10	295	37	10	N	22.27167	E	113.87115	379.51	347.62

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
22-Jan-13	9:37:05	Dolphin	Surface	98	31	50	295	36	10	N	22.27164	E	113.87116	376.75	347.60
22-Jan-13	9:37:10	Dolphin	Surface	98	31	50	295	48	40	N	22.27165	E	113.87117	376.75	347.81
22-Jan-13	9:37:23	Dolphin	Surface	98	46	40	295	44	20	N	22.27155	E	113.87119	365.97	347.74
22-Jan-13	9:37:44	Dolphin	Surface	98	55	30	292	29	0	N	22.27145	E	113.87101	359.84	344.48
22-Jan-13	9:37:55	Dolphin	Fluke Up	99	9	40	291	34	20	N	22.27136	E	113.87098	350.41	343.57
22-Jan-13	9:39:12	Dolphin	Surface	100	59	40	285	10	0	N	22.27075	E	113.87085	290.85	337.16
22-Jan-13	9:39:27	Dolphin	Fluke Up	101	31	20	282	40	50	N	22.27059	E	113.87079	277.19	334.68
22-Jan-13	9:40:24	Dolphin	Surface	103	4	40	274	9	50	N	22.27015	E	113.87063	243.24	326.16
22-Jan-13	9:40:37	Dolphin	Surface	103	45	20	273	1	40	N	22.27004	E	113.87066	230.82	325.02
22-Jan-13	9:40:42	Dolphin	Surface	103	50	40	273	44	10	N	22.27004	E	113.87069	229.28	325.73
22-Jan-13	9:42:00	Zero		91	9	40	0	0	0	N	22.28395	E	113.89354	2818.41	52.00
22-Jan-13	9:42:08	Dolphin	Surface	105	22	50	274	41	10	N	22.26988	E	113.87085	205.41	326.68
22-Jan-13	9:42:14	Dolphin	Surface	105	30	30	274	0	20	N	22.26985	E	113.87084	203.63	326.00
22-Jan-13	9:42:19	Dolphin	Surface	105	30	30	273	58	10	N	22.26985	E	113.87084	203.63	325.97
22-Jan-13	9:42:26	Scan_dolphin		105	30	30	272	39	30	N	22.26983	E	113.87080	203.63	324.66
22-Jan-13	9:42:32	Dolphin	Surface	105	34	40	272	23	10	N	22.26982	E	113.87080	202.68	324.38
22-Jan-13	9:42:36	Dolphin	Surface	105	41	20	272	23	20	N	22.26981	E	113.87081	201.17	324.39
22-Jan-13	9:42:45	Dolphin	Surface	106	44	20	272	0	20	N	22.26970	E	113.87087	187.87	324.00
22-Jan-13	9:42:59	Dolphin	Surface	106	57	20	271	42	10	N	22.26968	E	113.87088	185.33	323.70
22-Jan-13	9:43:11	Dolphin	Surface	106	6	10	270	6	40	N	22.26972	E	113.87078	195.72	322.11
22-Jan-13	9:43:17	Dolphin	Surface	105	44	20	271	7	40	N	22.26978	E	113.87077	200.49	323.12
22-Jan-13	9:43:22	Dolphin	Surface	105	33	0	272	43	50	N	22.26983	E	113.87080	203.06	324.73
22-Jan-13	9:43:33	Dolphin	Surface	105	15	40	275	42	40	N	22.26991	E	113.87087	207.09	327.71
22-Jan-13	9:43:40	Dolphin	Surface	104	57	30	277	22	40	N	22.26997	E	113.87090	211.49	329.37
22-Jan-13	9:43:49	Dolphin	Surface	104	45	40	279	46	30	N	22.27003	E	113.87096	214.45	331.77
22-Jan-13	9:43:56	Dolphin	Surface	104	25	10	281	9	10	N	22.27010	E	113.87098	219.76	333.15
22-Jan-13	9:44:04	Dolphin	Surface	104	26	0	283	5	30	N	22.27013	E	113.87105	219.54	335.09
22-Jan-13	9:44:14	Dolphin	Surface	103	53	0	284	36	10	N	22.27022	E	113.87106	228.61	336.60
22-Jan-13	9:44:25	Dolphin	Surface	103	43	40	286	28	50	N	22.27027	E	113.87112	231.30	338.48
22-Jan-13	9:44:40	Dolphin	Surface	103	18	30	283	48	30	N	22.27029	E	113.87099	238.88	335.81
22-Jan-13	9:44:52	Dolphin	Surface	102	54	10	286	23	30	N	22.27040	E	113.87106	246.66	338.39
22-Jan-13	9:45:13	Hi-Speed Ferry		91	28	40	338	57	10	N	22.28535	E	113.88297	2204.90	30.95
22-Jan-13	9:45:28	Dolphin	Fluke Up	102	7	50	292	19	50	N	22.27061	E	113.87125	262.89	344.33
22-Jan-13	9:46:22	Hi-Speed Ferry		91	53	10	333	53	20	N	22.28228	E	113.87926	1722.80	25.89
22-Jan-13	9:46:27	Dolphin	Surface	101	27	20	301	0	40	N	22.27082	E	113.87161	278.84	353.01
22-Jan-13	9:46:36	Dolphin	Surface	101	3	50	301	24	30	N	22.27092	E	113.87162	288.98	353.41
22-Jan-13	9:46:53	Dolphin	Surface	100	41	0	303	40	20	N	22.27102	E	113.87172	299.53	355.67
22-Jan-13	9:47:17	Dolphin	Surface	100	13	50	306	43	30	N	22.27115	E	113.87188	313.10	358.72
22-Jan-13	9:47:26	Dolphin	Surface	100	1	0	307	37	40	N	22.27121	E	113.87192	319.93	359.62
22-Jan-13	9:47:34	Dolphin	Fluke Up	99	45	20	308	46	50	N	22.27129	E	113.87199	328.67	0.78
22-Jan-13	9:47:48	Hi-Speed Ferry		92	54	10	324	13	40	N	22.27798	E	113.87498	1116.19	16.22
22-Jan-13	9:48:24	Dolphin	Surface	98	46	50	315	29	30	N	22.27160	E	113.87241	365.86	7.49
22-Jan-13	9:48:36	Dolphin	Fluke Up	98	31	40	316	43	20	N	22.27169	E	113.87250	376.87	8.72
22-Jan-13	9:48:46	Hi-Speed Ferry		94	12	0	307	21	10	N	22.27526	E	113.87186	770.02	359.35
22-Jan-13	9:48:55	Hi-Speed Ferry		94	25	50	303	13	0	N	22.27488	E	113.87135	729.74	355.21
22-Jan-13	9:49:32	Dolphin	Surface	97	3	40	320	45	20	N	22.27234	E	113.87292	456.26	12.75
22-Jan-13	9:49:54	Dolphin	Surface	97	1	30	324	2	50	N	22.27230	E	113.87318	458.64	16.04
22-Jan-13	9:53:02	Dolphin	Surface	96	35	40	326	8	30	N	22.27251	E	113.87342	488.89	18.14
22-Jan-13	9:53:21	Dolphin	Surface	96	35	40	325	46	20	N	22.27252	E	113.87340	488.89	17.77
22-Jan-13	9:53:25	Dolphin	Surface	96	34	40	325	46	30	N	22.27253	E	113.87340	490.14	17.77
22-Jan-13	9:53:38	Dolphin	Surface	96	35	50	326	30	30	N	22.27250	E	113.87345	488.68	18.51
22-Jan-13	9:53:41	Dolphin	Surface	96	34	40	326	24	40	N	22.27252	E	113.87345	490.14	18.41
22-Jan-13	9:53:50	Dolphin	Surface	96	34	30	326	24	50	N	22.27252	E	113.87345	490.35	18.41
22-Jan-13	9:53:56	Dolphin	Surface	96	33	50	326	24	50	N	22.27253	E	113.87345	491.19	18.41
22-Jan-13	9:54:04	Dolphin	Surface	96	33	50	326	21	20	N	22.27253	E	113.87345	491.19	18.35
22-Jan-13	9:54:08	Dolphin	Surface	96	33	50	326	29	10	N	22.27253	E	113.87346	491.19	18.48
22-Jan-13	9:54:26	Dolphin	Surface	96	42	50	328	48	20	N	22.27237	E	113.87360	480.11	20.80
22-Jan-13	9:54:30	Dolphin	Surface	96	48	20	329	20	50	N	22.27230	E	113.87362	473.58	21.34
22-Jan-13	9:54:37	Dolphin	Surface	96	54	30	329	29	50	N	22.27224	E	113.87361	466.46	21.49
22-Jan-13	9:54:41	Dolphin	Surface	96	54	30	328	56	50	N	22.27225	E	113.87357	466.46	20.94
22-Jan-13	9:54:49	Dolphin	Surface	96	50	50	328	58	30	N	22.27229	E	113.87358	470.67	20.97
22-Jan-13	9:55:05	Dolphin	Surface	96	44	0	329	17	0	N	22.27235	E	113.87363	478.71	21.28
22-Jan-13	9:55:09	Dolphin	Surface	96	39	50	329	1	50	N	22.27240	E	113.87363	483.75	21.03
22-Jan-13	9:55:19	Dolphin	Surface	96	29	30	329	11	30	N	22.27250	E	113.87369	496.71	21.19
22-Jan-13	9:55:29	Dolphin	Surface	96	22	0	328	56	30	N	22.27259	E	113.87370	506.55	20.94
22-Jan-13	9:55:40	Dolphin	Surface	96	15	40	329	49	0	N	22.27264	E	113.87381	515.16	21.81
22-Jan-13	9:55:55	Dolphin	Fluke Up	96	1	50	330	15	0	N	22.27279	E	113.87391	535.03	22.25
22-Jan-13	9:56:47	Dolphin	Surface	96	4	20	330	29	50	N	22.27275	E	113.87392	531.33	22.49
22-Jan-13	9:56:55	Dolphin	Surface	95	58	10	330	15	40	N	22.27284	E	113.87394	540.55	22.26
22-Jan-13	9:57:06	Dolphin	Surface	95	54	20	331	3	50	N	22.27286	E	113.87403	546.45	23.06
22-Jan-13	9:57:17	Dolphin	Surface	95	48	20	331	11	10	N	22.27293	E	113.87407	555.93	23.18
22-Jan-13	9:57:25	Dolphin	Surface	95	44	20	332	17	10	N	22.27295	E	113.87419	562.44	24.28
22-Jan-13	9:57:32	Dolphin	Surface	95	40	30	332	28	30	N	22.27299	E	113.87424	568.82	24.47
22-Jan-13	9:57:43	Dolphin	Surface	95	35	20	333	21	30	N	22.27303	E	113.87435	577.65	25.36
22-Jan-13	9:57:51	Dolphin	Surface	95	29	10	333	33	20	N	22.27311	E	113.87441	588.55	25.55
22-Jan-13	9:58:41	Dolphin	Fluke Up	92	28	50	314	12	40	N	22.28003	E	113.87332	1307.32	6.21
22-Jan-13	10:00:21	Dolphin	Surface	94	14	40	337	30	50	N	22.27430	E	113.87559	761.91	29.51
22-Jan-13	10:00:42	Dolphin	Surface	92	18	30	317	41	10	N	22.28080	E	113.87424	1405.49	9.68
22-Jan-13	10:07:16	Research Vessel	Traveling	91	15	40	340	10	30	N	22.28807	E	113.88536	2590.46	32.17
22-Jan-13	10:07:27	Research Vessel	Traveling	91	20	20	350	12	40	N	22.28458	E	113.88787	2437.34	42.21
22-Jan-13	10:10:22	Research Vessel	Traveling	91	22	40	327	17	0	N	22.28819	E	113.87945	2337.48	19.28
22-Jan-13	10:10:32	Research Vessel	Traveling	91	48	0	349	5	0	N	22.28043	E	113.88334	1783.23	41.08
22-Jan-13	10:12:27	Hi-Speed Ferry		96	36	20	265	26	50	N	22.27153	E	113.86877	481.91	317.44
22-Jan-13	10:12:38	Research Vessel	Traveling	92	19	10	344	25	20	N	22.27833	E	113.87992	1381.05	36.42
22-Jan-13	10:12:53	Transportation boat	Traveling	91	51	10	337	31	0	N	22.28190	E	113.88024	1731.88	29.51
22-Jan-13	10:13:09	Hi-Speed Ferry		95	40	10	298	40	20	N	22.27333	E	113.87106	562.20	350.67
22-Jan-13	10:13:26	Research Vessel	Traveling	91	12	0	314	15	50	N	22.29240	E	113.87480	2690.38	6.26
22-Jan-13	10:13:40	Transportation boat	Traveling	91	59	50	331	21	10	N	22.28160	E	113.87813	1605.56	23.35
22-Jan-13	10:14:00	Research Vessel	Traveling	92	45	40	338	9	50	N	22.27735	E	113.87761	1158.92	30.16
22-Jan-13	10:14:34	Hi-Speed Ferry		92	58	30	327	4	0	N	22.27748	E	113.87536	1075.17	19.06
22-Jan-13	10:15:16	Transportation boat	Traveling	92	18	10	315	57	20	N	22.28073	E	113.87382	1391.03	7.95
22-Jan-13	10:16:43	Hi-Speed Ferry		91	35	0	337	39	30	N	22.28421	E	113.88171	2029.81	29.66
22-Jan-13	10:16:59	Transportation boat	Traveling	92	26	0	295	32	0	N	22.27990	E	113.86918	1315.89	347.53
22-Jan-13	10:17:13	Research Vessel	Traveling	94	29	30	325	2	20	N	22.27445	E	113.87397	710.61	17.04
22-Jan-13	10:18:58	Research Vessel	Stationary	94	18	30	320	49	0	N	22.27484	E	113.87354	740.99	12.81
22-Jan-13	10:19:49	Transportation boat	Traveling	91	56	0	266	2	20	N	22.27943	E	113.86116	1658.85	318.04
22-Jan-13	10:20:06	Fishing boat	Non-operating	91	57	30	253	19	50	N	22.27685	E	113.85895	1637.49	305.33
22-Jan-13	10:21:08	Research Vessel	Traveling	94	4	20	317	2	50	N	22.27530	E	113.87314	784.15	9.04
22-Jan-13	10:23:21	Fishing boat	Non-operating	91	38	30	280	14	20	N	22.28391	E	113.86308	1956.58	332.24
22-Jan-13	10:23:41	Research Vessel	Traveling	96	35	30	280	5	40	N	22.27217	E	113.86975	482.83	332.09
22-Jan-13	10:25:21	Fishing boat	Non-operating	91	22	10	290	47	20	N	22.28854	E	113.86518	2351.19	342.79

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
22-Jan-13	10:25:49	Research Vessel	Traveling	95	39	30	232	45	0	N	22.26962	E	113.86665	563.17	284.75
22-Jan-13	10:26:34	Transportation boat	Traveling	91	44	10	255	11	50	N	22.27839	E	113.85762	1848.90	307.19
22-Jan-13	10:27:12	Research Vessel	Traveling	94	8	40	216	29	20	N	22.26815	E	113.86446	770.32	268.49
22-Jan-13	10:27:57	Transportation boat	Traveling	92	3	0	265	26	0	N	22.27869	E	113.86166	1563.43	317.43
22-Jan-13	10:32:38	Research Vessel	Traveling	91	44	20	272	45	10	N	22.28190	E	113.86158	1845.68	324.75
22-Jan-13	10:32:55	Transportation boat	Traveling	92	22	30	324	54	40	N	22.27994	E	113.87576	1347.97	16.91
22-Jan-13	10:35:11	Research Vessel	Traveling	92	11	50	259	9	50	N	22.27697	E	113.86127	1457.71	311.16
22-Jan-13	10:35:23	Transportation boat	Traveling	91	50	30	345	11	0	N	22.28082	E	113.88218	1741.60	37.18
22-Jan-13	10:36:53	Transportation boat	Traveling	91	42	10	347	55	0	N	22.28134	E	113.88371	1885.07	39.91
22-Jan-13	10:37:44	Research Vessel	Traveling	91	41	40	247	54	20	N	22.27683	E	113.85597	1894.40	299.90
22-Jan-13	10:39:37	Transportation boat	Traveling	91	42	10	345	14	20	N	22.28184	E	113.88304	1884.96	37.24
22-Jan-13	10:40:04	Research Vessel	Traveling	91	26	20	239	16	40	N	22.27563	E	113.85169	2235.33	291.27
22-Jan-13	10:52:55	Research Vessel	Traveling	92	39	10	219	34	10	N	22.26863	E	113.86023	1205.53	271.57
22-Jan-13	10:53:45	Research Vessel	Traveling	93	0	50	217	20	0	N	22.26822	E	113.86163	1060.36	269.33
22-Jan-13	10:54:51	Research Vessel	Traveling	92	40	0	207	47	10	N	22.26642	E	113.86047	1199.17	259.78
22-Jan-13	11:43:22	Hi-Speed Ferry		91	51	50	335	4	30	N	22.28210	E	113.87955	1718.20	27.07
22-Jan-13	11:45:02	Hi-Speed Ferry		93	19	10	324	36	50	N	22.27662	E	113.87462	961.26	16.61
22-Jan-13	11:47:03	Hi-Speed Ferry		96	45	40	252	2	20	N	22.27070	E	113.86816	469.79	304.04
22-Jan-13	11:48:04	Hi-Speed Ferry		94	22	50	214	16	0	N	22.26791	E	113.86489	727.36	266.26
22-Jan-13	12:10:31	Other	Traveling	93	26	30	313	17	50	N	22.27676	E	113.87279	940.41	5.29
22-Jan-13	12:12:04	Other	Traveling	95	6	20	268	11	10	N	22.27271	E	113.86801	632.57	320.18
22-Jan-13	12:12:45	Other	Traveling	94	48	50	241	37	40	N	22.27075	E	113.86596	671.13	293.62
22-Jan-13	12:13:52	Other	Traveling	93	17	40	213	59	10	N	22.26771	E	113.86241	982.58	265.98
22-Jan-13	12:16:49	Zero		91	8	40	0	0	0	N	22.28418	E	113.89386	2859.40	52.00
22-Jan-13	12:28:34	Fishing boat	Non-operating	92	14	20	238	40	20	N	22.27293	E	113.85876	1448.53	290.67
22-Jan-13	12:29:45	Fishing boat	Non-operating	92	16	10	251	28	40	N	22.27543	E	113.86035	1428.86	303.47
22-Jan-13	12:31:12	Fishing boat	Non-operating	92	7	0	266	8	30	N	22.27861	E	113.86200	1532.70	318.14
22-Jan-13	12:37:23	Research Vessel	Traveling	93	4	10	235	50	40	N	22.27124	E	113.86218	1054.47	287.84
22-Jan-13	12:38:12	Research Vessel	Traveling	93	32	0	255	36	40	N	22.27336	E	113.86489	915.38	307.61
22-Jan-13	12:39:15	Research Vessel	Traveling	93	18	30	284	38	20	N	22.27641	E	113.86817	977.92	336.64
22-Jan-13	12:48:16	Police Vessel	Traveling	93	18	30	277	36	30	N	22.27592	E	113.86713	977.74	329.61
22-Jan-13	12:48:44	Police Vessel	Traveling	93	18	30	249	47	0	N	22.27297	E	113.86386	977.73	301.78
22-Jan-13	12:49:15	Police Vessel	Traveling	92	45	10	225	1	10	N	22.26963	E	113.86059	1176.14	277.02
22-Jan-13	13:37:20	Zero		91	8	50	0	0	10	N	22.28387	E	113.89344	2804.82	52.00
22-Jan-13	14:09:19	Hi-Speed Ferry		97	23	20	242	44	10	N	22.26995	E	113.86816	428.19	294.73
22-Jan-13	14:10:16	Hi-Speed Ferry		95	58	10	294	59	0	N	22.27299	E	113.87078	531.10	346.98
22-Jan-13	14:10:46	Hi-Speed Ferry		94	30	30	310	53	20	N	22.27467	E	113.87229	704.53	2.89
22-Jan-13	14:11:43	Hi-Speed Ferry		92	56	10	324	55	50	N	22.27767	E	113.87501	1084.09	16.93
22-Jan-13	14:16:49	Research Vessel	Traveling	94	21	50	219	17	10	N	22.26848	E	113.86487	727.88	271.28
22-Jan-13	14:17:36	Police Vessel	Traveling	93	38	0	235	18	20	N	22.27068	E	113.86382	875.04	287.30
22-Jan-13	14:18:30	Police Vessel	Traveling	94	6	50	296	41	30	N	22.27515	E	113.87047	772.33	348.69
22-Jan-13	14:21:29	Research Vessel	Traveling	94	41	30	317	45	30	N	22.27434	E	113.87306	676.69	9.76
22-Jan-13	14:23:29	Research Vessel	Traveling	92	58	40	333	35	40	N	22.27701	E	113.87643	1068.58	25.59
22-Jan-13	14:32:35	Speedboat	Traveling	96	30	20	278	31	20	N	22.27215	E	113.86961	486.74	330.52
22-Jan-13	14:32:54	Speedboat	Traveling	96	3	40	250	40	30	N	22.27087	E	113.86767	522.75	302.67
22-Jan-13	14:33:21	Speedboat	Traveling	94	17	40	224	45	30	N	22.26912	E	113.86480	739.46	276.76
22-Jan-13	14:57:30	Research Vessel	Traveling	99	34	10	301	52	20	N	22.27128	E	113.87160	329.00	353.87
22-Jan-13	14:57:49	Research Vessel	Traveling	100	53	10	266	12	30	N	22.27027	E	113.87008	288.39	318.21
22-Jan-13	14:58:11	Research Vessel	Traveling	98	28	30	231	23	20	N	22.26911	E	113.86842	372.25	283.39
22-Jan-13	14:58:30	Research Vessel	Traveling	96	12	40	215	31	10	N	22.26813	E	113.86699	509.75	267.52
22-Jan-13	15:24:35	Other	Stationary	91	48	40	344	48	20	N	22.28102	E	113.88220	1760.55	36.80
22-Jan-13	15:24:45	Other	Stationary	91	48	20	345	8	50	N	22.28100	E	113.88232	1766.01	37.14
23-Jan-13	8:28:26	Zero		91	44	30	0	0	0	N	22.28496	E	113.87272	1849.01	2.47
23-Jan-13	8:28:58	Zero		91	44	30	0	0	0	N	22.27858	E	113.88611	1849.01	52.00
23-Jan-13	8:30:32	Other	Stationary	91	41	50	38	9	0	N	22.28130	E	113.88396	1897.95	40.62
23-Jan-13	8:30:38	Other	Stationary	91	41	10	39	38	20	N	22.28109	E	113.88440	1910.59	42.11
23-Jan-13	8:30:52	Other	Stationary	91	27	50	41	42	20	N	22.28256	E	113.88688	2204.49	44.17
23-Jan-13	8:30:59	Other	Stationary	91	27	10	40	59	20	N	22.28285	E	113.88681	2221.60	43.46
23-Jan-13	8:31:15	Other	Stationary	91	30	10	40	24	20	N	22.28249	E	113.88615	2146.67	42.87
23-Jan-13	8:31:20	Other	Stationary	91	30	20	41	3	50	N	22.28231	E	113.88630	2142.66	43.53
23-Jan-13	8:31:26	Other	Stationary	91	36	10	39	59	10	N	22.28169	E	113.88515	2011.09	42.45
23-Jan-13	8:53:34	Speedboat	Traveling	95	14	30	51	8	20	N	22.27159	E	113.87672	610.25	53.61
23-Jan-13	8:54:09	Speedboat	Traveling	101	53	30	35	36	10	N	22.27022	E	113.87354	265.74	38.07
23-Jan-13	8:54:41	Police Vessel	Traveling	92	10	40	304	9	30	N	22.27626	E	113.86042	1475.92	306.63
23-Jan-13	8:56:32	Police Vessel	Traveling	91	50	10	332	31	0	N	22.28263	E	113.86473	1753.00	334.98
23-Jan-13	8:57:25	Police Vessel	Traveling	91	32	40	339	19	40	N	22.28618	E	113.86560	2088.01	341.79
23-Jan-13	9:46:20	Hi-Speed Ferry		91	36	50	45	42	0	N	22.28032	E	113.88642	1997.08	48.17
23-Jan-13	9:47:54	Hi-Speed Ferry		92	29	40	41	5	0	N	22.27673	E	113.88057	1287.42	43.55
23-Jan-13	9:49:25	Sand Barge		91	24	20	325	33	20	N	22.28587	E	113.86011	2297.36	328.02
23-Jan-13	9:49:35	Hi-Speed Ferry		95	22	30	24	18	0	N	22.26960	E	113.87757	595.01	76.30
23-Jan-13	9:51:06	Zero		91	16	10	0	0	0	N	22.28245	E	113.89147	2548.08	52.00
23-Jan-13	9:51:16	Hi-Speed Ferry		98	44	10	239	40	30	N	22.26954	E	113.86865	364.20	291.67
23-Jan-13	10:00:46	Sand Barge		90	42	50	305	7	0	N	22.30991	E	113.86968	4625.39	357.11
23-Jan-13	10:09:49	Research Vessel	Traveling	91	37	50	340	35	40	N	22.28332	E	113.88230	1976.43	32.59
23-Jan-13	10:11:00	Research Vessel	Traveling	91	33	30	338	50	10	N	22.28432	E	113.88226	2069.16	30.83
23-Jan-13	10:11:20	Transportation boat	Traveling	91	34	40	341	9	0	N	22.28373	E	113.88281	2043.35	33.15
23-Jan-13	10:12:01	Transportation boat	Traveling	91	41	0	343	10	50	N	22.28241	E	113.88267	1913.78	35.18
23-Jan-13	10:12:13	Research Vessel	Traveling	92	9	50	336	15	20	N	22.28011	E	113.87878	1485.46	28.25
23-Jan-13	10:12:50	Research Vessel	Traveling	91	54	40	335	34	50	N	22.28176	E	113.87952	1683.60	27.58
23-Jan-13	10:13:11	Hi-Speed Ferry		94	54	30	238	34	10	N	22.27039	E	113.86601	651.96	290.57
23-Jan-13	10:13:38	Research Vessel	Traveling	92	39	50	331	29	40	N	22.27828	E	113.87662	1205.08	23.49
23-Jan-13	10:14:32	Research Vessel	Traveling	92	21	50	327	3	0	N	22.27989	E	113.87626	1358.97	19.05
23-Jan-13	10:14:42	Research Vessel	Traveling	92	27	20	330	11	40	N	22.27923	E	113.87675	1307.94	22.19
23-Jan-13	10:14:53	Hi-Speed Ferry		94	14	30	301	55	10	N	22.27509	E	113.87117	755.05	353.92
23-Jan-13	10:16:22	Hi-Speed Ferry		92	33	40	324	44	10	N	22.27914	E	113.87545	1253.72	16.73
23-Jan-13	10:16:32	Research Vessel	Traveling	91	46	50	325	11	0	N	22.28388	E	113.87714	1808.23	17.18
23-Jan-13	10:16:40	Research Vessel	Traveling	93	27	0	321	27	0	N	22.27647	E	113.87405	929.27	13.45
23-Jan-13	10:18:47	Research Vessel	Traveling	95	20	20	297	31	0	N	22.27363	E	113.87088	599.06	349.51
23-Jan-13	10:20:40	Research Vessel	Traveling	95	34	20	257	3	10	N	22.27159	E	113.86761	573.80	309.05
23-Jan-13	10:21:55	Research Vessel	Traveling	94	25	50	236	34	20	N	22.27040	E	113.86528	722.69	288.57
23-Jan-13	10:23:20	Research Vessel	Traveling	93	27	30	220	43	10	N	22.26873	E	113.86294	927.02	272.72
23-Jan-13	10:29:17	Fishing Boat	Non-operating	91	55	10	253	49	40	N	22.27716	E	113.85873	1676.22	305.82
23-Jan-13	10:32:02	Fishing Boat	Non-operating	91	35	50	275	33	40	N	22.28366	E	113.86142	2018.17	327.56
23-Jan-13	10:40:59	Speedboat	Traveling	95	13	0	13	13	40	N	22.27065	E	113.87736	613.19	65.22
23-Jan-13	10:41:33	Speedboat	Traveling	98	53	40	13	35	0	N	22.26966	E	113.87511	357.61	65.58
23-Jan-13	10:42:07	Speedboat	Traveling	112	11	50	338	55	10	N	22.26939	E	113.87263	137.14	30.92
23-Jan-13	10:51:27	Other	Traveling	92	8	40	234	48	0	N	22.27223	E	113.85799	1499.03	286.80
23-Jan-13	10:51:46	Other	Traveling	92	5	40	229	25	40	N	22.27107	E	113.85731	1535.08	281.42
23-Jan-13	10:52:18	Other	Traveling	92	0	0	221	3	30	N	22.26910	E	113.85633	1608.15	273.06
23-Jan-13	11:01:20	Transportation boat	Traveling	91	36	40	264	31	50	N	22.28140	E	113.85856	2000.56	316.53
23-Jan-13	11:05:26	Speedboat	Traveling	117	12	40	310	18	10	N	22.26931	E	113.87199	108.83	2.30

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
23-Jan-13	11:09:07	Speedboat	Traveling	96	13	20	17	35	40	N	22.26994	E	113.87662	513.41	69.59
23-Jan-13	11:10:43	Speedboat	Traveling	94	17	40	15	59	50	N	22.27085	E	113.87867	745.73	67.99
23-Jan-13	11:33:15	Other	Traveling	91	33	0	241	9	50	N	22.27570	E	113.85334	2080.43	293.16
23-Jan-13	11:44:27	Hi-Speed Ferry		92	11	20	332	0	0	N	22.28041	E	113.87775	1468.38	24.00
23-Jan-13	11:46:50	Hi-Speed Ferry		95	48	40	293	44	40	N	22.27313	E	113.87063	550.04	345.74
23-Jan-13	11:48:09	Hi-Speed Ferry		95	25	50	232	14	10	N	22.26964	E	113.86639	588.88	284.23
23-Jan-13	12:30:17	Fishing Boat	Non-operating	92	0	20	234	51	30	N	22.27252	E	113.85702	1603.66	286.86
23-Jan-13	12:33:24	Fishing Boat	Non-operating	92	15	40	267	1	50	N	22.27799	E	113.86288	1421.16	319.03
23-Jan-13	12:35:29	Fishing Boat	Non-operating	91	52	50	284	53	30	N	22.28250	E	113.86541	1711.19	336.89
23-Jan-13	12:53:56	Sand Barge		91	32	50	263	49	30	N	22.28178	E	113.85782	2084.21	315.82
23-Jan-13	12:56:35	Sand Barge		91	35	10	249	35	30	N	22.27791	E	113.85511	2032.48	301.59
23-Jan-13	13:01:31	Police Vessel	Traveling	91	42	0	247	24	30	N	22.27670	E	113.85589	1894.81	299.41
23-Jan-13	13:01:40	Sand Barge		91	22	40	225	12	10	N	22.27098	E	113.84933	2344.41	277.20
23-Jan-13	13:02:58	Police Vessel	Traveling	91	37	0	264	14	50	N	22.28129	E	113.85854	1993.61	316.24
23-Jan-13	13:05:20	Speedboat	Traveling	112	26	30	299	18	10	N	22.26954	E	113.87175	135.48	351.30
23-Jan-13	13:05:31	Police Vessel	Traveling	91	17	10	286	0	50	N	22.28932	E	113.86279	2514.46	338.01
23-Jan-13	13:05:40	Speedboat	Traveling	102	28	40	356	20	0	N	22.26985	E	113.87378	252.88	48.33
23-Jan-13	13:06:02	Speedboat	Traveling	96	47	10	6	8	40	N	22.27057	E	113.87583	470.37	58.14
23-Jan-13	13:06:33	Speedboat	Traveling	94	1	40	5	35	20	N	22.27217	E	113.87847	795.36	57.59
23-Jan-13	14:09:16	Hi-Speed Ferry		94	1	50	216	53	20	N	22.26819	E	113.86422	794.81	268.89
23-Jan-13	14:10:10	Hi-Speed Ferry		95	42	20	244	38	40	N	22.27059	E	113.86707	560.29	296.64
23-Jan-13	14:11:28	Hi-Speed Ferry		94	41	30	301	9	50	N	22.27443	E	113.87115	682.25	353.16
23-Jan-13	14:12:23	Hi-Speed Ferry		93	11	30	319	57	10	N	22.27718	E	113.87397	1004.87	11.95
23-Jan-13	14:13:15	Hi-Speed Ferry		92	22	50	329	45	0	N	22.27961	E	113.87681	1349.40	21.75
23-Jan-13	14:18:52	Research Vessel	Traveling	93	26	0	269	4	20	N	22.27487	E	113.86624	933.80	321.07
23-Jan-13	14:19:54	Research Vessel	Traveling	93	13	0	282	28	10	N	22.27643	E	113.86777	997.02	334.47
23-Jan-13	14:21:06	Research Vessel	Traveling	92	52	50	295	49	40	N	22.27813	E	113.86966	1113.97	347.82
23-Jan-13	14:23:08	Research Vessel	Traveling	92	17	20	311	15	30	N	22.28095	E	113.87272	1403.80	3.26
23-Jan-13	14:24:55	Other	Traveling	92	18	40	269	0	0	N	22.27806	E	113.86344	1390.21	321.00
23-Jan-13	14:25:36	Police Vessel	Traveling	93	52	20	289	31	10	N	22.27540	E	113.86939	827.48	341.52
23-Jan-13	14:25:50	Other	Traveling	92	31	50	250	50	50	N	22.27453	E	113.86158	1268.95	302.84
23-Jan-13	14:25:58	Police Vessel	Traveling	94	20	50	269	0	20	N	22.27349	E	113.86744	736.62	321.00
23-Jan-13	14:26:36	Police Vessel	Traveling	93	44	50	233	3	40	N	22.27033	E	113.86391	855.22	285.06
23-Jan-13	14:26:56	Police Vessel	Traveling	93	11	0	219	26	50	N	22.26856	E	113.86215	1007.51	271.44
23-Jan-13	14:27:16	Other	Traveling	92	20	10	221	35	10	N	22.26911	E	113.85860	1375.24	273.58
23-Jan-13	14:32:47	Speedboat	Traveling	92	23	0	283	8	50	N	22.27934	E	113.86643	1347.82	335.14
23-Jan-13	14:33:20	Speedboat	Traveling	92	47	20	263	5	0	N	22.27567	E	113.86404	1150.78	315.08
23-Jan-13	14:34:12	Speedboat	Traveling	92	41	40	229	16	0	N	22.27043	E	113.86058	1191.34	281.26
23-Jan-13	14:38:13	Other	Traveling	92	53	40	225	9	50	N	22.26958	E	113.86125	1108.60	277.16
23-Jan-13	14:39:13	Other	Traveling	93	46	10	249	21	0	N	22.27231	E	113.86488	850.15	301.35
23-Jan-13	14:41:02	Other	Traveling	93	4	50	305	28	10	N	22.27770	E	113.87150	1041.29	357.47
23-Jan-13	14:41:18	Speedboat	Traveling	111	30	50	286	9	40	N	22.26952	E	113.87143	141.95	338.16
23-Jan-13	14:41:36	Speedboat	Traveling	102	26	40	335	21	30	N	22.27036	E	113.87308	253.58	27.36
23-Jan-13	14:41:47	Other	Traveling	92	29	30	318	35	50	N	22.27973	E	113.87425	1288.87	10.59
23-Jan-13	14:41:56	Speedboat	Traveling	97	3	20	352	42	50	N	22.27123	E	113.87504	452.22	44.71
23-Jan-13	14:42:20	Speedboat	Traveling	94	34	0	358	34	30	N	22.27234	E	113.87721	701.04	50.57
23-Jan-13	14:42:54	Speedboat	Traveling	93	3	30	0	2	30	N	22.27414	E	113.87999	1048.90	52.04
23-Jan-13	14:43:18	Police Vessel	Traveling	91	51	10	269	57	30	N	22.28064	E	113.86153	1737.08	321.96
23-Jan-13	14:43:45	Transportation boat	Traveling	92	11	10	324	5	20	N	22.28105	E	113.87591	1470.26	16.09
23-Jan-13	14:43:53	Police Vessel	Traveling	92	3	40	256	21	0	N	22.27704	E	113.86005	1560.10	308.35
23-Jan-13	14:44:11	Sand Barge		91	40	20	224	55	10	N	22.27042	E	113.85334	1926.63	276.92
23-Jan-13	14:44:22	Research Vessel	Traveling	92	14	40	244	35	40	N	22.27410	E	113.85949	1431.78	296.59
23-Jan-13	14:44:30	Transportation boat	Traveling	92	18	30	316	9	30	N	22.28073	E	113.87386	1391.89	8.16
23-Jan-13	14:45:32	Police Vessel	Traveling	91	54	0	215	41	30	N	22.26772	E	113.85549	1693.53	267.69
23-Jan-13	14:45:41	Sand Barge		91	59	40	232	22	10	N	22.27193	E	113.85675	1612.67	284.37
23-Jan-13	14:45:50	Transportation boat	Traveling	92	23	40	300	21	30	N	22.28030	E	113.87021	1341.52	352.36
23-Jan-13	14:47:31	Sand Barge		92	24	30	247	9	20	N	22.27418	E	113.86062	1333.74	299.15
23-Jan-13	14:47:38	Transportation boat	Traveling	92	22	30	278	33	0	N	22.27893	E	113.86548	1352.58	330.55
23-Jan-13	14:48:00	Other	Stationary	91	40	50	343	57	0	N	22.28230	E	113.88289	1916.98	35.95
23-Jan-13	14:48:26	Other	Stationary	91	44	10	345	13	50	N	22.28163	E	113.88286	1854.99	37.23
23-Jan-13	14:49:10	Other	Stationary	91	27	10	347	47	50	N	22.28369	E	113.88577	2221.60	39.79
23-Jan-13	14:49:20	Other	Stationary	91	27	50	347	5	0	N	22.28373	E	113.88546	2204.49	39.08
23-Jan-13	14:50:00	Sand Barge		92	45	40	275	56	50	N	22.27720	E	113.86594	1162.42	327.94
23-Jan-13	14:50:09	Transportation boat	Traveling	91	50	10	256	16	30	N	22.27810	E	113.85856	1753.00	308.27
23-Jan-13	14:52:17	Sand Barge		92	28	30	302	14	50	N	22.27995	E	113.87068	1297.60	354.24
23-Jan-13	14:53:41	Sand Barge		92	12	0	315	10	30	N	22.28138	E	113.87372	1460.91	7.17
24-Jan-13	8:23:01	Zero		105	51	40	0	0	0	N	22.27010	E	113.87203	196.98	2.47
24-Jan-13	8:24:28	Other	Stationary	91	40	0	37	28	0	N	22.28167	E	113.88401	1933.34	39.93
24-Jan-13	8:24:36	Other	Stationary	91	40	50	38	56	30	N	22.28127	E	113.88428	1917.18	41.41
24-Jan-13	8:46:23	Other	Traveling	91	48	40	297	43	20	N	22.27637	E	113.85701	1776.55	300.19
24-Jan-13	8:48:48	Other	Traveling	91	56	0	318	52	0	N	22.28002	E	113.86184	1663.15	321.33
24-Jan-13	8:50:56	Other	Traveling	91	45	30	332	51	10	N	22.28330	E	113.86451	1830.18	335.32
24-Jan-13	8:52:09	Other	Traveling	91	41	20	340	19	0	N	22.28472	E	113.86646	1906.17	342.78
24-Jan-13	8:53:33	Speedboat	Traveling	92	33	40	27	17	30	N	22.27812	E	113.87799	1252.86	29.76
24-Jan-13	8:53:57	Speedboat	Traveling	93	21	50	26	8	50	N	22.27586	E	113.87638	952.51	28.61
24-Jan-13	8:55:11	Speedboat	Traveling	103	5	50	3	7	10	N	22.27049	E	113.87217	240.35	5.59
24-Jan-13	8:56:06	Speedboat	Stationary	110	23	40	345	55	30	N	22.26966	E	113.87165	150.39	348.39
24-Jan-13	9:01:44	Speedboat	Traveling	94	2	40	312	30	30	N	22.27337	E	113.86650	791.35	314.98
24-Jan-13	9:01:56	Fishing Boat	Non-operating	91	35	20	313	46	0	N	22.28151	E	113.85831	2027.01	316.23
24-Jan-13	9:02:02	Speedboat	Traveling	93	52	30	331	5	30	N	22.27499	E	113.86837	826.12	333.56
24-Jan-13	9:02:12	Speedboat	Traveling	111	58	50	334	51	50	N	22.26948	E	113.87143	138.50	337.33
24-Jan-13	9:02:39	Speedboat	Traveling	110	34	50	309	39	20	N	22.26923	E	113.87087	148.88	312.12
24-Jan-13	9:02:48	Fishing Boat	Non-operating	91	37	50	321	13	0	N	22.28265	E	113.86057	1974.56	323.68
24-Jan-13	9:03:06	Speedboat	Traveling	92	13	10	9	58	30	N	22.28105	E	113.87498	1446.64	12.44
24-Jan-13	9:03:18	Speedboat	Stationary	110	10	20	300	27	40	N	22.26908	E	113.87070	152.17	302.93
24-Jan-13	9:14:14	Speedboat	Traveling	94	12	0	308	19	50	N	22.27281	E	113.86634	761.63	310.80
24-Jan-13	9:15:41	Speedboat	Traveling	92	32	50	350	52	30	N	22.27959	E	113.87052	1258.96	353.34
24-Jan-13	9:16:22	Speedboat	Traveling	91	59	40	359	34	10	N	22.28282	E	113.87250	1610.54	2.04
24-Jan-13	9:25:08	Sand Barge		91	34	50	310	14	0	N	22.28076	E	113.85739	2036.52	312.70
24-Jan-13	9:27:36	Sand Barge		91	25	20	327	42	30	N	22.28603	E	113.86098	2266.33	330.18
24-Jan-13	9:46:53	Hi-Speed Ferry		91	50	0	28	38	0	N	22.28183	E	113.88075	1751.95	31.10
24-Jan-13	9:48:13	Hi-Speed Ferry		92	34	10	20	6	40	N	22.27870	E	113.87660	1246.99	22.58
24-Jan-13	9:49:29	Hi-Speed Ferry		94	3	50	5	42	10	N	22.27534	E	113.87303	786.61	8.17
24-Jan-13	9:50:31	Hi-Speed Ferry		96	2	40	333	26	0	N	22.27267	E	113.86985	527.54	335.90
24-Jan-13	9:52:11	Hi-Speed Ferry		94	10	40	270	11	20	N	22.26865	E	113.86451	765.08	272.66
24-Jan-13	10:04:52	Research Vessel	Traveling	91	51	30	25	28	0	N	22.28208	E	113.87982	1728.47	27.93
24-Jan-13	10:08:31	Research Vessel	Traveling	92	54	20	9	23	0	N	22.27804	E	113.87415	1102.23	11.85
24-Jan-13	10:12:14	Research Vessel	Traveling	94	32	10	326	12	40	N	22.27375	E	113.86838	704.46	328.68
24-Jan-13	10:13:24	Hi-Speed Ferry		94	36	20	280	47	0	N	22.26976	E	113.86538	693.79	283.25
24-Jan-13	10:14:31	Hi-Speed Ferry		95	59	30	327	24	30	N	22.27248	E	113.86935	532.35	329.88
24-Jan-13	10:14:41	Research Vessel	Traveling	93	59	0	287	46	40	N	22.27083	E	113.86462	802.80	290.24

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
24-Jan-13	10:17:05	Hi-Speed Ferry		92	22	10	26	33	10	N	22.27898	E	113.87833	1353.29	29.02
24-Jan-13	10:17:17	Research Vessel	Traveling	92	40	30	266	14	50	N	22.26809	E	113.86030	1197.86	268.71
24-Jan-13	10:20:42	Fishing Boat	Non-operating	91	59	40	294	30	10	N	22.27490	E	113.85799	1609.78	296.97
24-Jan-13	10:22:43	Fishing Boat	Non-operating	91	57	20	314	41	40	N	22.27917	E	113.86109	1642.09	317.16
24-Jan-13	10:25:02	Fishing Boat	Non-operating	91	40	0	334	3	50	N	22.28426	E	113.86447	1929.74	336.53
24-Jan-13	10:25:13	Transportation boat	Traveling	91	53	40	27	39	50	N	22.28153	E	113.88022	1695.56	30.13
24-Jan-13	10:27:22	Transportation boat	Traveling	93	1	20	14	51	50	N	22.27744	E	113.87501	1059.66	17.33
24-Jan-13	10:27:34	Other	Traveling	91	53	40	316	2	20	N	22.27976	E	113.86102	1695.60	318.51
24-Jan-13	10:30:34	Other	Traveling	91	51	50	270	41	30	N	22.26919	E	113.85521	1723.70	273.16
24-Jan-13	10:30:50	Transportation boat	Traveling	94	45	30	295	29	30	N	22.27117	E	113.86618	671.50	297.96
24-Jan-13	10:55:51	Speedboat	Traveling	113	18	0	23	8	10	N	22.26939	E	113.87249	129.74	25.60
24-Jan-13	10:56:17	Speedboat	Traveling	115	29	20	329	27	50	N	22.26926	E	113.87141	117.20	331.93
24-Jan-13	10:56:35	Speedboat	Traveling	112	16	50	300	51	0	N	22.26901	E	113.87084	136.37	303.32
24-Jan-13	11:06:32	Dolphin	Surface	103	4	10	317	56	40	N	22.27000	E	113.87045	240.73	320.41
24-Jan-13	11:06:45	Dolphin	Surface	103	24	20	316	54	20	N	22.26993	E	113.87046	234.48	319.37
24-Jan-13	11:06:57	Dolphin	Surface	103	14	10	316	26	20	N	22.26994	E	113.87043	237.59	318.91
24-Jan-13	11:07:02	Dolphin	Surface	103	14	10	316	36	10	N	22.26995	E	113.87043	237.59	319.07
24-Jan-13	11:07:07	Dolphin	Surface	103	14	20	316	40	0	N	22.26995	E	113.87043	237.54	319.13
24-Jan-13	11:07:23	Dolphin	Surface	104	13	20	317	58	0	N	22.26986	E	113.87058	220.49	320.43
24-Jan-13	11:07:42	Dolphin	Surface	105	5	30	314	15	10	N	22.26969	E	113.87056	207.24	316.72
24-Jan-13	11:07:46	Dolphin	Surface	105	3	40	314	12	0	N	22.26969	E	113.87056	207.68	316.67
24-Jan-13	11:07:50	Dolphin	Surface	105	2	50	314	7	10	N	22.26969	E	113.87056	207.88	316.59
24-Jan-13	11:08:00	Dolphin	Surface	105	3	10	313	44	50	N	22.26968	E	113.87055	207.80	316.21
24-Jan-13	11:08:07	Dolphin	Surface	104	58	30	313	32	20	N	22.26969	E	113.87053	208.93	316.01
24-Jan-13	11:08:20	Dolphin	Surface	104	17	0	314	22	40	N	22.26977	E	113.87048	219.51	316.84
24-Jan-13	11:08:36	Dolphin	Surface	103	38	0	315	47	20	N	22.26988	E	113.87045	230.42	318.26
24-Jan-13	11:08:38	Dolphin	Surface	103	42	30	316	8	10	N	22.26988	E	113.87047	229.11	318.60
24-Jan-13	11:08:53	Dolphin	Surface	103	9	30	319	2	20	N	22.27002	E	113.87050	239.05	321.51
24-Jan-13	11:09:08	Dolphin	Surface	102	29	50	320	8	50	N	22.27014	E	113.87046	252.15	322.61
24-Jan-13	11:09:21	Dolphin	Surface	103	40	40	316	47	40	N	22.26990	E	113.87049	229.64	319.26
24-Jan-13	11:09:29	Dolphin	Surface	103	40	40	316	53	10	N	22.26990	E	113.87049	229.64	319.35
24-Jan-13	11:10:07	Dolphin	Surface	103	24	50	322	37	20	N	22.27006	E	113.87064	234.33	325.09
24-Jan-13	11:10:25	Dolphin	Surface	102	42	10	326	22	30	N	22.27024	E	113.87070	247.93	328.84
24-Jan-13	11:10:38	Dolphin	Surface	102	11	20	329	38	30	N	22.27039	E	113.87077	258.73	332.11
24-Jan-13	11:10:56	Dolphin	Surface	101	27	0	333	48	30	N	22.27061	E	113.87086	275.93	336.28
24-Jan-13	11:11:08	Dolphin	Surface	101	4	50	335	58	0	N	22.27072	E	113.87092	285.38	338.43
24-Jan-13	11:11:22	Dolphin	Surface	100	36	0	337	50	20	N	22.27086	E	113.87097	298.64	340.31
24-Jan-13	11:11:37	Dolphin	Surface	100	6	40	339	46	0	N	22.27102	E	113.87101	313.42	342.23
24-Jan-13	11:12:05	Dolphin	Surface	100	24	20	340	11	30	N	22.27095	E	113.87106	304.36	342.66
24-Jan-13	11:12:09	Dolphin	Surface	100	19	20	340	39	50	N	22.27098	E	113.87108	306.87	343.13
24-Jan-13	11:12:48	Dolphin	Surface	99	14	20	345	50	30	N	22.27136	E	113.87127	343.61	348.31
24-Jan-13	11:12:59	Dolphin	Surface	98	52	0	347	5	50	N	22.27150	E	113.87131	358.29	349.56
24-Jan-13	11:13:11	Dolphin	Surface	98	37	30	348	29	20	N	22.27161	E	113.87138	368.50	350.96
24-Jan-13	11:14:27	Dolphin	Surface	96	51	0	351	27	0	N	22.27250	E	113.87146	465.35	353.92
24-Jan-13	11:14:30	Dolphin	Surface	96	46	0	352	8	10	N	22.27255	E	113.87151	471.14	354.60
24-Jan-13	11:15:20	Dolphin	Surface	95	57	10	354	12	50	N	22.27315	E	113.87164	536.17	356.68
24-Jan-13	11:15:28	Dolphin	Surface	95	51	10	354	37	0	N	22.27324	E	113.87167	545.41	357.08
24-Jan-13	11:16:19	Dolphin	Surface	95	14	0	357	9	30	N	22.27383	E	113.87191	610.46	359.63
24-Jan-13	11:18:16	Dolphin	Surface	94	4	50	359	36	0	N	22.27538	E	113.87222	784.06	2.07
24-Jan-13	11:19:13	Dolphin	Surface	93	33	40	1	27	20	N	22.27641	E	113.87254	899.04	3.92
24-Jan-13	11:20:05	Dolphin	Surface	93	21	40	1	59	30	N	22.27688	E	113.87266	952.81	4.46
24-Jan-13	11:22:58	Dolphin	Surface	92	54	10	5	36	20	N	22.27817	E	113.87345	1104.09	8.07
24-Jan-13	11:23:28	Dolphin	Surface	92	54	40	6	5	50	N	22.27813	E	113.87354	1100.92	8.56
24-Jan-13	11:23:45	Dolphin	Surface	92	51	10	5	57	50	N	22.27834	E	113.87355	1123.55	8.43
24-Jan-13	11:23:58	Dolphin	Fluke up	92	49	30	6	0	10	N	22.27843	E	113.87357	1134.66	8.47
24-Jan-13	11:24:38	Dolphin	Surface	92	47	0	5	17	10	N	22.27860	E	113.87346	1151.75	7.75
24-Jan-13	11:24:57	Dolphin	Surface	92	47	50	5	59	50	N	22.27853	E	113.87358	1146.00	8.46
24-Jan-13	11:25:04	Dolphin	Surface	92	47	30	6	2	20	N	22.27855	E	113.87360	1148.30	8.51
24-Jan-13	11:25:09	Dolphin	Surface	92	47	50	6	4	10	N	22.27853	E	113.87360	1146.00	8.54
24-Jan-13	11:25:15	Dolphin	Surface	92	47	50	6	4	30	N	22.27853	E	113.87360	1146.01	8.54
24-Jan-13	11:25:17	Dolphin	Surface	92	47	50	6	4	30	N	22.27853	E	113.87360	1146.01	8.54
24-Jan-13	11:25:22	Dolphin	Surface	92	47	50	6	6	50	N	22.27853	E	113.87361	1146.01	8.58
24-Jan-13	11:25:29	Dolphin	Surface	92	47	50	6	6	50	N	22.27853	E	113.87361	1146.01	8.58
24-Jan-13	11:25:43	Dolphin	Surface	92	47	50	5	55	40	N	22.27854	E	113.87357	1146.01	8.39
24-Jan-13	11:25:46	Dolphin	Surface	92	47	50	5	51	10	N	22.27854	E	113.87356	1146.01	8.32
24-Jan-13	11:32:19	Zero		91	11	50	0	0	0	N	22.28331	E	113.89264	2701.96	51.97
24-Jan-13	11:47:32	Hi-Speed Ferry		92	55	50	327	40	20	N	22.27760	E	113.87552	1093.84	19.64
24-Jan-13	11:48:19	Hi-Speed Ferry		94	3	20	314	0	20	N	22.27540	E	113.87274	789.15	5.98
24-Jan-13	11:49:13	Hi-Speed Ferry		95	58	40	283	18	40	N	22.27270	E	113.86977	534.09	335.28
24-Jan-13	11:49:59	Hi-Speed Ferry		96	8	10	243	4	20	N	22.27031	E	113.86736	520.20	295.04
24-Jan-13	11:50:38	Hi-Speed Ferry		94	34	50	220	11	0	N	22.26857	E	113.86516	698.26	272.15
24-Jan-13	11:51:32	Speedboat	Traveling	93	36	20	335	43	20	N	22.27541	E	113.87596	888.19	27.69
24-Jan-13	11:52:09	Speedboat	Traveling	97	44	50	299	39	20	N	22.27199	E	113.87136	411.03	351.63
24-Jan-13	11:52:32	Speedboat	Traveling	98	14	10	243	33	50	N	22.26983	E	113.86855	386.31	295.53
24-Jan-13	11:52:51	Speedboat	Traveling	95	19	10	217	41	50	N	22.26830	E	113.86610	600.73	269.67
24-Jan-13	12:33:18	Zero		101	17	10	0	0	0	N	22.26989	E	113.87409	280.27	51.97
24-Jan-13	12:33:30	Sand Barge		91	39	10	254	56	10	N	22.27886	E	113.85679	1948.59	306.91
24-Jan-13	12:35:34	Speedboat	Traveling	92	55	40	279	31	30	N	22.27700	E	113.86686	1095.40	331.49
24-Jan-13	12:35:42	Sand Barge		91	41	20	240	46	40	N	22.27497	E	113.85485	1906.51	292.75
24-Jan-13	12:36:04	Speedboat	Traveling	93	16	40	266	35	10	N	22.27493	E	113.86565	977.89	318.56
24-Jan-13	12:37:00	Speedboat	Traveling	93	25	30	238	32	40	N	22.27128	E	113.86342	935.66	290.51
24-Jan-13	12:37:36	Speedboat	Traveling	93	5	10	222	21	10	N	22.26904	E	113.86187	1038.94	274.32
24-Jan-13	12:37:46	Sand Barge		91	35	40	228	2	30	N	22.27149	E	113.85259	2020.81	280.01
24-Jan-13	12:50:32	Dolphin	Surface	96	19	30	1	23	0	N	22.27104	E	113.87588	504.79	53.35
24-Jan-13	12:51:07	Dolphin	Surface	96	53	40	3	47	40	N	22.27068	E	113.87566	462.70	55.76
24-Jan-13	12:51:39	Dolphin	Fluke up	97	26	30	6	12	20	N	22.27037	E	113.87548	428.31	58.18
24-Jan-13	12:52:05	Dolphin	Surface	98	5	40	6	1	40	N	22.27021	E	113.87519	393.34	58.00
24-Jan-13	12:52:34	Dolphin	Surface	98	50	40	4	13	40	N	22.27013	E	113.87485	359.49	56.20
24-Jan-13	12:53:01	Dolphin	Surface	99	58	20	1	49	30	N	22.27002	E	113.87444	318.12	53.79
24-Jan-13	12:53:24	Dolphin	Surface	100	55	40	358	44	30	N	22.26998	E	113.87412	289.70	50.71
24-Jan-13	12:53:56	Dolphin	Surface	102	39	30	356	23	20	N	22.26982	E	113.87375	249.02	48.36
24-Jan-13	12:54:11	Dolphin	Surface	103	22	40	353	5	40	N	22.26983	E	113.87356	235.17	45.06
24-Jan-13	12:54:41	Dolphin	Surface	105	0	40	345	39	40	N	22.26982	E	113.87318	208.56	37.63
24-Jan-13	12:54:44	Dolphin	Surface	104	57	40	344	22	0	N	22.26985	E	113.87315	209.29	36.34
24-Jan-13	12:55:37	Dolphin	Surface	108	21	50	326	56	10	N	22.26977	E	113.87248	168.47	18.91
24-Jan-13	12:55:47	Dolphin	Surface	109	5	40	323	11	10	N	22.26974	E	113.87236	161.54	15.16
24-Jan-13	12:56:17	Dolphin	Surface	109	3	20	312	36	30	N	22.26979	E	113.87207	161.90	4.58
24-Jan-13	12:56:49	Dolphin	Surface	110	4	40	300	43	50	N	22.26970	E	113.87176	152.99	352.70
24-Jan-13	12:57:36	Dolphin	Surface	111	26	30	276	42	10	N	22.26943	E	113.87122	142.38	328.67
24-Jan-13	12:58:18	Dolphin	Surface	111	34	0	259	17	30	N	22.26917	E	113.87091	141.47	311.26
24-Jan-13	12:58:24	Dolphin	Surface	111	34	30	256	9	10	N	22.26912	E	113.87086	141.41	308.12

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
24-Jan-13	12:58:35	Dolphin	Surface	111	7	40	252	9	50	N	22.26906	E	113.87078	144.70	304.13
24-Jan-13	12:59:31	Dolphin	Surface	107	11	20	245	33	10	N	22.26909	E	113.87039	180.75	297.52
24-Jan-13	12:59:40	Dolphin	Surface	106	32	10	245	7	40	N	22.26911	E	113.87031	188.33	297.10
24-Jan-13	12:59:50	Dolphin	Surface	105	42	30	246	32	20	N	22.26919	E	113.87025	198.81	298.51
24-Jan-13	13:00:48	Dolphin	Surface	102	27	20	249	51	0	N	22.26953	E	113.86985	253.14	301.82
24-Jan-13	13:00:55	Dolphin	Surface	101	56	20	250	45	10	N	22.26962	E	113.86978	264.44	302.72
24-Jan-13	13:01:01	Dolphin	Fluke up	101	43	40	251	18	40	N	22.26966	E	113.86975	269.34	303.28
24-Jan-13	13:02:13	Dolphin	Surface	98	56	10	257	34	50	N	22.27037	E	113.86928	355.60	309.55
24-Jan-13	13:02:19	Dolphin	Surface	98	46	50	258	32	20	N	22.27045	E	113.86927	362.00	310.51
24-Jan-13	13:03:08	Dolphin	Surface	97	46	40	261	43	50	N	22.27088	E	113.86907	409.38	313.70
24-Jan-13	13:03:21	Dolphin	Surface	97	34	10	262	54	30	N	22.27101	E	113.86904	420.79	314.88
24-Jan-13	13:18:33	Research Vessel	Traveling	92	56	30	245	48	50	N	22.27290	E	113.86257	1089.01	297.78
24-Jan-13	13:19:43	Research Vessel	Traveling	92	48	50	257	54	10	N	22.27490	E	113.86345	1138.67	309.87
24-Jan-13	13:20:54	Research Vessel	Traveling	92	34	50	267	55	50	N	22.27688	E	113.86416	1242.15	319.90
24-Jan-13	13:24:51	Research Vessel	Traveling	91	46	10	287	35	30	N	22.28365	E	113.86578	1816.37	339.56
24-Jan-13	13:35:09	Police Vessel	Traveling	93	44	40	297	54	20	N	22.27590	E	113.87048	853.93	349.88
24-Jan-13	13:35:18	Police Vessel	Traveling	94	0	40	290	35	40	N	22.27518	E	113.86962	796.88	342.56
24-Jan-13	13:35:38	Police Vessel	Traveling	94	21	30	270	51	0	N	22.27359	E	113.86764	733.07	322.82
24-Jan-13	13:36:07	Police Vessel	Traveling	93	45	40	241	53	40	N	22.27143	E	113.86438	850.10	293.86
24-Jan-13	13:36:32	Police Vessel	Traveling	92	59	50	225	21	40	N	22.26956	E	113.86164	1067.93	277.33
24-Jan-13	13:42:32	Speedboat	Traveling	94	22	10	243	45	40	N	22.27119	E	113.86554	730.99	295.73
24-Jan-13	13:43:05	Speedboat	Traveling	94	19	40	287	14	50	N	22.27454	E	113.86940	738.05	339.22
24-Jan-13	13:43:49	Speedboat	Traveling	92	33	10	317	31	50	N	22.27947	E	113.87396	1254.55	9.50
24-Jan-13	14:03:35	Dolphin	Surface	100	33	50	249	26	40	N	22.26974	E	113.86946	299.05	301.41
24-Jan-13	14:03:39	Dolphin	Surface	100	41	0	250	45	10	N	22.26977	E	113.86953	295.63	302.72
24-Jan-13	14:04:02	Dolphin	Surface	101	31	10	254	55	30	N	22.26981	E	113.86982	273.64	306.89
24-Jan-13	14:04:19	Dolphin	Surface	101	47	30	256	3	50	N	22.26981	E	113.86990	267.14	308.03
24-Jan-13	14:04:36	Dolphin	Surface	102	20	10	258	2	40	N	22.26981	E	113.87005	255.00	310.01
24-Jan-13	14:05:01	Dolphin	Surface	103	4	30	256	9	30	N	22.26967	E	113.87011	240.11	308.13
24-Jan-13	14:05:22	Dolphin	Surface	102	50	50	257	11	50	N	22.26972	E	113.87010	244.51	309.17
24-Jan-13	14:05:35	Dolphin	Surface	102	51	0	259	28	20	N	22.26979	E	113.87016	244.46	311.44
24-Jan-13	14:05:49	Dolphin	Surface	102	42	0	262	21	20	N	22.26989	E	113.87022	247.44	314.33
24-Jan-13	14:06:05	Dolphin	Surface	102	42	20	265	55	0	N	22.26998	E	113.87033	247.33	317.89
24-Jan-13	14:06:22	Dolphin	Surface	103	12	30	270	30	0	N	22.27003	E	113.87054	237.59	322.47
24-Jan-13	14:06:40	Dolphin	Surface	103	16	50	276	33	10	N	22.27015	E	113.87074	236.24	328.52
24-Jan-13	14:07:10	Dolphin	Surface	104	17	40	275	58	30	N	22.27000	E	113.87081	218.84	327.94
24-Jan-13	14:07:25	Dolphin	Surface	104	5	50	275	33	50	N	22.27002	E	113.87079	222.03	327.53
24-Jan-13	14:07:36	Dolphin	Surface	103	25	40	277	27	20	N	22.27014	E	113.87079	233.55	329.43
24-Jan-13	14:07:52	Dolphin	Surface	103	47	0	280	36	0	N	22.27015	E	113.87093	227.29	332.57
24-Jan-13	14:08:07	Dolphin	Surface	104	12	0	284	17	50	N	22.27015	E	113.87108	220.35	336.27
24-Jan-13	14:08:17	Dolphin	Surface	104	41	20	285	32	30	N	22.27010	E	113.87115	212.70	337.51
24-Jan-13	14:08:30	Dolphin	Surface	105	5	20	287	50	40	N	22.27008	E	113.87125	206.80	339.81
24-Jan-13	14:08:42	Dolphin	Surface	105	58	20	288	8	20	N	22.26998	E	113.87130	194.80	340.11
24-Jan-13	14:09:04	Dolphin	Surface	107	14	40	286	52	30	N	22.26984	E	113.87131	179.62	338.84
24-Jan-13	14:09:23	Hi-Speed Ferry		94	55	20	236	13	30	N	22.27015	E	113.86596	647.73	288.19
24-Jan-13	14:09:34	Dolphin	Surface	108	32	40	286	15	0	N	22.26972	E	113.87134	166.20	338.22
24-Jan-13	14:09:45	Dolphin	Surface	107	59	10	289	48	40	N	22.26980	E	113.87142	171.73	341.78
24-Jan-13	14:09:51	Hi-Speed Ferry		95	34	10	255	10	30	N	22.27144	E	113.86751	571.98	307.14
24-Jan-13	14:09:57	Dolphin	Surface	107	27	30	293	4	30	N	22.26987	E	113.87150	177.27	345.04
24-Jan-13	14:10:08	Dolphin	Surface	107	32	0	296	5	40	N	22.26989	E	113.87159	176.46	348.06
24-Jan-13	14:10:13	Hi-Speed Ferry		95	32	30	271	53	40	N	22.27251	E	113.86865	574.86	323.86
24-Jan-13	14:10:21	Dolphin	Surface	107	1	40	298	21	30	N	22.26995	E	113.87165	182.04	350.33
24-Jan-13	14:10:35	Dolphin	Surface	106	22	40	299	12	40	N	22.27002	E	113.87166	189.70	351.18
24-Jan-13	14:10:41	Hi-Speed Ferry		94	53	30	290	27	20	N	22.27392	E	113.87003	651.77	342.43
24-Jan-13	14:10:49	Dolphin	Surface	106	6	20	301	39	10	N	22.27006	E	113.87174	193.08	353.62
24-Jan-13	14:10:56	Dolphin	Surface	105	37	30	302	7	40	N	22.27012	E	113.87175	199.34	354.10
24-Jan-13	14:11:53	Hi-Speed Ferry		93	8	40	320	29	20	N	22.27726	E	113.87408	1016.19	12.46
24-Jan-13	14:11:59	Dolphin	Surface	110	29	10	303	32	20	N	22.26967	E	113.87183	149.21	355.51
24-Jan-13	14:12:11	Dolphin	Surface	109	13	40	304	53	10	N	22.26977	E	113.87186	159.83	356.86
24-Jan-13	14:12:20	Dolphin	Surface	108	23	0	306	25	50	N	22.26984	E	113.87190	167.74	358.40
24-Jan-13	14:12:30	Dolphin	Surface	107	27	20	308	19	0	N	22.26993	E	113.87195	177.28	0.29
24-Jan-13	14:12:41	Dolphin	Surface	107	4	10	311	9	30	N	22.26996	E	113.87204	181.55	3.13
24-Jan-13	14:12:52	Dolphin	Surface	106	0	40	308	27	30	N	22.27008	E	113.87196	194.26	0.43
24-Jan-13	14:13:08	Dolphin	Surface	104	46	0	305	23	0	N	22.27023	E	113.87185	211.49	357.35
24-Jan-13	14:13:18	Dolphin	Surface	103	43	30	304	6	10	N	22.27038	E	113.87179	228.24	356.07
24-Jan-13	14:13:49	Dolphin	Surface	104	37	50	304	58	30	N	22.27025	E	113.87183	213.54	356.94
24-Jan-13	14:14:02	Dolphin	Surface	104	12	50	306	29	10	N	22.27031	E	113.87189	220.07	358.46
24-Jan-13	14:14:13	Dolphin	Surface	103	51	0	307	54	20	N	22.27037	E	113.87194	226.09	359.88
24-Jan-13	14:14:28	Dolphin	Surface	103	34	30	309	15	20	N	22.27041	E	113.87199	230.85	1.23
24-Jan-13	14:14:44	Dolphin	Surface	103	42	40	309	42	0	N	22.27039	E	113.87201	228.47	1.67
24-Jan-13	14:14:57	Dolphin	Surface	104	26	40	310	58	50	N	22.27028	E	113.87205	216.40	2.95
24-Jan-13	14:15:09	Dolphin	Surface	104	28	50	310	35	20	N	22.27027	E	113.87204	215.84	2.56
24-Jan-13	14:15:18	Dolphin	Surface	104	57	10	306	53	20	N	22.27021	E	113.87190	208.71	358.86
24-Jan-13	14:15:29	Dolphin	Surface	105	23	30	302	46	50	N	22.27015	E	113.87176	202.48	354.75
24-Jan-13	14:15:37	Dolphin	Surface	105	41	40	300	16	0	N	22.27010	E	113.87168	198.37	352.24
24-Jan-13	14:15:57	Dolphin	Surface	106	6	30	296	46	0	N	22.27004	E	113.87158	193.00	348.74
24-Jan-13	14:16:19	Dolphin	Surface	107	32	40	297	28	40	N	22.26989	E	113.87163	176.30	349.45
24-Jan-13	14:16:33	Dolphin	Surface	107	5	40	297	6	40	N	22.26993	E	113.87161	181.24	349.08
24-Jan-13	14:17:04	Dolphin	Surface	106	26	40	294	16	50	N	22.26998	E	113.87151	188.83	346.25
24-Jan-13	14:17:45	Dolphin	Surface	107	15	10	297	37	50	N	22.26992	E	113.87163	179.46	349.60
24-Jan-13	14:17:52	Dolphin	Surface	107	23	30	300	57	20	N	22.26992	E	113.87173	177.94	352.93
24-Jan-13	14:18:03	Dolphin	Surface	107	6	50	304	40	20	N	22.26996	E	113.87184	181.01	356.64
24-Jan-13	14:18:15	Dolphin	Surface	108	15	50	303	22	30	N	22.26985	E	113.87181	168.88	355.34
24-Jan-13	14:18:52	Dolphin	Surface	107	23	10	305	54	0	N	22.26993	E	113.87188	177.99	357.87
24-Jan-13	14:18:59	Dolphin	Surface	107	14	0	308	17	30	N	22.26995	E	113.87195	179.67	0.26
24-Jan-13	14:19:11	Dolphin	Surface	106	48	30	310	33	50	N	22.26999	E	113.87202	184.49	2.53
24-Jan-13	14:19:20	Dolphin	Surface	107	10	20	312	57	10	N	22.26995	E	113.87209	180.34	4.92
24-Jan-13	14:19:34	Dolphin	Surface	106	29	0	315	9	0	N	22.27002	E	113.87217	188.34	7.12
24-Jan-13	14:19:51	Dolphin	Surface	105	51	30	317	43	10	N	22.27007	E	113.87227	196.18	9.69
24-Jan-13	14:20:03	Dolphin	Surface	105	30	0	319	30	30	N	22.27011	E	113.87233	200.95	11.48
24-Jan-13	14:20:16	Dolphin	Surface	106	40	50	318	58	40	N	22.26998	E	113.87229	185.98	10.95
24-Jan-13	14:20:32	Dolphin	Surface	108	40	50	319	57	30	N	22.26978	E	113.87228	164.82	11.93
24-Jan-13	14:20:47	Dolphin	Surface	108	41	20	319	38	40	N	22.26979	E	113.87227	164.74	11.61
24-Jan-13	14:21:04	Dolphin	Surface	108	44	50	321	39	30	N	22.26977	E	113.87232	164.19	13.63
24-Jan-13	14:21:11	Dolphin	Surface	108	34	20	322	41	20	N	22.26978	E	113.87235	165.85	14.66
24-Jan-13	14:21:18	Dolphin	Surface	109	35	20	320	59	10	N	22.26971	E	113.87229	156.59	12.96
24-Jan-13	14:21:32	Dolphin	Surface	109	41	0	320	2	0	N	22.26970	E	113.87226	155.77	12.00
24-Jan-13	14:21:43	Dolphin	Surface	109	36	50	320	43	40	N	22.26971	E	113.87228	156.37	12.70
24-Jan-13	14:21:57	Dolphin	Surface	110	32	40	318	33	0	N	22.26965	E	113.87221	148.69	10.52
24-Jan-13	14:22:07	Dolphin	Surface	110	44	0	317	28	30	N	22.26964	E	113.87218	147.21	9.44
24-Jan-13	14:22:25	Dolphin	Surface	110	36	40	318	59	30	N	22.26964	E	113.87222	148.16	10.96

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
24-Jan-13	14:22:34	Dolphin	Surface	110	32	20	318	53	50	N	22.26965	E	113.87222	148.73	10.87
24-Jan-13	14:22:49	Dolphin	Surface	110	47	20	316	22	0	N	22.26964	E	113.87215	146.77	8.34
24-Jan-13	14:23:02	Dolphin	Surface	109	12	40	316	26	30	N	22.26976	E	113.87217	159.91	8.41
24-Jan-13	14:23:11	Dolphin	Surface	108	8	50	314	55	0	N	22.26985	E	113.87214	170.00	6.89
24-Jan-13	14:23:27	Dolphin	Surface	107	35	20	315	46	50	N	22.26990	E	113.87217	175.77	7.75
24-Jan-13	14:23:44	Dolphin	Surface	108	5	20	315	28	50	N	22.26986	E	113.87216	170.59	7.45
24-Jan-13	14:23:55	Dolphin	Surface	108	10	20	317	18	20	N	22.26984	E	113.87221	169.75	9.28
24-Jan-13	14:24:16	Dolphin	Fluke up	108	19	50	315	29	10	N	22.26983	E	113.87216	168.18	7.46
24-Jan-13	14:24:41	Dolphin	Surface	108	42	0	319	11	30	N	22.26979	E	113.87225	164.61	11.16
24-Jan-13	14:24:52	Dolphin	Surface	107	39	0	321	3	10	N	22.26987	E	113.87233	175.11	13.02
24-Jan-13	14:25:01	Dolphin	Surface	106	57	30	322	21	0	N	22.26993	E	113.87238	182.72	14.32
24-Jan-13	14:25:11	Dolphin	Surface	106	54	40	325	15	50	N	22.26991	E	113.87247	183.26	17.23
24-Jan-13	14:25:28	Dolphin	Surface	106	10	0	327	27	0	N	22.26996	E	113.87257	192.19	19.42
24-Jan-13	14:25:42	Dolphin	Surface	105	20	40	330	16	50	N	22.27002	E	113.87269	203.04	22.25
24-Jan-13	14:25:55	Dolphin	Surface	105	11	50	332	42	30	N	22.27001	E	113.87278	205.11	24.68
24-Jan-13	14:26:09	Dolphin	Surface	104	34	30	335	6	30	N	22.27005	E	113.87289	214.28	27.08
24-Jan-13	14:26:26	Dolphin	Surface	104	24	30	338	17	20	N	22.27002	E	113.87301	216.86	30.26
24-Jan-13	14:27:08	Dolphin	Surface	105	25	40	342	11	20	N	22.26984	E	113.87305	201.88	34.16
24-Jan-13	14:27:14	Dolphin	Surface	105	22	50	341	40	30	N	22.26985	E	113.87304	202.53	33.64
24-Jan-13	14:27:25	Dolphin	Surface	105	14	40	343	0	0	N	22.26984	E	113.87308	204.43	34.97
24-Jan-13	14:27:38	Dolphin	Surface	106	50	20	341	5	0	N	22.26972	E	113.87292	184.07	33.05
24-Jan-13	14:27:54	Dolphin	Surface	108	19	30	339	54	30	N	22.26962	E	113.87281	168.20	31.88
24-Jan-13	14:27:57	Dolphin	Surface	108	16	0	340	4	20	N	22.26962	E	113.87282	168.78	32.04
24-Jan-13	14:28:29	Dolphin	Surface	109	16	0	341	6	10	N	22.26954	E	113.87279	159.37	33.07
24-Jan-13	14:28:43	Dolphin	Surface	108	26	20	340	24	30	N	22.26960	E	113.87281	167.09	32.38
24-Jan-13	14:28:53	Dolphin	Surface	107	17	50	339	41	10	N	22.26970	E	113.87286	178.89	31.66
24-Jan-13	14:29:04	Dolphin	Surface	106	17	20	340	51	50	N	22.26977	E	113.87295	190.64	32.83
24-Jan-13	14:29:12	Dolphin	Surface	105	36	50	339	45	20	N	22.26986	E	113.87296	199.34	31.73
24-Jan-13	14:29:27	Dolphin	Surface	104	56	0	336	21	30	N	22.26999	E	113.87291	208.87	28.33
24-Jan-13	14:29:37	Dolphin	Surface	104	58	50	335	58	40	N	22.26999	E	113.87289	208.18	27.95
24-Jan-13	14:29:44	Dolphin	Surface	104	50	30	336	28	10	N	22.27000	E	113.87292	210.22	28.44
24-Jan-13	14:29:54	Dolphin	Surface	105	12	40	336	2	40	N	22.26996	E	113.87288	204.88	28.01
24-Jan-13	14:30:11	Dolphin	Surface	104	57	0	336	34	30	N	22.26998	E	113.87291	208.62	28.54
24-Jan-13	14:30:20	Dolphin	Surface	104	58	30	336	29	40	N	22.26998	E	113.87291	208.26	28.46
24-Jan-13	14:30:29	Dolphin	Surface	105	0	20	335	38	50	N	22.26999	E	113.87288	207.81	27.62
24-Jan-13	14:30:47	Dolphin	Surface	105	11	40	336	41	0	N	22.26995	E	113.87290	205.10	28.65
24-Jan-13	14:31:01	Dolphin	Surface	104	49	30	336	44	40	N	22.26999	E	113.87293	210.46	28.71
24-Jan-13	14:31:08	Dolphin	Surface	105	2	50	336	51	50	N	22.26997	E	113.87292	207.21	28.83
24-Jan-13	14:31:13	Dolphin	Surface	105	2	10	336	50	30	N	22.26997	E	113.87292	207.36	28.81
24-Jan-13	14:31:22	Dolphin	Surface	104	50	50	337	3	0	N	22.26999	E	113.87294	210.13	29.02
24-Jan-13	14:31:33	Dolphin	Surface	104	17	40	338	44	50	N	22.27002	E	113.87303	218.62	30.72
24-Jan-13	14:31:53	Dolphin	Surface	104	30	50	350	24	20	N	22.26976	E	113.87335	215.17	42.38
24-Jan-13	14:32:03	Dolphin	Surface	104	6	50	351	22	0	N	22.26978	E	113.87342	221.53	43.34
24-Jan-13	14:32:22	Dolphin	Surface	104	56	40	351	59	40	N	22.26969	E	113.87335	208.69	43.96
24-Jan-13	14:32:29	Dolphin	Surface	105	13	50	353	26	10	N	22.26963	E	113.87336	204.58	45.41
24-Jan-13	14:32:44	Dolphin	Surface	104	35	50	352	10	10	N	22.26971	E	113.87339	213.88	44.14
24-Jan-13	14:32:54	Dolphin	Surface	103	50	30	352	15	30	N	22.26979	E	113.87348	226.06	44.23
24-Jan-13	14:33:06	Dolphin	Surface	103	31	30	354	8	20	N	22.26978	E	113.87357	231.56	46.11
24-Jan-13	14:33:19	Dolphin	Surface	102	52	20	355	46	50	N	22.26981	E	113.87370	243.74	47.75
24-Jan-13	14:33:37	Dolphin	Surface	102	11	0	356	56	50	N	22.26986	E	113.87384	257.98	48.92
24-Jan-13	14:33:58	Dolphin	Surface	101	32	0	358	35	40	N	22.26989	E	113.87399	272.96	50.56
24-Jan-13	14:35:10	Dolphin	Surface	101	5	40	6	21	30	N	22.26968	E	113.87430	284.04	58.33
24-Jan-13	14:35:25	Dolphin	Surface	100	34	40	3	1	10	N	22.26987	E	113.87432	298.26	54.99
24-Jan-13	14:35:47	Dolphin	Surface	100	28	50	3	3	40	N	22.26989	E	113.87434	301.08	55.03
24-Jan-13	14:36:45	Dolphin	Surface	101	1	0	11	40	50	N	22.26948	E	113.87444	286.07	63.65
24-Jan-13	14:36:58	Dolphin	Surface	101	1	0	10	42	40	N	22.26951	E	113.87442	286.07	62.68
24-Jan-13	14:37:20	Dolphin	Surface	101	0	20	9	25	10	N	22.26957	E	113.87439	286.36	61.39
24-Jan-13	14:38:02	Dolphin	Surface	100	20	20	5	2	10	N	22.26983	E	113.87443	305.27	57.01
24-Jan-13	14:38:12	Dolphin	Surface	100	5	50	3	13	0	N	22.26994	E	113.87444	312.74	55.19
24-Jan-13	14:38:35	Dolphin	Surface	100	4	20	3	25	0	N	22.26994	E	113.87445	313.53	55.39
24-Jan-13	14:38:50	Dolphin	Surface	99	46	20	2	57	0	N	22.27001	E	113.87452	323.35	54.92
24-Jan-13	14:39:10	Dolphin	Surface	99	11	30	0	29	10	N	22.27022	E	113.87460	344.16	52.46
24-Jan-13	14:39:24	Dolphin	Surface	99	6	40	358	5	50	N	22.27034	E	113.87453	347.26	50.07
24-Jan-13	14:39:28	Dolphin	Surface	99	6	30	357	59	40	N	22.27034	E	113.87453	347.36	49.96
24-Jan-13	14:40:21	Dolphin	Surface	99	15	50	354	24	30	N	22.27045	E	113.87435	341.42	46.38
24-Jan-13	14:40:39	Dolphin	Surface	99	31	30	354	10	20	N	22.27040	E	113.87427	331.88	46.14
24-Jan-13	14:40:52	Dolphin	Surface	99	25	50	355	1	40	N	22.27039	E	113.87433	335.26	47.00
24-Jan-13	14:41:03	Dolphin	Surface	99	12	0	355	0	40	N	22.27044	E	113.87439	343.82	46.98
24-Jan-13	14:41:17	Dolphin	Surface	98	54	30	355	53	40	N	22.27048	E	113.87451	355.27	47.86
24-Jan-13	14:41:32	Dolphin	Surface	98	37	50	356	49	20	N	22.27051	E	113.87463	366.89	48.79
24-Jan-13	14:41:48	Dolphin	Surface	98	18	10	357	55	20	N	22.27055	E	113.87478	381.59	49.89
24-Jan-13	14:42:03	Dolphin	Surface	98	0	50	358	39	40	N	22.27059	E	113.87492	395.54	50.63
24-Jan-13	14:42:36	Dolphin	Surface	97	43	40	0	44	0	N	22.27057	E	113.87512	410.37	52.70
24-Jan-13	14:42:49	Dolphin	Surface	97	43	30	3	7	0	N	22.27045	E	113.87522	410.52	55.09
24-Jan-13	14:43:19	Dolphin	Surface	97	41	10	6	52	30	N	22.27025	E	113.87538	412.61	58.84
24-Jan-13	14:43:51	Dolphin	Surface	97	43	20	7	8	30	N	22.27023	E	113.87537	410.65	59.11
24-Jan-13	14:44:02	Dolphin	Surface	97	35	30	6	46	40	N	22.27028	E	113.87542	417.80	58.75
24-Jan-13	14:44:17	Dolphin	Surface	97	23	10	6	20	30	N	22.27036	E	113.87550	429.56	58.31
24-Jan-13	14:44:31	Dolphin	Surface	97	11	40	5	17	50	N	22.27048	E	113.87555	441.13	57.27
24-Jan-13	14:44:45	Dolphin	Surface	97	0	50	4	46	20	N	22.27057	E	113.87563	452.61	56.74
24-Jan-13	14:45:02	Dolphin	Surface	96	50	50	3	53	50	N	22.27067	E	113.87568	463.74	55.87
24-Jan-13	14:45:26	Dolphin	Surface	96	41	40	2	46	30	N	22.27080	E	113.87571	474.42	54.74
24-Jan-13	14:45:45	Dolphin	Surface	96	33	20	2	7	50	N	22.27089	E	113.87576	484.56	54.10
24-Jan-13	14:46:06	Dolphin	Surface	96	13	20	1	44	0	N	22.27105	E	113.87595	510.75	53.70
24-Jan-13	14:46:38	Dolphin	Surface	95	57	40	0	26	20	N	22.27126	E	113.87605	533.30	52.41
24-Jan-13	14:46:53	Dolphin	Surface	95	49	10	0	19	0	N	22.27134	E	113.87615	546.39	52.29
24-Jan-13	14:47:23	Dolphin	Surface	95	31	10	359	48	20	N	22.27154	E	113.87635	576.30	51.78
24-Jan-13	14:47:46	Dolphin	Surface	95	20	20	0	35	30	N	22.27159	E	113.87655	595.92	52.56
24-Jan-13	14:48:40	Dolphin	Surface	95	31	50	4	52	40	N	22.27116	E	113.87663	575.10	56.85
24-Jan-13	14:48:45	Dolphin	Surface	95	22	40	4	35	0	N	22.27127	E	113.87674	591.55	56.55
24-Jan-13	14:49:21	Dolphin	Surface	95	2	40	5	4	10	N	22.27142	E	113.87709	630.89	57.04
24-Jan-13	14:49:44	Dolphin	Surface	94	55	50	5	24	40	N	22.27146	E	113.87723	645.55	57.38
24-Jan-13	14:50:03	Dolphin	Surface	94	50	10	6	7	0	N	22.27146	E	113.87738	658.22	58.09
24-Jan-13	14:50:29	Dolphin	Surface	94	33	40	7	36	40	N	22.27151	E	113.87780	698.13	59.58
24-Jan-13	14:50:47	Dolphin	Surface	94	46	20	9	16	0	N	22.27122	E	113.87763	667.07	61.24
24-Jan-13	14:51:04	Dolphin	Surface	94	46	40	8	56	20	N	22.27125	E	113.87761	666.28	60.91
24-Jan-13	14:51:25	Dolphin	Surface	94	42	50	9	10	0	N	22.27127	E	113.87770	675.35	61.14
24-Jan-13	14:51:40	Dolphin	Surface	94	37	10	8	40	30	N	22.27137	E	113.87779	689.24	60.64
24-Jan-13	14:51:58	Dolphin	Surface	94	33	10	9	26	50	N	22.27134	E	113.87792	699.38	61.42
24-Jan-13	14:52:15	Dolphin	Surface	94	29	30	10	8	40	N	22.27132	E	113.87804	708.94	62.11
24-Jan-13	14:52:51	Dolphin	Surface	94	19	0	9	47	20	N	22.27148	E	113.87827	737.82	61.76

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
24-Jan-13	14:53:27	Dolphin	Surface	94	7	40	9	34	40	N	22.27164	E	113.87854	771.74	61.55
24-Jan-13	14:53:47	Dolphin	Surface	94	7	40	9	12	30	N	22.27168	E	113.87852	771.73	61.18
24-Jan-13	14:53:58	Dolphin	Surface	94	11	50	9	35	40	N	22.27159	E	113.87843	758.89	61.56
24-Jan-13	14:54:58	Dolphin	Surface	94	10	40	11	37	50	N	22.27138	E	113.87859	762.41	63.60
24-Jan-13	14:55:08	Dolphin	Surface	94	11	30	11	11	30	N	22.27142	E	113.87854	759.87	63.16
24-Jan-13	14:55:16	Dolphin	Surface	94	14	10	11	13	0	N	22.27139	E	113.87847	751.85	63.19
24-Jan-13	14:55:31	Dolphin	Surface	94	12	0	11	16	0	N	22.27141	E	113.87853	758.34	63.24
24-Jan-13	14:55:43	Dolphin	Surface	94	10	30	10	45	50	N	22.27148	E	113.87854	762.90	62.73
24-Jan-13	14:56:45	Dolphin	Surface	93	59	50	9	54	40	N	22.27171	E	113.87878	796.97	61.88
24-Jan-13	14:57:05	Dolphin	Surface	93	55	20	9	12	30	N	22.27186	E	113.87887	812.28	61.18
24-Jan-13	14:57:26	Dolphin	Surface	93	55	40	9	18	50	N	22.27184	E	113.87886	811.11	61.28
24-Jan-13	14:57:44	Dolphin	Surface	93	41	50	9	17	30	N	22.27206	E	113.87929	861.94	61.26
24-Jan-13	14:58:15	Dolphin	Surface	93	40	10	11	18	40	N	22.27185	E	113.87949	868.48	63.28
24-Jan-13	14:59:23	Dolphin	Surface	93	46	30	8	20	10	N	22.27210	E	113.87907	844.03	60.31
24-Jan-13	14:59:57	Dolphin	Surface	93	32	10	9	36	30	N	22.27219	E	113.87965	901.32	61.58
24-Jan-13	15:00:04	Dolphin	Surface	93	31	20	9	33	40	N	22.27221	E	113.87968	904.89	61.53
24-Jan-13	15:00:22	Dolphin	Surface	93	30	0	9	58	0	N	22.27219	E	113.87976	910.65	61.94
24-Jan-13	15:00:33	Dolphin	Surface	93	30	0	10	38	50	N	22.27210	E	113.87981	910.64	62.62
24-Jan-13	15:00:50	Dolphin	Surface	93	27	30	10	37	10	N	22.27215	E	113.87990	921.66	62.59
24-Jan-13	15:01:26	Dolphin	Surface	93	27	40	11	52	40	N	22.27199	E	113.87998	920.89	63.85
24-Jan-13	15:01:55	Dolphin	Surface	93	27	0	12	25	20	N	22.27193	E	113.88005	923.85	64.39
24-Jan-13	15:02:11	Dolphin	Surface	93	26	10	11	52	50	N	22.27201	E	113.88004	927.59	63.85
24-Jan-13	15:02:17	Dolphin	Surface	93	24	40	11	9	20	N	22.27213	E	113.88005	934.42	63.13
24-Jan-13	15:02:29	Dolphin	Surface	93	24	10	10	37	0	N	22.27221	E	113.88003	936.71	62.59
24-Jan-13	15:02:40	Dolphin	Surface	93	22	50	9	59	50	N	22.27232	E	113.88004	942.89	61.97
24-Jan-13	15:02:51	Dolphin	Surface	93	19	30	9	46	20	N	22.27242	E	113.88016	958.72	61.74
24-Jan-13	15:03:13	Dolphin	Surface	93	18	0	9	5	10	N	22.27254	E	113.88017	966.00	61.06
24-Jan-13	15:03:32	Dolphin	Surface	93	17	40	7	25	40	N	22.27277	E	113.88004	967.63	59.40
24-Jan-13	15:03:41	Dolphin	Surface	93	17	0	7	1	0	N	22.27284	E	113.88004	970.91	58.99
24-Jan-13	15:03:54	Dolphin	Surface	93	19	20	5	58	0	N	22.27292	E	113.87985	959.48	57.94
24-Jan-13	15:04:02	Dolphin	Surface	93	17	50	5	44	0	N	22.27298	E	113.87989	966.79	57.70
24-Jan-13	15:04:18	Dolphin	Surface	93	18	0	6	12	20	N	22.27292	E	113.87993	965.96	58.18
24-Jan-13	15:04:30	Dolphin	Surface	93	15	30	6	13	40	N	22.27297	E	113.88003	978.36	58.20
24-Jan-13	15:04:55	Dolphin	Surface	93	12	0	6	23	20	N	22.27304	E	113.88019	996.27	58.36
24-Jan-13	15:05:04	Dolphin	Surface	93	10	0	6	16	10	N	22.27310	E	113.88027	1006.80	58.24
24-Jan-13	15:05:20	Dolphin	Surface	93	7	30	7	5	40	N	22.27305	E	113.88046	1020.28	59.06
24-Jan-13	15:05:33	Dolphin	Surface	93	7	40	7	49	0	N	22.27295	E	113.88051	1019.36	59.79
24-Jan-13	15:06:03	Dolphin	Surface	93	6	40	8	0	0	N	22.27295	E	113.88057	1024.83	59.97
24-Jan-13	15:06:19	Dolphin	Surface	93	6	0	9	2	50	N	22.27282	E	113.88069	1028.51	61.02
24-Jan-13	15:06:31	Dolphin	Surface	93	5	30	9	2	50	N	22.27283	E	113.88072	1031.28	61.02
24-Jan-13	15:07:15	Dolphin	Surface	93	3	10	10	18	10	N	22.27271	E	113.88094	1044.45	62.27
24-Jan-13	15:08:07	Dolphin	Surface	93	3	0	7	36	20	N	22.27310	E	113.88071	1045.37	59.58
24-Jan-13	15:09:13	Dolphin	Surface	92	53	20	6	13	0	N	22.27357	E	113.88107	1103.93	58.19
24-Jan-13	15:09:47	Dolphin	Surface	92	44	50	6	57	50	N	22.27373	E	113.88162	1161.13	58.93
24-Jan-13	15:10:15	Dolphin	Surface	92	41	40	7	20	10	N	22.27377	E	113.88185	1183.98	59.31
24-Jan-13	15:10:36	Dolphin	Surface	92	42	0	6	56	0	N	22.27382	E	113.88178	1181.51	58.90
24-Jan-13	15:11:00	Dolphin	Surface	92	41	30	7	2	10	N	22.27383	E	113.88182	1185.17	59.01
24-Jan-13	15:11:39	Dolphin	Surface	92	38	50	7	19	40	N	22.27387	E	113.88202	1205.14	59.30
24-Jan-13	15:12:08	Dolphin	Surface	92	38	30	6	34	20	N	22.27400	E	113.88196	1207.67	58.54
24-Jan-13	15:17:45	Dolphin	Surface	94	11	10	7	39	20	N	22.27179	E	113.87832	760.17	59.63
24-Jan-13	15:18:12	Dolphin	Surface	94	15	40	8	48	40	N	22.27161	E	113.87828	746.70	60.78
24-Jan-13	15:19:24	Dolphin	Surface	94	38	10	7	52	50	N	22.27143	E	113.87771	685.95	59.85
24-Jan-13	15:20:28	Dolphin	Surface	95	25	50	6	11	0	N	22.27111	E	113.87678	584.99	58.15
24-Jan-13	15:20:36	Dolphin	Surface	95	27	10	5	26	40	N	22.27116	E	113.87672	582.59	57.41
24-Jan-13	15:21:39	Dolphin	Surface	96	30	0	4	48	30	N	22.27074	E	113.87591	488.01	56.78
24-Jan-13	15:21:45	Dolphin	Surface	96	27	30	4	53	40	N	22.27075	E	113.87594	491.19	56.86
24-Jan-13	15:22:28	Dolphin	Surface	96	48	10	6	57	40	N	22.27050	E	113.87583	466.07	58.93
24-Jan-13	15:22:42	Dolphin	Surface	96	43	40	8	20	20	N	22.27043	E	113.87593	471.32	60.31
24-Jan-13	15:23:07	Dolphin	Surface	96	43	10	8	53	20	N	22.27040	E	113.87595	471.90	60.86
24-Jan-13	15:23:15	Dolphin	Surface	96	50	0	8	40	50	N	22.27038	E	113.87588	463.95	60.65
24-Jan-13	15:23:41	Dolphin	Surface	97	15	40	7	10	20	N	22.27035	E	113.87559	436.33	59.14
24-Jan-13	15:24:10	Dolphin	Surface	97	53	50	6	26	20	N	22.27022	E	113.87526	400.76	58.41
24-Jan-13	15:24:15	Dolphin	Surface	97	55	10	6	39	10	N	22.27021	E	113.87526	399.62	58.62
24-Jan-13	15:24:19	Dolphin	Surface	97	53	30	6	44	50	N	22.27021	E	113.87528	401.04	58.72
24-Jan-13	15:24:22	Dolphin	Surface	97	52	20	6	52	30	N	22.27021	E	113.87529	402.05	58.84
24-Jan-13	15:24:36	Dolphin	Surface	97	48	40	6	42	10	N	22.27023	E	113.87531	405.23	58.67
24-Jan-13	15:25:07	Dolphin	Surface	98	25	50	6	49	30	N	22.27008	E	113.87506	375.05	58.79
24-Jan-13	15:25:11	Dolphin	Surface	98	36	20	6	46	50	N	22.27005	E	113.87500	367.30	58.75
24-Jan-13	15:25:55	Dolphin	Surface	99	32	20	3	5	40	N	22.27004	E	113.87458	330.77	55.06
24-Jan-13	15:26:33	Dolphin	Surface	101	9	40	0	31	0	N	22.26988	E	113.87412	281.69	52.49
24-Jan-13	15:27:11	Dolphin	Surface	102	57	40	352	33	40	N	22.26988	E	113.87359	241.47	44.53
24-Jan-13	15:27:23	Dolphin	Surface	103	32	0	350	12	30	N	22.26987	E	113.87345	230.89	42.18
24-Jan-13	15:28:11	Dolphin	Surface	106	55	30	337	24	40	N	22.26977	E	113.87282	182.62	29.38
24-Jan-13	15:33:42	Zero		98	58	20	0	36	50	N	22.27026	E	113.87466	351.93	52.58
25-Jan-13	9:07:39	Zero		101	47	40	0	0	0	N	22.26982	E	113.87399	267.46	52.00
25-Jan-13	9:08:50	Other	Stationary	91	38	50	344	1	10	N	22.28254	E	113.88311	1952.27	36.02
25-Jan-13	9:09:00	Other	Stationary	91	38	50	345	28	30	N	22.28228	E	113.88350	1952.27	37.47
25-Jan-13	9:09:08	Other	Stationary	91	27	10	347	44	0	N	22.28368	E	113.88573	2217.12	39.73
25-Jan-13	9:09:13	Other	Stationary	91	27	10	347	1	10	N	22.28384	E	113.88552	2217.12	39.02
25-Jan-13	9:09:24	Other	Stationary	91	29	20	346	13	40	N	22.28362	E	113.88496	2162.60	38.22
25-Jan-13	9:09:31	Other	Stationary	91	29	20	347	3	30	N	22.28345	E	113.88520	2162.60	39.06
25-Jan-13	9:09:38	Other	Stationary	91	35	40	345	59	10	N	22.28264	E	113.88402	2017.66	37.98
25-Jan-13	9:09:47	Transportation boat	Stationary	91	33	30	347	24	20	N	22.28269	E	113.88469	2064.99	39.40
25-Jan-13	9:10:04	Other	Stationary	90	58	10	241	35	20	N	22.28040	E	113.84207	3352.22	293.59
25-Jan-13	9:10:17	Other	Stationary	91	15	20	247	38	50	N	22.27978	E	113.85021	2571.60	299.64
25-Jan-13	9:10:43	Speedboat	Stationary	117	57	30	281	7	40	N	22.26918	E	113.87148	105.21	333.12
25-Jan-13	9:11:15	Other	Traveling	91	14	30	220	48	30	N	22.26948	E	113.84668	2600.92	272.81
25-Jan-13	9:15:15	Other	Traveling	91	33	30	239	26	50	N	22.27513	E	113.85325	2064.99	291.44
25-Jan-13	9:18:47	Other	Traveling	91	32	30	261	21	0	N	22.28123	E	113.85718	2087.60	313.35
25-Jan-13	9:21:19	Other	Traveling	91	22	10	274	56	30	N	22.28609	E	113.85945	2354.15	326.94
25-Jan-13	9:25:07	Other	Traveling	91	7	30	289	33	40	N	22.29289	E	113.86309	2876.77	341.56
25-Jan-13	9:29:45	Speedboat	Traveling	93	30	20	238	25	30	N	22.27120	E	113.86363	912.64	290.42
25-Jan-13	9:29:57	Speedboat	Traveling	92	21	40	253	44	30	N	22.27547	E	113.86123	1357.85	305.74
25-Jan-13	9:30:09	Speedboat	Traveling	94	51	30	235	16	40	N	22.27009	E	113.86584	657.39	287.27
25-Jan-13	9:30:19	Speedboat	Traveling	95	44	40	230	19	10	N	22.26940	E	113.86667	555.36	282.32
25-Jan-13	9:30:30	Speedboat	Traveling	92	50	0	255	57	40	N	22.27459	E	113.86328	1130.36	307.96
25-Jan-13	9:31:53	Speedboat	Traveling	96	15	40	250	13	0	N	22.27078	E	113.86776	509.17	302.21
25-Jan-13	9:32:17	Speedboat	Traveling	99	27	30	241	52	50	N	22.26955	E	113.86896	335.25	293.88
25-Jan-13	9:37:47	Fishing Boat	Non-operating	91	22	40	264	12	0	N	22.28353	E	113.85619	2339.68	316.20
25-Jan-13	9:40:12	Fishing Boat	Non-operating	91	25	40	251	32	30	N	22.27955	E	113.85365	2256.51	303.54
25-Jan-13	9:40:40	Speedboat	Traveling	107	44	50	340	25	50	N	22.26966	E	113.87285	174.49	32.43

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
25-Jan-13	9:44:06	Fishing Boat	Non-operating	91	21	30	230	22	0	N	22.27291	E	113.84940	2373.72	282.36
25-Jan-13	9:47:51	Hi-Speed Ferry		91	55	40	334	52	20	N	22.28170	E	113.87927	1665.56	26.87
25-Jan-13	9:49:33	Hi-Speed Ferry		93	18	40	324	3	10	N	22.27669	E	113.87454	966.50	16.05
25-Jan-13	9:50:33	Hi-Speed Ferry		95	4	10	305	34	50	N	22.27400	E	113.87169	629.85	357.58
25-Jan-13	9:52:40	Hi-Speed Ferry		94	37	30	218	28	40	N	22.26838	E	113.86523	690.76	270.47
25-Jan-13	9:57:11	Sand Barge		91	24	20	229	2	20	N	22.27228	E	113.85006	2292.73	281.04
25-Jan-13	9:57:30	Speedboat	Traveling	92	41	30	359	57	10	N	22.27493	E	113.88106	1190.18	51.95
25-Jan-13	9:59:54	Sand Barge		91	24	50	248	4	0	N	22.27861	E	113.85276	2279.01	300.06
25-Jan-13	10:03:18	Sand Barge		91	14	20	268	53	50	N	22.28654	E	113.85595	2606.87	320.89
25-Jan-13	10:03:30	Research Vessel	Traveling	91	15	20	341	33	30	N	22.28762	E	113.88577	2571.60	33.56
25-Jan-13	10:07:13	Sand Barge		90	59	0	285	27	0	N	22.29579	E	113.85962	3303.37	337.45
25-Jan-13	10:07:23	Research Vessel	Traveling	91	48	40	334	38	10	N	22.28260	E	113.87968	1773.85	26.63
25-Jan-13	10:12:25	Fishing Boat	Non-operating	91	27	50	270	43	0	N	22.28409	E	113.85898	2200.05	322.71
25-Jan-13	10:12:35	Research Vessel	Traveling	94	11	50	311	52	30	N	22.27517	E	113.87244	761.56	3.87
25-Jan-13	10:13:40	Hi-Speed Ferry		94	12	20	222	39	50	N	22.26889	E	113.86458	760.05	274.66
25-Jan-13	10:13:48	Research Vessel	Traveling	95	15	0	294	0	10	N	22.27364	E	113.87051	608.05	346.00
25-Jan-13	10:13:56	Speedboat	Traveling	93	59	0	323	54	50	N	22.27528	E	113.87408	802.67	15.91
25-Jan-13	10:14:04	Transportation boat	Traveling	91	32	40	340	52	20	N	22.28408	E	113.88294	2083.80	32.87
25-Jan-13	10:14:13	Fishing Boat	Non-operating	91	33	40	260	20	30	N	22.28083	E	113.85713	2061.27	312.34
25-Jan-13	10:14:21	Hi-Speed Ferry		95	40	0	243	32	50	N	22.27052	E	113.86700	563.04	295.54
25-Jan-13	10:14:57	Transportation boat	Traveling	91	40	20	343	32	40	N	22.28241	E	113.88281	1922.76	35.54
25-Jan-13	10:15:06	Speedboat	Stationary	93	56	0	313	30	0	N	22.27562	E	113.87270	812.93	5.50
25-Jan-13	10:15:14	Hi-Speed Ferry		95	55	50	285	10	0	N	22.27279	E	113.86991	537.80	337.16
25-Jan-13	10:15:22	Research Vessel	Traveling	95	39	30	260	55	0	N	22.27179	E	113.86793	563.87	312.91
25-Jan-13	10:17:13	Research Vessel	Traveling	94	29	20	227	26	10	N	22.26938	E	113.86512	711.82	279.43
25-Jan-13	10:17:28	Fishing Boat	Non-operating	91	32	20	239	10	30	N	22.27513	E	113.85298	2091.42	291.17
25-Jan-13	10:17:43	Hi-Speed Ferry		92	15	20	333	13	50	N	22.27991	E	113.87784	1421.82	25.23
25-Jan-13	10:26:45	Speedboat	Traveling	99	48	50	337	24	50	N	22.27086	E	113.87349	322.88	29.41
25-Jan-13	10:27:06	Speedboat	Stationary	102	31	40	336	15	0	N	22.27033	E	113.87310	251.34	28.25
25-Jan-13	10:27:20	Fishing Boat	Non-operating	91	50	30	239	17	30	N	22.27403	E	113.85614	1744.15	291.29
25-Jan-13	10:29:47	Fishing Boat	Non-operating	91	49	30	262	15	50	N	22.27939	E	113.85968	1760.23	314.26
25-Jan-13	10:34:09	Fishing Boat	Non-operating	91	18	30	291	42	20	N	22.28963	E	113.86521	2466.00	343.70
25-Jan-13	10:39:07	Speedboat	Traveling	111	9	0	283	57	30	N	22.26952	E	113.87137	144.35	335.96
25-Jan-13	10:39:33	Speedboat	Stationary	117	31	0	302	0	20	N	22.26929	E	113.87184	107.20	354.00
25-Jan-13	10:43:12	Transportation boat	Traveling	92	41	0	346	13	50	N	22.27677	E	113.87913	1193.90	38.23
25-Jan-13	10:45:31	Transportation boat	Traveling	96	57	30	325	13	10	N	22.27227	E	113.87326	457.69	17.22
25-Jan-13	11:36:48	Speedboat	Traveling	99	42	10	357	39	0	N	22.27024	E	113.87437	326.65	49.65
25-Jan-13	11:37:27	Speedboat	Traveling	112	54	10	312	57	0	N	22.26952	E	113.87206	132.18	4.95
25-Jan-13	11:48:47	Hi-Speed Ferry		92	11	30	332	0	10	N	22.28037	E	113.87773	1463.56	24.00
25-Jan-13	11:49:36	Hi-Speed Ferry		92	55	10	325	38	40	N	22.27774	E	113.87518	1096.85	17.64
25-Jan-13	11:51:56	Hi-Speed Ferry		96	37	50	245	27	40	N	22.27033	E	113.86780	480.55	297.46
25-Jan-13	11:52:47	Hi-Speed Ferry		94	27	10	214	37	30	N	22.26795	E	113.86498	717.63	266.62
25-Jan-13	11:54:20	Speedboat	Traveling	111	32	40	298	30	0	N	22.26959	E	113.87172	141.45	350.50
25-Jan-13	11:54:56	Speedboat	Traveling	97	54	40	351	17	20	N	22.27097	E	113.87462	401.96	43.29
25-Jan-13	11:55:50	Speedboat	Traveling	93	31	10	358	26	10	N	22.27354	E	113.87876	909.02	50.43
25-Jan-13	12:24:30	Police Vessel	Traveling	102	23	30	321	49	50	N	22.27056	E	113.87254	255.10	13.83
25-Jan-13	12:25:09	Police Vessel	Traveling	104	27	30	244	20	20	N	22.26920	E	113.87005	217.37	296.34
25-Jan-13	12:29:55	Police Vessel	Traveling	91	24	50	298	57	10	N	22.28866	E	113.86845	2287.23	350.95
25-Jan-13	12:31:32	Police Vessel	Traveling	91	34	10	283	40	30	N	22.28521	E	113.86370	2057.58	335.67
25-Jan-13	12:32:51	Police Vessel	Traveling	91	40	0	269	24	30	N	22.28195	E	113.86020	1936.18	321.41
25-Jan-13	12:34:56	Police Vessel	Traveling	91	55	0	244	24	30	N	22.27506	E	113.85730	1681.32	296.41
25-Jan-13	12:43:51	Sand Barge		91	22	30	280	47	10	N	22.28716	E	113.86148	2352.95	332.78
25-Jan-13	12:46:11	Sand Barge		91	34	40	268	5	10	N	22.28246	E	113.85917	2046.58	320.08
25-Jan-13	12:50:51	Sand Barge		91	40	0	235	2	0	N	22.27344	E	113.85394	1936.18	287.03
25-Jan-13	12:53:35	Research Vessel	Traveling	92	44	0	235	45	50	N	22.27156	E	113.86105	1176.15	287.76
25-Jan-13	12:55:16	Police Vessel	Traveling	92	8	50	245	33	20	N	22.27457	E	113.85902	1499.44	297.55
25-Jan-13	12:55:28	Research Vessel	Traveling	92	57	40	255	16	30	N	22.27425	E	113.86355	1085.22	307.27
25-Jan-13	12:56:05	Research Vessel	Traveling	92	58	10	262	2	10	N	22.27510	E	113.86438	1082.16	314.03
25-Jan-13	12:57:55	Police Vessel	Traveling	91	49	10	278	57	30	N	22.28227	E	113.86358	1772.00	330.96
25-Jan-13	13:00:05	Research Vessel	Traveling	92	5	50	292	43	10	N	22.28166	E	113.86801	1535.45	344.72
25-Jan-13	13:00:16	Police Vessel	Traveling	91	22	0	297	8	50	N	22.28926	E	113.86761	2367.53	349.14
25-Jan-13	13:01:11	Sand Barge		91	36	50	267	18	10	N	22.28198	E	113.85926	2000.24	319.30
25-Jan-13	13:03:31	Sand Barge		91	43	20	253	27	10	N	22.27811	E	113.85711	1873.06	305.45
25-Jan-13	13:05:57	Sand Barge		91	43	20	238	27	10	N	22.27422	E	113.85488	1873.06	290.45
25-Jan-13	13:12:30	Speedboat	Traveling	94	16	0	337	37	30	N	22.27421	E	113.87556	751.79	29.62
25-Jan-13	13:13:48	Speedboat	Traveling	97	57	40	334	20	10	N	22.27157	E	113.87367	400.83	26.33
25-Jan-13	13:14:52	Speedboat	Traveling	109	38	10	293	40	50	N	22.26970	E	113.87157	157.08	345.68
25-Jan-13	13:55:12	Speedboat	Traveling	101	53	10	351	1	20	N	22.27009	E	113.87371	266.29	43.02
25-Jan-13	13:55:29	Speedboat	Traveling	107	24	40	346	20	10	N	22.26959	E	113.87302	178.72	38.33
25-Jan-13	14:11:31	Hi-Speed Ferry		97	51	50	248	37	10	N	22.27019	E	113.86855	405.85	300.62
25-Jan-13	14:12:12	Hi-Speed Ferry		98	6	0	292	53	0	N	22.27176	E	113.87095	393.86	344.88
25-Jan-13	14:13:33	Hi-Speed Ferry		93	52	10	330	36	50	N	22.27522	E	113.87505	829.38	22.61
25-Jan-13	14:14:23	Sand Barge		91	47	40	234	59	50	N	22.27306	E	113.85523	1796.93	286.99
25-Jan-13	14:14:32	Hi-Speed Ferry		92	30	20	333	36	0	N	22.27875	E	113.87734	1283.70	25.60
25-Jan-13	14:16:02	Speedboat	Traveling	107	39	40	304	30	50	N	22.26991	E	113.87184	176.03	356.51
25-Jan-13	14:16:13	Sand Barge		91	46	50	248	47	20	N	22.27667	E	113.85681	1811.09	300.79
25-Jan-13	14:16:30	Speedboat	Traveling	98	0	40	344	37	20	N	22.27121	E	113.87425	398.29	36.62
25-Jan-13	14:16:37	Hi-Speed Ferry		91	26	40	338	0	20	N	22.28578	E	113.88283	2238.14	30.00
25-Jan-13	14:17:22	Speedboat	Traveling	93	32	40	356	7	20	N	22.27378	E	113.87850	905.82	48.12
25-Jan-13	14:17:49	Sand Barge		91	39	10	259	24	0	N	22.27995	E	113.85770	1952.64	311.40
25-Jan-13	14:18:02	Other	Traveling	91	37	20	235	6	30	N	22.27360	E	113.85345	1989.84	287.11
25-Jan-13	14:21:25	Sand Barge		91	20	50	278	22	30	N	22.28712	E	113.86039	2402.26	330.37
25-Jan-13	14:21:37	Transportation boat	Traveling	92	1	20	329	22	50	N	22.28168	E	113.87759	1592.85	21.38
25-Jan-13	14:21:49	Other	Traveling	91	31	30	260	6	0	N	22.28111	E	113.85666	2118.32	312.10
25-Jan-13	14:23:05	Transportation boat	Traveling	92	14	30	314	49	0	N	22.28116	E	113.87360	1435.83	6.81
25-Jan-13	14:25:47	Transportation boat	Traveling	92	12	40	284	10	40	N	22.28032	E	113.86623	1455.81	336.17
25-Jan-13	14:28:55	Transportation boat	Traveling	91	39	40	258	39	50	N	22.27972	E	113.85761	1942.73	310.66
25-Jan-13	14:36:31	Transportation boat	Traveling	92	9	0	256	52	0	N	22.27679	E	113.86060	1497.49	308.86
25-Jan-13	14:36:49	Other	Traveling	91	39	30	344	1	10	N	22.28250	E	113.88307	1946.02	36.02
25-Jan-13	14:36:54	Other	Traveling	91	39	30	345	27	30	N	22.28224	E	113.88345	1946.02	37.46
25-Jan-13	14:37:07	Other	Traveling	91	26	50	347	2	0	N	22.28395	E	113.88563	2233.78	39.03
25-Jan-13	14:37:13	Other	Traveling	91	27	0	347	43	50	N	22.28376	E	113.88580	2229.44	39.73
25-Jan-13	14:37:20	Other	Traveling	91	42	40	344	50	0	N	22.28191	E	113.88294	1885.35	36.83
25-Jan-13	14:37:26	Other	Traveling	91	42	40	345	8	0	N	22.28186	E	113.88301	1885.35	37.13
25-Jan-13	14:37:41	Other	Traveling	91	29	10	346	14	0	N	22.28370	E	113.88503	2174.51	38.23
25-Jan-13	14:37:50	Other	Traveling	91	29	30	347	4	20	N	22.28347	E	113.88522	2166.30	39.07
25-Jan-13	14:37:58	Other	Traveling	91	36	0	345	59	50	N	22.28264	E	113.88402	2017.81	37.99
25-Jan-13	14:38:11	Transportation boat	Traveling	92	34	0	271	43	10	N	22.27742	E	113.86473	1252.96	323.72
25-Jan-13	14:42:43	Transportation boat	Traveling	92	30	20	326	50	10	N	22.27927	E	113.87597	1283.70	18.83
25-Jan-13	14:42:55	Speedboat	Traveling	96	1	50	344	16	20	N	22.27218	E	113.87500	530.70	36.27
25-Jan-13	14:43:06	Speedboat	Traveling	97	36	20	338	50	30	N	22.27158	E	113.87404	419.82	30.84

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
25-Jan-13	14:43:34	Speedboat	Traveling	105	19	0	299	37	30	N	22.27016	E	113.87165	204.64	351.62
25-Jan-13	14:43:42	Transportation boat	Traveling	92	12	20	335	22	0	N	22.28000	E	113.87847	1459.50	27.36
25-Jan-13	14:43:52	Speedboat	Traveling	105	45	30	243	19	30	N	22.26910	E	113.87020	198.61	295.32
25-Jan-13	14:52:44	Speedboat	Traveling	95	53	40	337	14	50	N	22.27260	E	113.87452	543.06	29.24
26-Jan-13	8:56:26	Zero		91	8	0	0	0	0	N	22.28419	E	113.89387	2861.32	52.00
26-Jan-13	8:57:42	Dolphin	Surface	91	50	20	210	9	10	N	22.26618	E	113.85508	1750.50	262.15
26-Jan-13	8:58:28	Dolphin	Surface	91	47	20	210	43	40	N	22.26628	E	113.85458	1799.86	262.72
26-Jan-13	8:58:42	Scan_dolphin		91	47	10	210	44	0	N	22.26628	E	113.85456	1802.67	262.73
26-Jan-13	8:59:15	Dolphin	Surface	91	46	0	209	58	50	N	22.26604	E	113.85439	1822.68	261.98
26-Jan-13	8:59:46	Dolphin	Surface	91	42	50	209	53	50	N	22.26595	E	113.85385	1879.36	261.89
26-Jan-13	9:02:13	Other	Stationary	91	26	40	347	18	10	N	22.28389	E	113.88571	2234.50	39.30
26-Jan-13	9:02:22	Other	Stationary	91	26	10	347	45	0	N	22.28388	E	113.88592	2247.65	39.75
26-Jan-13	9:02:59	Other	Stationary	91	42	0	344	45	40	N	22.28199	E	113.88297	1894.69	36.76
26-Jan-13	9:03:06	Other	Stationary	91	42	0	345	12	40	N	22.28191	E	113.88309	1894.68	37.21
26-Jan-13	9:03:37	Other	Stationary	91	35	10	345	17	10	N	22.28288	E	113.88392	2032.30	37.28
26-Jan-13	9:03:49	Other	Stationary	91	28	30	346	29	20	N	22.28374	E	113.88518	2187.45	38.49
26-Jan-13	9:04:19	Other	Stationary	91	32	20	346	34	30	N	22.28308	E	113.88465	2095.41	38.57
26-Jan-13	9:04:34	Other	Stationary	91	35	10	345	59	40	N	22.28275	E	113.88411	2032.24	37.99
26-Jan-13	9:05:05	Other	Stationary	90	56	50	241	32	20	N	22.28069	E	113.84127	3440.03	293.54
26-Jan-13	9:06:02	Other	Stationary	91	15	0	247	44	30	N	22.27989	E	113.85009	2588.06	299.74
26-Jan-13	9:06:25	Transportation boat	Stationary	91	33	0	349	3	20	N	22.28245	E	113.88523	2080.06	41.05
26-Jan-13	9:16:01	Fishing boat	Non-operating	93	30	30	210	20	30	N	22.26724	E	113.86314	913.31	262.34
26-Jan-13	9:16:26	Fishing boat	Non-operating	93	54	20	214	59	0	N	22.26794	E	113.86398	819.98	266.98
26-Jan-13	9:18:06	Fishing boat	Operating	94	12	50	227	16	0	N	22.26943	E	113.86465	759.64	279.26
26-Jan-13	9:18:38	Fishing boat	Operating	93	58	40	230	15	30	N	22.26987	E	113.86429	804.96	282.26
26-Jan-13	9:20:32	Fishing boat	Operating	93	19	0	239	0	20	N	22.27145	E	113.86317	966.21	291.00
26-Jan-13	9:22:13	Speedboat	Traveling	98	2	20	336	26	50	N	22.27147	E	113.87378	396.01	28.44
26-Jan-13	9:22:22	Speedboat	Traveling	100	34	0	330	55	10	N	22.27082	E	113.87308	299.79	22.92
26-Jan-13	9:22:31	Speedboat	Traveling	104	35	20	320	59	40	N	22.27022	E	113.87241	214.85	12.99
26-Jan-13	9:22:46	Speedboat	Traveling	112	8	20	295	27	30	N	22.26954	E	113.87165	137.44	347.46
26-Jan-13	9:22:59	Speedboat	Traveling	114	2	0	280	7	0	N	22.26933	E	113.87137	125.40	332.11
26-Jan-13	9:23:15	Speedboat	Stationary	113	19	0	273	9	40	N	22.26929	E	113.87122	129.73	325.16
26-Jan-13	9:30:16	Fishing boat	Operating	93	58	0	244	22	50	N	22.27156	E	113.86491	806.93	296.38
26-Jan-13	9:31:41	Dolphin	Surface	94	47	30	244	5	10	N	22.27097	E	113.86612	667.28	296.08
26-Jan-13	9:32:14	Dolphin	Surface	94	57	10	245	16	40	N	22.27100	E	113.86637	645.44	297.27
26-Jan-13	9:32:21	Dolphin	Surface	95	1	50	244	57	10	N	22.27092	E	113.86644	635.39	296.95
26-Jan-13	9:32:24	Dolphin	Surface	95	0	30	244	49	0	N	22.27092	E	113.86641	638.23	296.81
26-Jan-13	9:33:23	Fishing boat	Operating	94	13	20	246	10	0	N	22.27155	E	113.86545	757.77	298.16
26-Jan-13	9:33:38	Dolphin	Fluke Up	95	2	30	245	45	40	N	22.27099	E	113.86649	633.96	297.76
26-Jan-13	9:37:53	Dolphin	Surface	91	48	20	238	3	30	N	22.27383	E	113.85568	1780.86	290.06
26-Jan-13	9:38:08	Dolphin	Surface	91	48	50	237	44	20	N	22.27372	E	113.85572	1772.58	289.74
26-Jan-13	9:38:21	Dolphin	Surface	91	49	40	237	23	40	N	22.27359	E	113.85581	1758.98	289.39
26-Jan-13	9:38:30	Dolphin	Surface	91	49	30	237	2	30	N	22.27350	E	113.85575	1761.67	289.04
26-Jan-13	9:38:45	Dolphin	Surface	91	49	10	236	39	40	N	22.27342	E	113.85566	1767.09	288.66
26-Jan-13	9:38:58	Dolphin	Surface	91	49	10	236	15	20	N	22.27331	E	113.85562	1767.07	288.25
26-Jan-13	9:39:18	Dolphin	Surface	91	51	40	235	8	50	N	22.27291	E	113.85589	1727.13	287.14
26-Jan-13	9:39:36	Scan_dolphin		91	51	40	235	8	20	N	22.27291	E	113.85589	1727.11	287.14
26-Jan-13	9:40:54	Dolphin	Surface	91	51	20	232	59	0	N	22.27236	E	113.85567	1732.26	284.98
26-Jan-13	9:41:01	Dolphin	Surface	91	50	40	232	47	0	N	22.27233	E	113.85556	1742.79	284.78
26-Jan-13	9:41:05	Dolphin	Surface	91	50	40	232	41	40	N	22.27231	E	113.85555	1742.78	284.69
26-Jan-13	9:41:12	Dolphin	Surface	91	50	40	232	23	20	N	22.27223	E	113.85553	1742.78	284.39
26-Jan-13	9:41:19	Dolphin	Surface	91	50	40	232	5	30	N	22.27215	E	113.85551	1742.77	284.09
26-Jan-13	9:41:27	Dolphin	Fluke Up	91	50	40	231	52	20	N	22.27209	E	113.85549	1742.76	283.87
26-Jan-13	9:42:40	Dolphin	Surface	91	50	10	230	21	20	N	22.27170	E	113.85531	1750.68	282.35
26-Jan-13	9:43:01	Dolphin	Surface	91	54	10	229	46	0	N	22.27143	E	113.85587	1688.78	281.76
26-Jan-13	9:43:16	Dolphin	Surface	91	52	50	229	23	50	N	22.27137	E	113.85565	1708.90	281.39
26-Jan-13	9:46:55	Hi-Speed Ferry		92	43	20	350	39	20	N	22.27613	E	113.87970	1177.40	42.65
26-Jan-13	9:47:29	Fishing boat	Non-operating	94	12	40	220	42	30	N	22.26866	E	113.86457	759.44	272.71
26-Jan-13	9:47:43	Fishing boat	Operating	94	9	0	268	37	0	N	22.27369	E	113.86719	770.68	320.61
26-Jan-13	9:48:15	Dolphin	Surface	92	19	50	224	7	40	N	22.26965	E	113.85864	1376.47	276.12
26-Jan-13	9:48:27	Dolphin	Surface	92	20	20	223	56	40	N	22.26961	E	113.85868	1371.53	275.94
26-Jan-13	9:48:56	Dolphin	Surface	92	21	50	223	0	0	N	22.26940	E	113.85880	1356.91	275.00
26-Jan-13	9:49:26	Fishing boat	Non-operating	91	34	50	221	40	0	N	22.26950	E	113.85218	2036.57	273.66
26-Jan-13	9:49:35	Hi-Speed Ferry		100	12	20	251	13	30	N	22.26986	E	113.86942	310.38	303.22
26-Jan-13	9:49:45	Fishing boat	Non-operating	98	45	30	253	7	20	N	22.27021	E	113.86906	362.70	305.12
26-Jan-13	9:49:56	Dolphin	Surface	92	28	0	221	6	10	N	22.26897	E	113.85932	1299.99	273.10
26-Jan-13	9:50:00	Dolphin	Surface	92	28	0	220	45	10	N	22.26889	E	113.85932	1299.99	272.75
26-Jan-13	9:50:33	Speedboat	Traveling	93	3	0	217	44	30	N	22.26829	E	113.86173	1050.13	269.74
26-Jan-13	9:50:45	Speedboat	Traveling	104	45	50	307	15	30	N	22.27024	E	113.87192	212.00	359.26
26-Jan-13	9:50:55	Speedboat	Traveling	106	56	0	268	41	20	N	22.26961	E	113.87081	183.50	320.69
26-Jan-13	9:51:02	Speedboat	Traveling	104	25	0	239	13	50	N	22.26904	E	113.86997	217.34	291.23
26-Jan-13	9:51:12	Speedboat	Traveling	93	32	40	231	36	30	N	22.27024	E	113.86341	902.95	283.61
26-Jan-13	9:51:30	Fishing boat	Non-operating	91	50	40	239	55	0	N	22.27418	E	113.85623	1742.21	291.91
26-Jan-13	9:51:44	Speedboat	Traveling	91	55	30	217	27	30	N	22.26819	E	113.85572	1668.65	269.46
26-Jan-13	9:52:54	Dolphin	Surface	92	22	30	215	11	0	N	22.26774	E	113.85883	1350.35	267.18
26-Jan-13	9:53:52	Speedboat	Traveling	92	38	10	247	32	20	N	22.27373	E	113.86166	1215.81	299.54
26-Jan-13	9:56:18	Dolphin	Surface	94	27	40	273	27	20	N	22.27364	E	113.86799	716.46	325.45
26-Jan-13	9:56:29	Fishing boat	Operating	94	27	50	274	54	40	N	22.27373	E	113.86814	716.01	326.91
26-Jan-13	9:57:50	Fishing boat	Non-operating	91	22	0	295	54	30	N	22.28910	E	113.86714	2359.50	347.91
26-Jan-13	10:03:25	Speedboat	Traveling	104	51	20	263	13	10	N	22.26968	E	113.87050	210.55	315.22
26-Jan-13	10:03:41	Speedboat	Traveling	101	25	30	308	44	50	N	22.27082	E	113.87198	276.36	0.74
26-Jan-13	10:03:58	Speedboat	Traveling	97	27	10	332	6	50	N	22.27184	E	113.87364	427.00	24.11
26-Jan-13	10:04:24	Fishing boat	Non-operating	92	27	30	7	27	20	N	22.27430	E	113.88286	1303.82	59.45
26-Jan-13	10:04:34	Speedboat	Traveling	93	51	0	346	33	0	N	22.27418	E	113.87698	830.60	38.55
26-Jan-13	10:06:45	Speedboat	Traveling	98	50	20	256	39	10	N	22.27035	E	113.86922	359.15	308.65
26-Jan-13	10:06:59	Speedboat	Traveling	98	13	30	286	39	30	N	22.27157	E	113.87058	386.38	338.66
26-Jan-13	10:07:15	Speedboat	Traveling	96	10	30	310	13	0	N	22.27298	E	113.87214	516.29	2.21
26-Jan-13	10:07:32	Speedboat	Traveling	94	30	30	322	59	10	N	22.27449	E	113.87373	708.66	14.98
26-Jan-13	10:07:49	Sand Barge		91	23	40	335	42	0	N	22.28675	E	113.88239	2311.02	27.70
26-Jan-13	10:08:00	Speedboat	Traveling	92	55	0	333	23	40	N	22.27726	E	113.87652	1097.78	25.39
26-Jan-13	10:12:05	Hi-Speed Ferry		95	4	40	221	17	40	N	22.26866	E	113.86584	628.66	273.29
26-Jan-13	10:13:03	Hi-Speed Ferry		97	21	50	274	24	30	N	22.27157	E	113.86962	432.09	326.41
26-Jan-13	10:13:25	Research Vessel	Traveling	91	18	40	340	50	30	N	22.28693	E	113.88492	2459.97	32.84
26-Jan-13	10:13:40	Hi-Speed Ferry		95	23	40	307	6	20	N	22.27366	E	113.87185	591.49	359.10
26-Jan-13	10:14:28	Hi-Speed Ferry		93	27	40	325	34	40	N	22.27626	E	113.87466	924.12	17.57
26-Jan-13	10:14:42	Sand Barge		91	24	40	299	18	20	N	22.28864	E	113.86859	2282.81	351.30
26-Jan-13	10:15:24	Hi-Speed Ferry		92	18	10	333	40	30	N	22.27962	E	113.87781	1391.98	25.67
26-Jan-13	10:16:03	Sand Barge		91	17	30	294	48	0	N	22.29021	E	113.86640	2497.46	346.80
26-Jan-13	10:16:25	Fishing boat	Non-operating	92	30	10	335	18	0	N	22.27857	E	113.87765	1280.05	27.30
26-Jan-13	10:16:41	Research Vessel	Traveling	91	23	50	338	13	10	N	22.28626	E	113.88323	2305.71	30.22
26-Jan-13	10:16:50	Hi-Speed Ferry		91	31	10	338	28	10	N	22.28476	E	113.88239	2117.69	30.47

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
26-Jan-13	10:17:05	Fishing boat	Non-operating	92	41	40	327	34	20	N	22.27841	E	113.87582	1188.47	19.57
26-Jan-13	10:19:10	Fishing boat	Operating	92	51	0	316	23	50	N	22.27833	E	113.87354	1123.19	8.39
26-Jan-13	10:21:08	Research Vessel	Traveling	92	16	0	329	24	40	N	22.28018	E	113.87696	1414.05	21.41
26-Jan-13	10:22:53	Fishing boat	Operating	93	11	10	317	0	0	N	22.27726	E	113.87347	1004.02	9.00
26-Jan-13	10:23:08	Research Vessel	Traveling	93	11	0	325	37	50	N	22.27695	E	113.87490	1004.90	17.63
26-Jan-13	10:25:11	Dolphin	Surface	93	59	40	230	9	20	N	22.26985	E	113.86434	799.99	282.15
26-Jan-13	10:25:52	Dolphin	Surface	94	12	0	233	36	20	N	22.27017	E	113.86482	760.65	285.60
26-Jan-13	10:26:10	Dolphin	Surface	94	6	40	234	52	40	N	22.27036	E	113.86471	777.19	286.87
26-Jan-13	10:26:28	Dolphin	Surface	94	20	0	236	25	30	N	22.27043	E	113.86514	737.13	288.42
26-Jan-13	10:26:45	Dolphin	Surface	94	27	0	237	39	10	N	22.27051	E	113.86537	717.71	289.65
26-Jan-13	10:27:55	Research Vessel	Traveling	96	31	30	251	54	0	N	22.27078	E	113.86800	488.16	303.90
26-Jan-13	10:28:49	Research Vessel	Traveling	95	25	10	235	33	10	N	22.26993	E	113.86649	588.63	287.55
26-Jan-13	10:33:22	Dolphin	Surface	94	4	0	223	45	30	N	22.26904	E	113.86434	785.84	275.76
26-Jan-13	10:33:38	Research Vessel	Dolphin follow	94	17	30	219	13	50	N	22.26848	E	113.86471	744.44	271.23
26-Jan-13	10:34:16	Dolphin	Surface	93	45	20	222	21	20	N	22.26891	E	113.86369	851.30	274.35
26-Jan-13	10:36:53	Research Vessel	Dolphin follow	93	38	50	215	38	40	N	22.26801	E	113.86343	876.76	267.64
26-Jan-13	10:37:59	Research Vessel	Traveling	93	23	0	212	44	30	N	22.26755	E	113.86279	945.51	264.74
26-Jan-13	10:38:42	Research Vessel	Traveling	93	2	50	209	6	10	N	22.26687	E	113.86185	1050.35	261.10
26-Jan-13	10:41:50	Scan_dolphin		92	1	50	300	38	10	N	22.28244	E	113.86997	1580.26	352.63
26-Jan-13	10:43:45	Dolphin	Surface	92	33	30	300	13	10	N	22.27950	E	113.87029	1252.37	352.22
26-Jan-13	10:47:19	Dolphin	Surface	96	7	20	267	52	40	N	22.27192	E	113.86868	520.78	319.87
26-Jan-13	10:47:48	Fishing boat	Operating	95	44	0	286	52	50	N	22.27300	E	113.86999	556.40	338.88
26-Jan-13	10:48:22	Dolphin	Surface	97	14	40	259	18	40	N	22.27094	E	113.86873	439.39	311.31
26-Jan-13	10:49:22	Dolphin	Surface	98	38	30	254	31	10	N	22.27030	E	113.86907	367.49	306.52
26-Jan-13	10:50:24	Dolphin	Surface	99	59	0	246	50	20	N	22.26971	E	113.86924	317.28	298.84
26-Jan-13	10:50:36	Dolphin	Surface	100	4	40	247	19	0	N	22.26972	E	113.86928	314.24	299.31
26-Jan-13	10:50:54	Dolphin	Surface	99	28	10	247	40	10	N	22.26982	E	113.86911	334.85	299.67
26-Jan-13	10:51:12	Dolphin	Surface	99	35	50	248	51	0	N	22.26986	E	113.86919	330.31	300.85
26-Jan-13	10:51:33	Dolphin	Surface	98	42	20	246	9	30	N	22.26988	E	113.86882	364.77	298.16
26-Jan-13	10:51:44	Dolphin	Surface	98	34	40	245	0	40	N	22.26985	E	113.86874	370.29	297.01
26-Jan-13	10:51:50	Dolphin	Surface	98	37	0	245	8	10	N	22.26985	E	113.86875	368.59	297.13
26-Jan-13	10:52:00	Dolphin	Surface	98	38	10	245	11	0	N	22.26985	E	113.86876	367.75	297.18
26-Jan-13	10:52:08	Dolphin	Surface	98	38	20	245	15	0	N	22.26985	E	113.86877	367.63	297.25
26-Jan-13	10:52:14	Dolphin	Surface	98	42	50	245	24	0	N	22.26984	E	113.86880	364.42	297.40
26-Jan-13	10:52:29	Dolphin	Surface	98	56	10	245	7	50	N	22.26979	E	113.86887	355.21	297.13
26-Jan-13	10:52:58	Dolphin	Surface	99	43	20	246	31	30	N	22.26973	E	113.86916	325.99	298.52
26-Jan-13	10:53:17	Dolphin	Surface	99	59	10	243	30	10	N	22.26956	E	113.86916	317.21	295.50
26-Jan-13	10:53:33	Dolphin	Surface	100	22	20	244	22	30	N	22.26955	E	113.86929	305.15	296.37
26-Jan-13	10:53:46	Dolphin	Surface	101	25	40	243	46	10	N	22.26941	E	113.86952	276.30	295.77
26-Jan-13	10:54:09	Dolphin	Surface	102	1	30	246	37	40	N	22.26946	E	113.86971	262.20	298.62
26-Jan-13	10:54:21	Dolphin	Surface	102	47	20	246	48	20	N	22.26940	E	113.86985	246.05	298.80
26-Jan-13	10:54:35	Dolphin	Surface	103	58	30	242	59	40	N	22.26919	E	113.86997	224.42	294.99
26-Jan-13	10:54:51	Dolphin	Surface	103	33	0	240	59	10	N	22.26915	E	113.86987	231.75	292.98
26-Jan-13	10:55:02	Dolphin	Surface	103	50	20	241	0	50	N	22.26913	E	113.86992	226.72	293.01
26-Jan-13	10:55:20	Dolphin	Surface	103	43	30	245	0	50	N	22.26927	E	113.86996	228.68	297.01
26-Jan-13	10:55:36	Dolphin	Surface	103	2	30	247	25	50	N	22.26940	E	113.86990	241.12	299.43
26-Jan-13	10:55:48	Dolphin	Surface	102	48	10	249	50	40	N	22.26950	E	113.86991	245.78	301.84
26-Jan-13	10:56:47	Dolphin	Surface	103	50	50	249	55	40	N	22.26941	E	113.87007	226.59	301.92
26-Jan-13	10:57:00	Dolphin	Surface	103	43	10	253	3	50	N	22.26952	E	113.87012	228.78	305.06
26-Jan-13	10:57:17	Dolphin	Surface	103	35	20	254	32	20	N	22.26957	E	113.87014	231.07	306.54
26-Jan-13	10:57:31	Dolphin	Breach	98	10	50	277	4	50	N	22.27133	E	113.87000	388.59	329.08
26-Jan-13	10:57:43	Dolphin	Surface	104	38	10	253	10	20	N	22.26944	E	113.87024	213.87	305.17
26-Jan-13	10:58:06	Dolphin	Surface	104	58	30	252	26	30	N	22.26940	E	113.87027	208.81	304.44
26-Jan-13	10:59:09	Dolphin	Surface	107	40	20	246	58	0	N	22.26910	E	113.87045	175.31	298.96
26-Jan-13	10:59:35	Dolphin	Surface	102	43	20	259	37	40	N	22.26981	E	113.87015	247.41	311.62
26-Jan-13	10:59:54	Dolphin	Surface	102	43	30	258	51	0	N	22.26979	E	113.87012	247.36	310.85
26-Jan-13	11:00:06	Dolphin	Surface	103	27	30	256	54	40	N	22.26965	E	113.87018	233.41	308.91
26-Jan-13	11:00:19	Dolphin	Surface	103	16	30	256	31	20	N	22.26966	E	113.87014	236.76	308.52
26-Jan-13	11:00:28	Dolphin	Surface	103	25	10	255	52	0	N	22.26963	E	113.87015	234.11	307.86
26-Jan-13	11:00:57	Dolphin	Surface	104	45	50	257	25	10	N	22.26954	E	113.87035	211.95	309.42
26-Jan-13	11:01:02	Dolphin	Surface	104	14	20	256	53	30	N	22.26958	E	113.87028	220.12	308.89
26-Jan-13	11:01:19	Dolphin	Surface	103	56	20	254	13	20	N	22.26953	E	113.87018	225.06	306.22
26-Jan-13	11:02:32	Dolphin	Surface	105	12	20	262	54	20	N	22.26964	E	113.87053	205.52	314.90
26-Jan-13	11:02:49	Dolphin	Surface	105	4	40	263	41	20	N	22.26967	E	113.87054	207.34	315.69
26-Jan-13	11:03:32	Dolphin	Surface	104	42	20	262	58	20	N	22.26969	E	113.87048	212.84	314.97
26-Jan-13	11:03:51	Speedboat	Traveling	100	0	30	349	32	50	N	22.27047	E	113.87399	316.56	41.54
26-Jan-13	11:04:00	Speedboat	Traveling	103	7	20	340	13	30	N	22.27016	E	113.87319	239.63	32.22
26-Jan-13	11:04:06	Speedboat	Traveling	106	55	20	330	11	10	N	22.26986	E	113.87262	183.60	22.18
26-Jan-13	11:04:14	Dolphin	Surface	103	22	50	263	29	0	N	22.26984	E	113.87034	234.84	315.48
26-Jan-13	11:04:26	Speedboat	Traveling	113	39	40	256	27	30	N	22.26905	E	113.87097	127.49	308.46
26-Jan-13	11:04:39	Dolphin	Surface	103	40	0	260	16	20	N	22.26972	E	113.87029	229.74	312.27
26-Jan-13	11:04:50	Dolphin	Surface	103	27	30	259	17	50	N	22.26972	E	113.87024	233.43	311.29
26-Jan-13	11:04:55	Dolphin	Surface	103	33	0	259	4	30	N	22.26970	E	113.87025	231.79	311.07
26-Jan-13	11:05:01	Dolphin	Surface	103	42	0	259	57	10	N	22.26971	E	113.87029	229.16	311.95
26-Jan-13	11:05:11	Dolphin	Surface	103	53	30	260	47	10	N	22.26971	E	113.87033	225.87	312.78
26-Jan-13	11:05:24	Dolphin	Surface	104	6	40	260	29	20	N	22.26968	E	113.87035	222.22	312.49
26-Jan-13	11:05:36	Dolphin	Surface	104	4	40	262	41	10	N	22.26974	E	113.87040	222.77	314.68
26-Jan-13	11:05:49	Dolphin	Surface	104	24	10	265	13	50	N	22.26977	E	113.87051	217.53	317.23
26-Jan-13	11:06:06	Dolphin	Surface	104	50	40	268	1	20	N	22.26979	E	113.87063	210.77	320.02
26-Jan-13	11:06:30	Dolphin	Surface	104	39	10	272	33	10	N	22.26990	E	113.87074	213.66	324.55
26-Jan-13	11:07:06	Dolphin	Surface	105	9	30	275	33	20	N	22.26990	E	113.87087	206.21	327.55
26-Jan-13	11:07:30	Dolphin	Surface	105	23	40	274	28	40	N	22.26986	E	113.87085	202.89	326.47
26-Jan-13	11:07:38	Dolphin	Surface	105	3	0	275	18	30	N	22.26991	E	113.87085	207.77	327.31
26-Jan-13	11:07:55	Dolphin	Surface	105	17	20	275	57	50	N	22.26989	E	113.87089	204.36	327.96
26-Jan-13	11:08:05	Dolphin	Surface	104	37	40	272	57	0	N	22.26991	E	113.87075	214.05	324.95
26-Jan-13	11:08:31	Fishing boat	Non-operating	117	52	10	298	20	0	N	22.26927	E	113.87177	105.64	350.33
26-Jan-13	11:08:45	Fishing boat	Non-operating	115	42	30	319	55	30	N	22.26936	E	113.87218	116.03	11.92
26-Jan-13	11:08:50	Dolphin	Surface	106	13	20	266	15	30	N	22.26962	E	113.87070	192.01	318.26
26-Jan-13	11:09:15	Dolphin	Surface	106	47	10	269	51	20	N	22.26964	E	113.87083	185.20	321.85
26-Jan-13	11:09:32	Dolphin	Surface	106	23	0	271	7	10	N	22.26970	E	113.87084	190.02	323.12
26-Jan-13	11:10:18	Dolphin	Surface	104	49	40	276	18	30	N	22.26995	E	113.87087	211.04	328.31
26-Jan-13	11:10:49	Dolphin	Surface	105	24	10	270	57	10	N	22.26979	E	113.87076	202.79	322.95
26-Jan-13	11:11:00	Dolphin	Surface	104	14	50	267	40	30	N	22.26984	E	113.87056	220.03	319.67
26-Jan-13	11:11:41	Dolphin	Surface	104	39	50	263	22	0	N	22.26970	E	113.87049	213.51	315.36
26-Jan-13	11:11:47	Dolphin	Surface	105	25	0	263	3	40	N	22.26962	E	113.87055	202.60	315.06
26-Jan-13	11:11:55	Dolphin	Surface	105	56	50	263	34	50	N	22.26959	E	113.87061	195.52	315.58
26-Jan-13	11:12:02	Dolphin	Surface	105	44	0	264	1	0	N	22.26962	E	113.87061	198.32	316.01
26-Jan-13	11:12:18	Dolphin	Surface	105	41	40	263	45	0	N	22.26962	E	113.87060	198.84	315.75
26-Jan-13	11:12:28	Dolphin	Surface	105	22	50	261	51	10	N	22.26960	E	113.87052	203.11	313.85
26-Jan-13	11:12:34	Dolphin	Surface	105	5	40	259	57	10	N	22.26958	E	113.87045	207.15	311.95
26-Jan-13	11:12:39	Dolphin	Surface	104	53	10	258	38	20	N	22.26957	E	113.87039	210.18	310.64

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
26-Jan-13	11:12:49	Dolphin	Surface	104	50	0	255	38	20	N	22.26949	E	113.87032	210.97	307.64
26-Jan-13	11:13:13	Dolphin	Surface	104	32	40	252	15	10	N	22.26942	E	113.87021	215.35	304.25
26-Jan-13	11:13:43	Dolphin	Surface	103	33	40	249	44	30	N	22.26943	E	113.87003	231.64	301.74
26-Jan-13	11:13:52	Dolphin	Surface	103	24	50	251	14	20	N	22.26949	E	113.87004	234.28	303.24
26-Jan-13	11:14:20	Dolphin	Surface	103	5	0	251	49	40	N	22.26954	E	113.87000	240.42	303.82
26-Jan-13	11:14:24	Dolphin	Surface	102	55	30	250	47	30	N	22.26952	E	113.86995	243.47	302.79
26-Jan-13	11:15:19	Dolphin	Surface	101	34	30	239	41	10	N	22.26924	E	113.86948	272.81	291.68
26-Jan-13	11:16:01	Dolphin	Surface	101	25	10	240	38	0	N	22.26929	E	113.86946	276.64	292.63
26-Jan-13	11:16:26	Dolphin	Surface	100	54	0	238	45	50	N	22.26926	E	113.86931	290.17	290.76
26-Jan-13	11:16:50	Dolphin	Surface	100	39	10	238	11	0	N	22.26926	E	113.86923	297.07	290.18
26-Jan-13	11:17:01	Dolphin	Surface	100	43	20	240	15	40	N	22.26934	E	113.86929	295.11	292.26
26-Jan-13	11:17:15	Dolphin	Surface	100	39	0	241	52	50	N	22.26942	E	113.86930	297.16	293.88
26-Jan-13	11:17:35	Dolphin	Surface	100	25	20	243	13	10	N	22.26950	E	113.86927	303.81	295.22
26-Jan-13	11:17:51	Research Vessel	Traveling	94	50	50	236	58	50	N	22.27026	E	113.86588	659.27	288.98
26-Jan-13	11:18:00	Dolphin	Surface	99	54	0	244	3	40	N	22.26960	E	113.86915	320.19	296.06
26-Jan-13	11:18:17	Dolphin	Surface	100	13	30	244	54	0	N	22.26959	E	113.86926	309.80	296.90
26-Jan-13	11:18:33	Dolphin	Surface	100	23	50	246	15	50	N	22.26963	E	113.86934	304.56	298.26
26-Jan-13	11:18:52	Research Vessel	Dolphin follow	96	41	40	250	30	0	N	22.27064	E	113.86804	476.19	302.50
26-Jan-13	11:19:10	Dolphin	Surface	100	47	50	248	4	40	N	22.26965	E	113.86948	293.02	300.07
26-Jan-13	11:19:32	Dolphin	Surface	101	12	20	247	26	40	N	22.26958	E	113.86956	282.08	299.44
26-Jan-13	11:19:41	Dolphin	Surface	101	14	10	247	0	10	N	22.26956	E	113.86955	281.29	299.00
26-Jan-13	11:19:52	Dolphin	Surface	101	12	0	246	35	50	N	22.26955	E	113.86953	282.23	298.59
26-Jan-13	11:20:01	Dolphin	Surface	101	31	40	243	31	20	N	22.26940	E	113.86954	273.99	295.52
26-Jan-13	11:20:13	Dolphin	Surface	102	3	50	240	37	40	N	22.26924	E	113.86960	261.47	292.62
26-Jan-13	11:20:34	Dolphin	Surface	101	2	30	235	39	30	N	22.26911	E	113.86929	286.38	287.66
26-Jan-13	11:21:21	Research Vessel	Dolphin follow	101	35	30	269	25	10	N	22.27025	E	113.87029	272.44	321.42
26-Jan-13	11:22:30	Research Vessel	Dolphin follow	102	37	10	255	0	30	N	22.26969	E	113.87001	249.61	307.01
26-Jan-13	11:23:51	Research Vessel	Dolphin follow	100	29	50	229	58	20	N	22.26890	E	113.86908	301.62	281.97
26-Jan-13	11:26:33	Dolphin	Surface	95	42	0	215	32	0	N	22.26812	E	113.86650	560.13	267.53
26-Jan-13	11:27:34	Other	Traveling	92	41	50	268	50	30	N	22.27663	E	113.86464	1188.61	320.84
26-Jan-13	11:28:17	Other	Traveling	92	51	10	255	19	20	N	22.27446	E	113.86326	1123.48	307.32
26-Jan-13	11:29:22	Other	Traveling	92	43	0	234	44	30	N	22.27139	E	113.86095	1180.10	286.74
26-Jan-13	11:31:06	Other	Traveling	92	4	50	209	35	0	N	22.26630	E	113.85710	1543.58	261.58
26-Jan-13	11:33:33	Speedboat	Traveling	93	35	40	358	46	0	N	22.27340	E	113.87865	890.74	50.76
26-Jan-13	11:34:30	Speedboat	Traveling	112	53	40	301	10	30	N	22.26952	E	113.87179	132.36	353.17
26-Jan-13	11:37:34	Fishing boat	Operating	99	29	50	5	53	20	N	22.26993	E	113.87470	334.18	57.89
26-Jan-13	11:37:47	Fishing boat	Operating	99	51	10	9	24	0	N	22.26972	E	113.87469	321.89	61.40
26-Jan-13	11:37:58	Fishing boat	Operating	99	55	0	10	33	30	N	22.26966	E	113.87470	319.77	62.56
26-Jan-13	11:38:19	Fishing boat	Operating	98	58	30	14	12	30	N	22.26962	E	113.87509	353.98	66.21
26-Jan-13	11:38:29	Dolphin	Surface	98	19	50	0	18	30	N	22.27043	E	113.87488	381.82	52.31
26-Jan-13	11:39:19	Fishing boat	Operating	98	18	20	14	28	30	N	22.26971	E	113.87536	382.99	66.47
26-Jan-13	11:39:45	Dolphin	Surface	99	18	20	2	18	0	N	22.27013	E	113.87464	341.20	54.30
26-Jan-13	11:40:22	Dolphin	Surface	99	46	20	1	49	50	N	22.27006	E	113.87449	324.61	53.83
26-Jan-13	11:41:01	Scan_dolphin		99	17	30	2	24	30	N	22.27012	E	113.87465	341.73	54.41
26-Jan-13	11:41:24	Dolphin	Surface	100	21	10	2	37	30	N	22.26993	E	113.87437	306.04	54.62
26-Jan-13	11:42:26	Fishing boat	Non-operating	97	15	40	351	36	10	N	22.27119	E	113.87489	438.86	43.60
26-Jan-13	11:42:39	Fishing boat	Non-operating	98	39	40	348	14	0	N	22.27086	E	113.87425	367.06	40.23
26-Jan-13	11:43:02	Fishing boat	Operating	98	53	50	4	6	30	N	22.27013	E	113.87483	357.16	56.11
26-Jan-13	11:43:54	Dolphin	Surface	101	1	0	5	35	30	N	22.26972	E	113.87430	287.19	57.59
26-Jan-13	11:44:13	Fishing boat	Operating	99	29	0	1	56	50	N	22.27011	E	113.87458	334.72	53.94
26-Jan-13	11:44:43	Fishing boat	Operating	101	11	30	9	5	30	N	22.26956	E	113.87435	282.59	61.09
26-Jan-13	11:45:16	Fishing boat	Operating	101	4	20	8	49	10	N	22.26959	E	113.87437	285.72	60.82
26-Jan-13	11:46:22	Dolphin	Surface	99	43	50	0	40	20	N	22.27011	E	113.87447	326.07	52.67
26-Jan-13	11:46:36	Fishing boat	Operating	101	4	0	4	20	50	N	22.26976	E	113.87426	285.87	56.34
26-Jan-13	11:47:57	Dolphin	Surface	100	17	20	350	24	30	N	22.27038	E	113.87396	308.02	42.41
26-Jan-13	11:48:15	Dolphin	Surface	100	16	0	349	53	40	N	22.27040	E	113.87395	308.71	41.89
26-Jan-13	11:48:31	Dolphin	Surface	100	48	10	349	4	40	N	22.27032	E	113.87382	293.04	41.07
26-Jan-13	11:48:39	Dolphin	Surface	100	57	20	347	36	10	N	22.27034	E	113.87373	288.86	39.60
26-Jan-13	11:48:51	Dolphin	Surface	101	25	20	345	37	10	N	22.27031	E	113.87359	276.76	37.62
26-Jan-13	11:48:55	Dolphin	Surface	101	30	30	343	56	20	N	22.27033	E	113.87351	274.63	35.94
26-Jan-13	11:49:05	Fishing boat	Operating	103	25	50	0	43	40	N	22.26961	E	113.87376	234.15	52.72
26-Jan-13	11:49:48	Fishing boat	Non-operating	105	49	50	351	17	10	N	22.26963	E	113.87326	197.19	43.28
26-Jan-13	11:50:05	Fishing boat	Non-operating	108	27	0	338	11	10	N	22.26964	E	113.87276	167.59	30.18
26-Jan-13	11:50:18	Dolphin	Surface	101	8	10	330	8	0	N	22.27070	E	113.87299	284.07	22.13
26-Jan-13	11:50:25	Dolphin	Surface	100	49	10	329	8	30	N	22.27079	E	113.87297	292.59	21.14
26-Jan-13	11:50:32	Dolphin	Surface	100	53	50	327	39	0	N	22.27080	E	113.87289	290.45	19.65
26-Jan-13	11:50:37	Dolphin	Fluke Up	101	5	50	326	4	10	N	22.27077	E	113.87280	285.09	18.07
26-Jan-13	11:50:57	Fishing boat	Non-operating	109	39	30	279	45	20	N	22.26957	E	113.87122	156.52	331.75
26-Jan-13	11:51:08	Hi-Speed Ferry		92	54	30	320	53	10	N	22.27800	E	113.87433	1102.43	12.88
26-Jan-13	11:51:21	Fishing boat	Non-operating	108	33	10	269	50	50	N	22.26951	E	113.87094	166.60	321.84
26-Jan-13	11:52:38	Hi-Speed Ferry		95	1	30	291	28	40	N	22.27382	E	113.87018	636.26	343.47
26-Jan-13	11:53:18	Dolphin	Fluke Up	105	56	0	285	44	20	N	22.26996	E	113.87122	195.87	337.74
26-Jan-13	11:53:42	Dolphin	Surface	106	36	10	277	50	20	N	22.26979	E	113.87103	187.54	329.84
26-Jan-13	11:53:50	Dolphin	Surface	106	35	50	274	14	20	N	22.26974	E	113.87093	187.61	326.24
26-Jan-13	11:54:15	Hi-Speed Ferry		94	41	40	226	32	30	N	22.26924	E	113.86539	681.37	278.54
26-Jan-13	11:54:28	Fishing boat	Non-operating	109	3	0	261	14	20	N	22.26933	E	113.87080	161.94	313.24
26-Jan-13	11:56:27	Dolphin	Surface	101	25	20	248	19	50	N	22.26959	E	113.86962	276.80	300.33
26-Jan-13	11:56:39	Dolphin	Surface	100	49	0	245	11	50	N	22.26954	E	113.86941	292.71	297.19
26-Jan-13	11:57:04	Dolphin	Surface	99	51	0	240	21	50	N	22.26944	E	113.86905	322.11	292.36
26-Jan-13	11:57:22	Dolphin	Surface	99	9	50	238	46	0	N	22.26944	E	113.86879	346.70	290.76
26-Jan-13	11:58:39	Dolphin	Surface	97	5	50	236	2	30	N	22.26959	E	113.86779	449.26	288.04
26-Jan-13	11:59:02	Dolphin	Surface	96	45	30	231	13	50	N	22.26931	E	113.86748	472.04	283.23
26-Jan-13	11:59:55	Dolphin	Surface	96	26	20	227	14	20	N	22.26905	E	113.86719	495.69	279.24
26-Jan-13	12:00:35	Dolphin	Surface	96	18	50	226	37	40	N	22.26902	E	113.86708	505.60	278.62
26-Jan-13	12:00:41	Dolphin	Surface	96	18	0	226	26	10	N	22.26900	E	113.86707	506.73	278.43
26-Jan-13	12:01:08	Dolphin	Surface	96	18	30	225	25	10	N	22.26892	E	113.86706	506.06	277.42
26-Jan-13	12:01:31	Dolphin	Surface	96	4	30	225	27	40	N	22.26895	E	113.86688	525.67	277.46
26-Jan-13	12:01:36	Dolphin	Surface	96	0	0	225	6	0	N	22.26893	E	113.86681	532.29	277.10
26-Jan-13	12:01:44	Dolphin	Surface	95	57	30	224	30	0	N	22.26888	E	113.86677	536.05	276.50
26-Jan-13	12:01:48	Dolphin	Surface	95	55	10	224	11	40	N	22.26886	E	113.86673	539.60	276.19
26-Jan-13	12:02:37	Dolphin	Surface	95	53	20	225	24	10	N	22.26896	E	113.86671	542.43	277.40
26-Jan-13	12:02:52	Dolphin	Surface	95	41	50	226	10	20	N	22.26905	E	113.86655	560.83	278.17
26-Jan-13	12:03:00	Dolphin	Surface	95	39	10	226	4	40	N	22.26905	E	113.86650	565.27	278.07
26-Jan-13	12:03:08	Dolphin	Fluke Up	95	40	20	225	56	50	N	22.26903	E	113.86652	563.32	277.94
26-Jan-13	12:03:32	Hi-Speed Ferry		93	12	50	341	22	30	N	22.27583	E	113.87728	997.38	33.37
26-Jan-13	12:03:58	Dolphin	Surface	95	14	10	225	21	20	N	22.26904	E	113.86606	610.59	277.35
26-Jan-13	12:04:09	Dolphin	Surface	95	8	10	223	29	20	N	22.26887	E	113.86592	622.56	275.49
26-Jan-13	12:05:09	Dolphin	Surface	94	35	50	221	0	20	N	22.26866	E	113.86519	696.02	273.00
26-Jan-13	12:05:36	Dolphin	Surface	94	32	20	220	53	50	N	22.26865	E	113.86510	705.02	272.89
26-Jan-13	12:05:59	Dolphin	Surface	94	30	0	220	34	0	N	22.26862	E	113.86504	711.15	272.56
26-Jan-13	12:06:14	Hi-Speed Ferry		97	54	0	240	47	20	N	22.26974	E	113.86833	403.15	292.79

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
26-Jan-13	12:06:47	Dolphin	Surface	94	12	10	219	30	50	N	22.26851	E	113.86454	761.74	271.51
26-Jan-13	12:06:53	Dolphin	Surface	94	18	20	218	52	50	N	22.26844	E	113.86472	743.46	270.88
26-Jan-13	12:07:03	Dolphin	Surface	94	15	0	218	51	20	N	22.26843	E	113.86462	753.24	270.85
26-Jan-13	12:07:10	Dolphin	Surface	94	13	30	219	3	0	N	22.26846	E	113.86458	757.72	271.05
26-Jan-13	12:07:25	Dolphin	Surface	94	10	50	219	3	50	N	22.26846	E	113.86450	765.82	271.06
26-Jan-13	12:07:31	Dolphin	Surface	94	10	40	219	15	40	N	22.26848	E	113.86449	766.33	271.26
26-Jan-13	12:07:42	Dolphin	Surface	94	6	50	218	41	0	N	22.26842	E	113.86438	778.30	270.68
26-Jan-13	12:07:50	Dolphin	Surface	94	2	40	218	9	0	N	22.26835	E	113.86425	791.73	270.15
26-Jan-13	12:08:37	Dolphin	Surface	93	54	0	215	46	30	N	22.26805	E	113.86396	821.22	267.77
26-Jan-13	12:08:41	Dolphin	Fluke Up	93	48	10	215	35	20	N	22.26801	E	113.86376	842.32	267.59
26-Jan-13	12:22:53	Research Vessel	Traveling	92	10	40	224	37	30	N	22.26986	E	113.85769	1475.76	276.62
26-Jan-13	12:26:40	Research Vessel	Traveling	92	35	40	258	26	50	N	22.27556	E	113.86279	1237.48	310.44
26-Jan-13	12:29:19	Fishing boat	Non-operating	115	10	0	265	14	10	N	22.26912	E	113.87116	119.10	317.23
26-Jan-13	12:31:59	Fishing boat	Non-operating	98	50	40	12	10	0	N	22.26974	E	113.87509	359.70	64.16
26-Jan-13	12:32:17	Research Vessel	Traveling	91	41	10	294	55	20	N	22.28508	E	113.86774	1910.75	346.92
26-Jan-13	12:33:35	Speedboat	Traveling	111	41	0	270	4	30	N	22.26933	E	113.87110	140.75	322.07
26-Jan-13	12:33:43	Speedboat	Traveling	109	57	50	301	49	30	N	22.26971	E	113.87178	154.06	353.82
26-Jan-13	12:33:53	Speedboat	Traveling	104	1	50	327	18	40	N	22.27024	E	113.87266	223.96	19.31
26-Jan-13	12:33:58	Speedboat	Traveling	101	45	20	334	54	30	N	22.27049	E	113.87313	268.94	26.91
26-Jan-13	12:34:09	Speedboat	Traveling	110	50	30	262	24	40	N	22.26926	E	113.87092	147.00	314.41
26-Jan-13	12:34:14	Speedboat	Traveling	111	31	30	284	11	40	N	22.26950	E	113.87139	141.89	336.19
26-Jan-13	12:34:19	Speedboat	Traveling	109	27	10	303	22	50	N	22.26975	E	113.87182	158.45	355.38
26-Jan-13	12:34:30	Speedboat	Traveling	103	56	20	328	53	50	N	22.27023	E	113.87273	225.49	20.89
26-Jan-13	12:35:02	Speedboat	Traveling	93	34	20	359	55	50	N	22.27331	E	113.87882	897.45	51.93
26-Jan-13	12:35:09	Speedboat	Traveling	95	30	50	356	7	0	N	22.27182	E	113.87614	580.00	48.11
26-Jan-13	12:35:52	Speedboat	Traveling	92	25	40	6	52	0	N	22.27449	E	113.88296	1323.20	58.86
26-Jan-13	12:35:58	Speedboat	Traveling	93	1	20	4	34	10	N	22.27360	E	113.88056	1061.67	56.57
26-Jan-13	12:36:43	Speedboat	Stationary	92	25	10	7	38	10	N	22.27437	E	113.88309	1327.81	59.63
26-Jan-13	12:36:53	Speedboat	Stationary	92	23	50	7	56	30	N	22.27437	E	113.88322	1340.20	59.94
26-Jan-13	12:40:55	Fishing boat	Non-operating	92	25	20	4	3	50	N	22.27500	E	113.88265	1326.40	56.06
26-Jan-13	12:42:02	Fishing boat	Non-operating	92	7	0	0	40	40	N	22.27662	E	113.88369	1519.29	52.67
26-Jan-13	12:49:18	Dolphin	Surface	93	32	50	245	48	40	N	22.27213	E	113.86417	904.08	297.81
26-Jan-13	12:49:37	Dolphin	Fluke Up	93	51	10	246	32	20	N	22.27191	E	113.86484	832.04	298.54
26-Jan-13	12:50:47	Dolphin	Surface	93	49	30	249	29	40	N	22.27227	E	113.86499	838.14	301.49
26-Jan-13	12:51:28	Dolphin	Fluke Up	93	54	50	251	22	40	N	22.27239	E	113.86529	819.02	303.37
26-Jan-13	12:52:04	Dolphin	Fluke Up	93	55	30	252	52	50	N	22.27254	E	113.86543	816.70	304.88
26-Jan-13	12:53:08	Dolphin	Fluke Up	94	1	0	255	5	0	N	22.27266	E	113.86575	797.99	307.08
26-Jan-13	12:55:19	Dolphin	Surface	94	0	0	260	4	0	N	22.27316	E	113.86616	801.36	312.06
26-Jan-13	12:55:41	Dolphin	Surface	93	59	50	261	18	10	N	22.27328	E	113.86627	801.93	313.30
26-Jan-13	12:55:57	Dolphin	Surface	94	0	20	261	52	50	N	22.27332	E	113.86633	800.26	313.88
26-Jan-13	12:57:09	Dolphin	Surface	93	59	30	266	31	50	N	22.27375	E	113.86677	803.08	318.53
26-Jan-13	12:57:18	Dolphin	Fluke Up	94	1	0	267	10	40	N	22.27377	E	113.86687	798.05	319.17
26-Jan-13	12:57:34	Speedboat	Traveling	97	0	30	302	7	20	N	22.27241	E	113.87149	455.58	354.12
26-Jan-13	12:57:56	Speedboat	Traveling	97	55	50	274	52	0	N	22.27136	E	113.86981	402.01	326.86
26-Jan-13	12:58:10	Speedboat	Traveling	97	24	50	254	39	20	N	22.27065	E	113.86859	430.39	306.65
26-Jan-13	12:58:21	Speedboat	Traveling	96	35	40	242	14	20	N	22.27012	E	113.86765	484.48	294.24
26-Jan-13	12:59:16	Dolphin	Surface	94	14	30	273	24	20	N	22.27393	E	113.86777	755.54	325.40
26-Jan-13	12:59:25	Dolphin	Fluke Up	94	16	0	273	55	20	N	22.27393	E	113.86785	751.09	325.92
26-Jan-13	13:01:25	Dolphin	Surface	94	21	0	278	15	50	N	22.27409	E	113.86839	736.66	330.26
26-Jan-13	13:02:03	Dolphin	Fluke Up	94	23	10	279	17	50	N	22.27410	E	113.86853	730.57	331.29
26-Jan-13	13:02:52	Dolphin	Surface	94	22	20	279	59	40	N	22.27416	E	113.86860	732.92	331.99
26-Jan-13	13:06:29	Police Vessel	Traveling	91	50	10	235	8	20	N	22.27298	E	113.85564	1754.40	287.14
26-Jan-13	13:07:19	Dolphin	Fluke Up	93	45	30	283	38	20	N	22.27533	E	113.86852	853.37	335.64
26-Jan-13	13:08:34	Dolphin	Surface	93	42	30	286	46	10	N	22.27559	E	113.86890	864.96	338.77
26-Jan-13	13:08:54	Dolphin	Surface	93	41	40	287	47	0	N	22.27567	E	113.86903	868.23	339.78
26-Jan-13	13:11:22	Dolphin	Fluke Up	93	24	0	293	39	10	N	22.27656	E	113.86967	943.85	345.65
26-Jan-13	13:12:54	Dolphin	Surface	93	21	20	293	34	10	N	22.27667	E	113.86963	956.44	345.57
26-Jan-13	13:13:20	Dolphin	Surface	93	18	40	293	31	0	N	22.27678	E	113.86959	969.35	345.51
26-Jan-13	13:15:22	Dolphin	Surface	93	29	30	295	8	40	N	22.27640	E	113.86996	919.03	347.14
26-Jan-13	13:15:27	Dolphin	Surface	93	33	30	295	14	30	N	22.27625	E	113.87001	901.73	347.24
26-Jan-13	13:18:19	Dolphin	Surface	94	50	10	295	48	30	N	22.27416	E	113.87058	662.44	347.81
26-Jan-13	13:18:27	Dolphin	Surface	94	51	10	296	13	0	N	22.27415	E	113.87063	660.16	348.21
26-Jan-13	13:18:36	Dolphin	Surface	94	50	50	296	29	40	N	22.27416	E	113.87066	660.92	348.49
26-Jan-13	13:18:44	Dolphin	Surface	94	48	0	296	32	40	N	22.27422	E	113.87065	667.46	348.54
26-Jan-13	13:19:24	Dolphin	Surface	94	35	10	297	2	20	N	22.27451	E	113.87065	698.79	349.04
26-Jan-13	13:19:28	Dolphin	Surface	94	33	30	297	6	10	N	22.27455	E	113.87065	703.07	349.10
26-Jan-13	13:21:33	Dolphin	Surface	94	4	30	294	1	0	N	22.27521	E	113.87009	786.97	346.01
26-Jan-13	13:24:16	Dolphin	Surface	93	53	40	284	7	20	N	22.27511	E	113.86870	823.69	336.12
26-Jan-13	13:24:19	Dolphin	Surface	93	53	40	284	11	30	N	22.27511	E	113.86871	823.69	336.19
26-Jan-13	13:24:25	Dolphin	Fluke up	93	52	10	284	2	40	N	22.27515	E	113.86867	829.04	336.04
26-Jan-13	13:26:04	Dolphin	Surface	93	58	40	279	54	30	N	22.27474	E	113.86825	806.38	331.91
26-Jan-13	13:26:17	Dolphin	Surface	94	0	40	278	55	40	N	22.27462	E	113.86817	799.65	330.92
26-Jan-13	13:28:27	Dolphin	Surface	93	34	10	271	36	0	N	22.27485	E	113.86676	899.15	323.60
26-Jan-13	13:28:44	Dolphin	Surface	94	7	20	270	8	40	N	22.27386	E	113.86730	778.02	322.14
26-Jan-13	13:29:26	Dolphin	Surface	94	21	0	265	49	0	N	22.27325	E	113.86713	737.08	317.81
26-Jan-13	13:29:54	Dolphin	Surface	94	31	40	263	28	20	N	22.27288	E	113.86712	708.00	315.47
26-Jan-13	13:33:06	Dolphin	Surface	94	40	10	249	40	30	N	22.27158	E	113.86626	686.44	301.67
26-Jan-13	13:33:14	Dolphin	Surface	94	43	0	248	38	50	N	22.27145	E	113.86626	679.53	300.64
26-Jan-13	13:33:26	Dolphin	Fluke up	94	45	30	248	26	0	N	22.27140	E	113.86630	673.55	300.43
26-Jan-13	13:33:56	Dolphin	Surface	94	41	20	246	25	30	N	22.27126	E	113.86610	683.59	298.42
26-Jan-13	13:35:20	Dolphin	Surface	94	39	40	244	19	0	N	22.27108	E	113.86595	687.71	296.31
26-Jan-13	13:35:35	Dolphin	Surface	94	35	50	243	36	20	N	22.27104	E	113.86583	697.32	295.60
26-Jan-13	13:52:16	Fishing boat	Non-operating	91	45	50	248	16	30	N	22.27663	E	113.85659	1828.68	300.27
26-Jan-13	13:58:08	Fishing boat	Non-operating	91	25	0	282	8	0	N	22.28682	E	113.86225	2283.35	334.13
26-Jan-13	14:10:59	Hi-Speed Ferry		95	35	30	235	26	30	N	22.26988	E	113.86663	573.01	287.44
26-Jan-13	14:11:21	Other	Traveling	92	44	0	226	33	50	N	22.26991	E	113.86063	1176.81	278.56
26-Jan-13	14:12:12	Hi-Speed Ferry		95	36	50	295	6	50	N	22.27334	E	113.87071	570.74	347.11
26-Jan-13	14:12:31	Other	Traveling	92	55	50	247	21	40	N	22.27317	E	113.86264	1097.24	299.36
26-Jan-13	14:14:07	Hi-Speed Ferry		92	27	30	331	53	30	N	22.27911	E	113.87710	1309.32	23.89
26-Jan-13	14:14:21	Other	Traveling	92	35	40	278	58	50	N	22.27809	E	113.86609	1240.25	330.98
26-Jan-13	14:15:14	Hi-Speed Ferry		91	46	0	337	23	40	N	22.28266	E	113.88066	1826.64	29.39
26-Jan-13	14:15:26	Other	Traveling	92	10	40	292	0	30	N	22.28113	E	113.86798	1479.21	344.01
26-Jan-13	14:15:43	Transportation boat	Traveling	91	37	20	325	27	40	N	22.28543	E	113.87775	1991.15	17.46
26-Jan-13	14:17:55	Transportation boat	Traveling	91	51	30	298	51	30	N	22.28376	E	113.86926	1735.79	350.86
26-Jan-13	14:19:12	Transportation boat	Traveling	91	50	50	281	31	0	N	22.28240	E	113.86437	1746.38	333.51
26-Jan-13	14:19:24	Other	Traveling	91	51	30	345	45	30	N	22.28068	E	113.88228	1735.85	37.76
26-Jan-13	14:21:07	Transportation boat	Traveling	91	34	40	259	12	50	N	22.28048	E	113.85696	2048.15	311.21
26-Jan-13	14:21:16	Other	Traveling	92	12	40	333	56	0	N	22.28012	E	113.87814	1456.93	25.93
26-Jan-13	14:22:11	Transportation boat	Traveling	91	34	0	250	27	30	N	22.27830	E	113.85502	2062.90	302.46
26-Jan-13	14:23:02	Transportation boat	Traveling	91	35	40	246	49	50	N	22.27713	E	113.85468	2026.56	298.83
26-Jan-13	14:23:35	Transportation boat	Stationary	91	35	50	246	23	0	N	22.27699	E	113.85463	2023.02	298.38

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
26-Jan-13	14:24:43	Other	Traveling	92	53	50	301	29	0	N	22.27826	E	113.87072	1110.21	353.48
26-Jan-13	14:30:20	Speedboat	Traveling	106	30	10	262	27	50	N	22.26953	E	113.87063	189.35	314.46
26-Jan-13	14:30:33	Speedboat	Traveling	105	29	10	301	44	0	N	22.27014	E	113.87173	202.48	353.73
26-Jan-13	14:30:55	Speedboat	Traveling	98	47	30	334	41	40	N	22.27125	E	113.87353	362.78	26.69
26-Jan-13	14:31:09	Other	Traveling	91	49	10	245	58	10	N	22.27582	E	113.85671	1773.73	297.97
26-Jan-13	14:31:25	Speedboat	Traveling	94	58	10	347	51	30	N	22.27279	E	113.87597	645.54	39.86
26-Jan-13	14:32:28	Speedboat	Traveling	92	33	40	354	10	40	N	22.27617	E	113.88076	1256.95	46.17
26-Jan-13	14:32:55	Sand Barge		91	46	10	241	2	30	N	22.27476	E	113.85562	1824.42	293.04
26-Jan-13	14:38:09	Sand Barge		91	31	50	278	31	0	N	22.28488	E	113.86183	2112.90	330.51
26-Jan-13	14:55:12	Speedboat	Traveling	92	58	40	345	47	50	N	22.27601	E	113.87838	1079.63	37.79
26-Jan-13	14:56:27	Speedboat	Traveling	99	29	10	303	48	30	N	22.27135	E	113.87171	335.59	355.81
26-Jan-13	14:56:54	Speedboat	Traveling	101	19	0	246	3	10	N	22.26952	E	113.86954	280.18	298.05
26-Jan-13	15:02:22	Transportation boat	Traveling	92	0	0	328	39	10	N	22.28190	E	113.87747	1610.84	20.65
26-Jan-13	15:04:47	Transportation boat	Traveling	92	38	10	305	14	30	N	22.27930	E	113.87137	1219.72	357.24
26-Jan-13	15:09:50	Transportation boat	Stationary	92	46	0	252	56	30	N	22.27432	E	113.86268	1161.54	304.94
26-Jan-13	15:10:02	Transportation boat	Traveling	93	4	30	227	41	40	N	22.26992	E	113.86193	1044.49	279.69
26-Jan-13	15:12:25	Transportation boat	Traveling	94	5	0	258	0	30	N	22.27288	E	113.86609	785.36	310.01
26-Jan-13	15:14:14	Transportation boat	Traveling	94	20	40	285	18	30	N	22.27446	E	113.86918	737.85	337.31
26-Jan-13	15:14:39	Transportation boat	Stationary	94	22	40	286	28	10	N	22.27446	E	113.86933	732.18	338.47
26-Jan-13	15:24:03	Transportation boat	Stationary	92	55	0	251	58	20	N	22.27387	E	113.86307	1100.65	303.97
26-Jan-13	15:24:12	Transportation boat	Stationary	94	40	50	288	44	30	N	22.27415	E	113.86975	684.21	340.74
26-Jan-13	15:24:28	Other	Stationary	92	30	0	234	25	20	N	22.27160	E	113.85996	1285.14	286.42
26-Jan-13	15:25:15	Other	Stationary	91	26	50	347	2	50	N	22.28393	E	113.88561	2231.20	39.04
26-Jan-13	15:25:24	Other	Stationary	91	26	20	347	46	10	N	22.28386	E	113.88591	2244.29	39.77
26-Jan-13	15:25:35	Other	Stationary	91	42	50	344	45	20	N	22.28189	E	113.88289	1880.06	36.75
26-Jan-13	15:25:41	Other	Stationary	91	42	50	345	1	50	N	22.28184	E	113.88296	1880.05	37.03
26-Jan-13	15:26:10	Other	Stationary	91	35	20	345	29	20	N	22.28283	E	113.88396	2029.64	37.49
26-Jan-13	15:26:23	Other	Stationary	91	29	40	346	40	30	N	22.28351	E	113.88507	2159.59	38.67
26-Jan-13	15:26:31	Other	Stationary	91	30	0	347	16	30	N	22.28332	E	113.88519	2151.46	39.27
26-Jan-13	15:26:45	Other	Stationary	91	36	10	346	10	40	N	22.28257	E	113.88404	2011.78	38.17
26-Jan-13	15:27:26	Transportation boat	Traveling	92	47	20	273	6	10	N	22.27683	E	113.86554	1151.13	325.10
26-Jan-13	15:28:10	Transportation boat	Traveling	92	52	50	284	38	30	N	22.27754	E	113.86765	1114.27	336.64
26-Jan-13	15:28:33	Transportation boat	Traveling	92	54	30	291	31	30	N	22.27786	E	113.86890	1103.55	343.52
27-Jan-13	9:11:28	Zero		95	46	40	0	0	10	N	22.27138	E	113.87616	550.42	52.00
27-Jan-13	9:12:10	Hi-Speed Ferry		91	31	30	338	55	0	N	22.28458	E	113.88246	2104.14	30.91
27-Jan-13	9:12:31	Speedboat	Stationary	96	40	20	304	45	20	N	22.27261	E	113.87168	476.04	356.75
27-Jan-13	9:12:43	Speedboat	Stationary	92	51	30	342	22	20	N	22.27663	E	113.87808	1116.95	34.37
27-Jan-13	9:12:54	Other	Stationary	91	39	50	344	7	10	N	22.28234	E	113.88299	1926.48	36.12
27-Jan-13	9:13:20	Other	Stationary	91	39	50	345	35	30	N	22.28207	E	113.88337	1926.48	37.59
27-Jan-13	9:13:30	Other	Stationary	91	27	10	346	51	40	N	22.28382	E	113.88543	2210.20	38.86
27-Jan-13	9:13:37	Other	Stationary	91	27	10	347	34	30	N	22.28366	E	113.88564	2210.20	39.57
27-Jan-13	9:13:53	Other	Stationary	91	29	30	346	14	0	N	22.28354	E	113.88489	2151.79	38.23
27-Jan-13	9:13:59	Other	Stationary	91	29	50	347	4	40	N	22.28331	E	113.88509	2143.70	39.07
27-Jan-13	9:14:08	Other	Stationary	91	35	50	345	59	30	N	22.28257	E	113.88396	2007.83	37.99
27-Jan-13	9:14:18	Hi-Speed Ferry		92	38	30	332	5	50	N	22.27827	E	113.87674	1209.07	24.09
27-Jan-13	9:14:39	Other	Stationary	91	15	10	247	39	50	N	22.27977	E	113.85023	2569.35	299.66
27-Jan-13	9:15:39	Hi-Speed Ferry		94	20	20	315	43	10	N	22.27488	E	113.87290	734.28	7.72
27-Jan-13	9:16:28	Other	Stationary	97	30	10	325	14	40	N	22.27197	E	113.87316	422.80	17.24
27-Jan-13	9:16:41	Dolphin	Surface	97	36	50	309	51	30	N	22.27208	E	113.87208	416.56	1.86
27-Jan-13	9:17:26	Hi-Speed Ferry		97	59	10	243	3	20	N	22.26985	E	113.86845	396.90	295.05
27-Jan-13	9:18:15	Dolphin	Surface	95	44	0	320	2	0	N	22.27322	E	113.87307	554.72	12.03
27-Jan-13	9:25:30	Hi-Speed Ferry		92	1	50	333	56	40	N	22.28108	E	113.87865	1575.67	25.94
27-Jan-13	9:26:26	Hi-Speed Ferry		92	44	20	327	30	10	N	22.27822	E	113.87573	1165.92	19.50
27-Jan-13	9:28:06	Hi-Speed Ferry		96	45	10	300	19	40	N	22.27253	E	113.87133	470.30	352.32
27-Jan-13	9:28:15	Speedboat	Traveling	114	14	20	278	28	40	N	22.26930	E	113.87135	123.65	330.47
27-Jan-13	9:29:12	Hi-Speed Ferry		98	16	20	228	10	20	N	22.26894	E	113.86828	382.98	280.17
27-Jan-13	9:29:22	Speedboat	Stationary	115	26	40	279	43	20	N	22.26926	E	113.87141	117.01	331.72
27-Jan-13	9:30:34	Dolphin	Surface	97	9	50	331	23	30	N	22.27199	E	113.87365	443.04	23.39
27-Jan-13	9:30:54	Dolphin	Surface	97	32	10	330	39	40	N	22.27183	E	113.87352	420.91	22.66
27-Jan-13	9:31:06	Other		96	53	50	332	15	40	N	22.27211	E	113.87378	460.36	24.26
27-Jan-13	9:31:25	Dolphin	Surface	97	59	40	327	50	50	N	22.27169	E	113.87325	396.48	19.84
27-Jan-13	9:32:27	Dolphin	Surface	98	57	20	320	39	40	N	22.27144	E	113.87270	353.32	12.66
27-Jan-13	9:40:00	Hi-Speed Ferry		92	15	0	252	48	10	N	22.27563	E	113.86060	1420.93	304.80
27-Jan-13	9:40:43	Hi-Speed Ferry		92	8	0	265	16	10	N	22.27824	E	113.86205	1499.20	317.27
27-Jan-13	9:42:03	Hi-Speed Ferry		91	47	50	284	28	30	N	22.28304	E	113.86503	1782.13	336.47
27-Jan-13	9:43:53	Dolphin	Surface	95	38	10	225	7	0	N	22.26896	E	113.86650	564.36	277.11
27-Jan-13	9:45:26	Dolphin	Surface	95	34	20	228	51	20	N	22.26930	E	113.86649	570.88	280.85
27-Jan-13	9:45:31	Dolphin	Surface	95	26	30	229	49	0	N	22.26941	E	113.86638	584.67	281.81
27-Jan-13	9:45:37	Dolphin	Surface	95	29	40	230	29	20	N	22.26946	E	113.86645	579.02	282.49
27-Jan-13	9:47:47	Hi-Speed Ferry		93	37	20	223	49	0	N	22.26914	E	113.86343	880.37	275.81
27-Jan-13	9:48:25	Dolphin	Surface	97	38	10	258	54	10	N	22.27078	E	113.86889	415.33	310.90
27-Jan-13	9:48:50	Hi-Speed Ferry		94	39	0	257	28	50	N	22.27225	E	113.86680	684.89	309.48
27-Jan-13	9:49:23	Dolphin	Surface	98	14	30	285	53	30	N	22.27154	E	113.87054	384.42	337.89
27-Jan-13	9:49:42	Dolphin	Surface	97	57	30	287	18	30	N	22.27169	E	113.87058	398.30	339.31
27-Jan-13	9:50:16	Dolphin	Surface	97	35	20	299	21	40	N	22.27205	E	113.87133	417.95	351.36
27-Jan-13	9:50:29	Hi-Speed Ferry		93	24	40	312	19	0	N	22.27672	E	113.87263	935.12	4.31
27-Jan-13	9:50:52	Dolphin	Surface	97	19	30	315	30	50	N	22.27220	E	113.87250	433.19	7.51
27-Jan-13	9:51:01	Dolphin	Surface	96	58	20	317	39	40	N	22.27237	E	113.87269	455.35	9.66
27-Jan-13	9:52:26	Dolphin	Surface	96	57	0	328	25	20	N	22.27219	E	113.87349	456.82	20.42
27-Jan-13	9:52:30	Dolphin	Surface	96	52	10	329	15	50	N	22.27221	E	113.87357	462.24	21.26
27-Jan-13	9:53:00	Speedboat	Stationary	96	46	50	323	1	30	N	22.27240	E	113.87312	468.36	15.02
27-Jan-13	9:53:10	Other	Stationary	96	41	30	334	3	50	N	22.27217	E	113.87397	474.64	26.06
27-Jan-13	9:53:17	Dolphin	Surface	96	22	50	334	34	30	N	22.27234	E	113.87411	498.01	26.57
27-Jan-13	9:53:52	Dolphin	Surface	95	59	10	336	23	10	N	22.27254	E	113.87440	531.11	28.38
27-Jan-13	9:54:01	Dolphin	Surface	95	37	0	337	41	30	N	22.27276	E	113.87467	566.33	29.69
27-Jan-13	9:54:08	Dolphin	Surface	95	27	30	338	36	0	N	22.27285	E	113.87483	582.87	30.60
27-Jan-13	10:09:53	Research Vessel	Traveling	92	16	40	349	53	30	N	22.27774	E	113.88106	1403.49	41.89
27-Jan-13	10:12:26	Research Vessel	Traveling	93	38	20	343	36	20	N	22.27475	E	113.87691	876.32	35.60
27-Jan-13	10:13:54	Research Vessel	Traveling	95	17	50	331	4	40	N	22.27331	E	113.87423	600.73	23.07
27-Jan-13	10:15:30	Research Vessel	Traveling	98	43	30	298	55	0	N	22.27156	E	113.87139	362.81	350.91
27-Jan-13	10:17:19	Speedboat	Traveling	95	5	50	307	52	0	N	22.27395	E	113.87193	624.45	359.86
27-Jan-13	10:18:01	Other	Stationary	94	51	30	304	26	10	N	22.27422	E	113.87155	655.36	356.43
27-Jan-13	10:18:13	Speedboat	Stationary	94	32	50	301	11	0	N	22.27459	E	113.87114	700.46	353.18
27-Jan-13	10:19:01	Sand Barge		91	41	10	228	22	20	N	22.27141	E	113.85376	1900.81	280.37
27-Jan-13	10:27:28	Sand Barge		91	9	50	286	44	20	N	22.29156	E	113.86217	2769.77	338.74
27-Jan-13	10:27:40	Other	Traveling	91	40	30	241	57	30	N	22.27532	E	113.85494	1913.56	293.96
27-Jan-13	10:29:35	Other	Traveling	91	40	40	255	18	40	N	22.27875	E	113.85717	1910.35	307.31
27-Jan-13	10:36:15	Dolphin	Surface	93	39	40	299	55	0	N	22.27609	E	113.87075	870.97	351.91
27-Jan-13	10:40:42	Dolphin	Surface	94	37	0	293	17	30	N	22.27434	E	113.87024	689.87	345.29
27-Jan-13	10:40:45	Dolphin	Surface	94	37	0	293	30	20	N	22.27434	E	113.87026	689.87	345.50
27-Jan-13	10:40:54	Dolphin	Surface	94	37	0	294	26	20	N	22.27437	E	113.87037	689.87	346.44

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
27-Jan-13	10:41:38	Dolphin	Surface	94	37	10	296	33	20	N	22.27441	E	113.87061	689.45	348.55
27-Jan-13	10:42:10	Dolphin	Surface	94	55	50	294	43	10	N	22.27399	E	113.87050	645.70	346.72
27-Jan-13	10:43:54	Dolphin	Surface	94	26	30	294	40	50	N	22.27461	E	113.87034	717.20	346.68
27-Jan-13	10:46:21	Dolphin	Surface	96	8	50	269	34	20	N	22.27198	E	113.86882	517.08	321.57
27-Jan-13	10:47:18	Dolphin	Surface	95	14	50	267	43	10	N	22.27250	E	113.86813	606.49	319.72
27-Jan-13	10:47:43	Dolphin	Surface	95	26	40	264	26	20	N	22.27214	E	113.86803	584.37	316.44
27-Jan-13	10:47:52	Dolphin	Surface	95	28	30	263	44	40	N	22.27208	E	113.86800	581.09	315.74
27-Jan-13	10:48:14	Dolphin	Surface	95	30	20	260	57	40	N	22.27188	E	113.86783	577.84	312.96
27-Jan-13	10:48:46	Dolphin	Surface	96	0	20	258	41	20	N	22.27144	E	113.86804	529.38	310.69
27-Jan-13	10:48:59	Dolphin	Surface	96	4	50	258	17	30	N	22.27138	E	113.86807	522.80	310.29
27-Jan-13	10:49:07	Dolphin	Surface	96	3	30	257	59	0	N	22.27137	E	113.86803	524.73	309.98
27-Jan-13	10:49:13	Dolphin	Surface	96	2	10	257	30	30	N	22.27135	E	113.86799	526.68	309.51
27-Jan-13	10:50:54	Dolphin	Surface	95	20	0	265	0	30	N	22.27226	E	113.86799	596.63	317.01
27-Jan-13	10:51:11	Dolphin	Surface	95	16	30	266	39	30	N	22.27241	E	113.86807	603.27	318.66
27-Jan-13	10:51:44	Dolphin	Breach	94	51	50	272	56	0	N	22.27315	E	113.86829	654.60	324.93
27-Jan-13	10:51:50	Dolphin	Surface	94	50	40	273	53	10	N	22.27323	E	113.86836	657.25	325.88
27-Jan-13	10:52:26	Dolphin	Surface	94	31	50	279	52	20	N	22.27391	E	113.86872	703.05	331.87
27-Jan-13	10:56:13	Other	Traveling	92	57	50	291	7	20	N	22.27761	E	113.86890	1076.97	343.12
27-Jan-13	10:57:47	Other	Traveling	93	40	50	274	56	20	N	22.27487	E	113.86735	866.35	326.94
27-Jan-13	10:59:16	Other	Traveling	94	1	30	252	52	30	N	22.27241	E	113.86563	791.86	304.87
27-Jan-13	11:00:29	Other	Traveling	93	52	50	233	39	40	N	22.27033	E	113.86425	821.48	285.66
27-Jan-13	11:05:28	Speedboat	Traveling	113	19	0	312	56	50	N	22.26949	E	113.87205	129.16	4.94
27-Jan-13	11:05:46	Speedboat	Traveling	110	20	30	251	17	0	N	22.26907	E	113.87072	150.16	303.28
27-Jan-13	11:08:37	Speedboat	Traveling	111	29	50	297	2	0	N	22.26958	E	113.87168	141.35	349.03
27-Jan-13	11:15:28	Hi-Speed Ferry		92	58	10	318	33	30	N	22.27784	E	113.87386	1074.95	10.56
27-Jan-13	11:16:07	Hi-Speed Ferry		93	37	0	306	47	10	N	22.27627	E	113.87176	881.73	358.78
27-Jan-13	11:16:32	Hi-Speed Ferry		92	2	0	297	32	10	N	22.28226	E	113.86916	1573.50	349.53
27-Jan-13	11:16:50	Scan_Dolphin		93	4	30	294	26	10	N	22.27741	E	113.86958	1037.86	346.43
27-Jan-13	11:17:33	Hi-Speed Ferry		94	59	50	262	42	10	N	22.27237	E	113.86754	637.03	314.70
27-Jan-13	11:17:39	Hi-Speed Ferry		92	26	20	285	47	20	N	22.27925	E	113.86713	1310.20	337.79
27-Jan-13	11:18:10	Hi-Speed Ferry		94	34	50	240	7	0	N	22.27069	E	113.86568	695.34	292.11
27-Jan-13	11:18:23	Hi-Speed Ferry		92	42	50	275	22	50	N	22.27725	E	113.86578	1176.72	327.38
27-Jan-13	11:22:24	Speedboat	Traveling	94	37	30	347	49	40	N	22.27309	E	113.87623	688.62	39.82
27-Jan-13	11:23:07	Speedboat	Traveling	102	19	0	313	21	10	N	22.27062	E	113.87218	254.99	5.35
27-Jan-13	11:23:25	Speedboat	Traveling	106	7	40	258	50	50	N	22.26947	E	113.87053	192.53	310.84
27-Jan-13	11:25:04	Speedboat	Traveling	114	14	30	299	34	50	N	22.26943	E	113.87177	123.63	351.58
27-Jan-13	11:25:40	Speedboat	Traveling	99	19	30	359	47	10	N	22.27022	E	113.87454	339.08	51.78
27-Jan-13	11:25:59	Speedboat	Traveling	96	23	0	6	0	50	N	22.27071	E	113.87605	497.79	58.01
27-Jan-13	11:34:21	Other	Traveling	92	19	20	236	54	40	N	22.27235	E	113.85928	1376.45	288.91
27-Jan-13	11:40:02	Other	Traveling	91	49	20	289	24	30	N	22.28332	E	113.86649	1757.45	341.41
27-Jan-13	11:40:10	Hi-Speed Ferry		94	28	10	230	59	10	N	22.26977	E	113.86519	712.72	282.98
27-Jan-13	11:42:48	Hi-Speed Ferry		93	9	50	315	45	0	N	22.27733	E	113.87327	1008.56	7.75
27-Jan-13	11:43:51	Hi-Speed Ferry		92	17	40	330	8	0	N	22.27995	E	113.87705	1393.22	22.13
27-Jan-13	11:44:03	Other	Traveling	91	41	20	333	56	10	N	22.28369	E	113.88002	1897.65	25.93
27-Jan-13	11:45:44	Other	Traveling	92	13	50	328	49	10	N	22.28039	E	113.87690	1433.40	20.82
27-Jan-13	11:47:48	Other	Traveling	93	33	40	313	48	0	N	22.27635	E	113.87282	895.55	5.80
27-Jan-13	11:49:51	Other	Traveling	95	41	40	271	27	50	N	22.27237	E	113.86871	558.53	323.46
27-Jan-13	11:50:18	Speedboat	Traveling	96	2	20	291	58	20	N	22.27289	E	113.87053	526.43	343.97
27-Jan-13	11:51:38	Other	Traveling	94	17	40	224	19	30	N	22.26907	E	113.86477	741.92	276.32
27-Jan-13	11:51:50	Speedboat	Traveling	98	43	20	290	5	40	N	22.27144	E	113.87086	362.93	342.09
27-Jan-13	11:53:04	Speedboat	Traveling	102	2	0	254	19	0	N	22.26973	E	113.86990	261.18	306.31
27-Jan-13	12:45:03	Police Vessel	Traveling	91	51	0	273	2	50	N	22.28110	E	113.86230	1730.82	325.04
27-Jan-13	12:46:30	Police Vessel	Traveling	92	1	10	236	34	20	N	22.27287	E	113.85734	1584.41	288.57
27-Jan-13	12:49:35	Police Vessel	Traveling	93	34	30	314	8	10	N	22.27632	E	113.87287	892.05	6.13
27-Jan-13	12:51:08	Police Vessel	Traveling	95	34	30	246	0	20	N	22.27074	E	113.86705	570.59	298.00
27-Jan-13	12:52:45	Police Vessel	Traveling	93	36	20	227	20	30	N	22.26962	E	113.86346	884.46	279.34
27-Jan-13	12:53:41	Police Vessel	Traveling	93	57	40	286	51	30	N	22.27509	E	113.86912	804.69	338.86
27-Jan-13	12:55:18	Police Vessel	Traveling	91	37	0	333	7	40	N	22.28449	E	113.88013	1983.40	25.12
27-Jan-13	13:10:50	Sand Barge		91	39	0	244	27	50	N	22.27619	E	113.85488	1960.42	296.46
27-Jan-13	13:10:55	Sand Barge		91	33	20	261	31	20	N	22.28123	E	113.85727	2080.92	313.52
27-Jan-13	13:13:04	Sand Barge		91	31	40	232	1	30	N	22.27295	E	113.85195	2119.24	284.02
27-Jan-13	13:13:10	Sand Barge		91	37	50	247	4	30	N	22.27701	E	113.85508	1984.07	299.07
27-Jan-13	13:16:46	Sand Barge		91	25	0	226	31	30	N	22.27138	E	113.84994	2287.89	278.52
27-Jan-13	13:16:55	Hi-Speed Ferry		91	39	40	337	22	50	N	22.28360	E	113.88123	1947.16	29.38
27-Jan-13	13:17:35	Other	Traveling	91	48	20	283	41	10	N	22.28301	E	113.86478	1789.83	335.68
27-Jan-13	13:18:17	Other	Traveling	92	0	20	287	0	30	N	22.28186	E	113.86634	1609.85	339.01
27-Jan-13	13:18:29	Hi-Speed Ferry		92	26	40	330	21	30	N	22.27931	E	113.87682	1318.98	22.36
27-Jan-13	13:19:40	Other	Traveling	92	23	50	279	36	0	N	22.27898	E	113.86572	1345.12	331.60
27-Jan-13	13:19:47	Hi-Speed Ferry		93	53	10	318	11	10	N	22.27566	E	113.87337	827.68	10.18
27-Jan-13	13:20:57	Hi-Speed Ferry		96	11	10	284	29	0	N	22.27261	E	113.86993	518.42	336.48
27-Jan-13	13:21:09	Other	Traveling	92	40	0	262	4	40	N	22.27590	E	113.86350	1208.45	314.07
27-Jan-13	13:21:44	Hi-Speed Ferry		91	38	0	337	37	50	N	22.28383	E	113.88147	1980.65	29.63
27-Jan-13	13:22:22	Hi-Speed Ferry		95	3	50	222	6	40	N	22.26874	E	113.86579	634.24	274.11
27-Jan-13	13:22:40	Other	Traveling	92	38	30	242	7	0	N	22.27282	E	113.86112	1219.95	294.11
27-Jan-13	13:24:57	Hi-Speed Ferry		95	4	30	311	39	0	N	22.27402	E	113.87234	632.84	3.65
27-Jan-13	13:26:52	Hi-Speed Ferry		95	19	10	223	9	10	N	22.26882	E	113.86610	603.58	275.15
27-Jan-13	14:07:57	Hi-Speed Ferry		92	56	40	224	9	0	N	22.26939	E	113.86137	1093.87	276.15
27-Jan-13	14:08:52	Hi-Speed Ferry		93	12	30	239	17	40	N	22.27161	E	113.86285	1003.47	291.29
27-Jan-13	14:09:44	Hi-Speed Ferry		93	14	30	254	49	50	N	22.27369	E	113.86421	993.10	306.83
27-Jan-13	14:10:49	Hi-Speed Ferry		92	57	40	272	49	40	N	22.27633	E	113.86585	1087.68	324.82
27-Jan-13	14:11:04	Hi-Speed Ferry		94	55	40	230	18	0	N	22.26958	E	113.86575	651.87	282.30
27-Jan-13	14:12:26	Hi-Speed Ferry		92	19	40	292	29	20	N	22.28035	E	113.86834	1385.51	344.49
27-Jan-13	14:12:33	Hi-Speed Ferry		95	18	10	293	52	30	N	22.27362	E	113.87051	605.49	345.87
27-Jan-13	14:14:19	Hi-Speed Ferry		92	37	0	328	29	0	N	22.27872	E	113.87614	1231.67	20.48
27-Jan-13	14:23:44	Research Vessel	Traveling	92	19	30	231	23	20	N	22.27122	E	113.85882	1387.18	283.39
27-Jan-13	15:28:05	Other	Stationary	91	41	30	344	6	40	N	22.28223	E	113.88290	1911.60	36.11
27-Jan-13	15:28:13	Other	Stationary	91	41	30	345	36	10	N	22.28196	E	113.88329	1911.60	37.60
27-Jan-13	15:28:23	Other	Stationary	91	29	50	346	13	50	N	22.28362	E	113.88496	2163.08	38.23
27-Jan-13	15:28:28	Other	Stationary	91	30	30	347	4	40	N	22.28333	E	113.88511	2146.93	39.07
27-Jan-13	15:28:34	Other	Stationary	91	36	40	345	59	30	N	22.28258	E	113.88397	2008.30	37.99
27-Jan-13	15:28:46	Other	Stationary	91	27	30	346	52	0	N	22.28390	E	113.88550	2221.57	38.86
27-Jan-13	15:28:56	Other	Stationary	91	27	30	347	35	0	N	22.28374	E	113.88571	2221.57	39.58
27-Jan-13	15:29:05	Other	Stationary	91	43	50	344	34	50	N	22.28183	E	113.88277	1868.19	36.58
27-Jan-13	15:29:10	Other	Stationary	91	43	40	345	0	10	N	22.28178	E	113.88290	1871.23	37.00
28-Jan-13	8:55:24	Zero		143	33	20	0	0	0	N	22.26856	E	113.87226	41.26	52.00
28-Jan-13	8:57:18	Other		91	26	50	348	11	30	N	22.28364	E	113.88592	2226.66	40.19
28-Jan-13	8:57:26	Other		91	26	40	348	54	10	N	22.28351	E	113.88615	2231.00	40.90
28-Jan-13	8:57:44	Other		91	42	40	345	53	40	N	22.28168	E	113.88317	1879.33	37.89
28-Jan-13	8:57:53	Other		91	42	40	346	20	10	N	22.28160	E	113.88328	1879.32	38.33
28-Jan-13	8:58:40	Scan_dolphin		94	8	0	268	42	10	N	22.27372	E	113.86718	773.67	320.70
28-Jan-13	9:00:26	Dolphin	Surface	94	25	20	265	47	50	N	22.27315	E	113.86722	722.82	317.79

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
28-Jan-13	9:00:35	Dolphin	Surface	94	27	20	265	16	0	N	22.27308	E	113.86721	717.38	317.26
28-Jan-13	9:00:54	Dolphin	Surface	94	31	50	264	45	50	N	22.27296	E	113.86724	705.43	316.76
28-Jan-13	9:01:04	Dolphin	Surface	94	34	40	264	11	50	N	22.27287	E	113.86724	698.11	316.19
28-Jan-13	9:01:45	Dolphin	Surface	94	35	10	263	56	20	N	22.27284	E	113.86723	696.82	315.94
28-Jan-13	9:02:22	Dolphin	Surface	94	35	20	262	57	50	N	22.27276	E	113.86715	696.38	314.96
28-Jan-13	9:02:27	Dolphin	Surface	94	36	0	262	33	20	N	22.27272	E	113.86713	694.68	314.55
28-Jan-13	9:02:39	Dolphin	Surface	94	36	0	261	40	20	N	22.27265	E	113.86706	694.68	313.67
28-Jan-13	9:02:56	Dolphin	Surface	94	38	20	260	18	20	N	22.27251	E	113.86699	688.81	312.30
28-Jan-13	9:03:55	Dolphin	Surface	94	37	20	257	44	40	N	22.27231	E	113.86678	691.29	309.74
28-Jan-13	9:04:37	Dolphin	Surface	94	37	20	256	23	10	N	22.27220	E	113.86667	691.27	308.38
28-Jan-13	9:07:15	Dolphin	Surface	94	37	50	250	35	10	N	22.27168	E	113.86629	689.95	302.58
28-Jan-13	9:08:46	Dolphin	Surface	94	35	0	247	24	50	N	22.27141	E	113.86604	697.06	299.41
28-Jan-13	9:08:54	Dolphin	Surface	94	32	50	247	41	50	N	22.27147	E	113.86601	702.62	299.69
28-Jan-13	9:09:05	Dolphin	Surface	94	26	30	247	51	40	N	22.27156	E	113.86588	719.41	299.86
28-Jan-13	9:10:07	Dolphin	Surface	94	16	30	247	13	30	N	22.27162	E	113.86560	747.58	299.22
28-Jan-13	9:10:36	Dolphin	Surface	94	8	40	245	56	40	N	22.27159	E	113.86532	771.24	297.94
28-Jan-13	9:10:59	Dolphin	Surface	94	4	30	246	7	40	N	22.27166	E	113.86522	784.44	298.12
28-Jan-13	9:13:05	Dolphin	Surface	93	53	30	240	33	0	N	22.27117	E	113.86457	821.52	292.55
28-Jan-13	9:13:14	Dolphin	Surface	93	55	30	240	8	0	N	22.27109	E	113.86461	814.51	292.13
28-Jan-13	9:13:25	Dolphin	Surface	93	56	0	239	47	30	N	22.27105	E	113.86461	812.77	291.79
28-Jan-13	9:14:09	Dolphin	Surface	93	55	30	239	53	30	N	22.27107	E	113.86459	814.48	291.89
28-Jan-13	9:16:42	Dolphin	Surface	93	53	20	238	26	20	N	22.27092	E	113.86445	822.00	290.44
28-Jan-13	9:17:34	Dolphin	Surface	93	56	30	237	24	10	N	22.27076	E	113.86451	810.91	289.40
28-Jan-13	9:17:43	Dolphin	Surface	93	57	50	237	11	0	N	22.27072	E	113.86454	806.34	289.18
28-Jan-13	9:24:11	Dolphin	Surface	93	27	20	256	23	0	N	22.27350	E	113.86489	925.36	308.38
28-Jan-13	9:24:34	Dolphin	Surface	93	29	20	256	22	50	N	22.27345	E	113.86496	916.46	308.38
28-Jan-13	9:24:45	Dolphin	Surface	93	33	50	256	14	10	N	22.27333	E	113.86509	897.08	308.23
28-Jan-13	9:26:40	Dolphin	Surface	93	44	30	256	22	0	N	22.27310	E	113.86543	854.19	308.36
28-Jan-13	9:28:52	Dolphin	Surface	94	4	30	255	42	0	N	22.27265	E	113.86591	783.92	307.70
28-Jan-13	9:29:01	Dolphin	Surface	94	5	30	255	6	30	N	22.27257	E	113.86589	780.70	307.11
28-Jan-13	9:30:11	Dolphin	Surface	94	26	40	251	40	50	N	22.27192	E	113.86613	718.39	303.68
28-Jan-13	9:31:44	Dolphin	Surface	94	27	30	259	43	50	N	22.27262	E	113.86675	716.10	311.73
28-Jan-13	9:31:48	Dolphin	Surface	94	27	30	259	30	10	N	22.27260	E	113.86673	716.10	311.50
28-Jan-13	9:32:14	Dolphin	Surface	94	33	0	261	35	40	N	22.27269	E	113.86700	701.58	313.59
28-Jan-13	9:32:17	Dolphin	Surface	94	32	0	261	57	10	N	22.27273	E	113.86701	704.17	313.95
28-Jan-13	9:32:44	Dolphin	Surface	94	31	10	264	33	50	N	22.27295	E	113.86722	706.34	316.56
28-Jan-13	9:33:24	Dolphin	Surface	94	34	20	270	5	0	N	22.27329	E	113.86777	698.12	322.08
28-Jan-13	9:33:38	Dolphin	Surface	94	25	20	270	53	50	N	22.27351	E	113.86771	721.93	322.89
28-Jan-13	9:35:00	Dolphin	Surface	94	5	30	275	15	30	N	22.27424	E	113.86784	780.53	327.26
28-Jan-13	9:35:23	Dolphin	Surface	93	52	0	276	8	10	N	22.27465	E	113.86770	826.17	328.13
28-Jan-13	9:35:52	Dolphin	Surface	93	41	40	277	55	20	N	22.27507	E	113.86773	864.86	329.92
28-Jan-13	9:36:53	Scan_dolphin		93	51	40	345	45	0	N	22.27422	E	113.87687	827.32	37.75
28-Jan-13	9:42:45	Other		91	34	50	346	42	0	N	22.28261	E	113.88431	2032.96	38.70
28-Jan-13	9:42:57	Other		91	29	0	347	48	50	N	22.28332	E	113.88544	2167.98	39.81
28-Jan-13	9:43:04	Other		91	29	20	348	24	40	N	22.28313	E	113.88556	2159.77	40.41
28-Jan-13	9:43:14	Other		91	35	20	347	19	50	N	22.28241	E	113.88441	2022.13	39.33
28-Jan-13	9:43:36	Other		90	56	10	242	52	0	N	22.28146	E	113.84132	3470.98	294.86
28-Jan-13	9:43:57	Other		91	14	30	249	3	40	N	22.28039	E	113.85030	2597.42	301.06
28-Jan-13	9:46:38	Hi-Speed Ferry		92	14	40	358	17	40	N	22.27654	E	113.88262	1426.85	50.29
28-Jan-13	9:47:28	Hi-Speed Ferry		93	2	0	356	47	30	N	22.27458	E	113.87965	1053.92	48.79
28-Jan-13	9:48:11	Hi-Speed Ferry		94	12	30	348	57	30	N	22.27349	E	113.87678	758.41	40.96
28-Jan-13	9:48:53	Transportation boat	Stationary	91	42	30	346	33	0	N	22.28156	E	113.88333	1878.81	38.55
28-Jan-13	9:49:02	Transportation boat	Stationary	91	43	0	344	8	50	N	22.28192	E	113.88267	1869.58	36.14
28-Jan-13	9:49:14	Hi-Speed Ferry		97	47	40	316	52	10	N	22.27196	E	113.87256	407.43	8.87
28-Jan-13	9:50:07	Hi-Speed Ferry		100	5	40	252	40	0	N	22.26994	E	113.86944	313.23	304.66
28-Jan-13	9:50:46	Speedboat	Traveling	93	52	40	354	7	10	N	22.27347	E	113.87772	823.32	46.12
28-Jan-13	9:51:43	Speedboat	Traveling	95	39	40	348	51	10	N	22.27216	E	113.87552	562.68	40.85
28-Jan-13	9:53:13	Speedboat	Traveling	104	47	10	306	37	20	N	22.27023	E	113.87189	211.22	358.62
28-Jan-13	9:53:57	Speedboat	Traveling	104	59	0	245	55	20	N	22.26921	E	113.87015	208.31	297.92
28-Jan-13	9:54:22	Transportation boat	Traveling	91	38	30	350	32	10	N	22.28130	E	113.88480	1955.56	42.53
28-Jan-13	9:55:05	Transportation boat	Traveling	91	27	50	352	1	40	N	22.28254	E	113.88679	2196.17	44.02
28-Jan-13	9:56:08	Transportation boat	Traveling	91	14	0	350	55	50	N	22.28556	E	113.88926	2614.11	42.93
28-Jan-13	9:59:21	Speedboat	Traveling	92	55	0	350	45	40	N	22.27557	E	113.87918	1095.80	42.76
28-Jan-13	10:00:56	Speedboat	Traveling	94	16	40	351	53	10	N	22.27317	E	113.87697	745.67	43.88
28-Jan-13	10:01:09	Research Vessel	Traveling	91	23	40	352	50	30	N	22.28305	E	113.88776	2306.68	44.84
28-Jan-13	10:01:23	Speedboat	Traveling	95	28	10	230	20	50	N	22.26945	E	113.86641	582.33	282.34
28-Jan-13	10:02:10	Speedboat	Traveling	96	11	20	277	25	20	N	22.27232	E	113.86940	514.13	329.42
28-Jan-13	10:02:23	Speedboat	Traveling	97	48	10	348	51	0	N	22.27110	E	113.87453	406.79	40.85
28-Jan-13	10:03:21	Speedboat	Traveling	104	51	10	322	2	20	N	22.27017	E	113.87244	210.15	14.04
28-Jan-13	10:03:33	Speedboat	Traveling	93	5	0	322	25	50	N	22.27736	E	113.87446	1036.12	14.43
28-Jan-13	10:03:47	Research Vessel	Traveling	91	49	20	351	25	10	N	22.27983	E	113.88370	1759.26	43.42
28-Jan-13	10:05:04	Speedboat	Traveling	91	46	10	332	39	0	N	22.28316	E	113.87929	1812.16	24.65
28-Jan-13	10:06:25	Fishing boat	Operating	99	25	40	312	55	40	N	22.27134	E	113.87222	335.63	4.92
28-Jan-13	10:07:07	Transportation boat	Traveling	91	40	30	344	0	0	N	22.28228	E	113.88289	1915.29	36.00
28-Jan-13	10:07:35	Dolphin	Surface	100	37	20	322	32	30	N	22.27092	E	113.87267	297.13	14.54
28-Jan-13	10:09:05	Research Vessel	Traveling	94	23	50	330	34	20	N	22.27436	E	113.87465	725.09	22.57
28-Jan-13	10:09:44	Dolphin	Surface	101	5	10	326	56	50	N	22.27075	E	113.87284	284.38	18.94
28-Jan-13	10:09:55	Dolphin	Surface	101	1	40	327	25	50	N	22.27076	E	113.87287	285.92	19.43
28-Jan-13	10:09:58	Dolphin	Fluke Up	101	4	50	327	20	10	N	22.27075	E	113.87286	284.52	19.33
28-Jan-13	10:10:15	Research Vessel	Traveling	96	24	10	323	10	10	N	22.27265	E	113.87321	496.65	15.17
28-Jan-13	10:10:43	Research Vessel	Dolphin follow	97	29	20	322	46	40	N	22.27202	E	113.87300	423.92	14.77
28-Jan-13	10:10:56	Dolphin	Surface	100	13	0	326	39	0	N	22.27097	E	113.87291	309.16	18.65
28-Jan-13	10:11:04	Dolphin	Surface	99	56	20	326	12	30	N	22.27105	E	113.87291	317.99	18.21
28-Jan-13	10:11:07	Dolphin	Surface	99	53	50	326	52	10	N	22.27105	E	113.87295	319.35	18.87
28-Jan-13	10:11:40	Research Vessel	Dolphin follow	99	18	20	326	59	30	N	22.27123	E	113.87302	340.05	18.99
28-Jan-13	10:12:16	Dolphin	Surface	99	28	30	331	58	30	N	22.27108	E	113.87326	333.85	23.97
28-Jan-13	10:12:25	Dolphin	Surface	99	8	30	331	56	40	N	22.27118	E	113.87331	346.25	23.94
28-Jan-13	10:12:34	Dolphin	Surface	98	56	40	331	5	0	N	22.27126	E	113.87329	354.02	23.08
28-Jan-13	10:12:51	Research Vessel	Dolphin follow	99	49	40	329	38	40	N	22.27102	E	113.87310	321.63	21.64
28-Jan-13	10:13:34	Dolphin	Surface	98	38	40	329	59	50	N	22.27139	E	113.87328	366.49	21.99
28-Jan-13	10:14:22	Dolphin	Surface	98	18	30	329	56	20	N	22.27152	E	113.87333	381.53	21.94
28-Jan-13	10:14:28	Dolphin	Surface	98	16	30	329	26	0	N	22.27154	E	113.87331	383.09	21.43
28-Jan-13	10:15:06	Research Vessel	Dolphin follow	99	18	0	335	5	10	N	22.27106	E	113.87345	340.22	27.08
28-Jan-13	10:15:34	Dolphin	Surface	98	9	30	329	55	30	N	22.27158	E	113.87336	388.63	21.92
28-Jan-13	10:16:21	Speedboat	Traveling	112	9	50	332	26	20	N	22.26945	E	113.87249	136.74	24.44
28-Jan-13	10:16:29	Speedboat	Traveling	114	15	40	318	20	50	N	22.26943	E	113.87216	123.59	10.34
28-Jan-13	10:17:29	Research Vessel	Dolphin follow	98	8	10	330	41	10	N	22.27157	E	113.87341	389.68	22.68
28-Jan-13	10:17:35	Dolphin	Surface	96	21	40	328	22	0	N	22.27255	E	113.87364	499.80	20.36
28-Jan-13	10:18:02	Dolphin	Surface	96	15	50	328	25	0	N	22.27261	E	113.87367	507.62	20.41
28-Jan-13	10:18:16	Dolphin	Surface	96	15	40	329	2	0	N	22.27260	E	113.87372	507.84	21.03
28-Jan-13	10:18:28	Research Vessel	Traveling	98	31	10	317	13	0	N	22.27164	E	113.87252	371.88	9.21

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
28-Jan-13	10:20:27	Research Vessel	Traveling	99	13	30	243	22	40	N	22.26966	E	113.86893	342.96	295.37
28-Jan-13	10:21:22	Dolphin	Surface	97	16	10	337	24	50	N	22.27176	E	113.87403	436.70	29.41
28-Jan-13	10:22:17	Dolphin	Surface	97	34	40	341	27	10	N	22.27148	E	113.87419	418.71	33.45
28-Jan-13	10:22:24	Dolphin	Surface	97	29	40	342	9	30	N	22.27149	E	113.87426	423.42	34.16
28-Jan-13	10:22:27	Dolphin	Surface	97	33	50	342	24	40	N	22.27145	E	113.87425	419.48	34.41
28-Jan-13	10:24:15	Dolphin	Fluke Up	96	23	40	338	59	30	N	22.27217	E	113.87443	497.05	30.99
28-Jan-13	10:26:27	Fishing boat	Non-operating	93	57	0	358	39	10	N	22.27294	E	113.87801	807.11	50.65
28-Jan-13	10:27:09	Fishing boat	Operating	94	15	10	357	41	20	N	22.27270	E	113.87750	749.35	49.69
28-Jan-13	10:27:27	Speedboat	Traveling	96	1	20	339	34	20	N	22.27238	E	113.87463	527.98	31.57
28-Jan-13	10:27:37	Speedboat	Traveling	97	41	30	333	19	50	N	22.27169	E	113.87366	412.35	25.33
28-Jan-13	10:27:56	Speedboat	Traveling	103	29	20	304	14	0	N	22.27042	E	113.87180	232.13	356.23
28-Jan-13	10:29:56	Fishing boat	Operating	95	52	20	355	29	30	N	22.27163	E	113.87583	541.52	47.49
28-Jan-13	10:30:24	Dolphin	Fluke Up	96	45	20	348	38	10	N	22.27154	E	113.87492	470.12	40.63
28-Jan-13	10:30:48	Fishing boat	Non-operating	94	15	30	357	35	10	N	22.27270	E	113.87748	748.26	49.58
28-Jan-13	10:31:02	Fishing boat	Non-operating	94	35	30	355	8	10	N	22.27258	E	113.87689	693.65	47.13
28-Jan-13	10:31:19	Fishing boat	Non-operating	95	11	20	355	16	0	N	22.27208	E	113.87633	613.35	47.26
28-Jan-13	10:31:40	Dolphin	Surface	96	39	0	347	24	50	N	22.27165	E	113.87489	477.64	39.41
28-Jan-13	10:32:28	Dolphin	Surface	96	16	50	349	28	20	N	22.27175	E	113.87520	505.98	41.47
28-Jan-13	10:33:06	Fishing boat	Operating	94	16	30	357	42	20	N	22.27267	E	113.87747	745.26	49.70
28-Jan-13	10:38:31	Speedboat	Traveling	95	58	10	1	32	50	N	22.27118	E	113.87611	532.46	53.54
28-Jan-13	10:38:50	Speedboat	Traveling	100	57	20	348	35	50	N	22.27030	E	113.87376	287.54	40.59
28-Jan-13	10:39:04	Dolphin	Surface	95	35	0	352	10	30	N	22.27201	E	113.87580	569.57	44.17
28-Jan-13	10:40:45	Speedboat	Traveling	102	16	20	359	23	10	N	22.26977	E	113.87389	255.85	51.38
28-Jan-13	10:41:01	Speedboat	Traveling	97	46	10	8	45	0	N	22.27013	E	113.87541	407.96	60.75
28-Jan-13	10:41:21	Fishing boat	Operating	94	52	10	357	14	40	N	22.27217	E	113.87676	653.60	49.24
28-Jan-13	10:41:39	Speedboat	Traveling	94	46	20	1	5	0	N	22.27194	E	113.87713	666.99	53.08
28-Jan-13	10:41:50	Speedboat	Traveling	94	58	30	357	58	50	N	22.27204	E	113.87671	639.64	49.98
28-Jan-13	10:42:01	Speedboat	Traveling	94	58	30	356	55	40	N	22.27212	E	113.87663	639.63	48.92
28-Jan-13	10:42:13	Speedboat	Traveling	95	0	30	356	47	40	N	22.27210	E	113.87659	635.35	48.79
28-Jan-13	10:43:26	Dolphin	Surface	94	54	10	351	21	50	N	22.27258	E	113.87628	649.08	43.36
28-Jan-13	10:44:10	Speedboat	Traveling	94	52	20	352	52	10	N	22.27250	E	113.87643	653.16	44.87
28-Jan-13	10:44:19	Speedboat	Traveling	94	20	0	353	0	40	N	22.27301	E	113.87700	734.87	45.01
28-Jan-13	10:44:40	Speedboat	Traveling	93	26	10	354	55	30	N	22.27404	E	113.87854	927.82	46.92
28-Jan-13	10:46:43	Dolphin	Surface	95	48	40	353	22	40	N	22.27179	E	113.87573	546.92	45.37
28-Jan-13	10:46:51	Dolphin	Surface	95	55	40	352	11	50	N	22.27179	E	113.87558	536.07	44.19
28-Jan-13	10:47:04	Dolphin	Surface	95	56	10	350	41	30	N	22.27187	E	113.87547	535.31	42.69
28-Jan-13	10:47:17	Dolphin	Fluke Up	96	2	30	349	9	40	N	22.27190	E	113.87531	525.87	41.16
28-Jan-13	10:47:44	Fishing boat	Operating	95	31	30	357	29	40	N	22.27170	E	113.87620	575.44	49.49
28-Jan-13	10:48:21	Transportation boat	Traveling	92	21	10	313	27	0	N	22.28050	E	113.87320	1357.59	5.45
28-Jan-13	10:48:46	Transportation boat	Traveling	92	22	10	308	31	30	N	22.28046	E	113.87206	1347.96	0.52
28-Jan-13	10:49:10	Dolphin	Surface	96	8	50	334	53	0	N	22.27248	E	113.87422	516.73	26.88
28-Jan-13	10:49:14	Dolphin	Surface	96	8	50	334	5	10	N	22.27251	E	113.87415	516.73	26.08
28-Jan-13	10:52:06	Dolphin	Surface	96	4	20	314	22	20	N	22.27301	E	113.87251	523.11	6.37
28-Jan-13	10:52:57	Dolphin	Surface	96	0	30	307	15	20	N	22.27309	E	113.87188	528.70	359.25
28-Jan-13	10:53:40	Dolphin	Surface	96	23	20	300	36	10	N	22.27277	E	113.87132	496.93	352.60
28-Jan-13	10:54:55	Dolphin	Surface	96	11	50	289	2	20	N	22.27269	E	113.87033	512.42	341.04
28-Jan-13	10:55:19	Dolphin	Surface	96	15	30	285	12	10	N	22.27254	E	113.87003	507.36	337.20
28-Jan-13	10:56:57	Dolphin	Surface	95	40	10	277	1	0	N	22.27266	E	113.86914	560.48	329.01
28-Jan-13	10:57:47	Dolphin	Surface	95	48	40	272	58	10	N	22.27236	E	113.86889	546.69	324.97
28-Jan-13	10:59:20	Transportation boat	Traveling	91	55	0	269	28	30	N	22.28008	E	113.86184	1668.32	321.47
28-Jan-13	10:59:51	Transportation boat	Traveling	91	59	20	274	7	20	N	22.28034	E	113.86323	1607.21	326.12
28-Jan-13	11:00:56	Transportation boat	Traveling	92	7	50	284	47	0	N	22.28073	E	113.86619	1499.49	336.78
28-Jan-13	11:01:43	Fishing boat	Operating	99	22	0	1	49	0	N	22.27012	E	113.87459	337.16	53.81
28-Jan-13	11:02:13	Transportation boat	Traveling	92	11	40	300	28	20	N	22.28132	E	113.87009	1455.46	352.47
28-Jan-13	11:03:11	Fishing boat	Non-operating	95	33	50	256	16	40	N	22.27152	E	113.86758	571.05	308.27
28-Jan-13	11:04:00	Transportation boat	Traveling	92	0	0	321	32	20	N	22.28231	E	113.87558	1597.96	13.54
28-Jan-13	11:04:28	Fishing boat	Operating	94	10	50	8	5	40	N	22.27175	E	113.87836	761.29	60.09
28-Jan-13	11:04:45	Fishing boat	Non-operating	95	17	50	288	17	30	N	22.27342	E	113.86998	599.97	340.29
28-Jan-13	11:05:35	Dolphin	Surface	105	41	50	332	50	0	N	22.26995	E	113.87275	197.85	24.83
28-Jan-13	11:05:54	Dolphin	Surface	105	42	50	324	30	40	N	22.27004	E	113.87249	197.62	16.51
28-Jan-13	11:06:03	Dolphin	Surface	105	57	10	320	11	30	N	22.27004	E	113.87234	194.51	12.19
28-Jan-13	11:08:26	Dolphin	Surface	100	43	50	271	55	50	N	22.27047	E	113.87026	293.39	323.93
28-Jan-13	11:08:51	Dolphin	Surface	99	39	40	270	0	10	N	22.27065	E	113.86999	326.61	322.00
28-Jan-13	11:08:56	Dolphin	Surface	99	29	40	269	12	50	N	22.27067	E	113.86992	332.45	321.21
28-Jan-13	11:10:26	Dolphin	Surface	96	49	40	261	52	30	N	22.27123	E	113.86869	464.40	313.87
28-Jan-13	11:10:42	Dolphin	Surface	96	49	40	261	28	50	N	22.27121	E	113.86867	464.40	313.48
28-Jan-13	11:11:29	Dolphin	Surface	96	3	30	259	14	10	N	22.27144	E	113.86811	523.94	311.23
28-Jan-13	11:11:51	Dolphin	Surface	95	46	0	258	47	50	N	22.27157	E	113.86789	550.65	310.79
28-Jan-13	11:13:56	Dolphin	Surface	94	35	50	256	23	40	N	22.27220	E	113.86667	691.80	308.39
28-Jan-13	11:16:47	Dolphin	Surface	93	35	10	254	11	20	N	22.27305	E	113.86497	888.10	306.19
28-Jan-13	11:20:03	Fishing boat	Operating	94	33	40	0	25	20	N	22.27216	E	113.87732	697.49	52.42
28-Jan-13	11:20:23	Speedboat	Traveling	113	30	40	298	56	50	N	22.26947	E	113.87175	127.82	350.94
28-Jan-13	11:20:34	Speedboat	Traveling	104	25	30	329	42	50	N	22.27014	E	113.87272	216.19	21.71
28-Jan-13	11:20:50	Speedboat	Traveling	98	24	0	345	46	10	N	22.27101	E	113.87419	376.64	37.77
28-Jan-13	11:21:25	Speedboat	Traveling	94	16	0	355	46	30	N	22.27284	E	113.87732	745.94	47.77
28-Jan-13	11:22:07	Speedboat	Traveling	92	36	40	359	21	20	N	22.27520	E	113.88123	1221.96	51.35
28-Jan-13	11:41:22	Speedboat	Traveling	114	28	30	279	2	30	N	22.26930	E	113.87137	122.27	331.04
28-Jan-13	11:41:41	Speedboat	Traveling	112	47	40	317	25	10	N	22.26951	E	113.87216	132.44	9.42
28-Jan-13	11:42:03	Speedboat	Traveling	106	0	20	345	53	30	N	22.26971	E	113.87310	194.04	37.89
28-Jan-13	11:42:18	Hi-Speed Ferry		91	28	10	338	53	30	N	22.28520	E	113.88285	2184.26	30.89
28-Jan-13	11:42:49	Speedboat	Traveling	98	17	20	359	49	40	N	22.27046	E	113.87487	382.12	51.82
28-Jan-13	11:43:32	Speedboat	Traveling	95	30	50	4	20	50	N	22.27121	E	113.87661	576.85	56.34
28-Jan-13	11:43:54	Hi-Speed Ferry		92	6	50	331	14	40	N	22.28084	E	113.87775	1512.83	23.24
28-Jan-13	11:45:55	Speedboat	Traveling	92	32	50	5	28	10	N	22.27440	E	113.88223	1254.06	57.47
28-Jan-13	11:46:11	Hi-Speed Ferry		94	21	0	296	7	10	N	22.27478	E	113.87048	732.35	348.12
28-Jan-13	11:48:01	Hi-Speed Ferry		94	13	20	230	44	10	N	22.26983	E	113.86479	754.69	282.73
28-Jan-13	11:48:21	Transportation boat	Traveling	91	38	30	342	35	10	N	22.28280	E	113.88272	1952.89	34.58
28-Jan-13	11:48:52	Transportation boat	Traveling	91	40	20	345	56	20	N	22.28194	E	113.88341	1916.86	37.94
28-Jan-13	11:49:27	Transportation boat	Stationary	91	38	50	346	9	20	N	22.28211	E	113.88364	1946.32	38.15
28-Jan-13	11:49:57	Transportation boat	Traveling	91	4	50	322	31	0	N	22.29437	E	113.87923	2988.96	14.51
28-Jan-13	11:50:21	Research Vessel	Traveling	90	56	50	316	57	50	N	22.29876	E	113.87713	3423.05	8.96
28-Jan-13	11:52:36	Transportation boat	Traveling	91	20	30	337	49	0	N	22.28705	E	113.88353	2396.68	29.81
28-Jan-13	11:53:12	Transportation boat	Traveling	91	13	50	340	29	0	N	22.28820	E	113.88561	2617.27	32.48
28-Jan-13	11:53:26	Research Vessel	Traveling	91	10	20	320	24	20	N	22.29251	E	113.87769	2750.31	12.40
28-Jan-13	11:54:46	Sand Barge		91	18	40	278	14	50	N	22.28750	E	113.86010	2453.73	330.24
28-Jan-13	11:57:31	Research Vessel	Traveling	91	44	30	327	48	0	N	22.28392	E	113.87801	1840.32	19.80
28-Jan-13	11:58:03	Sand Barge		91	29	10	265	37	10	N	22.28270	E	113.85778	2160.89	317.62
28-Jan-13	11:58:31	Fishing boat	Non-operating	98	43	50	9	16	20	N	22.26990	E	113.87504	362.74	61.27
28-Jan-13	11:59:36	Fishing boat	Non-operating	96	14	0	13	39	0	N	22.27023	E	113.87646	510.13	65.65
28-Jan-13	12:00:29	Fishing boat	Non-operating	94	56	40	13	20	30	N	22.27075	E	113.87764	644.22	65.34
28-Jan-13	12:00:42	Research Vessel	Traveling	92	37	40	340	21	0	N	22.27758	E	113.87827	1216.17	32.35

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
28-Jan-13	12:01:23	Research Vessel	Traveling	92	21	40	339	1	40	N	22.27878	E	113.87873	1354.42	31.02
28-Jan-13	12:01:41	Transportation boat	Traveling	96	12	20	254	55	30	N	22.27110	E	113.86796	512.48	306.92
28-Jan-13	12:03:04	Research Vessel	Traveling	91	51	10	333	15	50	N	22.28241	E	113.87912	1729.33	25.26
28-Jan-13	12:03:15	Transportation boat	Traveling	94	51	0	308	5	50	N	22.27425	E	113.87195	656.92	0.09
28-Jan-13	12:03:39	Sand Barge		91	31	20	239	45	20	N	22.27537	E	113.85289	2109.45	291.75
28-Jan-13	12:04:05	Fishing boat	Non-operating	92	49	30	9	35	20	N	22.27318	E	113.88162	1130.98	61.59
28-Jan-13	12:05:14	Transportation boat	Traveling	92	54	20	329	36	0	N	22.27753	E	113.87588	1099.52	21.60
28-Jan-13	12:05:34	Research Vessel	Traveling	91	25	10	325	56	40	N	22.28772	E	113.87873	2264.60	17.94
28-Jan-13	12:09:06	Transportation boat	Traveling	91	40	50	341	11	30	N	22.28271	E	113.88211	1908.90	33.19
28-Jan-13	12:09:43	Sand Barge		91	10	50	216	53	30	N	22.26785	E	113.84538	2732.40	268.89
28-Jan-13	12:10:03	Transportation boat	Stationary	91	36	0	340	57	50	N	22.28348	E	113.88256	2006.21	32.96
28-Jan-13	12:13:46	Fishing boat	Non-operating	101	51	40	352	8	10	N	22.27005	E	113.87374	265.38	44.13
28-Jan-13	12:14:53	Fishing boat	Non-operating	112	34	40	296	17	30	N	22.26951	E	113.87168	134.04	348.29
28-Jan-13	12:15:30	Fishing boat	Non-operating	108	37	50	243	55	30	N	22.26898	E	113.87050	165.33	295.92
28-Jan-13	12:16:02	Fishing boat	Non-operating	115	38	20	325	7	30	N	22.26933	E	113.87228	116.13	17.12
28-Jan-13	12:18:11	Fishing boat	Non-operating	97	39	10	18	36	50	N	22.26957	E	113.87575	414.95	70.61
28-Jan-13	12:20:00	Fishing boat	Non-operating	94	20	10	17	42	20	N	22.27063	E	113.87866	735.77	69.70
28-Jan-13	12:21:15	Fishing boat	Operating	93	36	0	17	38	40	N	22.27111	E	113.88003	887.09	69.64
28-Jan-13	12:22:03	Fishing boat	Operating	93	19	40	16	26	50	N	22.27151	E	113.88063	960.06	68.44
28-Jan-13	12:44:41	Fishing boat	Non-operating	94	54	50	13	31	20	N	22.27076	E	113.87769	649.47	65.52
28-Jan-13	12:45:33	Fishing boat	Non-operating	96	27	40	10	44	50	N	22.27036	E	113.87621	492.95	62.74
28-Jan-13	12:46:11	Fishing boat	Non-operating	91	33	40	219	41	0	N	22.26888	E	113.85192	2059.99	271.68
28-Jan-13	12:47:47	Fishing boat	Non-operating	113	58	40	319	28	50	N	22.26944	E	113.87219	125.49	11.48
28-Jan-13	12:48:22	Fishing boat	Non-operating	117	40	30	257	3	30	N	22.26894	E	113.87114	106.42	309.06
28-Jan-13	12:48:44	Fishing boat	Non-operating	91	46	30	239	23	50	N	22.27427	E	113.85556	1809.37	291.39
28-Jan-13	12:52:49	Fishing boat	Non-operating	91	37	30	273	25	30	N	22.28299	E	113.86102	1978.61	325.42
28-Jan-13	13:21:53	Zero		91	9	40	0	0	0	N	22.28378	E	113.89331	2787.80	52.00
28-Jan-13	13:28:11	Police Vessel	Traveling	91	49	10	220	7	0	N	22.26892	E	113.85477	1767.72	272.11
28-Jan-13	13:29:37	Police Vessel	Traveling	91	17	30	324	33	0	N	22.28991	E	113.87887	2501.49	16.55
28-Jan-13	13:30:55	Police Vessel	Traveling	92	14	40	301	59	20	N	22.28114	E	113.87049	1430.75	353.99
28-Jan-13	13:31:03	Police Vessel	Traveling	92	6	50	260	50	10	N	22.27763	E	113.86111	1519.77	312.83
28-Jan-13	13:32:15	Police Vessel	Traveling	91	54	20	277	25	0	N	22.28141	E	113.86359	1687.42	329.41
28-Jan-13	13:32:26	Police Vessel	Traveling	92	43	40	234	47	0	N	22.27139	E	113.86100	1175.93	286.78
28-Jan-13	13:33:23	Police Vessel	Traveling	92	11	10	211	4	50	N	22.26674	E	113.85776	1469.35	263.08
28-Jan-13	13:33:34	Police Vessel	Traveling	91	35	50	290	4	40	N	22.28560	E	113.86591	2016.93	342.07
28-Jan-13	13:35:13	Police Vessel	Traveling	91	16	20	299	47	50	N	22.29097	E	113.86842	2541.03	351.79
28-Jan-13	13:35:42	Other	Traveling	91	18	20	279	1	50	N	22.28782	E	113.86028	2475.05	331.03
28-Jan-13	13:37:27	Other	Traveling	91	28	0	266	47	30	N	22.28322	E	113.85785	2199.27	318.79
28-Jan-13	13:41:10	Other	Traveling	91	27	10	235	37	0	N	22.27438	E	113.85136	2220.96	287.61
28-Jan-13	13:56:05	Sand Barge		91	18	20	285	52	10	N	22.28898	E	113.86287	2477.20	337.87
28-Jan-13	13:56:52	Research Vessel	Traveling	91	34	50	224	23	0	N	22.27037	E	113.85222	2040.49	276.38
28-Jan-13	14:00:59	Research Vessel	Traveling	91	45	20	249	19	50	N	22.27692	E	113.85670	1835.26	301.33
28-Jan-13	14:01:13	Sand Barge		91	44	30	262	12	20	N	22.27994	E	113.85905	1850.06	314.20
28-Jan-13	14:05:53	Research Vessel	Traveling	91	31	20	277	27	20	N	22.28477	E	113.86146	2120.51	329.45
28-Jan-13	14:06:05	Sand Barge		91	41	30	230	26	10	N	22.27202	E	113.85385	1905.72	282.43
28-Jan-13	14:09:44	Speedboat	Traveling	111	2	0	277	57	30	N	22.26947	E	113.87124	145.65	329.96
28-Jan-13	14:10:02	Speedboat	Traveling	102	40	0	333	22	40	N	22.27036	E	113.87298	249.22	25.37
28-Jan-13	14:10:23	Speedboat	Traveling	96	46	50	347	48	50	N	22.27159	E	113.87488	471.21	39.81
28-Jan-13	14:10:36	Hi-Speed Ferry		95	12	40	230	29	40	N	22.26953	E	113.86611	614.44	282.49
28-Jan-13	14:10:52	Police Vessel	Traveling	91	46	40	280	58	40	N	22.28287	E	113.86393	1812.85	332.97
28-Jan-13	14:11:48	Hi-Speed Ferry		96	4	50	280	51	40	N	22.27255	E	113.86961	526.01	332.86
28-Jan-13	14:12:07	Speedboat	Traveling	91	54	40	356	37	30	N	22.27836	E	113.88424	1685.33	48.62
28-Jan-13	14:12:29	Police Vessel	Traveling	92	3	30	246	50	20	N	22.27512	E	113.85862	1563.86	298.84
28-Jan-13	14:14:15	Police Vessel	Traveling	91	39	0	212	29	20	N	22.26664	E	113.85302	1955.07	264.49
28-Jan-13	14:14:32	Hi-Speed Ferry		92	17	20	330	5	30	N	22.28005	E	113.87708	1405.39	22.09
28-Jan-13	14:26:30	Police Vessel	Traveling	95	42	0	258	58	0	N	22.27165	E	113.86782	561.76	310.96
28-Jan-13	14:28:08	Police Vessel	Traveling	91	59	50	328	31	10	N	22.28193	E	113.87744	1613.16	20.52
28-Jan-13	14:28:59	Police Vessel	Traveling	91	22	40	338	48	40	N	22.28649	E	113.88364	2348.52	30.81
28-Jan-13	14:41:18	Speedboat	Traveling	104	58	20	280	8	50	N	22.27000	E	113.87099	209.72	332.14
28-Jan-13	14:42:12	Speedboat	Traveling	99	46	0	333	16	50	N	22.27099	E	113.87330	325.87	25.28
28-Jan-13	14:43:17	Speedboat	Traveling	95	14	50	350	3	40	N	22.27242	E	113.87592	611.03	42.06
28-Jan-13	14:44:32	Speedboat	Traveling	93	18	20	355	53	10	N	22.27420	E	113.87896	972.41	47.88
28-Jan-13	14:53:12	Police Vessel	Traveling	91	50	30	328	16	20	N	22.28313	E	113.87785	1752.52	20.27
28-Jan-13	14:54:20	Police Vessel	Traveling	93	23	0	295	23	10	N	22.27668	E	113.86993	950.34	347.38
28-Jan-13	14:55:17	Police Vessel	Traveling	93	32	20	234	5	50	N	22.27060	E	113.86346	908.41	286.09
28-Jan-13	14:55:45	Police Vessel	Traveling	92	43	50	213	50	50	N	22.26756	E	113.86051	1178.89	265.84
28-Jan-13	15:21:11	Speedboat	Traveling	111	59	40	294	38	50	N	22.26955	E	113.87163	139.08	346.64
28-Jan-13	15:21:24	Speedboat	Traveling	103	12	50	342	24	40	N	22.27011	E	113.87326	239.27	34.41
28-Jan-13	15:21:33	Speedboat	Traveling	98	57	20	353	44	10	N	22.27057	E	113.87443	356.54	45.73
28-Jan-13	15:21:57	Speedboat	Traveling	94	37	50	1	33	0	N	22.27204	E	113.87737	694.07	53.55
28-Jan-13	15:22:31	Speedboat	Traveling	92	42	30	1	54	30	N	22.27464	E	113.88130	1189.96	53.91
28-Jan-13	15:22:54	Other	Traveling	94	24	40	251	49	0	N	22.27198	E	113.86606	728.82	303.81
28-Jan-13	15:23:38	Other	Traveling	94	14	30	279	8	40	N	22.27431	E	113.86839	758.12	331.14
28-Jan-13	15:25:10	Other	Traveling	92	38	20	315	27	20	N	22.27923	E	113.87349	1221.59	7.45
28-Jan-13	15:26:08	Other	Traveling	91	59	30	326	55	50	N	22.28214	E	113.87706	1621.69	18.93
28-Jan-13	15:27:03	Other	Traveling	91	35	40	333	50	50	N	22.28478	E	113.88055	2030.28	25.84
28-Jan-13	15:27:16	Other	Traveling	91	26	20	346	53	0	N	22.28412	E	113.88570	2252.87	38.88
28-Jan-13	15:27:24	Other	Stationary	91	26	10	347	35	40	N	22.28399	E	113.88594	2257.31	39.59
28-Jan-13	15:27:40	Other	Stationary	91	42	10	344	35	10	N	22.28206	E	113.88296	1899.73	36.58
28-Jan-13	15:27:48	Other	Stationary	91	42	10	345	1	40	N	22.28198	E	113.88307	1899.74	37.02
28-Jan-13	15:28:09	Other	Stationary	91	35	10	345	20	20	N	22.28294	E	113.88398	2041.17	37.34
28-Jan-13	15:28:22	Other	Stationary	91	28	40	346	30	10	N	22.28378	E	113.88522	2192.85	38.50
28-Jan-13	15:28:29	Other	Stationary	91	29	20	347	6	20	N	22.28353	E	113.88529	2176.27	39.10
28-Jan-13	15:28:39	Other	Stationary	91	35	40	346	0	40	N	22.28273	E	113.88410	2030.41	38.01
28-Jan-13	15:28:54	Other	Stationary	90	57	30	241	33	30	N	22.28061	E	113.84151	3414.07	293.56
28-Jan-13	15:29:07	Other	Stationary	91	15	40	247	45	30	N	22.27984	E	113.85019	2576.35	299.76
29-Jan-13	8:28:38	Zero		147	21	40	0	0	0	N	22.26854	E	113.87222	36.50	52.00
29-Jan-13	8:29:04	Other	Stationary	91	27	10	346	51	30	N	22.28419	E	113.88575	2262.98	38.86
29-Jan-13	8:29:18	Other	Stationary	91	26	50	347	33	50	N	22.28409	E	113.88602	2271.80	39.56
29-Jan-13	8:29:33	Other	Stationary	91	43	0	344	33	40	N	22.28215	E	113.88302	1911.10	36.56
29-Jan-13	8:29:39	Other	Stationary	91	43	0	345	0	0	N	22.28207	E	113.88313	1911.10	37.00
29-Jan-13	8:29:56	Other	Stationary	91	36	20	345	5	0	N	22.28301	E	113.88394	2044.92	37.08
29-Jan-13	8:30:09	Other	Stationary	91	29	10	346	29	10	N	22.28391	E	113.88533	2211.50	38.48
29-Jan-13	8:30:18	Other	Stationary	91	30	0	347	4	50	N	22.28364	E	113.88538	2190.74	39.08
29-Jan-13	8:30:30	Other	Stationary	91	36	30	345	59	10	N	22.28281	E	113.88416	2041.34	37.98
29-Jan-13	8:30:46	Other	Stationary	90	57	40	241	34	0	N	22.28075	E	113.84116	3452.86	293.56
29-Jan-13	8:31:05	Other	Stationary	91	5	30	246	57	0	N	22.28152	E	113.84617	3028.52	298.95
29-Jan-13	8:31:22	Other	Stationary	91	40	0	345	21	40	N	22.28242	E	113.88356	1969.08	37.36
29-Jan-13	8:31:43	Transportation boat	Stationary	91	30	10	349	33	10	N	22.28306	E	113.88605	2186.64	41.55
29-Jan-13	8:31:53	Transportation boat	Traveling	91	12	30	349	18	20	N	22.28679	E	113.88947	2729.63	41.30
29-Jan-13	8:32:59	Fishing boat	Operating	92	36	20	348	30	40	N	22.27692	E	113.87987	1255.05	40.51

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
29-Jan-13	8:33:22	Fishing boat	Operating	92	30	0	358	59	20	N	22.27575	E	113.88183	1308.36	50.99
29-Jan-13	8:33:38	Transportation boat	Traveling	91	32	40	350	4	10	N	22.28254	E	113.88580	2126.87	42.07
29-Jan-13	8:34:41	Transportation boat	Traveling	91	42	0	346	2	40	N	22.28176	E	113.88330	1895.01	38.04
29-Jan-13	8:36:00	Transportation boat	Stationary	91	42	30	345	3	30	N	22.28187	E	113.88299	1885.57	37.06
29-Jan-13	8:36:45	Fishing boat	Non-operating	92	6	30	356	24	50	N	22.27744	E	113.88304	1524.94	48.41
29-Jan-13	8:37:27	Fishing boat	Non-operating	91	52	0	357	0	10	N	22.27851	E	113.88460	1724.05	49.00
29-Jan-13	8:37:44	Transportation boat	Traveling	91	31	20	340	59	20	N	22.28433	E	113.88316	2118.87	32.99
29-Jan-13	8:38:10	Transportation boat	Traveling	91	29	10	342	38	40	N	22.28441	E	113.88395	2171.02	34.64
29-Jan-13	8:38:35	Transportation boat	Traveling	91	28	40	275	39	40	N	22.28493	E	113.86058	2183.40	327.66
29-Jan-13	8:39:51	Transportation boat	Stationary	91	29	10	343	11	0	N	22.28430	E	113.88411	2170.89	35.18
29-Jan-13	8:40:32	Other	Traveling	91	3	0	318	0	0	N	22.29575	E	113.87717	3093.63	10.00
29-Jan-13	8:42:55	Other	Traveling	91	39	20	257	20	40	N	22.27943	E	113.85731	1945.87	309.34
29-Jan-13	8:43:32	Other	Traveling	91	15	20	326	46	50	N	22.29028	E	113.88001	2576.25	18.78
29-Jan-13	8:43:47	Fishing boat	Non-operating	92	40	50	345	15	40	N	22.27691	E	113.87899	1197.28	37.26
29-Jan-13	8:45:04	Fishing boat	Non-operating	93	12	0	348	26	40	N	22.27520	E	113.87827	1001.97	40.44
29-Jan-13	8:46:15	Other	Traveling	91	40	40	241	37	40	N	22.27526	E	113.85484	1919.58	293.62
29-Jan-13	8:46:34	Other	Traveling	91	28	50	340	44	20	N	22.28482	E	113.88340	2178.62	32.74
29-Jan-13	8:46:55	Fishing boat	Non-operating	94	31	50	346	13	50	N	22.27333	E	113.87620	706.42	38.23
29-Jan-13	8:47:37	Fishing boat	Non-operating	95	16	20	345	38	10	N	22.27266	E	113.87555	606.47	37.63
29-Jan-13	8:48:29	Fishing boat	Non-operating	96	30	10	355	41	10	N	22.27131	E	113.87547	490.87	47.68
29-Jan-13	8:51:03	Dolphin	Surface	95	35	40	307	10	10	N	22.27347	E	113.87186	571.23	359.17
29-Jan-13	8:51:10	Dolphin	Surface	95	31	50	308	6	30	N	22.27353	E	113.87195	577.87	0.11
29-Jan-13	8:51:52	Fishing boat	Operating	101	11	0	337	25	40	N	22.27055	E	113.87330	282.91	29.42
29-Jan-13	8:52:15	Dolphin	Fluke Up	95	27	10	314	34	50	N	22.27357	E	113.87260	586.15	6.58
29-Jan-13	8:52:48	Police Vessel	Traveling	91	59	20	272	11	40	N	22.28013	E	113.86275	1616.32	324.19
29-Jan-13	8:54:05	Dolphin	Surface	95	9	50	320	32	30	N	22.27377	E	113.87325	619.13	12.54
29-Jan-13	8:54:09	Dolphin	Surface	95	8	10	321	32	20	N	22.27378	E	113.87336	622.50	13.54
29-Jan-13	8:54:58	Fishing boat	Operating	98	2	40	326	8	50	N	22.27172	E	113.87314	395.75	18.14
29-Jan-13	8:55:06	Police Vessel	Traveling	91	9	10	301	17	20	N	22.29345	E	113.86875	2809.76	353.29
29-Jan-13	8:55:32	Dolphin	Surface	95	24	50	323	11	20	N	22.27346	E	113.87345	590.32	15.19
29-Jan-13	8:57:08	Fishing boat	Operating	96	29	30	324	13	0	N	22.27258	E	113.87328	491.57	16.21
29-Jan-13	8:57:28	Dolphin	Surface	96	26	20	341	10	10	N	22.27207	E	113.87458	495.63	33.17
29-Jan-13	8:58:07	Fishing boat	Operating	96	47	0	321	5	10	N	22.27246	E	113.87298	470.22	13.08
29-Jan-13	8:58:31	Fishing boat	Operating	97	42	30	317	36	50	N	22.27200	E	113.87262	413.19	9.61
29-Jan-13	8:58:39	Dolphin	Surface	97	51	0	346	40	10	N	22.27118	E	113.87441	405.63	38.67
29-Jan-13	8:59:44	Fishing boat	Operating	102	47	50	294	0	40	N	22.27048	E	113.87137	246.17	346.01
29-Jan-13	9:00:01	Dolphin	Breach	97	19	30	340	43	0	N	22.27163	E	113.87423	435.06	32.71
29-Jan-13	9:00:47	Fishing boat	Operating	105	10	50	267	19	50	N	22.26974	E	113.87064	206.07	319.33
29-Jan-13	9:00:55	Dolphin	Surface	96	57	20	337	43	40	N	22.27192	E	113.87415	458.41	29.72
29-Jan-13	9:01:18	Dolphin	Surface	97	9	0	338	28	20	N	22.27179	E	113.87414	445.80	30.47
29-Jan-13	9:02:20	Dolphin	Surface	97	15	40	347	39	20	N	22.27137	E	113.87467	438.89	39.65
29-Jan-13	9:04:02	Dolphin	Surface	97	13	0	350	41	20	N	22.27125	E	113.87486	441.60	42.69
29-Jan-13	9:05:21	Fishing boat	Operating	97	10	10	292	7	50	N	22.27218	E	113.87076	444.52	344.13
29-Jan-13	9:05:36	Dolphin	Surface	96	47	10	347	41	30	N	22.27159	E	113.87486	469.90	39.69
29-Jan-13	9:05:44	Dolphin	Surface	96	47	10	346	45	10	N	22.27163	E	113.87480	469.89	38.75
29-Jan-13	9:05:53	Dolphin	Surface	96	53	30	346	1	0	N	22.27161	E	113.87472	462.62	38.01
29-Jan-13	9:06:00	Dolphin	Surface	96	55	30	346	1	30	N	22.27160	E	113.87470	460.37	38.02
29-Jan-13	9:07:03	Dolphin	Surface	96	26	50	347	52	10	N	22.27175	E	113.87503	494.81	39.87
29-Jan-13	9:07:36	Other	Stationary	95	46	20	337	59	0	N	22.27265	E	113.87463	553.18	29.98
29-Jan-13	9:07:46	Other	Stationary	96	50	30	2	11	20	N	22.27079	E	113.87562	466.01	54.19
29-Jan-13	9:07:56	Other	Stationary	101	36	0	304	46	30	N	22.27078	E	113.87180	272.32	356.77
29-Jan-13	9:08:07	Other	Stationary	95	52	40	303	10	40	N	22.27320	E	113.87150	543.16	355.17
29-Jan-13	9:08:16	Fishing boat	Operating	95	29	50	304	57	50	N	22.27355	E	113.87164	581.05	356.96
29-Jan-13	9:08:33	Dolphin	Breach	97	50	40	339	1	30	N	22.27146	E	113.87398	405.78	31.02
29-Jan-13	9:09:53	Fishing boat	Operating	94	21	0	329	15	30	N	22.27450	E	113.87454	735.30	21.26
29-Jan-13	9:11:03	Fishing boat	Operating	94	21	40	343	21	20	N	22.27372	E	113.87607	733.38	35.35
29-Jan-13	9:14:18	Fishing boat	Operating	94	39	50	344	15	10	N	22.27331	E	113.87589	685.44	36.25
29-Jan-13	9:16:37	Dolphin	Surface	97	45	40	324	12	20	N	22.27188	E	113.87306	410.08	16.20
29-Jan-13	9:16:44	Dolphin	Surface	97	37	40	325	24	40	N	22.27192	E	113.87316	417.33	17.41
29-Jan-13	9:17:46	Dolphin	Surface	97	12	30	328	35	30	N	22.27206	E	113.87346	441.90	20.59
29-Jan-13	9:17:53	Dolphin	Surface	97	7	10	330	2	10	N	22.27207	E	113.87358	447.47	22.03
29-Jan-13	9:18:01	Dolphin	Breach	96	55	10	330	32	30	N	22.27216	E	113.87366	460.54	22.54
29-Jan-13	9:18:11	Dolphin	Surface	96	51	20	330	12	10	N	22.27221	E	113.87365	464.88	22.20
29-Jan-13	9:18:28	Dolphin	Surface	96	55	0	329	31	20	N	22.27219	E	113.87359	460.72	21.52
29-Jan-13	9:18:32	Dolphin	Surface	96	52	50	329	38	0	N	22.27221	E	113.87360	463.17	21.63
29-Jan-13	9:18:37	Dolphin	Surface	96	53	10	329	44	10	N	22.27220	E	113.87361	462.79	21.73
29-Jan-13	9:18:43	Dolphin	Surface	96	50	40	329	51	20	N	22.27222	E	113.87363	465.63	21.85
29-Jan-13	9:18:47	Dolphin	Surface	96	48	20	329	54	0	N	22.27224	E	113.87364	468.32	21.90
29-Jan-13	9:18:55	Dolphin	Surface	96	47	0	330	10	0	N	22.27225	E	113.87367	469.87	22.16
29-Jan-13	9:19:03	Dolphin	Surface	96	44	40	330	19	20	N	22.27227	E	113.87369	472.60	22.32
29-Jan-13	9:19:08	Dolphin	Surface	96	42	30	330	28	0	N	22.27229	E	113.87371	475.17	22.46
29-Jan-13	9:19:14	Dolphin	Surface	96	40	50	330	33	40	N	22.27230	E	113.87372	477.16	22.56
29-Jan-13	9:19:19	Dolphin	Surface	96	39	10	330	40	0	N	22.27231	E	113.87374	479.17	22.66
29-Jan-13	9:19:26	Dolphin	Surface	96	36	50	330	49	20	N	22.27233	E	113.87376	482.01	22.82
29-Jan-13	9:19:34	Dolphin	Surface	96	36	40	330	59	0	N	22.27233	E	113.87378	482.22	22.98
29-Jan-13	9:19:41	Dolphin	Surface	96	33	40	331	7	10	N	22.27236	E	113.87380	485.92	23.12
29-Jan-13	9:19:51	Dolphin	Fluke Up	96	32	20	330	50	10	N	22.27238	E	113.87378	487.59	22.83
29-Jan-13	9:21:15	Dolphin	Surface	102	46	10	271	56	20	N	22.27013	E	113.87053	246.53	323.94
29-Jan-13	9:21:27	Dolphin	Surface	103	32	30	276	56	40	N	22.27012	E	113.87078	231.98	328.94
29-Jan-13	9:21:43	Dolphin	Surface	103	52	20	283	38	20	N	22.27019	E	113.87104	226.23	335.64
29-Jan-13	9:22:01	Dolphin	Breach	103	39	30	287	0	30	N	22.27027	E	113.87114	229.91	339.01
29-Jan-13	9:22:05	Dolphin	Breach	103	39	30	287	21	20	N	22.27027	E	113.87116	229.91	339.35
29-Jan-13	9:22:10	Dolphin	Breach	103	14	50	288	20	0	N	22.27034	E	113.87117	237.32	340.33
29-Jan-13	9:22:43	Dolphin	Breach	102	2	30	294	59	50	N	22.27063	E	113.87137	261.91	346.99
29-Jan-13	9:22:47	Dolphin	Surface	102	2	30	295	22	20	N	22.27063	E	113.87139	261.91	347.37
29-Jan-13	9:23:22	Dolphin	Breach	101	21	40	303	41	40	N	22.27083	E	113.87174	278.06	355.69
29-Jan-13	9:24:46	Dolphin	Spyhop	101	7	40	293	14	10	N	22.27080	E	113.87124	284.03	345.23
29-Jan-13	9:25:03	Dolphin	Spyhop	101	32	20	295	55	0	N	22.27074	E	113.87139	273.64	347.91
29-Jan-13	9:25:08	Dolphin	Spyhop	101	32	20	296	44	10	N	22.27075	E	113.87142	273.64	348.73
29-Jan-13	9:25:15	Dolphin	Surface	101	20	30	297	8	30	N	22.27079	E	113.87143	278.53	349.14
29-Jan-13	9:25:36	Dolphin	Fluke Up	101	51	40	294	58	30	N	22.27067	E	113.87136	265.99	346.97
29-Jan-13	9:26:15	Dolphin	Surface	102	40	30	294	48	40	N	22.27051	E	113.87139	248.39	346.81
29-Jan-13	9:26:48	Dolphin	Surface	104	15	0	294	13	10	N	22.27026	E	113.87143	219.95	346.22
29-Jan-13	9:27:32	Dolphin	Fluke Up	103	21	30	309	14	0	N	22.27045	E	113.87199	235.23	1.23
29-Jan-13	9:27:40	Dolphin	Surface	103	15	30	310	21	10	N	22.27047	E	113.87204	237.07	2.35
29-Jan-13	9:28:16	Dolphin	Surface	103	0	20	319	1	30	N	22.27047	E	113.87239	241.84	11.02
29-Jan-13	9:28:31	Dolphin	Spyhop	102	33	20	320	49	0	N	22.27053	E	113.87249	250.81	12.81
29-Jan-13	9:28:36	Dolphin	Surface	102	23	40	321	23	50	N	22.27056	E	113.87252	254.17	13.39
29-Jan-13	9:29:03	Dolphin	Spyhop	101	23	40	319	40	20	N	22.27078	E	113.87249	277.16	11.67
29-Jan-13	9:29:45	Dolphin	Spyhop	106	40	50	300	1	20	N	22.26999	E	113.87169	186.40	352.02
29-Jan-13	9:29:57	Dolphin	Spyhop	106	28	50	298	0	40	N	22.27001	E	113.87163	188.79	350.01

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
29-Jan-13	9:30:02	Dolphin	Surface	106	5	10	297	49	50	N	22.27005	E	113.87161	193.68	349.83
29-Jan-13	9:30:11	Dolphin	Surface	105	59	20	297	21	10	N	22.27006	E	113.87159	194.92	349.35
29-Jan-13	9:30:59	Dolphin	Surface	103	48	10	298	33	10	N	22.27035	E	113.87158	227.34	350.55
29-Jan-13	9:31:17	Dolphin	Surface	104	23	10	305	31	50	N	22.27029	E	113.87185	217.75	357.53
29-Jan-13	9:31:34	Dolphin	Surface	103	25	20	306	48	40	N	22.27044	E	113.87190	234.04	358.81
29-Jan-13	9:31:46	Dolphin	Surface	103	19	20	312	49	40	N	22.27045	E	113.87214	235.86	4.82
29-Jan-13	9:31:55	Speedboat	Traveling	94	42	20	343	33	30	N	22.27330	E	113.87578	678.90	35.56
29-Jan-13	9:31:58	Speedboat	Traveling	94	30	20	343	27	10	N	22.27353	E	113.87594	709.21	35.45
29-Jan-13	9:32:14	Dolphin	Surface	103	37	20	315	53	40	N	22.27039	E	113.87225	230.46	7.89
29-Jan-13	9:32:23	Speedboat	Traveling	98	16	40	327	36	30	N	22.27159	E	113.87320	383.93	19.61
29-Jan-13	9:32:28	Speedboat	Traveling	97	42	10	328	4	0	N	22.27182	E	113.87332	412.99	20.06
29-Jan-13	9:32:32	Dolphin	Surface	103	15	50	318	46	50	N	22.27043	E	113.87238	236.93	10.78
29-Jan-13	9:32:50	Speedboat	Traveling	104	47	10	276	35	20	N	22.26996	E	113.87087	211.58	328.59
29-Jan-13	9:32:55	Speedboat	Traveling	102	52	20	286	3	20	N	22.27037	E	113.87106	244.39	338.05
29-Jan-13	9:37:29	Fishing boat	Operating	95	11	40	344	25	0	N	22.27278	E	113.87549	614.51	36.41
29-Jan-13	9:38:37	Fishing boat	Operating	97	19	10	338	31	40	N	22.27170	E	113.87409	434.79	30.52
29-Jan-13	9:41:57	Dolphin	Surface	93	40	40	262	7	30	N	22.27378	E	113.86587	869.44	314.12
29-Jan-13	9:42:27	Dolphin	Surface	93	42	40	262	8	50	N	22.27373	E	113.86593	861.58	314.14
29-Jan-13	9:43:03	Dolphin	Surface	93	42	50	262	21	40	N	22.27375	E	113.86596	860.91	314.36
29-Jan-13	9:43:08	Dolphin	Surface	93	42	50	262	21	0	N	22.27375	E	113.86596	860.91	314.35
29-Jan-13	9:43:17	Dolphin	Surface	93	40	10	262	4	10	N	22.27379	E	113.86586	871.38	314.07
29-Jan-13	9:43:52	Dolphin	Surface	93	42	10	262	5	0	N	22.27374	E	113.86591	863.48	314.08
29-Jan-13	9:44:28	Dolphin	Surface	93	44	40	261	32	30	N	22.27363	E	113.86593	853.81	313.54
29-Jan-13	9:44:37	Dolphin	Surface	93	45	40	261	30	10	N	22.27360	E	113.86595	850.00	313.50
29-Jan-13	9:46:20	Dolphin	Surface	94	3	20	263	16	10	N	22.27337	E	113.86655	787.94	315.27
29-Jan-13	9:46:43	Hi-Speed Ferry		92	59	0	323	54	20	N	22.27762	E	113.87480	1072.74	15.90
29-Jan-13	9:46:50	Fishing boat	Operating	94	53	50	332	45	20	N	22.27366	E	113.87460	651.83	24.75
29-Jan-13	9:46:58	Hi-Speed Ferry		93	17	50	320	28	40	N	22.27686	E	113.87398	970.13	12.47
29-Jan-13	9:47:08	Fishing boat	Operating	94	43	0	338	16	0	N	22.27359	E	113.87526	676.93	30.26
29-Jan-13	9:48:15	Dolphin	Fluke Up	96	28	0	247	33	20	N	22.27052	E	113.86778	492.58	299.55
29-Jan-13	9:48:25	Hi-Speed Ferry		95	34	50	276	0	20	N	22.27269	E	113.86900	571.49	328.00
29-Jan-13	9:48:55	Hi-Speed Ferry		95	28	0	253	0	10	N	22.27134	E	113.86730	583.47	305.00
29-Jan-13	9:49:28	Hi-Speed Ferry		94	35	10	231	38	10	N	22.26981	E	113.86536	696.25	283.63
29-Jan-13	9:49:44	Fishing boat	Operating	93	28	30	345	37	50	N	22.27489	E	113.87741	920.17	37.63
29-Jan-13	9:50:00	Dolphin	Surface	97	6	30	250	35	50	N	22.27050	E	113.86828	447.66	302.59
29-Jan-13	9:50:13	Dolphin	Surface	97	8	10	249	1	30	N	22.27040	E	113.86823	445.90	301.02
29-Jan-13	9:50:22	Dolphin	Surface	97	11	10	247	46	20	N	22.27031	E	113.86821	442.76	299.77
29-Jan-13	9:50:55	Dolphin	Surface	96	51	10	247	5	30	N	22.27037	E	113.86800	464.52	299.09
29-Jan-13	9:51:37	Dolphin	Surface	96	14	20	248	39	50	N	22.27068	E	113.86767	510.67	300.66
29-Jan-13	9:52:01	Dolphin	Surface	96	8	40	251	8	20	N	22.27088	E	113.86772	518.58	303.14
29-Jan-13	9:52:58	Dolphin	Surface	96	59	30	272	33	30	N	22.27167	E	113.86938	455.17	324.56
29-Jan-13	9:53:24	Dolphin	Surface	96	27	50	272	11	30	N	22.27193	E	113.86914	492.71	324.19
29-Jan-13	9:53:46	Dolphin	Surface	96	5	50	270	56	30	N	22.27209	E	113.86888	522.60	322.94
29-Jan-13	9:54:55	Dolphin	Surface	95	21	20	268	38	10	N	22.27248	E	113.86827	595.53	320.63
29-Jan-13	9:54:59	Dolphin	Surface	95	19	40	268	27	40	N	22.27249	E	113.86824	598.65	320.46
29-Jan-13	9:56:06	Dolphin	Surface	95	22	40	269	44	50	N	22.27252	E	113.86837	593.03	321.74
29-Jan-13	9:56:16	Dolphin	Surface	95	21	20	269	19	40	N	22.27252	E	113.86833	595.50	321.32
29-Jan-13	9:56:20	Dolphin	Surface	95	20	30	269	11	50	N	22.27252	E	113.86831	597.06	321.19
29-Jan-13	9:56:25	Dolphin	Surface	95	20	40	268	44	0	N	22.27249	E	113.86827	596.74	320.73
29-Jan-13	9:57:41	Dolphin	Surface	95	5	20	266	3	10	N	22.27253	E	113.86787	626.89	318.05
29-Jan-13	9:58:36	Other		91	27	50	252	7	40	N	22.27943	E	113.85425	2198.06	304.12
29-Jan-13	10:00:28	Dolphin	Surface	94	44	30	257	36	10	N	22.27219	E	113.86690	673.01	309.60
29-Jan-13	10:00:37	Dolphin	Surface	94	45	40	257	20	10	N	22.27216	E	113.86690	670.25	309.33
29-Jan-13	10:00:53	Dolphin	Surface	94	46	10	256	20	40	N	22.27207	E	113.86684	669.06	308.34
29-Jan-13	10:01:14	Dolphin	Surface	94	46	50	255	56	50	N	22.27203	E	113.86683	667.49	307.94
29-Jan-13	10:03:12	Dolphin	Surface	94	38	10	253	15	50	N	22.27191	E	113.86648	688.36	305.26
29-Jan-13	10:03:21	Dolphin	Surface	94	38	20	252	42	30	N	22.27186	E	113.86644	687.94	304.71
29-Jan-13	10:03:27	Dolphin	Fluke Up	94	37	50	252	28	30	N	22.27184	E	113.86642	689.18	304.47
29-Jan-13	10:04:01	Dolphin	Surface	94	30	50	252	55	30	N	22.27198	E	113.86631	707.08	304.92
29-Jan-13	10:05:16	Research Vessel	Traveling	91	20	0	327	26	50	N	22.28884	E	113.87977	2416.20	19.44
29-Jan-13	10:05:30	Research Vessel	Traveling	91	29	50	351	34	0	N	22.28234	E	113.88634	2147.92	43.56
29-Jan-13	10:05:46	Police Vessel	Traveling	91	24	20	336	52	10	N	22.28638	E	113.88270	2290.06	28.87
29-Jan-13	10:06:11	Dolphin	Surface	94	32	50	247	41	10	N	22.27146	E	113.86602	701.82	299.68
29-Jan-13	10:06:14	Dolphin	Surface	94	32	50	247	27	50	N	22.27144	E	113.86600	701.82	299.46
29-Jan-13	10:07:35	Police Vessel	Traveling	94	36	20	300	5	10	N	22.27451	E	113.87102	692.84	352.08
29-Jan-13	10:08:10	Dolphin	Surface	94	4	40	242	16	30	N	22.27123	E	113.86500	783.01	294.27
29-Jan-13	10:08:36	Dolphin	Surface	94	24	50	241	56	20	N	22.27097	E	113.86552	723.07	293.94
29-Jan-13	10:08:51	Police Vessel	Traveling	95	44	40	257	14	10	N	22.27149	E	113.86777	554.65	309.23
29-Jan-13	10:09:48	Research Vessel	Traveling	91	5	10	309	27	0	N	22.29513	E	113.87268	2978.44	1.45
29-Jan-13	10:10:01	Research Vessel	Traveling	92	40	10	348	32	10	N	22.27653	E	113.87952	1198.57	40.53
29-Jan-13	10:10:20	Hi-Speed Ferry		93	43	30	217	51	10	N	22.26831	E	113.86361	857.49	269.85
29-Jan-13	10:11:14	Hi-Speed Ferry		95	13	30	246	2	0	N	22.27091	E	113.86671	610.15	298.03
29-Jan-13	10:11:35	Dolphin	Surface	99	43	50	287	19	50	N	22.27107	E	113.87083	325.25	339.33
29-Jan-13	10:11:49	Dolphin	Surface	100	7	30	285	18	0	N	22.27093	E	113.87077	312.32	337.30
29-Jan-13	10:12:15	Dolphin	Surface	100	39	50	280	3	40	N	22.27069	E	113.87059	296.19	332.06
29-Jan-13	10:12:51	Dolphin	Surface	100	56	50	271	41	40	N	22.27042	E	113.87028	288.33	323.69
29-Jan-13	10:13:22	Dolphin	Surface	101	6	0	263	40	50	N	22.27016	E	113.87001	284.26	315.68
29-Jan-13	10:14:01	Research Vessel	Traveling	95	50	40	325	57	0	N	22.27300	E	113.87358	544.99	17.95
29-Jan-13	10:14:25	Dolphin	Spyhop	101	6	50	246	24	30	N	22.26955	E	113.86952	283.89	298.41
29-Jan-13	10:14:34	Dolphin	Spyhop	101	2	20	244	54	30	N	22.26950	E	113.86947	285.86	296.91
29-Jan-13	10:14:38	Dolphin	Breach	100	56	50	244	44	50	N	22.26950	E	113.86944	288.32	296.74
29-Jan-13	10:14:45	Dolphin	Breach	100	45	0	243	49	0	N	22.26948	E	113.86937	293.73	295.81
29-Jan-13	10:15:17	Dolphin	Surface	100	55	0	239	33	0	N	22.26929	E	113.86933	289.14	291.55
29-Jan-13	10:15:27	Dolphin	Surface	101	15	20	240	47	20	N	22.26931	E	113.86943	280.21	292.79
29-Jan-13	10:15:42	Dolphin	Surface	101	53	20	245	25	50	N	22.26943	E	113.86966	264.87	297.43
29-Jan-13	10:16:01	Dolphin	Surface	102	21	0	248	23	50	N	22.26949	E	113.86981	254.68	300.39
29-Jan-13	10:16:07	Dolphin	Surface	102	20	10	248	32	50	N	22.26950	E	113.86981	254.98	300.54
29-Jan-13	10:16:14	Dolphin	Surface	102	19	30	248	48	40	N	22.26951	E	113.86981	255.22	300.81
29-Jan-13	10:16:22	Dolphin	Surface	102	18	0	249	5	40	N	22.26952	E	113.86981	255.75	301.09
29-Jan-13	10:16:30	Dolphin	Surface	102	18	0	249	22	20	N	22.26953	E	113.86982	255.75	301.37
29-Jan-13	10:16:48	Research Vessel	Traveling	96	36	30	286	12	10	N	22.27236	E	113.87021	481.43	338.20
29-Jan-13	10:17:10	Dolphin	Surface	102	18	50	246	58	10	N	22.26945	E	113.86977	255.44	298.97
29-Jan-13	10:17:18	Dolphin	Surface	102	50	40	245	54	20	N	22.26936	E	113.86984	244.55	297.90
29-Jan-13	10:17:32	Dolphin	Surface	103	33	50	244	2	40	N	22.26925	E	113.86993	231.12	296.04
29-Jan-13	10:18:15	Dolphin	Spyhop	103	44	40	242	19	50	N	22.26918	E	113.86992	227.96	294.33
29-Jan-13	10:18:19	Dolphin	Surface	103	24	40	241	9	0	N	22.26916	E	113.86985	233.84	293.15
29-Jan-13	10:18:23	Dolphin	Surface	103	14	50	240	15	40	N	22.26914	E	113.86981	236.85	292.26
29-Jan-13	10:18:46	Research Vessel	Traveling	102	2	30	260	59	10	N	22.26994	E	113.87008	261.39	312.98
29-Jan-13	10:18:53	Speedboat	Traveling	113	4	50	329	17	50	N	22.26943	E	113.87241	130.84	21.29
29-Jan-13	10:19:06	Speedboat	Traveling	116	30	10	296	2	40	N	22.26932	E	113.87172	111.81	348.04
29-Jan-13	10:19:26	Speedboat	Traveling	112	55	0	246	1	10	N	22.26889	E	113.87081	131.88	298.02

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
29-Jan-13	10:19:44	Research Vessel	Dolphin follow	103	38	30	248	54	30	N	22.26940	E	113.87003	229.73	300.91
29-Jan-13	10:20:10	Dolphin	Surface	102	27	20	231	18	50	N	22.26886	E	113.86956	252.42	283.31
29-Jan-13	10:20:52	Research Vessel	Stationary	103	58	10	239	24	30	N	22.26907	E	113.86992	224.12	291.41
29-Jan-13	10:21:14	Other	Stationary	103	58	0	242	50	30	N	22.26918	E	113.86997	224.16	294.84
29-Jan-13	10:25:14	Other	Stationary	104	1	0	239	30	20	N	22.26907	E	113.86992	223.30	291.50
29-Jan-13	10:26:33	Research Vessel	Traveling	91	9	10	286	5	30	N	22.29171	E	113.86178	2800.47	338.09
29-Jan-13	10:27:57	Research Vessel	Dolphin follow	91	8	40	286	48	30	N	22.29200	E	113.86202	2821.18	338.81
29-Jan-13	10:29:06	Research Vessel	Traveling	91	11	20	285	11	0	N	22.29084	E	113.86171	2713.32	337.18
29-Jan-13	10:32:33	Research Vessel	Traveling	91	29	0	277	33	40	N	22.28514	E	113.86127	2166.19	329.56
29-Jan-13	10:32:48	Research Vessel	Stationary	106	48	30	249	11	10	N	22.26919	E	113.87041	184.48	301.18
29-Jan-13	10:33:06	Other	Traveling	91	40	20	248	4	10	N	22.27698	E	113.85580	1918.63	300.07
29-Jan-13	10:33:23	Dolphin	Surface	92	26	10	235	39	50	N	22.27192	E	113.85978	1312.97	287.66
29-Jan-13	10:35:25	Scan_dolphin		92	25	30	228	39	0	N	22.27053	E	113.85934	1318.92	280.65
29-Jan-13	10:35:37	Dolphin	Surface	92	20	10	230	1	30	N	22.27090	E	113.85892	1369.42	282.02
29-Jan-13	10:36:01	Dolphin	Surface	92	20	10	229	7	30	N	22.27071	E	113.85888	1369.40	281.12
29-Jan-13	10:36:23	Dolphin	Surface	92	20	0	228	17	10	N	22.27054	E	113.85883	1371.02	280.28
29-Jan-13	10:36:36	Dolphin	Fluke Up	92	20	0	227	52	50	N	22.27045	E	113.85881	1371.01	279.88
29-Jan-13	10:38:31	Dolphin	Surface	92	15	40	222	8	30	N	22.26925	E	113.85822	1414.99	274.14
29-Jan-13	10:38:46	Dolphin	Surface	92	15	40	220	52	0	N	22.26897	E	113.85820	1414.98	272.86
29-Jan-13	10:39:21	Scan_dolphin		91	42	50	262	3	40	N	22.28004	E	113.85887	1871.07	314.06
29-Jan-13	10:40:17	Dolphin	Surface	92	10	10	213	12	30	N	22.26722	E	113.85765	1475.11	265.21
29-Jan-13	10:41:26	Dolphin	Surface	92	7	10	212	50	10	N	22.26711	E	113.85732	1510.10	264.83
29-Jan-13	10:41:30	Dolphin	Surface	92	7	50	212	33	50	N	22.26705	E	113.85740	1502.17	264.56
29-Jan-13	10:41:34	Dolphin	Fluke Up	92	7	30	212	25	50	N	22.26702	E	113.85737	1506.12	264.43
29-Jan-13	10:41:55	Fishing boat	Non-operating	91	35	40	212	57	40	N	22.26674	E	113.85245	2012.69	264.96
29-Jan-13	10:42:07	Research Vessel	Traveling	91	26	40	242	49	30	N	22.27674	E	113.85231	2224.58	294.82
29-Jan-13	10:42:37	Other	Traveling	91	6	30	292	20	50	N	22.29358	E	113.86430	2913.76	344.34
29-Jan-13	10:42:54	Research Vessel	Traveling	104	34	0	252	56	50	N	22.26944	E	113.87024	214.38	304.94
29-Jan-13	10:43:05	Research Vessel	Traveling	91	29	10	238	46	20	N	22.27523	E	113.85229	2161.26	290.77
29-Jan-13	10:44:11	Dolphin	Surface	91	56	40	205	58	40	N	22.26524	E	113.85628	1646.97	257.97
29-Jan-13	10:44:14	Dolphin	Surface	91	56	40	205	52	20	N	22.26522	E	113.85629	1646.96	257.87
29-Jan-13	10:44:25	Dolphin	Surface	91	56	40	205	40	0	N	22.26517	E	113.85630	1646.95	257.66
29-Jan-13	10:44:29	Dolphin	Surface	91	56	0	205	40	0	N	22.26515	E	113.85621	1656.50	257.66
29-Jan-13	10:44:42	Dolphin	Surface	91	54	40	205	30	50	N	22.26507	E	113.85603	1675.91	257.51
29-Jan-13	10:45:04	Dolphin	Surface	91	54	40	205	17	0	N	22.26501	E	113.85605	1675.89	257.28
29-Jan-13	10:45:08	Dolphin	Fluke Up	91	54	0	205	13	30	N	22.26498	E	113.85596	1685.77	257.22
29-Jan-13	10:45:56	Dolphin	Fluke Up	91	55	30	204	20	30	N	22.26480	E	113.85622	1663.64	256.34
29-Jan-13	10:47:19	Research Vessel	Stationary	91	42	0	218	37	10	N	22.26851	E	113.85361	1885.98	270.62
29-Jan-13	10:47:27	Research Vessel	Traveling	93	1	40	219	47	40	N	22.26863	E	113.86169	1054.61	271.79
29-Jan-13	10:47:40	Other	Traveling	92	7	10	251	23	0	N	22.27581	E	113.85968	1509.76	303.38
29-Jan-13	10:47:48	Fishing boat	Non-operating	91	50	50	271	21	40	N	22.28086	E	113.86188	1734.21	323.36
29-Jan-13	10:48:11	Dolphin	Surface	92	0	10	206	35	0	N	22.26548	E	113.85671	1598.38	258.58
29-Jan-13	10:48:29	Fishing boat	Operating	92	10	0	206	29	20	N	22.26568	E	113.85787	1476.58	258.49
29-Jan-13	10:48:36	Dolphin	Surface	92	2	20	206	29	0	N	22.26551	E	113.85699	1569.82	258.48
29-Jan-13	10:50:09	Research Vessel	Dolphin follow	92	0	40	205	44	40	N	22.26529	E	113.85682	1591.59	257.74
29-Jan-13	10:50:35	Other		91	43	40	206	9	30	N	22.26491	E	113.85429	1855.12	258.16
29-Jan-13	10:50:44	Research Vessel	Stationary	92	10	50	211	13	30	N	22.26677	E	113.85778	1466.99	263.22
29-Jan-13	10:51:20	Other	Stationary	92	6	0	207	23	30	N	22.26581	E	113.85738	1523.65	259.39
29-Jan-13	10:53:22	Dolphin	Surface	92	2	50	206	8	50	N	22.26544	E	113.85707	1563.11	258.14
29-Jan-13	10:54:08	Other	Stationary	92	21	10	210	7	30	N	22.26666	E	113.85886	1358.75	262.12
29-Jan-13	10:55:54	Fishing boat	Operating	92	9	30	204	52	50	N	22.26530	E	113.85791	1481.93	256.88
29-Jan-13	10:56:11	Fishing boat	Operating	92	6	40	204	10	10	N	22.26507	E	113.85764	1515.30	256.17
29-Jan-13	10:57:14	Research Vessel	Dolphin follow	92	16	20	211	18	0	N	22.26685	E	113.85835	1407.08	263.30
29-Jan-13	10:58:10	Research Vessel	Dolphin follow	92	4	20	209	18	40	N	22.26623	E	113.85710	1543.84	261.31
29-Jan-13	10:59:21	Research Vessel	Dolphin follow	91	55	30	204	57	40	N	22.26496	E	113.85619	1662.84	256.96
29-Jan-13	11:05:46	Fishing boat	Non-operating	94	4	10	337	4	30	N	22.27449	E	113.87564	783.00	29.07
29-Jan-13	11:16:45	Fishing boat	Operating	93	34	30	340	57	0	N	22.27507	E	113.87666	891.52	32.95
29-Jan-13	11:28:17	Fishing boat	Non-operating	97	1	20	250	45	30	N	22.27053	E	113.86825	451.62	302.76
29-Jan-13	11:28:28	Transportation boat	Traveling	92	12	10	269	48	40	N	22.27859	E	113.86322	1450.11	321.81
29-Jan-13	11:29:07	Fishing boat	Non-operating	93	49	20	341	14	50	N	22.27460	E	113.87639	833.21	33.24
29-Jan-13	11:29:21	Fishing boat	Operating	93	48	20	341	58	0	N	22.27458	E	113.87649	836.87	33.96
29-Jan-13	11:30:19	Transportation boat	Traveling	92	27	50	294	55	30	N	22.27969	E	113.86909	1295.42	346.92
29-Jan-13	11:30:35	Fishing boat	Non-operating	97	52	0	344	1	20	N	22.27126	E	113.87425	402.56	36.02
29-Jan-13	11:30:44	Fishing boat	Non-operating	99	50	50	345	7	50	N	22.27063	E	113.87383	320.41	37.13
29-Jan-13	11:30:51	Fishing boat	Non-operating	101	36	20	343	53	10	N	22.27031	E	113.87349	270.80	35.88
29-Jan-13	11:31:11	Fishing boat	Non-operating	111	57	40	308	42	0	N	22.26957	E	113.87196	137.91	0.70
29-Jan-13	11:31:26	Fishing boat	Non-operating	112	56	10	251	57	50	N	22.26899	E	113.87088	131.41	303.96
29-Jan-13	11:32:03	Fishing boat	Operating	96	28	30	265	18	50	N	22.27158	E	113.86871	490.11	317.31
29-Jan-13	11:32:31	Fishing boat	Non-operating	94	34	10	340	16	10	N	22.27363	E	113.87556	696.22	32.27
29-Jan-13	11:33:16	Transportation boat	Traveling	92	7	0	333	17	50	N	22.28061	E	113.87822	1509.28	25.29
29-Jan-13	11:33:25	Fishing boat	Non-operating	95	50	10	333	47	50	N	22.27274	E	113.87425	544.22	25.79
29-Jan-13	11:33:43	Transportation boat	Traveling	91	39	40	342	30	20	N	22.28263	E	113.88256	1927.39	34.50
29-Jan-13	11:34:25	Transportation boat	Traveling	91	30	10	339	21	30	N	22.28473	E	113.88274	2133.01	31.36
29-Jan-13	11:34:42	Transportation boat	Traveling	91	42	0	338	11	40	N	22.28298	E	113.88115	1882.75	30.19
29-Jan-13	11:35:37	Transportation boat	Traveling	91	31	50	341	27	10	N	22.28405	E	113.88317	2093.70	33.45
29-Jan-13	11:36:26	Transportation boat	Traveling	91	12	50	328	9	30	N	22.29072	E	113.88082	2649.81	20.16
29-Jan-13	11:36:41	Transportation boat	Traveling	91	23	20	346	7	0	N	22.28469	E	113.88581	2310.35	38.11
29-Jan-13	11:37:38	Transportation boat	Traveling	91	25	20	349	53	40	N	22.28344	E	113.88659	2255.31	41.89
29-Jan-13	11:37:54	Transportation boat	Traveling	91	5	20	322	36	0	N	22.29412	E	113.87920	2961.14	14.60
29-Jan-13	11:38:40	Transportation boat	Traveling	91	33	30	350	3	50	N	22.28207	E	113.88534	2055.68	42.06
29-Jan-13	11:39:27	Transportation boat	Traveling	91	39	0	349	5	30	N	22.28149	E	113.88435	1940.11	41.09
29-Jan-13	11:39:56	Fishing boat	Operating	95	34	40	328	55	20	N	22.27312	E	113.87392	569.49	20.92
29-Jan-13	11:41:01	Transportation boat	Traveling	91	53	50	340	17	40	N	22.28115	E	113.88070	1685.00	32.29
29-Jan-13	11:41:29	Fishing boat	Operating	98	13	10	269	39	40	N	22.27105	E	113.86962	384.95	321.66
29-Jan-13	11:42:11	Fishing boat	Non-operating	91	26	0	225	54	10	N	22.27110	E	113.85039	2237.61	277.90
29-Jan-13	11:45:44	Transportation boat	Traveling	92	22	20	298	8	10	N	22.28026	E	113.86970	1345.68	350.13
29-Jan-13	11:45:56	Hi-Speed Ferry		92	1	40	351	27	0	N	22.27863	E	113.88248	1576.01	43.45
29-Jan-13	11:46:12	Fishing boat	Non-operating	91	33	10	258	14	50	N	22.28033	E	113.85663	2063.63	310.24
29-Jan-13	11:46:32	Other	Traveling	91	30	10	232	43	30	N	22.27321	E	113.85188	2133.23	284.72
29-Jan-13	11:47:19	Transportation boat	Stationary	92	21	0	295	46	20	N	22.28028	E	113.86915	1358.58	347.77
29-Jan-13	11:48:47	Hi-Speed Ferry		97	16	10	329	43	30	N	22.27198	E	113.87351	436.09	21.72
29-Jan-13	11:48:56	Transportation boat	Traveling	92	18	40	290	10	50	N	22.28017	E	113.86783	1381.70	342.18
29-Jan-13	11:49:30	Fishing boat	Non-operating	91	18	0	281	9	10	N	22.28818	E	113.86109	2471.85	333.15
29-Jan-13	11:50:11	Other	Traveling	91	27	0	257	49	20	N	22.28108	E	113.85542	2212.35	309.82
29-Jan-13	11:50:23	Hi-Speed Ferry		98	21	20	218	35	0	N	22.26837	E	113.86826	378.75	270.58
29-Jan-13	11:50:49	Transportation boat	Traveling	92	3	30	276	26	20	N	22.28024	E	113.86404	1552.78	328.44
29-Jan-13	11:51:05	Fishing boat	Non-operating	91	9	10	288	55	50	N	22.29210	E	113.86306	2794.47	340.93
29-Jan-13	11:52:18	Other	Traveling	91	15	40	268	36	20	N	22.28606	E	113.85620	2549.83	320.60
29-Jan-13	11:52:31	Transportation boat	Traveling	91	49	30	266	47	30	N	22.28020	E	113.86071	1753.25	318.79
29-Jan-13	11:52:54	Transportation boat	Traveling	91	29	20	341	8	20	N	22.28457	E	113.88340	2154.05	33.14
29-Jan-13	11:53:04	Police Vessel	Traveling	91	16	50	337	39	10	N	22.28797	E	113.88402	2510.49	29.65

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
29-Jan-13	11:54:49	Police Vessel	Stationary	91	21	10	335	9	50	N	22.28734	E	113.88249	2374.40	27.16
29-Jan-13	11:55:08	Transportation boat	Stationary	91	41	40	345	4	10	N	22.28190	E	113.88302	1889.97	37.07
29-Jan-13	11:55:21	Transportation boat	Traveling	91	29	40	254	4	40	N	22.27971	E	113.85507	2146.18	306.07
29-Jan-13	11:55:49	Other	Traveling	90	59	50	279	42	30	N	22.29403	E	113.85699	3243.41	331.71
29-Jan-13	11:56:12	Sand Barge		90	55	30	292	25	20	N	22.29872	E	113.86279	3505.36	344.42
29-Jan-13	11:56:53	Transportation boat	Traveling	91	20	40	249	10	0	N	22.27946	E	113.85206	2389.59	301.16
29-Jan-13	11:57:08	Sand Barge		91	21	40	221	35	50	N	22.26966	E	113.84904	2359.88	273.59
29-Jan-13	11:57:27	Transportation boat	Traveling	91	39	0	341	33	30	N	22.28289	E	113.88238	1941.66	33.56
29-Jan-13	11:57:48	Transportation boat	Traveling	91	18	10	252	0	20	N	22.28075	E	113.85205	2467.45	304.00
29-Jan-13	11:58:06	Transportation boat	Traveling	91	28	40	341	29	0	N	22.28463	E	113.88359	2170.99	33.48
29-Jan-13	11:58:25	Fishing boat	Non-operating	97	26	10	335	41	50	N	22.27173	E	113.87387	426.39	27.69
29-Jan-13	11:59:05	Fishing boat	Non-operating	99	59	50	333	56	0	N	22.27089	E	113.87329	315.68	25.93
29-Jan-13	11:59:29	Transportation boat	Traveling	91	11	50	344	23	20	N	22.28782	E	113.88746	2689.58	36.39
29-Jan-13	12:00:09	Fishing boat	Non-operating	109	20	20	316	21	30	N	22.26975	E	113.87217	158.55	8.36
29-Jan-13	12:00:21	Fishing boat	Non-operating	96	53	10	250	45	30	N	22.27058	E	113.86818	460.88	302.76
29-Jan-13	12:01:00	Transportation boat	Traveling	91	40	50	267	33	0	N	22.28139	E	113.85992	1906.29	319.55
29-Jan-13	12:01:09	Fishing boat	Non-operating	113	41	0	246	41	30	N	22.26888	E	113.87086	126.87	298.69
29-Jan-13	12:01:22	Fishing boat	Non-operating	96	1	10	231	46	10	N	22.26946	E	113.86696	527.92	283.77
29-Jan-13	12:01:55	Fishing boat	Non-operating	95	53	0	229	22	0	N	22.26929	E	113.86679	540.24	281.36
29-Jan-13	12:02:11	Sand Barge		91	13	10	280	38	50	N	22.28943	E	113.86015	2639.91	332.64
29-Jan-13	12:02:22	Sand Barge		91	28	30	242	50	30	N	22.27656	E	113.85274	2175.58	294.84
29-Jan-13	12:04:49	Research Vessel	Traveling	91	49	10	326	27	50	N	22.28335	E	113.87736	1759.66	18.46
29-Jan-13	12:05:58	Research Vessel	Traveling	91	30	20	323	56	20	N	22.28678	E	113.87764	2131.19	15.94
29-Jan-13	12:06:08	Sand Barge		91	29	10	268	2	10	N	22.28323	E	113.85845	2159.47	320.03
29-Jan-13	12:06:17	Sand Barge		91	19	20	251	56	20	N	22.28055	E	113.85233	2431.51	303.94
29-Jan-13	12:07:04	Transportation boat	Traveling	92	3	40	321	51	50	N	22.28189	E	113.87556	1551.86	13.86
29-Jan-13	12:07:15	Research Vessel	Traveling	91	15	30	322	51	0	N	22.29058	E	113.87832	2557.37	14.85
29-Jan-13	12:07:40	Sand Barge		91	15	50	250	30	0	N	22.28064	E	113.85106	2545.96	302.50
29-Jan-13	12:07:49	Sand Barge		91	35	40	260	56	40	N	22.28066	E	113.85763	2011.09	312.94
29-Jan-13	12:09:12	Sand Barge		91	39	30	254	9	0	N	22.27859	E	113.85677	1932.86	306.15
29-Jan-13	12:09:22	Sand Barge		91	12	0	248	26	20	N	22.28057	E	113.84943	2684.48	300.44
29-Jan-13	12:09:55	Transportation boat	Traveling	91	40	40	341	10	0	N	22.28272	E	113.88211	1910.28	33.16
29-Jan-13	12:12:03	Transportation boat	Traveling	91	31	40	344	39	40	N	22.28350	E	113.88414	2100.38	36.66
29-Jan-13	12:12:38	Sand Barge		91	34	50	237	5	0	N	22.27430	E	113.85329	2029.44	289.08
29-Jan-13	12:13:05	Transportation boat	Traveling	91	23	10	343	59	0	N	22.28522	E	113.88519	2318.38	35.98
29-Jan-13	12:14:51	Transportation boat	Traveling	91	11	30	341	29	30	N	22.28863	E	113.88646	2704.35	33.49
29-Jan-13	12:17:12	Sand Barge		91	20	0	218	16	20	N	22.26843	E	113.84849	2412.14	270.27
29-Jan-13	12:21:44	Fishing boat	Non-operating	110	0	30	281	0	10	N	22.26956	E	113.87127	152.97	333.00
29-Jan-13	12:21:57	Fishing boat	Non-operating	105	16	40	323	21	40	N	22.27010	E	113.87247	203.92	15.36
29-Jan-13	12:22:16	Fishing boat	Non-operating	99	5	10	344	42	40	N	22.27085	E	113.87397	348.35	36.71
29-Jan-13	12:24:00	Fishing boat	Operating	98	47	10	354	1	20	N	22.27059	E	113.87447	360.47	46.02
29-Jan-13	12:27:09	Fishing boat	Non-operating	94	1	10	355	9	0	N	22.27319	E	113.87760	793.56	47.15
29-Jan-13	12:27:29	Fishing boat	Operating	98	11	30	3	32	20	N	22.27030	E	113.87505	387.10	55.54
29-Jan-13	12:27:58	Fishing boat	Operating	97	44	30	357	38	50	N	22.27072	E	113.87498	409.93	49.64
29-Jan-13	12:28:24	Fishing boat	Operating	96	1	0	0	8	10	N	22.27125	E	113.87600	528.83	52.13
29-Jan-13	12:28:38	Fishing boat	Operating	96	32	20	8	31	20	N	22.27049	E	113.87606	486.24	60.52
29-Jan-13	12:28:50	Fishing boat	Operating	98	30	0	12	40	0	N	22.26977	E	113.87522	372.88	64.66
29-Jan-13	12:29:00	Fishing boat	Operating	98	55	40	359	38	10	N	22.27031	E	113.87465	354.74	51.63
29-Jan-13	12:29:12	Fishing boat	Operating	97	36	50	3	30	10	N	22.27046	E	113.87529	416.92	55.50
29-Jan-13	12:29:21	Fishing boat	Operating	96	47	0	9	34	20	N	22.27034	E	113.87595	468.57	61.57
29-Jan-13	12:29:26	Fishing boat	Operating	96	32	30	4	45	0	N	22.27073	E	113.87590	486.05	56.75
29-Jan-13	12:29:34	Fishing boat	Operating	97	30	50	359	58	20	N	22.27068	E	113.87518	422.54	51.97
29-Jan-13	12:29:54	Fishing boat	Operating	97	36	10	1	9	30	N	22.27059	E	113.87519	417.55	53.16
29-Jan-13	12:30:11	Fishing boat	Operating	97	44	50	356	17	20	N	22.27079	E	113.87492	409.67	48.29
29-Jan-13	12:30:34	Fishing boat	Non-operating	110	24	20	303	39	30	N	22.26968	E	113.87183	149.79	355.66
29-Jan-13	12:30:47	Fishing boat	Operating	97	38	50	356	32	20	N	22.27081	E	113.87497	415.11	48.54
29-Jan-13	12:33:56	Fishing boat	Operating	97	12	20	359	51	30	N	22.27078	E	113.87532	440.93	51.86
29-Jan-13	12:34:21	Fishing boat	Operating	95	42	30	355	0	50	N	22.27176	E	113.87591	557.78	47.01
29-Jan-13	12:35:15	Fishing boat	Operating	94	55	0	353	19	10	N	22.27244	E	113.87643	648.27	45.32
29-Jan-13	12:36:17	Fishing boat	Operating	95	30	50	356	46	50	N	22.27176	E	113.87617	577.65	48.78
29-Jan-13	12:36:46	Fishing boat	Operating	94	30	0	355	18	20	N	22.27266	E	113.87701	708.71	47.30
29-Jan-13	12:37:02	Fishing boat	Operating	94	51	0	351	45	10	N	22.27261	E	113.87636	657.29	43.75
29-Jan-13	12:37:30	Fishing boat	Operating	94	53	20	356	27	20	N	22.27223	E	113.87669	652.05	48.45
29-Jan-13	12:45:59	Sand Barge		91	1	40	289	34	30	N	22.29524	E	113.86225	3151.66	341.57
29-Jan-13	12:46:22	Fishing boat	Non-operating	94	10	30	353	51	30	N	22.27313	E	113.87728	764.53	45.86
29-Jan-13	12:46:30	Fishing boat	Non-operating	94	30	0	1	47	20	N	22.27210	E	113.87751	709.03	53.79
29-Jan-13	12:47:16	Fishing boat	Non-operating	93	3	40	356	3	20	N	22.27462	E	113.87950	1044.37	48.05
29-Jan-13	12:47:34	Fishing boat	Non-operating	92	31	30	359	15	20	N	22.27547	E	113.88156	1267.44	51.25
29-Jan-13	12:50:32	Sand Barge		91	30	0	217	12	0	N	22.26806	E	113.85110	2143.66	269.20
29-Jan-13	12:53:28	Police Vessel	Traveling	94	31	50	298	57	0	N	22.27459	E	113.87087	704.45	350.95
29-Jan-13	12:54:23	Police Vessel	Traveling	94	36	30	237	27	0	N	22.27041	E	113.86559	692.53	289.45
29-Jan-13	12:54:55	Police Vessel	Traveling	93	18	0	214	52	0	N	22.26786	E	113.86254	968.76	266.86
29-Jan-13	12:55:11	Sand Barge		91	38	0	249	40	20	N	22.27763	E	113.85566	1967.01	301.67
29-Jan-13	12:55:18	Sand Barge		91	49	30	249	40	20	N	22.27664	E	113.85739	1758.41	301.67
29-Jan-13	13:00:25	Sand Barge		91	18	50	222	0	40	N	22.26987	E	113.84814	2453.44	274.01
29-Jan-13	13:00:37	Sand Barge		91	24	0	281	42	20	N	22.28689	E	113.86203	2300.16	333.70
29-Jan-13	13:00:54	Police Vessel	Traveling	91	1	50	300	50	0	N	22.29642	E	113.86813	3145.14	352.83
29-Jan-13	13:03:00	Sand Barge		91	8	0	212	51	50	N	22.26603	E	113.84431	2853.18	264.86
29-Jan-13	13:03:10	Sand Barge		91	10	50	290	41	30	N	22.29184	E	113.86402	2736.56	342.69
29-Jan-13	13:03:24	Police Vessel	Traveling	91	42	40	267	44	50	N	22.28123	E	113.86015	1877.36	319.74
29-Jan-13	13:05:20	Police Vessel	Traveling	91	44	0	222	32	0	N	22.26965	E	113.85398	1853.21	274.53
29-Jan-13	13:10:15	Police Vessel	Traveling	91	52	50	220	36	20	N	22.26903	E	113.85536	1707.18	272.60
29-Jan-13	13:10:32	Other	Traveling	91	24	40	219	56	40	N	22.26903	E	113.84976	2282.83	271.94
29-Jan-13	13:16:05	Police Vessel	Traveling	91	23	40	285	53	10	N	22.28760	E	113.86348	2311.14	337.88
29-Jan-13	13:16:21	Other	Traveling	91	38	0	252	6	30	N	22.27827	E	113.85609	1968.96	304.11
29-Jan-13	13:17:22	Police Vessel	Traveling	91	13	20	294	9	40	N	22.29143	E	113.86579	2643.13	346.16
29-Jan-13	13:18:17	Police Vessel	Traveling	91	6	50	298	23	10	N	22.29412	E	113.86722	2906.28	350.38
29-Jan-13	13:18:34	Other	Traveling	91	31	10	263	35	50	N	22.28195	E	113.85753	2118.65	315.59
29-Jan-13	13:19:49	Fishing boat	Non-operating	106	44	50	337	16	20	N	22.26979	E	113.87283	185.61	29.27
29-Jan-13	13:20:07	Fishing boat	Non-operating	101	8	0	1	38	30	N	22.26985	E	113.87417	283.83	53.64
29-Jan-13	13:20:48	Fishing boat	Non-operating	95	28	30	8	48	30	N	22.27089	E	113.87689	582.99	60.81
29-Jan-13	13:21:27	Fishing boat	Non-operating	93	41	40	11	17	0	N	22.27184	E	113.87947	865.92	63.28
29-Jan-13	13:22:18	Other	Traveling	91	20	40	279	48	0	N	22.28736	E	113.86092	2399.20	331.80
29-Jan-13	13:38:57	Scan_dolphin		90	52	40	339	29	0	N	22.29688	E	113.89084	3719.30	31.48
29-Jan-13	13:40:59	Dolphin	Surface	90	52	40	340	3	20	N	22.29670	E	113.89114	3719.66	32.05
29-Jan-13	13:41:21	Dolphin	Surface	90	52	20	340	16	10	N	22.29683	E	113.89139	3744.37	32.27
29-Jan-13	13:41:45	Dolphin	Surface	90	52	40	340	19	50	N	22.29662	E	113.89129	3719.79	32.33
29-Jan-13	13:41:56	Dolphin	Surface	90	53	0	340	24	10	N	22.29641	E	113.89120	3695.51	32.40
29-Jan-13	13:42:47	Dolphin	Surface	90	54	0	340	15	10	N	22.29592	E	113.89076	3624.61	32.25
29-Jan-13	13:43:06	Dolphin	Surface	90	53	10	339	54	20	N	22.29648	E	113.89088	3683.68	31.90
29-Jan-13	13:43:19	Dolphin	Surface	90	54	0	339	35	50	N	22.29612	E	113.89041	3624.71	31.59

Appendix I. (cont'd)

Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
29-Jan-13	13:43:34	Dolphin	Surface	90	54	20	339	20	30	N	22.29602	E	113.89016	3601.68	31.34
29-Jan-13	13:45:37	Dolphin	Surface	90	54	0	339	14	30	N	22.29623	E	113.89023	3625.10	31.24
29-Jan-13	13:45:43	Dolphin	Surface	90	54	10	339	11	0	N	22.29615	E	113.89014	3613.54	31.18
29-Jan-13	13:45:54	Dolphin	Surface	90	54	10	339	7	50	N	22.29617	E	113.89011	3613.57	31.13
29-Jan-13	14:00:08	Other	Traveling	91	28	30	267	24	20	N	22.28328	E	113.85810	2187.62	319.40
29-Jan-13	14:00:29	Transportation boat	Traveling	91	40	40	339	49	20	N	22.28302	E	113.88179	1920.18	31.82
29-Jan-13	14:01:19	Transportation boat	Traveling	91	11	50	346	28	20	N	22.28739	E	113.88831	2705.04	38.47
29-Jan-13	14:01:36	Transportation boat	Traveling	91	40	10	344	12	50	N	22.28235	E	113.88303	1929.97	36.21
29-Jan-13	14:02:03	Transportation boat	Stationary	91	39	50	344	23	10	N	22.28236	E	113.88312	1936.53	36.38
29-Jan-13	14:02:17	Transportation boat	Traveling	91	19	50	345	49	10	N	22.28560	E	113.88643	2429.21	37.82
29-Jan-13	14:03:18	Transportation boat	Traveling	91	29	0	345	23	10	N	22.28389	E	113.88479	2175.48	37.38
29-Jan-13	14:03:54	Transportation boat	Stationary	91	29	10	346	10	30	N	22.28370	E	113.88500	2171.42	38.17
29-Jan-13	14:05:01	Other	Traveling	91	34	40	233	48	0	N	22.27334	E	113.85282	2043.77	285.80
29-Jan-13	14:08:19	Transportation boat	Stationary	91	42	10	345	7	40	N	22.28191	E	113.88305	1892.38	37.12
29-Jan-13	14:09:46	Transportation boat	Traveling	91	40	50	343	36	40	N	22.28236	E	113.88280	1917.80	35.61
29-Jan-13	14:10:53	Transportation boat	Traveling	91	32	40	343	35	20	N	22.28362	E	113.88377	2089.01	35.59
29-Jan-13	14:11:52	Transportation boat	Stationary	91	29	30	345	39	40	N	22.28375	E	113.88480	2164.02	37.66
29-Jan-13	14:12:10	Hi-Speed Ferry		99	30	30	231	7	20	N	22.26902	E	113.86878	334.31	283.12
29-Jan-13	14:13:08	Hi-Speed Ferry		99	25	40	307	24	20	N	22.27137	E	113.87191	337.23	359.40
29-Jan-13	14:14:25	Hi-Speed Ferry		93	54	30	340	35	10	N	22.27455	E	113.87624	820.32	32.58
29-Jan-13	14:16:40	Hi-Speed Ferry		91	47	50	352	28	40	N	22.27984	E	113.88416	1792.64	44.47
29-Jan-13	14:18:16	Hi-Speed Ferry		91	17	0	350	16	40	N	22.28513	E	113.88844	2522.09	42.27
29-Jan-13	14:23:16	Sand Barge		91	29	0	216	23	30	N	22.26778	E	113.85078	2177.51	268.39
29-Jan-13	14:33:44	Sand Barge		91	37	10	267	8	50	N	22.28190	E	113.85926	1993.23	319.14
29-Jan-13	14:33:59	Transportation boat	Traveling	91	39	30	341	17	30	N	22.28297	E	113.88233	1945.98	33.29
29-Jan-13	14:34:44	Transportation boat	Traveling	91	43	30	344	17	50	N	22.28190	E	113.88271	1870.04	36.29
29-Jan-13	14:35:46	Transportation boat	Traveling	91	39	20	347	42	20	N	22.28183	E	113.88406	1949.45	39.70
29-Jan-13	14:37:00	Transportation boat	Traveling	91	29	20	349	6	10	N	22.28305	E	113.88582	2170.66	41.10
29-Jan-13	14:39:10	Transportation boat	Traveling	91	34	10	342	59	30	N	22.28351	E	113.88342	2058.04	34.99
29-Jan-13	14:39:36	Transportation boat	Traveling	91	38	40	338	40	20	N	22.28353	E	113.88168	1963.12	30.67
29-Jan-13	14:40:03	Sand Barge		91	15	50	289	55	10	N	22.29027	E	113.86420	2564.24	341.92
29-Jan-13	14:42:26	Transportation boat	Traveling	92	3	0	289	55	10	N	22.28178	E	113.86720	1571.68	341.92
29-Jan-13	14:43:27	Transportation boat	Traveling	91	50	0	272	44	0	N	22.28126	E	113.86207	1759.19	324.73
29-Jan-13	14:45:06	Transportation boat	Traveling	91	25	10	254	45	50	N	22.28061	E	113.85419	2279.28	306.76
29-Jan-13	14:45:27	Other	Traveling	92	10	30	215	8	10	N	22.26767	E	113.85756	1480.91	267.13
29-Jan-13	14:46:09	Research Vessel	Traveling	91	36	40	218	17	20	N	22.26842	E	113.85245	2004.83	270.29
29-Jan-13	14:47:50	Speedboat	Traveling	93	41	40	5	5	10	N	22.27258	E	113.87904	869.40	57.08
29-Jan-13	14:49:29	Other	Traveling	91	56	20	271	12	20	N	22.28032	E	113.86226	1663.05	323.20
29-Jan-13	14:49:43	Speedboat	Traveling	97	24	10	4	2	20	N	22.27050	E	113.87543	431.76	56.04
29-Jan-13	14:50:05	Research Vessel	Traveling	91	55	10	218	50	0	N	22.26855	E	113.85561	1680.09	270.83
29-Jan-13	14:50:44	Speedboat	Traveling	116	2	10	309	31	30	N	22.26937	E	113.87197	114.81	1.52
29-Jan-13	14:50:57	Speedboat	Traveling	118	13	50	264	31	20	N	22.26902	E	113.87125	104.47	316.52
29-Jan-13	14:51:10	Other	Traveling	91	30	0	287	25	10	N	22.28650	E	113.86457	2155.79	339.42
29-Jan-13	14:54:03	Research Vessel	Traveling	93	35	40	224	47	10	N	22.26928	E	113.86331	893.97	276.78
29-Jan-13	14:55:06	Research Vessel	Traveling	91	20	20	213	37	50	N	22.26667	E	113.84848	2419.80	265.63
29-Jan-13	14:56:43	Research Vessel	Traveling	95	1	50	260	57	30	N	22.27224	E	113.86741	637.68	312.96
29-Jan-13	14:56:54	Research Vessel	Traveling	91	25	40	220	55	40	N	22.26937	E	113.84993	2267.03	272.92
29-Jan-13	14:57:32	Other	Stationary	91	27	40	346	52	0	N	22.28385	E	113.88546	2214.63	38.86
29-Jan-13	14:57:41	Other	Stationary	91	27	10	347	34	20	N	22.28379	E	113.88574	2227.53	39.57
29-Jan-13	14:57:52	Other	Stationary	91	43	0	344	34	10	N	22.28193	E	113.88284	1881.24	36.57
29-Jan-13	14:57:57	Other	Stationary	91	43	0	345	0	30	N	22.28185	E	113.88296	1881.25	37.01
29-Jan-13	14:58:18	Other	Stationary	91	35	40	345	5	10	N	22.28289	E	113.88383	2027.18	37.08
29-Jan-13	14:58:28	Other	Stationary	91	29	30	346	29	0	N	22.28361	E	113.88507	2168.73	38.48
29-Jan-13	14:58:35	Other	Stationary	91	30	20	347	5	0	N	22.28334	E	113.88512	2148.47	39.08
29-Jan-13	14:58:49	Other	Stationary	91	36	30	345	59	20	N	22.28259	E	113.88397	2009.51	37.99
29-Jan-13	14:59:14	Other	Stationary	90	58	0	241	32	40	N	22.28047	E	113.84182	3378.34	293.54
29-Jan-13	14:59:41	Other	Stationary	91	8	0	246	57	30	N	22.28083	E	113.84753	2868.86	298.96
30-Jan-13	8:18:56	Zero		114	31	10	0	0	0	N	22.26902	E	113.87290	124.65	52.00
30-Jan-13	8:20:34	Dolphin	Surface	92	12	20	274	24	20	N	22.27943	E	113.86398	1480.71	326.40
30-Jan-13	8:21:36	Other		92	15	50	273	2	10	N	22.27897	E	113.86391	1442.30	325.03
30-Jan-13	8:23:02	Dolphin	Surface	92	9	20	275	28	50	N	22.27983	E	113.86402	1515.31	327.48
30-Jan-13	8:23:05	Dolphin	Surface	92	10	30	275	39	40	N	22.27975	E	113.86413	1501.67	327.66
30-Jan-13	8:23:10	Dolphin	Surface	92	10	10	275	55	20	N	22.27981	E	113.86417	1505.54	327.92
30-Jan-13	8:23:18	Dolphin	Surface	92	10	40	276	8	30	N	22.27980	E	113.86425	1499.74	328.14
30-Jan-13	8:25:27	Dolphin	Surface	92	3	50	285	1	40	N	22.28145	E	113.86593	1583.13	337.02
30-Jan-13	8:25:55	Dolphin	Surface	92	2	50	286	50	40	N	22.28173	E	113.86634	1596.12	338.84
30-Jan-13	8:26:01	Dolphin	Surface	92	2	30	287	21	0	N	22.28181	E	113.86645	1600.50	339.35
30-Jan-13	8:26:08	Dolphin	Surface	92	2	0	287	31	40	N	22.28188	E	113.86648	1607.11	339.52
30-Jan-13	8:26:11	Dolphin	Surface	92	2	0	287	50	20	N	22.28191	E	113.86656	1607.11	339.84
30-Jan-13	8:26:17	Dolphin	Surface	92	0	50	288	7	30	N	22.28207	E	113.86658	1622.75	340.12
30-Jan-13	8:26:23	Dolphin	Surface	92	0	50	288	41	0	N	22.28211	E	113.86672	1622.75	340.68
30-Jan-13	8:27:03	Police Vessel	Traveling	91	8	40	291	13	10	N	22.29313	E	113.86386	2878.58	343.22
30-Jan-13	8:27:50	Police Vessel	Traveling	91	14	10	287	51	30	N	22.29081	E	113.86303	2660.66	339.86
30-Jan-13	8:28:34	Dolphin	Surface	91	55	0	296	42	10	N	22.28339	E	113.86869	1705.78	348.70
30-Jan-13	8:28:41	Dolphin	Surface	91	52	30	296	53	20	N	22.28373	E	113.86867	1744.03	348.89
30-Jan-13	8:28:45	Dolphin	Surface	91	54	0	297	16	0	N	22.28355	E	113.86883	1720.88	349.26
30-Jan-13	8:28:47	Dolphin	Surface	91	54	0	297	27	40	N	22.28356	E	113.86888	1720.88	349.46
30-Jan-13	8:28:59	Dolphin	Surface	91	53	30	298	3	10	N	22.28365	E	113.86904	1728.53	350.05
30-Jan-13	8:29:55	Police Vessel	Traveling	91	28	50	275	39	30	N	22.28517	E	113.86042	2214.63	327.66
30-Jan-13	8:30:58	Dolphin	Surface	91	44	20	302	26	0	N	22.28519	E	113.87017	1881.93	354.43
30-Jan-13	8:31:21	Dolphin	Surface	91	34	10	302	5	0	N	22.28702	E	113.86985	2087.57	354.08
30-Jan-13	8:31:34	Dolphin	Surface	91	34	50	302	37	0	N	22.28690	E	113.87005	2072.71	354.61
30-Jan-13	8:37:38	Police Vessel	Traveling	91	30	30	211	17	30	N	22.26605	E	113.85096	2173.28	263.29
30-Jan-13	8:38:05	Other	Stationary	91	40	50	343	57	50	N	22.28252	E	113.88307	1947.97	35.96
30-Jan-13	8:38:11	Other	Stationary	91	40	50	345	26	10	N	22.28225	E	113.88346	1947.97	37.43
30-Jan-13	8:38:17	Other	Stationary	91	29	50	346	14	0	N	22.28381	E	113.88512	2189.63	38.23
30-Jan-13	8:38:22	Other	Stationary	91	29	50	347	4	30	N	22.28363	E	113.88537	2189.63	39.07
30-Jan-13	8:38:28	Other	Stationary	91	36	0	345	59	40	N	22.28285	E	113.88420	2047.22	37.99
30-Jan-13	8:38:34	Other	Stationary	91	27	30	346	51	20	N	22.28409	E	113.88566	2248.86	38.85
30-Jan-13	8:38:38	Other	Stationary	91	27	30	347	33	20	N	22.28394	E	113.88587	2248.86	39.55
30-Jan-13	8:38:52	Other	Stationary	91	43	20	344	34	20	N	22.28207	E	113.88296	1900.34	36.57
30-Jan-13	8:39:00	Other	Stationary	91	42	30	345	0	10	N	22.28210	E	113.88316	1915.95	37.00
30-Jan-13	8:39:12	Other	Stationary	90	57	20	241	32	30	N	22.28078	E	113.84105	3465.25	293.54
30-Jan-13	8:39:19	Other	Stationary	91	15	50	247	38	40	N	22.27991	E	113.84996	2601.05	299.64
30-Jan-13	8:39:33	Speedboat	Traveling	94	13	30	326	45	10	N	22.27490	E	113.87435	770.25	18.75
30-Jan-13	8:43:43	Sand Barge		91	26	10	222	54	20	N	22.27009	E	113.84981	2284.17	274.90
30-Jan-13	8:45:59	Sand Barge		91	36	50	240	33	20	N	22.27534	E	113.85372	2029.39	292.55
30-Jan-13	8:48:21	Sand Barge		91	35	40	260	44	30	N	22.28088	E	113.85727	2054.44	312.74
30-Jan-13	8:50:24	Dolphin	Surface	94	51	30	236	10	20	N	22.27021	E	113.86576	669.31	288.17
30-Jan-13	8:50:45	Dolphin	Surface	94	10	0	237	33	50	N	22.27069	E	113.86479	781.09	289.56
30-Jan-13	8:51:06	Dolphin	Surface	94	13	30	237	43	40	N	22.27067	E	113.86489	770.25	289.72

Appendix I. (cont'd)

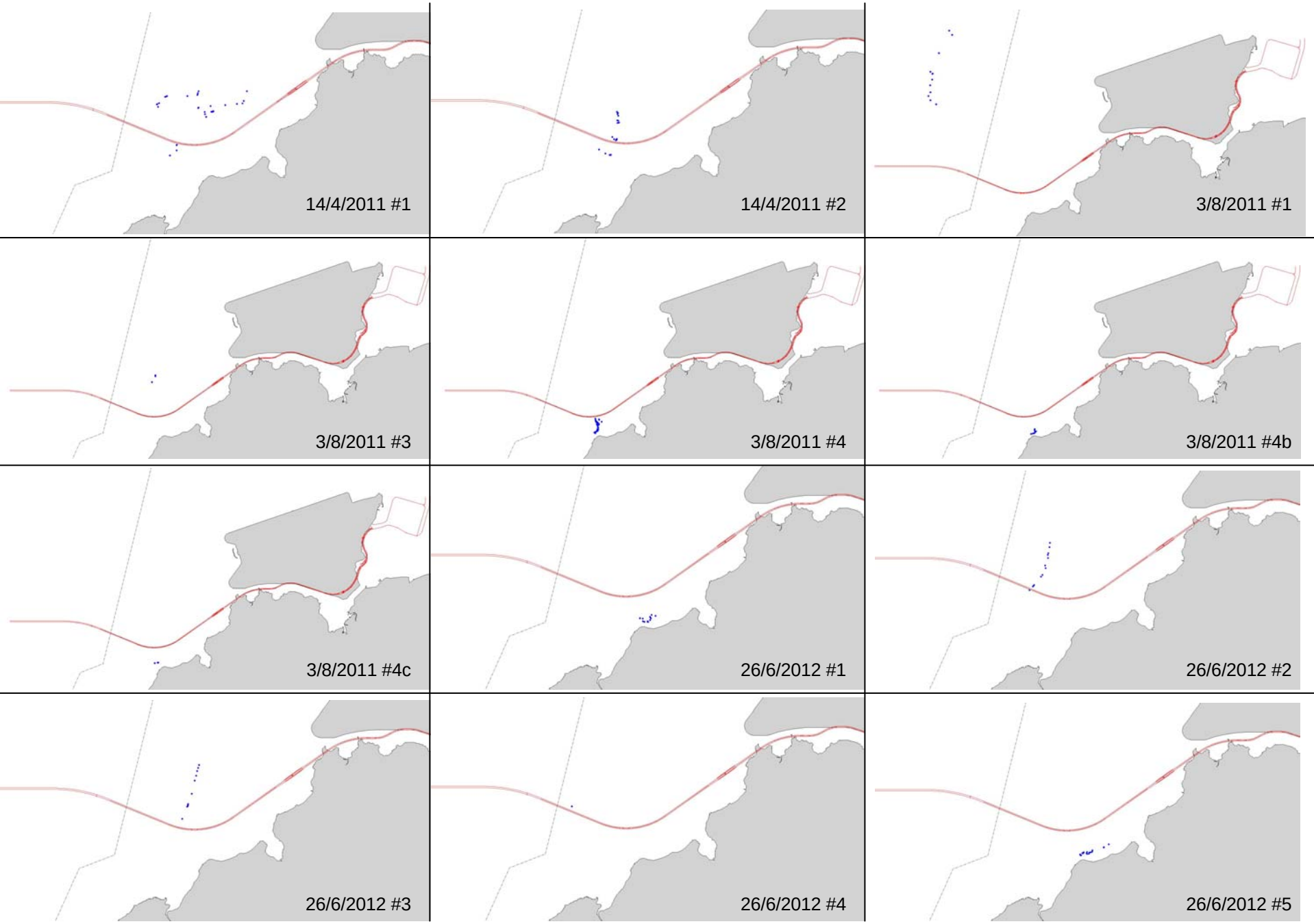
Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
30-Jan-13	8:51:15	Dolphin	Surface	94	3	20	240	35	30	N	22.27111	E	113.86474	802.60	292.59
30-Jan-13	8:51:32	Dolphin	Surface	93	55	50	242	43	10	N	22.27145	E	113.86463	828.26	294.72
30-Jan-13	8:51:42	Dolphin	Surface	93	41	20	244	6	10	N	22.27183	E	113.86423	882.80	296.10
30-Jan-13	8:52:00	Dolphin	Surface	93	56	30	246	15	0	N	22.27185	E	113.86487	825.91	298.25
30-Jan-13	8:52:14	Dolphin	Surface	93	49	0	247	55	50	N	22.27216	E	113.86475	853.10	299.93
30-Jan-13	8:53:37	Dolphin	Surface	93	48	10	257	55	40	N	22.27328	E	113.86556	856.23	309.92
30-Jan-13	8:53:42	Dolphin	Surface	93	39	20	258	19	50	N	22.27352	E	113.86534	890.89	310.33
30-Jan-13	8:54:05	Dolphin	Surface	93	37	50	258	27	10	N	22.27357	E	113.86531	897.05	310.45
30-Jan-13	8:54:29	Police Vessel	Traveling	91	37	40	256	39	40	N	22.27964	E	113.85667	2011.87	308.66
30-Jan-13	8:54:59	Police Vessel	Traveling	91	31	10	265	44	0	N	22.28270	E	113.85783	2157.17	317.73
30-Jan-13	9:00:21	Dolphin	Surface	92	26	20	279	36	30	N	22.27893	E	113.86576	1338.16	331.61
30-Jan-13	9:01:52	Dolphin	Surface	92	11	30	282	23	20	N	22.28043	E	113.86568	1490.16	334.39
30-Jan-13	9:02:29	Dolphin	Surface	92	7	10	284	48	10	N	22.28108	E	113.86604	1541.32	336.80
30-Jan-13	12:06:54	Zero		91	13	30	0	0	0	N	22.28296	E	113.89217	2639.21	52.00
30-Jan-13	12:20:48	Fishing Boat	Non-operating	92	44	0	339	46	20	N	22.27724	E	113.87791	1164.42	31.77
30-Jan-13	12:26:20	Fishing Boat	Non-operating	92	41	20	347	42	10	N	22.27653	E	113.87930	1184.10	39.70
30-Jan-13	12:30:18	Sand Barge		91	22	10	228	44	0	N	22.27225	E	113.84959	2340.07	280.73
30-Jan-13	12:33:35	Sand Barge		91	23	30	250	34	0	N	22.27948	E	113.85307	2302.51	302.56
30-Jan-13	12:36:36	Transportation boat	Traveling	91	39	20	342	23	20	N	22.28268	E	113.88255	1931.36	34.39
30-Jan-13	12:36:46	Sand Barge		91	18	0	271	0	20	N	22.28607	E	113.85750	2468.05	323.00
30-Jan-13	12:37:25	Transportation boat	Traveling	91	39	40	344	27	40	N	22.28227	E	113.88307	1924.91	36.46
30-Jan-13	12:41:29	Sand Barge		91	2	20	292	40	50	N	22.29528	E	113.86396	3104.63	344.68
30-Jan-13	12:45:39	Dolphin	Surface	93	33	40	227	19	0	N	22.26963	E	113.86337	893.69	279.31
30-Jan-13	12:45:57	Dolphin	Surface	93	35	0	227	37	40	N	22.26967	E	113.86343	888.13	279.62
30-Jan-13	12:46:44	Dolphin	Surface	93	55	20	227	46	10	N	22.26957	E	113.86417	811.07	279.77
30-Jan-13	12:47:10	Dolphin	Surface	94	5	50	227	42	50	N	22.26951	E	113.86450	776.27	279.71
30-Jan-13	12:47:17	Dolphin	Surface	94	5	0	227	34	40	N	22.26950	E	113.86448	778.93	279.57
30-Jan-13	12:48:40	Dolphin	Surface	94	44	40	229	25	50	N	22.26953	E	113.86556	669.89	281.43
30-Jan-13	12:49:38	Dolphin	Surface	95	23	20	230	48	50	N	22.26951	E	113.86636	589.33	282.81
30-Jan-13	12:50:27	Dolphin	Surface	95	50	40	231	6	30	N	22.26944	E	113.86680	543.09	283.11
30-Jan-13	12:50:29	Dolphin	Surface	95	46	0	230	51	40	N	22.26944	E	113.86673	550.48	282.86
30-Jan-13	12:50:38	Dolphin	Surface	95	46	0	230	16	50	N	22.26939	E	113.86671	550.48	282.28
30-Jan-13	12:50:53	Dolphin	Surface	95	51	50	230	11	10	N	22.26936	E	113.86680	541.29	282.18
30-Jan-13	12:51:32	Dolphin	Surface	95	48	20	231	20	10	N	22.26947	E	113.86677	546.79	283.33
30-Jan-13	12:51:49	Hi-Speed Ferry		95	51	10	295	14	10	N	22.27309	E	113.87078	542.35	347.23
30-Jan-13	12:52:30	Dolphin	Surface	95	17	10	235	0	20	N	22.26991	E	113.86636	600.96	287.00
30-Jan-13	12:52:37	Dolphin	Surface	95	9	30	235	29	40	N	22.27000	E	113.86623	615.95	287.49
30-Jan-13	12:52:42	Hi-Speed Ferry		96	40	10	254	9	40	N	22.27086	E	113.86821	475.42	306.16
30-Jan-13	12:53:25	Hi-Speed Ferry		95	15	0	226	14	0	N	22.26911	E	113.86612	605.15	278.23
30-Jan-13	12:54:00	Dolphin	Surface	94	36	20	236	59	20	N	22.27035	E	113.86560	690.40	288.99
30-Jan-13	12:54:52	Dolphin	Surface	94	7	30	230	38	40	N	22.26985	E	113.86463	771.32	282.64
30-Jan-13	12:54:55	Dolphin	Surface	94	12	30	230	14	40	N	22.26978	E	113.86476	755.97	282.24
30-Jan-13	12:55:08	Dolphin	Surface	94	10	10	230	8	20	N	22.26978	E	113.86469	763.06	282.14
30-Jan-13	12:55:19	Dolphin	Surface	93	54	20	230	51	30	N	22.26996	E	113.86422	814.90	282.86
30-Jan-13	12:55:27	Dolphin	Surface	93	54	20	230	29	40	N	22.26992	E	113.86421	814.91	282.49
30-Jan-13	12:55:59	Dolphin	Surface	93	39	40	229	56	40	N	22.26995	E	113.86367	869.62	281.94
30-Jan-13	12:56:07	Dolphin	Surface	93	33	10	229	16	20	N	22.26991	E	113.86340	896.27	281.27
30-Jan-13	12:56:20	Dolphin	Surface	93	37	50	229	9	50	N	22.26986	E	113.86358	876.99	281.16
30-Jan-13	12:57:24	Dolphin	Surface	93	36	50	228	23	40	N	22.26976	E	113.86352	881.10	280.39
30-Jan-13	12:57:41	Dolphin	Surface	93	30	0	228	11	0	N	22.26978	E	113.86324	909.92	280.18
30-Jan-13	12:57:58	Dolphin	Surface	93	27	40	227	1	20	N	22.26963	E	113.86311	920.21	279.02
30-Jan-13	12:58:47	Dolphin	Surface	93	14	20	227	2	40	N	22.26972	E	113.86250	983.70	279.04
30-Jan-13	12:58:52	Dolphin	Surface	93	9	10	232	57	30	N	22.27068	E	113.86245	1010.71	284.96
30-Jan-13	12:59:06	Dolphin	Surface	93	39	20	231	35	40	N	22.27018	E	113.86371	871.08	283.59
30-Jan-13	12:59:13	Dolphin	Surface	94	24	50	224	42	0	N	22.26909	E	113.86498	720.73	276.70
30-Jan-13	13:01:21	Dolphin	Surface	93	6	10	224	10	50	N	22.26933	E	113.86201	1027.20	276.18
30-Jan-13	13:01:34	Dolphin	Surface	93	8	0	223	40	40	N	22.26924	E	113.86210	1017.15	275.67
30-Jan-13	13:01:46	Dolphin	Surface	93	2	10	223	13	10	N	22.26919	E	113.86178	1049.89	275.22
30-Jan-13	13:03:25	Dolphin	Surface	92	57	40	222	14	10	N	22.26905	E	113.86150	1076.71	274.23
30-Jan-13	13:04:42	Dolphin	Surface	93	11	50	227	33	30	N	22.26982	E	113.86238	996.88	279.56
30-Jan-13	13:04:57	Dolphin	Surface	93	14	20	226	27	40	N	22.26964	E	113.86248	984.01	278.46
30-Jan-13	13:05:04	Dolphin	Surface	93	32	0	226	18	10	N	22.26950	E	113.86327	901.63	278.30
30-Jan-13	13:05:08	Dolphin	Surface	93	18	10	226	10	0	N	22.26957	E	113.86266	964.89	278.16
30-Jan-13	13:05:13	Dolphin	Surface	93	33	0	225	52	30	N	22.26944	E	113.86330	897.39	277.87
30-Jan-13	13:05:29	Dolphin	Surface	93	36	20	224	24	40	N	22.26922	E	113.86341	883.50	276.41
30-Jan-13	13:05:36	Dolphin	Fluke Up	93	36	20	224	1	50	N	22.26917	E	113.86340	883.51	276.03
30-Jan-13	13:05:57	Dolphin	Surface	93	44	30	222	43	0	N	22.26896	E	113.86369	851.23	274.71
30-Jan-13	13:06:07	Dolphin	Surface	93	47	40	222	54	50	N	22.26898	E	113.86381	839.34	274.91
30-Jan-13	13:06:32	Dolphin	Surface	93	58	10	223	1	20	N	22.26896	E	113.86417	802.17	275.02
30-Jan-13	13:07:31	Dolphin	Surface	93	53	0	218	0	40	N	22.26833	E	113.86397	820.09	270.01
30-Jan-13	13:07:52	Dolphin	Surface	93	46	40	215	27	10	N	22.26800	E	113.86375	843.14	267.45
30-Jan-13	13:07:57	Dolphin	Surface	93	45	20	215	13	10	N	22.26796	E	113.86371	848.15	267.22
30-Jan-13	13:08:04	Dolphin	Surface	93	45	20	214	47	20	N	22.26791	E	113.86371	848.16	266.79
30-Jan-13	13:08:14	Dolphin	Surface	93	45	20	214	19	0	N	22.26784	E	113.86371	848.16	266.31
30-Jan-13	13:08:19	Dolphin	Surface	93	44	20	214	37	10	N	22.26788	E	113.86367	851.97	266.62
30-Jan-13	13:10:02	Dolphin	Surface	93	30	40	212	23	20	N	22.26753	E	113.86316	907.59	264.39
30-Jan-13	13:10:47	Research Vessel	Traveling	91	32	30	338	49	30	N	22.28440	E	113.88231	2079.40	30.82
30-Jan-13	13:10:57	Transportation boat	Traveling	92	9	50	299	42	20	N	22.28148	E	113.86987	1476.69	351.70
30-Jan-13	13:12:13	Transportation boat	Traveling	92	9	40	286	58	20	N	22.28075	E	113.86678	1478.69	338.97
30-Jan-13	13:12:23	Fishing Boat	Non-operating	116	0	20	314	24	10	N	22.26935	E	113.87207	114.03	6.40
30-Jan-13	13:12:33	Research Vessel	Traveling	91	50	30	336	46	30	N	22.28204	E	113.88008	1737.46	28.77
30-Jan-13	13:12:50	Fishing Boat	Non-operating	94	46	40	327	8	50	N	22.27400	E	113.87407	666.00	19.14
30-Jan-13	13:14:50	Hi-Speed Ferry		94	46	30	230	53	0	N	22.26967	E	113.86563	666.46	282.88
30-Jan-13	13:14:57	Transportation boat	Traveling	91	50	0	263	48	30	N	22.27960	E	113.86011	1745.64	315.81
30-Jan-13	13:15:08	Research Vessel	Traveling	92	22	30	333	10	20	N	22.27929	E	113.87751	1344.87	25.17
30-Jan-13	13:15:23	Fishing Boat	Non-operating	94	12	0	353	24	0	N	22.27312	E	113.87719	758.26	45.40
30-Jan-13	13:16:34	Hi-Speed Ferry		94	31	50	304	19	50	N	22.27464	E	113.87151	702.69	356.33
30-Jan-13	13:16:49	Research Vessel	Traveling	91	54	40	326	46	40	N	22.28260	E	113.87718	1674.13	18.77
30-Jan-13	13:19:07	Transportation boat	Traveling	92	6	0	266	4	40	N	22.27853	E	113.86205	1522.57	318.07
30-Jan-13	13:19:24	Research Vessel	Traveling	91	24	40	321	13	20	N	22.28827	E	113.87701	2275.57	13.22
30-Jan-13	13:25:07	Transportation boat	Traveling	91	53	30	333	22	30	N	22.28209	E	113.87900	1692.20	25.37
30-Jan-13	13:27:04	Fishing Boat	Non-operating	91	44	40	237	11	0	N	22.27376	E	113.85508	1836.61	289.18
30-Jan-13	13:28:15	Dolphin	Surface	92	21	10	245	26	10	N	22.27397	E	113.86022	1358.55	297.43
30-Jan-13	13:28:21	Dolphin	Surface	92	25	40	245	8	20	N	22.27374	E	113.86055	1316.33	297.14
30-Jan-13	13:29:25	Dolphin	Surface	92	23	30	247	2	10	N	22.27417	E	113.86058	1336.40	299.03
30-Jan-13	13:29:37	Dolphin	Surface	92	27	30	246	34	30	N	22.27393	E	113.86084	1299.96	298.57
30-Jan-13	13:29:45	Dolphin	Surface	92	22	50	246	50	30	N	22.27416	E	113.86051	1342.70	298.84
30-Jan-13	13:30:12	Fishing Boat	Non-operating	91	47	20	270	29	40	N	22.28112	E	113.86134	1790.81	322.49
30-Jan-13	13:31:10	Dolphin	Surface	92	42	30	246	48	10	N	22.27345	E	113.86189	1179.40	298.80
30-Jan-13	13:31:37	Dolphin	Surface	92	49	20	246	37	10	N	22.27321	E	113.86228	1131.58	298.62
30-Jan-13	13:32:11	Research Vessel	Traveling	91	36	30	352	17	10	N	22.28118	E	113.88549	1994.33	44.28

Appendix I. (cont'd)

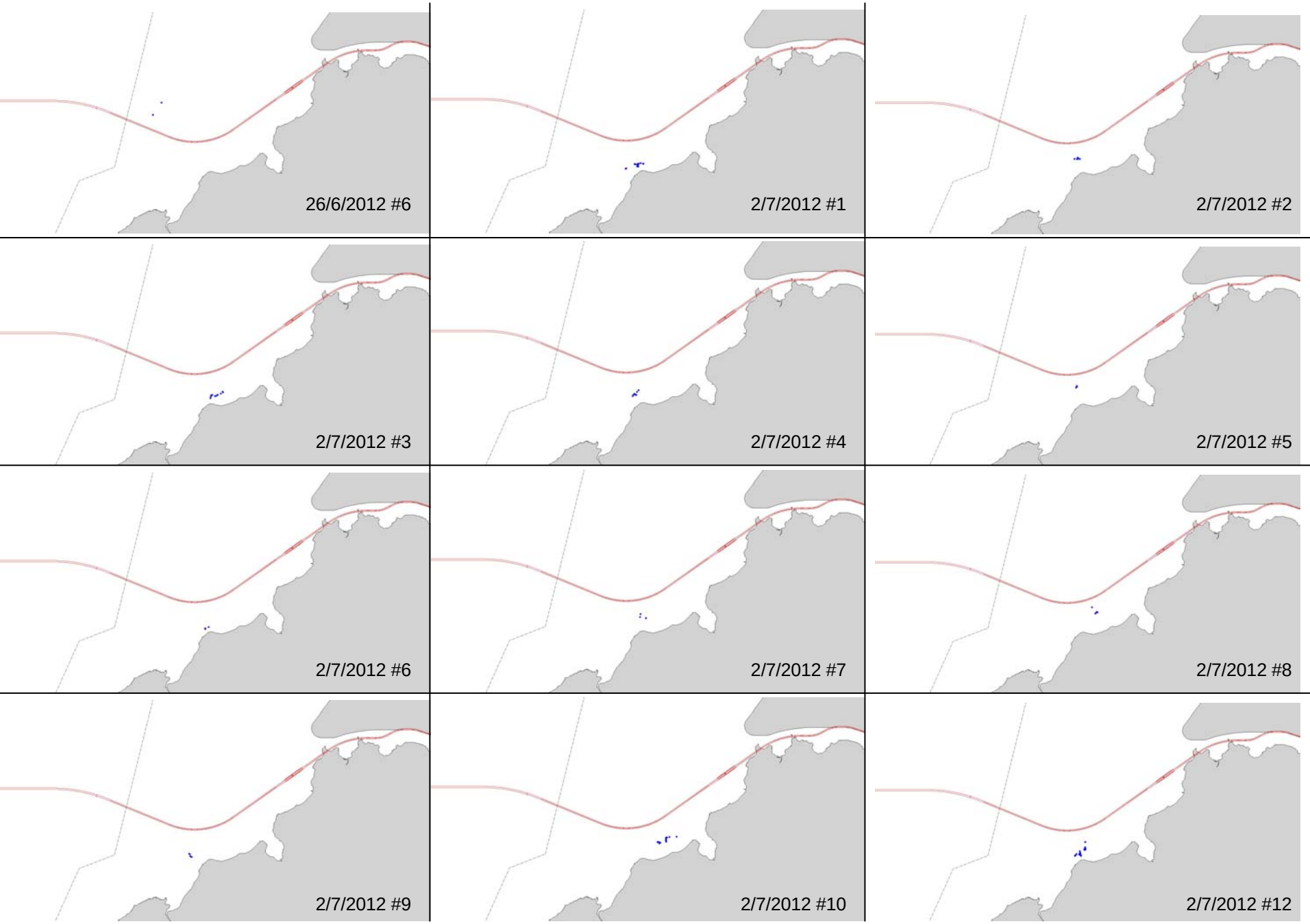
Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
30-Jan-13	13:32:31	Dolphin	Surface	93	5	30	250	36	10	N	22.27334	E	113.86349	1032.53	302.60
30-Jan-13	13:32:45	Dolphin	Surface	93	7	50	250	34	40	N	22.27327	E	113.86359	1019.65	302.57
30-Jan-13	13:32:48	Dolphin	Surface	93	9	0	250	20	50	N	22.27321	E	113.86362	1013.33	302.34
30-Jan-13	13:33:46	Dolphin	Surface	93	22	0	248	23	50	N	22.27265	E	113.86399	947.86	300.39
30-Jan-13	13:34:37	Dolphin	Surface	93	36	50	250	57	20	N	22.27265	E	113.86474	882.75	302.95
30-Jan-13	13:35:16	Dolphin	Surface	93	33	20	254	39	50	N	22.27315	E	113.86494	897.33	306.66
30-Jan-13	13:35:21	Dolphin	Fluke Up	93	35	0	255	2	40	N	22.27316	E	113.86503	890.35	307.04
30-Jan-13	13:35:27	Dolphin	Surface	93	37	50	255	32	20	N	22.27315	E	113.86517	878.71	307.54
30-Jan-13	13:35:59	Dolphin	Surface	93	10	0	259	52	20	N	22.27439	E	113.86464	1008.13	311.87
30-Jan-13	13:37:47	Dolphin	Surface	93	17	0	266	6	20	N	22.27485	E	113.86563	972.23	318.10
30-Jan-13	13:37:49	Dolphin	Surface	93	14	40	266	30	0	N	22.27496	E	113.86560	983.94	318.50
30-Jan-13	13:38:00	Dolphin	Surface	93	15	0	267	34	40	N	22.27506	E	113.86575	982.26	319.57
30-Jan-13	13:38:18	Research Vessel	Traveling	94	3	0	335	12	40	N	22.27464	E	113.87545	787.39	27.21
30-Jan-13	13:38:33	Dolphin	Surface	93	14	40	270	43	10	N	22.27538	E	113.86615	983.98	322.72
30-Jan-13	13:38:52	Dolphin	Surface	93	46	30	273	18	20	N	22.27459	E	113.86727	845.07	325.30
30-Jan-13	13:39:05	Dolphin	Surface	93	45	20	274	42	20	N	22.27472	E	113.86741	849.48	326.70
30-Jan-13	13:39:13	Dolphin	Surface	93	47	10	275	38	40	N	22.27474	E	113.86756	842.60	327.64
30-Jan-13	13:39:19	Dolphin	Surface	93	45	50	276	24	0	N	22.27483	E	113.86762	847.60	328.40
30-Jan-13	13:39:56	Dolphin	Surface	93	41	30	280	28	10	N	22.27523	E	113.86806	864.29	332.47
30-Jan-13	13:40:56	Dolphin	Surface	93	28	40	285	53	50	N	22.27599	E	113.86859	917.76	337.89
30-Jan-13	13:41:00	Dolphin	Surface	93	28	10	286	15	0	N	22.27602	E	113.86863	919.98	338.25
30-Jan-13	13:41:13	Research Vessel	Traveling	93	37	40	299	39	30	N	22.27617	E	113.87070	879.64	351.66
30-Jan-13	13:42:07	Research Vessel	Dolphin follow	93	27	0	299	48	0	N	22.27657	E	113.87066	925.24	351.80
30-Jan-13	13:42:44	Dolphin	Surface	93	3	0	293	9	10	N	22.27744	E	113.86933	1047.25	345.15
30-Jan-13	13:44:50	Research Vessel	Dolphin follow	92	44	40	300	13	40	N	22.27872	E	113.87041	1164.60	352.22
30-Jan-13	13:45:17	Dolphin	Surface	92	32	0	297	52	50	N	22.27952	E	113.86979	1262.24	349.88
30-Jan-13	13:45:20	Dolphin	Surface	92	31	10	298	13	50	N	22.27959	E	113.86985	1269.24	350.23
30-Jan-13	13:45:23	Dolphin	Surface	92	30	20	298	13	0	N	22.27965	E	113.86983	1276.32	350.21
30-Jan-13	13:45:29	Dolphin	Surface	92	29	50	298	43	20	N	22.27971	E	113.86994	1280.61	350.72
30-Jan-13	13:45:33	Dolphin	Surface	92	29	20	298	51	40	N	22.27975	E	113.86996	1284.93	350.86
30-Jan-13	13:45:36	Dolphin	Surface	92	29	20	298	56	20	N	22.27975	E	113.86998	1284.93	350.94
30-Jan-13	13:47:01	Research Vessel	Traveling	92	44	40	301	44	20	N	22.27875	E	113.87071	1164.73	353.74
30-Jan-13	13:47:56	Speedboat	Traveling	92	23	50	315	17	0	N	22.28025	E	113.87359	1334.53	7.28
30-Jan-13	13:48:02	Research Vessel	Traveling	92	26	30	304	26	30	N	22.28010	E	113.87115	1310.10	356.44
30-Jan-13	13:49:55	Speedboat	Traveling	95	52	40	283	15	20	N	22.27276	E	113.86974	541.61	335.25
30-Jan-13	13:50:20	Speedboat	Traveling	97	39	10	262	14	30	N	22.27094	E	113.86905	414.90	314.24
30-Jan-13	13:51:36	Dolphin	Surface	94	46	40	264	21	50	N	22.27268	E	113.86747	667.30	316.36
30-Jan-13	13:51:43	Dolphin	Surface	94	33	50	268	52	50	N	22.27321	E	113.86766	698.76	320.88
30-Jan-13	13:51:53	Dolphin	Surface	94	39	30	269	37	20	N	22.27316	E	113.86781	684.52	321.62
30-Jan-13	13:52:28	Dolphin	Surface	94	23	0	276	37	40	N	22.27392	E	113.86826	727.73	328.62
30-Jan-13	13:55:14	Research Vessel	Dolphin follow	91	28	40	314	54	20	N	22.28777	E	113.87449	2175.40	6.90
30-Jan-13	13:58:13	Research Vessel	Stationary	91	28	20	315	20	40	N	22.28783	E	113.87466	2184.05	7.34
30-Jan-13	14:01:30	Research Vessel	Traveling	91	14	40	310	56	0	N	22.29162	E	113.87323	2591.42	2.93
30-Jan-13	14:01:41	Speedboat	Traveling	91	54	50	324	59	50	N	22.28275	E	113.87671	1675.46	16.99
30-Jan-13	14:02:16	Speedboat	Traveling	92	32	10	313	36	40	N	22.27964	E	113.87314	1261.93	5.61
30-Jan-13	14:02:45	Research Vessel	Stationary	91	14	10	310	18	40	N	22.29180	E	113.87297	2609.40	2.31
30-Jan-13	14:06:26	Research Vessel	Stationary	91	14	0	310	24	20	N	22.29185	E	113.87301	2615.88	2.40
30-Jan-13	14:07:45	Dolphin	Surface	91	9	20	309	42	40	N	22.29348	E	113.87276	2795.98	1.71
30-Jan-13	14:07:56	Dolphin	Surface	91	8	40	309	57	50	N	22.29373	E	113.87288	2823.77	1.96
30-Jan-13	14:08:17	Research Vessel	Traveling	91	10	40	311	15	0	N	22.29297	E	113.87346	2742.14	3.25
30-Jan-13	14:10:48	Research Vessel	Stationary	91	2	20	313	40	50	N	22.29626	E	113.87495	3118.78	5.68
30-Jan-13	14:11:19	Dolphin	Surface	91	3	30	313	0	20	N	22.29577	E	113.87454	3060.00	5.00
30-Jan-13	14:11:29	Dolphin	Surface	91	3	10	313	9	50	N	22.29591	E	113.87464	3076.61	5.16
30-Jan-13	14:12:53	Research Vessel	Stationary	91	1	40	313	29	20	N	22.29659	E	113.87488	3153.79	5.49
30-Jan-13	14:15:01	Fishing Boat	Non-operating	91	21	10	313	42	10	N	22.28966	E	113.87425	2381.97	5.70
30-Jan-13	14:15:10	Research Vessel	Stationary	91	1	50	313	25	0	N	22.29651	E	113.87483	3145.41	5.41
30-Jan-13	14:15:28	Dolphin	Surface	91	5	10	313	14	50	N	22.29504	E	113.87459	2980.34	5.24
30-Jan-13	14:18:10	Research Vessel	Stationary	91	1	20	313	4	30	N	22.29677	E	113.87467	3172.27	5.07
30-Jan-13	14:18:27	Research Vessel	Traveling	91	0	20	313	9	30	N	22.29725	E	113.87476	3226.46	5.16
30-Jan-13	14:19:10	Speedboat	Traveling	115	27	0	301	21	50	N	22.26938	E	113.87181	117.29	353.36
30-Jan-13	14:21:04	Speedboat	Traveling	95	2	30	13	3	40	N	22.27074	E	113.87753	633.10	65.06
30-Jan-13	14:21:32	Research Vessel	Stationary	90	54	20	317	3	50	N	22.30029	E	113.87745	3595.88	9.06
30-Jan-13	14:23:16	Other	Traveling	92	8	0	331	0	0	N	22.28079	E	113.87766	1503.45	23.00
30-Jan-13	14:25:35	Other	Traveling	92	14	0	316	49	0	N	22.28110	E	113.87408	1435.83	8.81
30-Jan-13	14:32:54	Police Vessel	Traveling	93	0	20	231	51	50	N	22.27063	E	113.86188	1065.49	283.86
30-Jan-13	14:32:58	Police Vessel	Traveling	92	53	50	228	38	40	N	22.27017	E	113.86138	1105.54	280.64
30-Jan-13	14:33:12	Transportation boat	Traveling	92	1	10	312	25	40	N	22.28260	E	113.87314	1589.70	4.42
30-Jan-13	14:33:24	Research Vessel	Traveling	91	10	10	308	57	30	N	22.29322	E	113.87239	2765.63	0.96
30-Jan-13	14:33:35	Other	Traveling	91	59	40	273	36	0	N	22.28029	E	113.86310	1609.82	325.60
30-Jan-13	14:33:44	Transportation boat	Traveling	92	4	0	306	27	30	N	22.28231	E	113.87154	1553.13	358.46
30-Jan-13	14:42:35	Research Vessel	Traveling	92	13	20	272	44	10	N	22.27895	E	113.86383	1444.29	324.73
30-Jan-13	14:42:57	Other	Stationary	91	42	30	256	13	50	N	22.27882	E	113.85756	1883.02	308.23
30-Jan-13	14:43:07	Transportation boat	Traveling	91	44	30	272	42	30	N	22.28190	E	113.86157	1846.62	324.71
30-Jan-13	14:48:23	Hi-Speed Ferry		92	13	10	331	20	50	N	22.28029	E	113.87752	1446.53	23.34
30-Jan-13	14:48:32	Transportation boat	Traveling	91	41	30	336	4	20	N	22.28344	E	113.88065	1902.30	28.07
30-Jan-13	14:48:45	Research Vessel	Traveling	92	17	30	219	22	30	N	22.26863	E	113.85833	1400.67	271.37
30-Jan-13	14:51:37	Hi-Speed Ferry		95	28	20	264	9	20	N	22.27212	E	113.86801	583.86	316.15
30-Jan-13	14:53:25	Hi-Speed Ferry		93	18	30	212	20	50	N	22.26747	E	113.86257	968.51	264.34
30-Jan-13	14:53:45	Transportation boat	Traveling	92	12	50	345	6	10	N	22.27874	E	113.88045	1450.58	37.10
30-Jan-13	14:57:17	Transportation boat	Traveling	95	21	50	307	8	10	N	22.27370	E	113.87186	595.90	359.13
30-Jan-13	14:59:54	Transportation boat	Traveling	94	42	20	229	52	20	N	22.26959	E	113.86547	679.92	281.87
30-Jan-13	15:00:48	Speedboat	Traveling	96	37	10	268	44	30	N	22.27169	E	113.86898	482.13	320.74
30-Jan-13	15:01:14	Speedboat	Traveling	94	31	10	302	24	20	N	22.27468	E	113.87127	708.13	354.40
30-Jan-13	15:02:55	Speedboat	Traveling	91	28	30	331	44	20	N	22.28635	E	113.88051	2187.00	23.74
30-Jan-13	15:06:41	Other	Traveling	94	11	50	240	33	50	N	22.27097	E	113.86509	763.01	292.56
30-Jan-13	15:14:00	Zero		91	12	50	0	0	10	N	22.28311	E	113.89239	2667.72	52.00
30-Jan-13	15:14:53	Speedboat	Traveling	101	56	20	308	41	10	N	22.27072	E	113.87198	264.74	0.68
30-Jan-13	15:16:31	Speedboat	Traveling	92	37	30	350	0	50	N	22.27651	E	113.87991	1223.50	42.01
30-Jan-13	15:21:39	Speedboat	Traveling	118	36	40	296	14	30	N	22.26924	E	113.87174	102.65	348.24
30-Jan-13	15:22:02	Speedboat	Traveling	111	3	0	333	45	10	N	22.26951	E	113.87256	145.49	25.75
30-Jan-13	15:35:02	Fishing Boat	Non-operating	100	50	40	305	13	0	N	22.27096	E	113.87181	292.51	357.21
30-Jan-13	15:39:10	Speedboat	Traveling	111	31	10	310	58	30	N	22.26961	E	113.87202	142.13	2.97
30-Jan-13	15:40:02	Speedboat	Traveling	97	24	20	4	13	30	N	22.27049	E	113.87543	431.28	56.22
30-Jan-13	15:42:11	Speedboat	Traveling	92	12	40	357	34	50	N	22.27683	E	113.88272	1455.94	49.58
30-Jan-13	15:50:41	Sand Barge		91	36	40	233	16	40	N	22.27309	E	113.85314	2004.77	285.27
30-Jan-13	15:53:52	Sand Barge		91	39	20	256	20	30	N	22.27922	E	113.85706	1950.64	308.34
30-Jan-13	15:55:35	Sand Barge		91	31	20	267	7	10	N	22.28278	E	113.85842	2123.86	319.12
30-Jan-13	16:02:45	Sand Barge		91	0	10	295	27	50	N	22.29691	E	113.86508	3252.82	347.46
30-Jan-13	16:19:13	Police Vessel	Traveling	93	21	0	301	36	40	N	22.27692	E	113.87090	960.51	353.61
30-Jan-13	16:19:30	Research Vessel	Traveling	92	6	50	221	42	40	N	22.26922	E	113.85713	1526.24	273.71
30-Jan-13	16:19:42	Police Vessel	Traveling	91	42	40	217	44	50	N	22.26826	E	113.85357	1889.07	269.74

Appendix I. (cont'd)

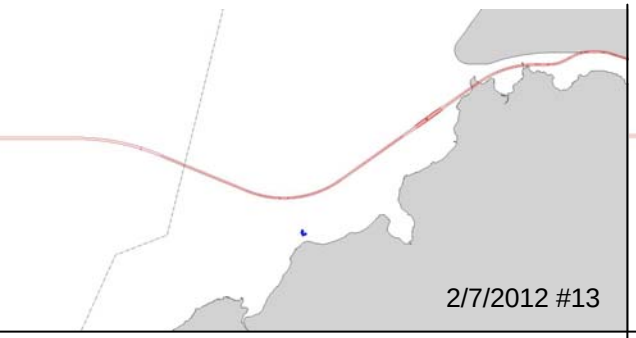
Date	Time	Fix Type	Fix Type Behaviour	Fix Vert Degrees	Fix Vert Minutes	Fix Vert Seconds	Fix Horz Degrees	Fix Horz Minutes	Fix Horz Seconds	Lat Hemi	Fix Latitude	Long Hemi	Fix Longitude	Distance	Bearing
30-Jan-13	16:20:31	Police Vessel	Traveling	93	4	50	220	10	30	N	22.26869	E	113.86179	1045.03	272.17
30-Jan-13	16:20:43	Police Vessel	Traveling	91	54	0	228	7	50	N	22.27102	E	113.85567	1699.63	280.13
30-Jan-13	16:21:39	Research Vessel	Traveling	92	42	0	235	19	40	N	22.27153	E	113.86087	1193.20	287.32
30-Jan-13	16:23:23	Police Vessel	Traveling	92	0	30	262	20	50	N	22.27844	E	113.86076	1607.41	314.34
30-Jan-13	16:24:58	Research Vessel	Traveling	93	25	40	272	17	40	N	22.27519	E	113.86662	938.88	324.29
30-Jan-13	16:25:08	Police Vessel	Traveling	91	45	50	282	3	40	N	22.28316	E	113.86415	1832.47	334.06
30-Jan-13	16:26:23	Police Vessel	Traveling	91	24	30	296	41	40	N	22.28864	E	113.86755	2301.70	348.69
30-Jan-13	16:27:37	Police Vessel	Traveling	91	7	10	306	50	0	N	22.29450	E	113.87137	2908.79	358.83
30-Jan-13	16:27:50	Research Vessel	Traveling	92	52	0	305	37	20	N	22.27844	E	113.87149	1123.82	357.62
30-Jan-13	16:34:59	Research Vessel	Traveling	91	22	30	338	32	20	N	22.28662	E	113.88360	2359.40	30.54
30-Jan-13	17:11:55	Zero		95	35	50	0	0	0	N	22.27152	E	113.87635	574.73	52.00
30-Jan-13	17:12:03	Hi-Speed Ferry		95	26	50	280	41	40	N	22.27306	E	113.86931	590.68	332.69
30-Jan-13	17:13:09	Hi-Speed Ferry		93	46	10	312	12	40	N	22.27601	E	113.87255	855.44	4.21
30-Jan-13	17:14:25	Hi-Speed Ferry		92	27	10	327	37	40	N	22.27950	E	113.87625	1317.66	19.62
30-Jan-13	17:39:08	Police Vessel	Traveling	93	22	50	224	32	40	N	22.26931	E	113.86272	954.78	276.54
30-Jan-13	17:41:06	Police Vessel	Traveling	93	57	0	254	26	50	N	22.27270	E	113.86556	816.40	306.44
30-Jan-13	17:42:37	Police Vessel	Traveling	92	10	10	322	47	10	N	22.28131	E	113.87564	1491.18	14.78
30-Jan-13	17:43:12	Police Vessel	Traveling	91	38	0	332	24	0	N	22.28461	E	113.87992	1985.69	24.40

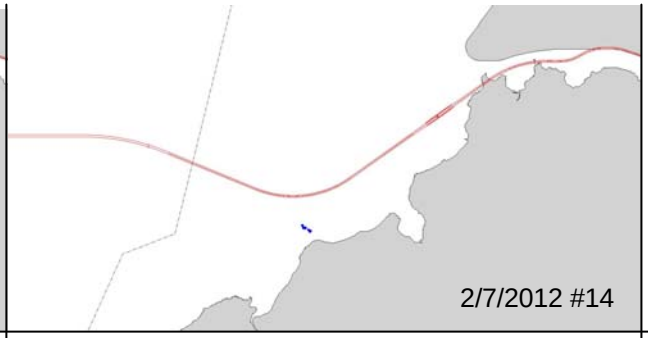


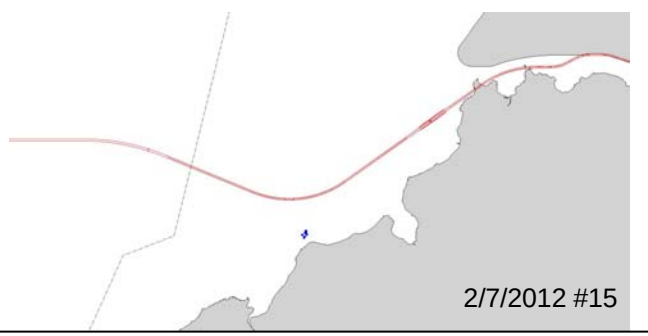
Appendix II. Plot of locations for 97 individual tracks to examine north-south movement across HKLR alignment

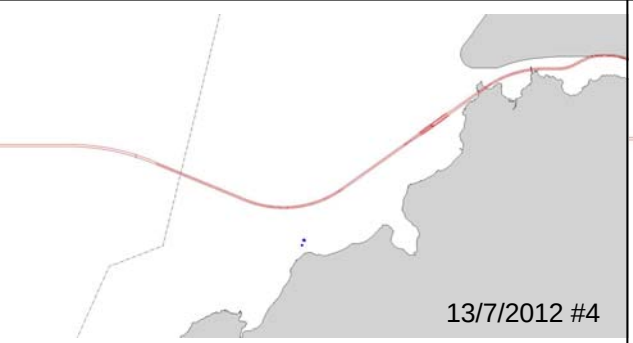


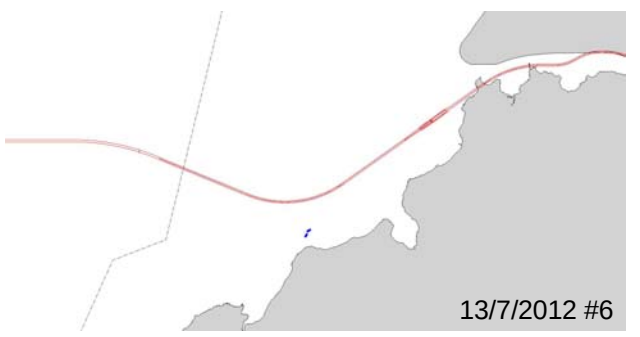
Appendix II. (cont'd)

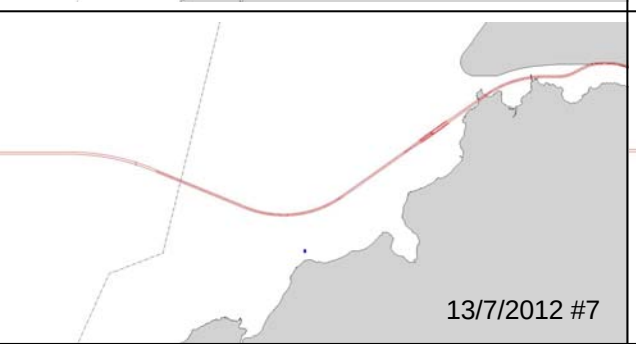


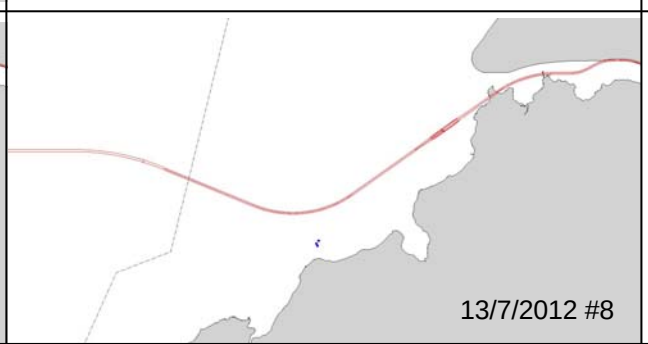


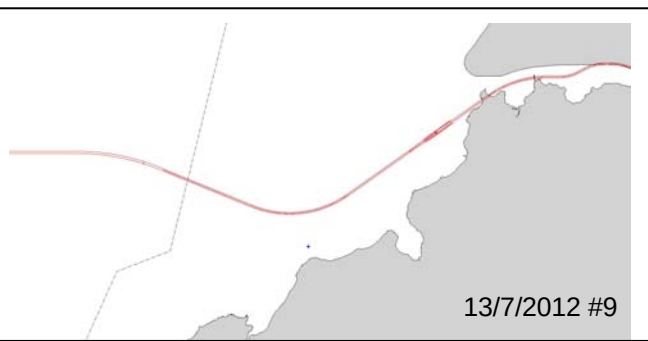


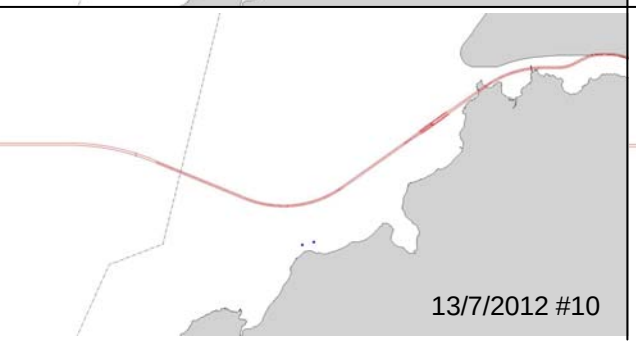


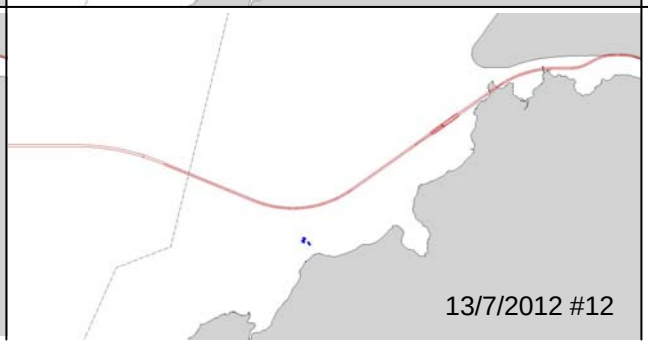


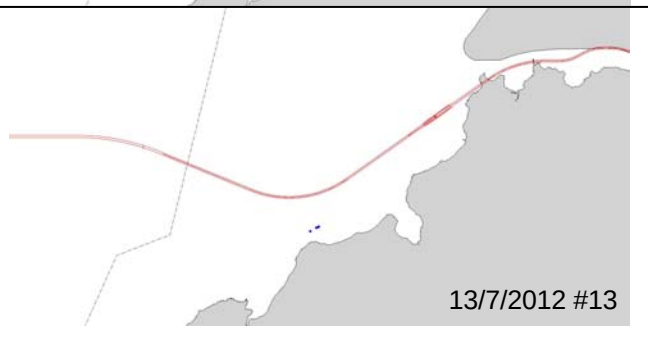












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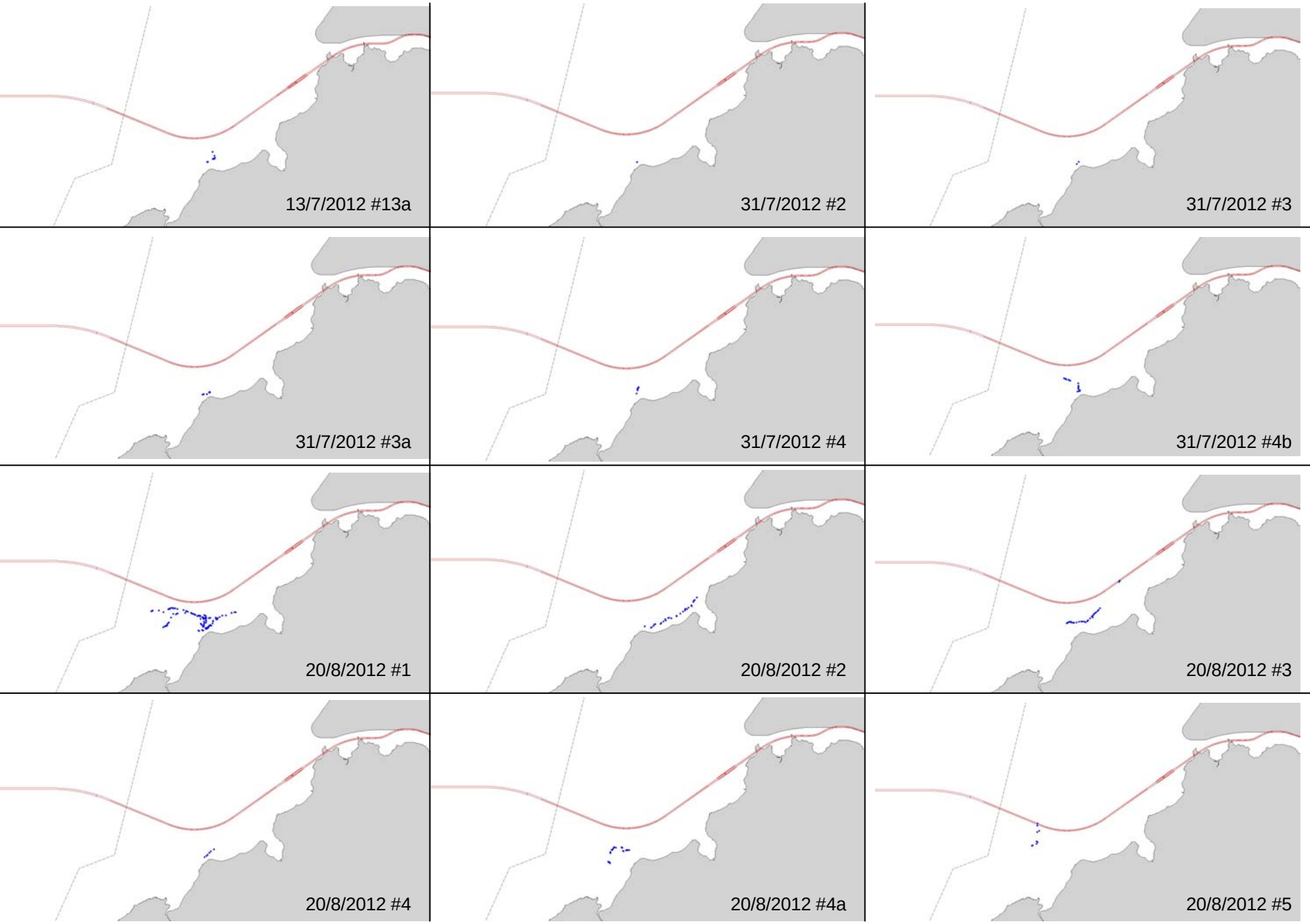

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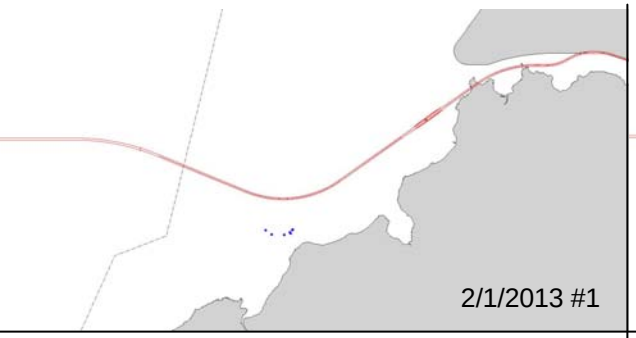

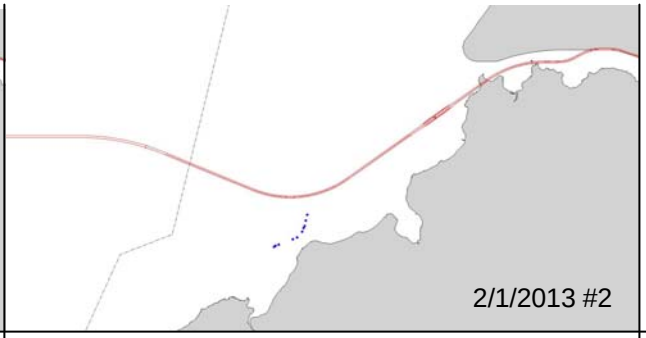

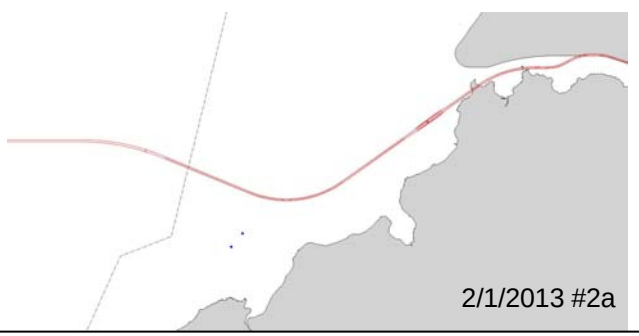

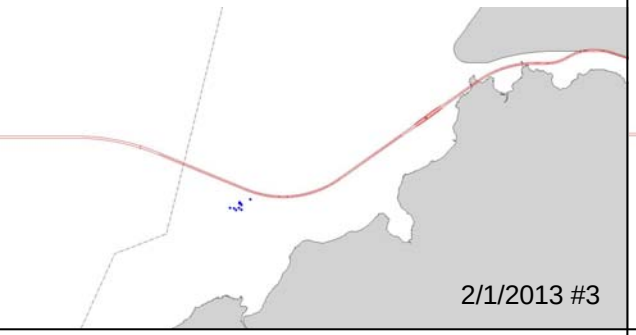

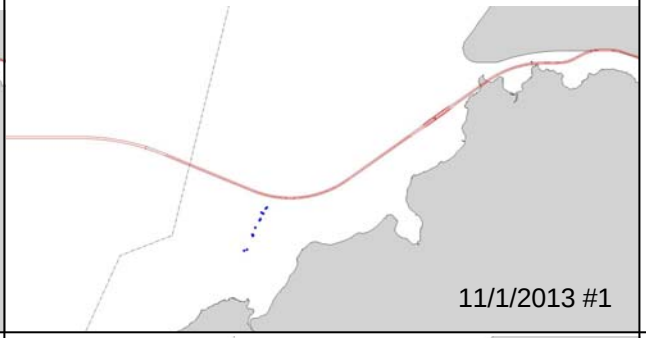

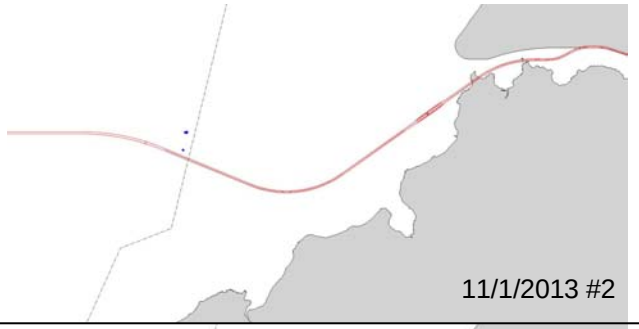

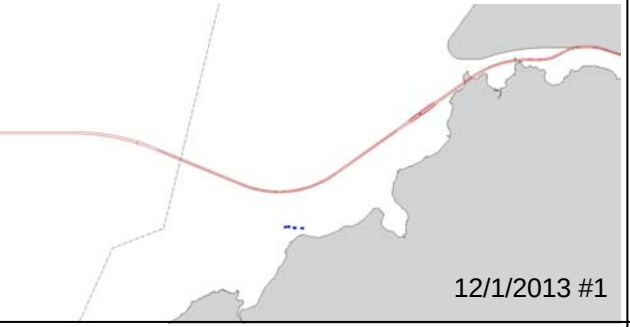

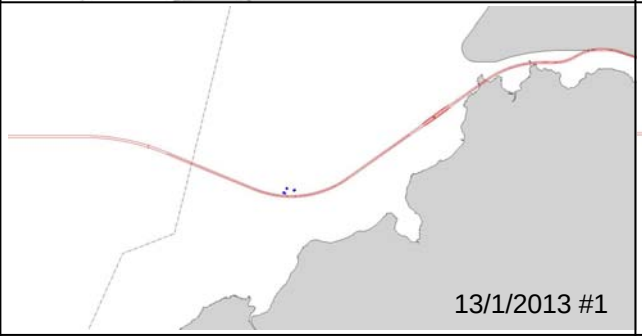

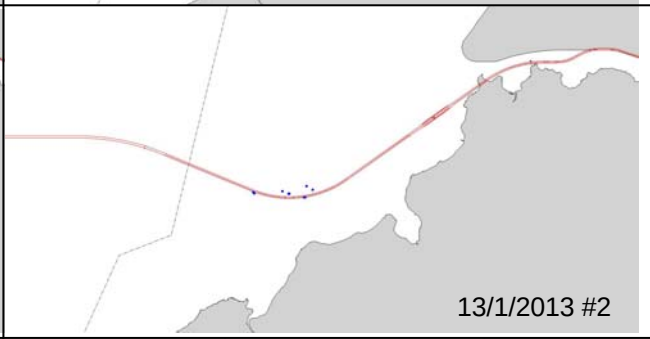

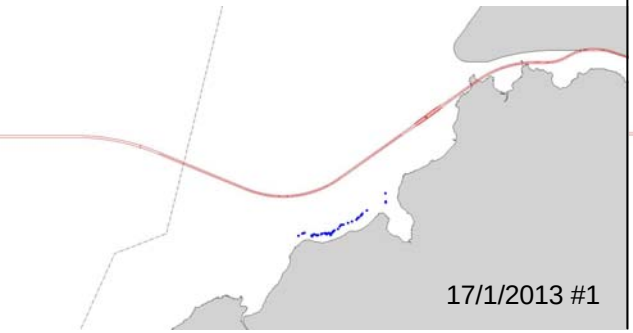

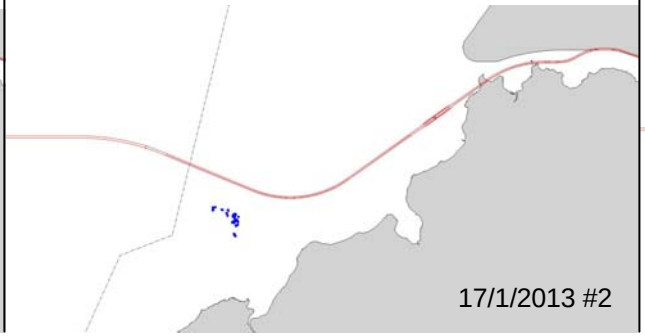

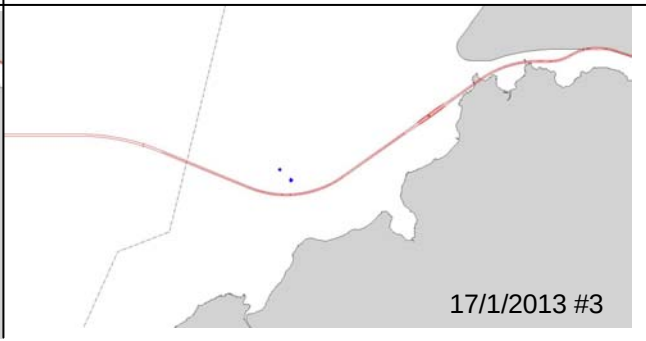

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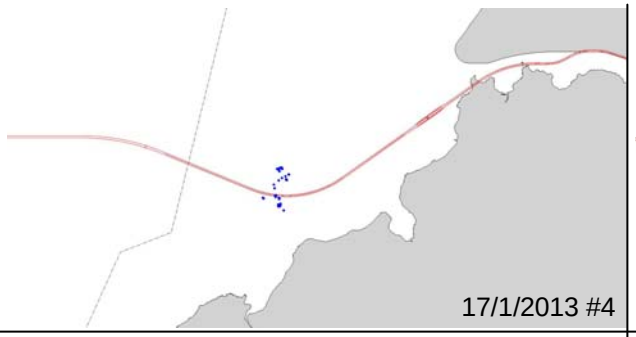

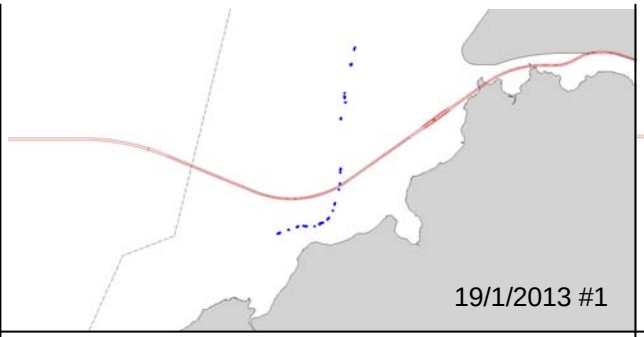

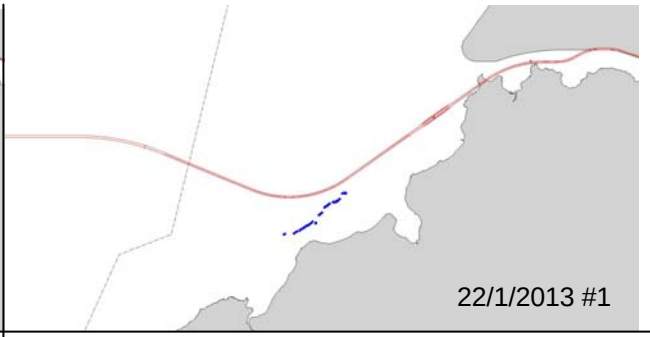

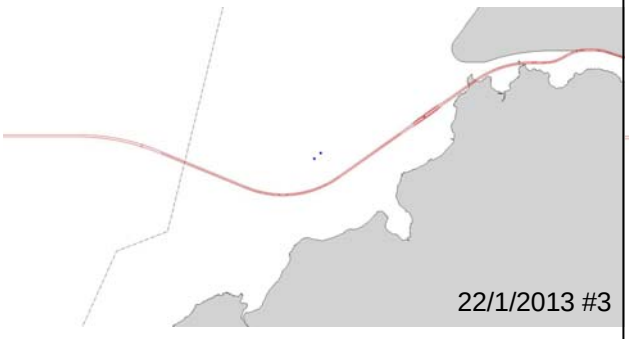

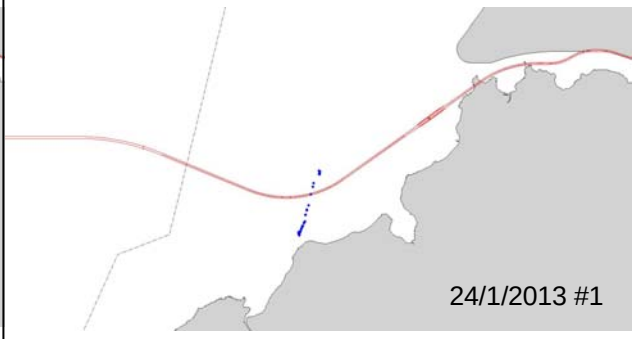

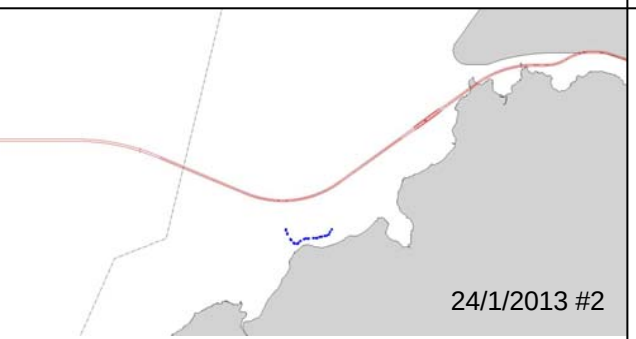

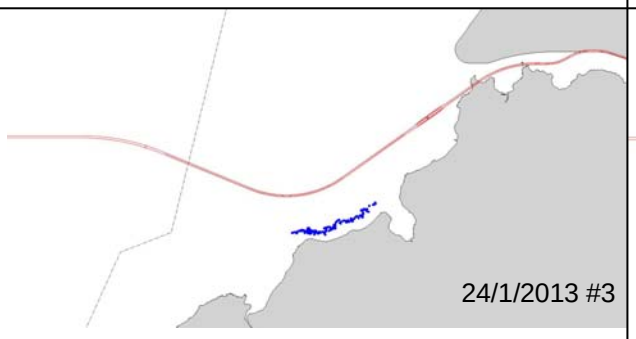

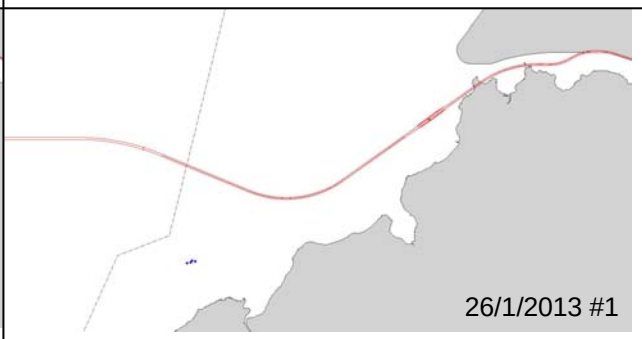

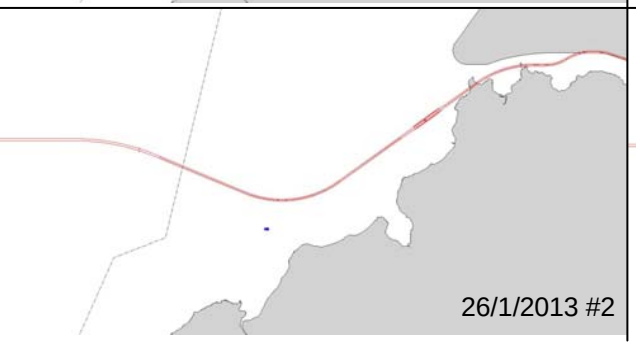

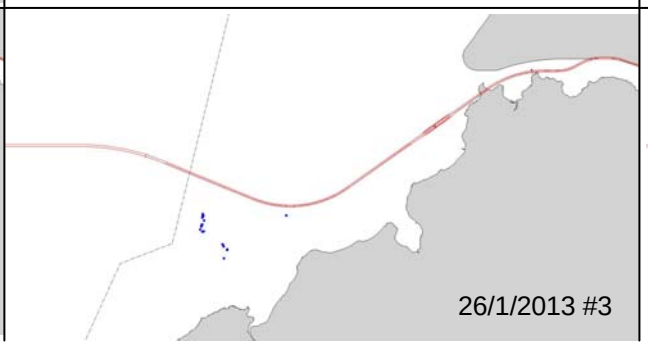

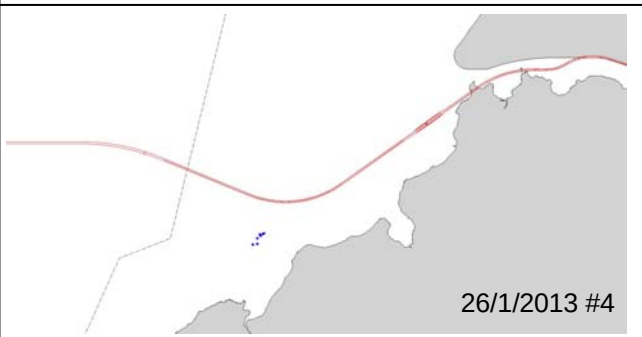

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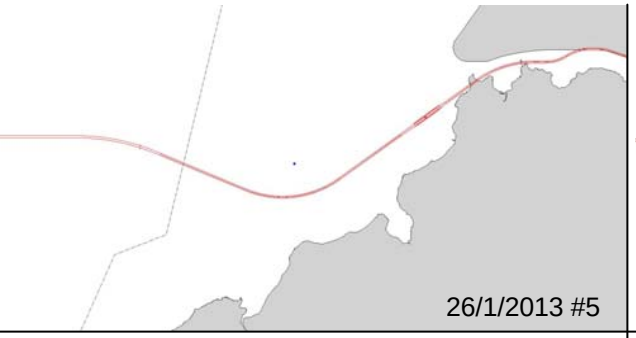

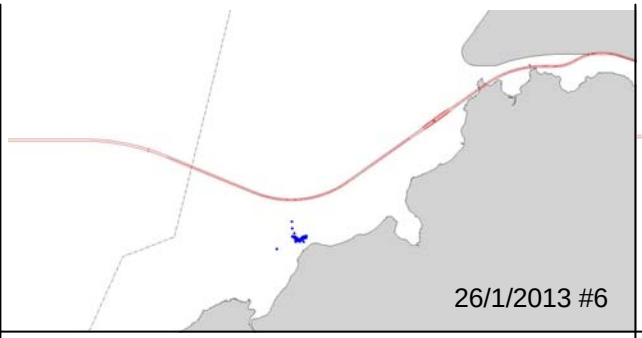

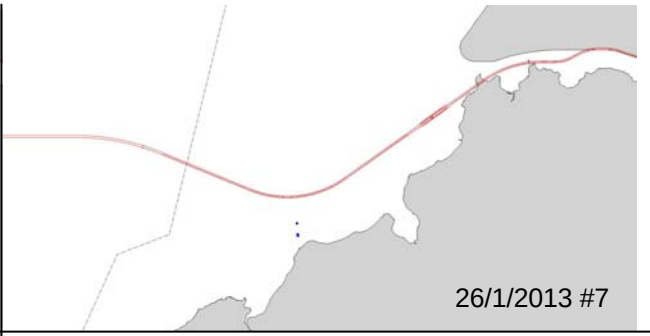

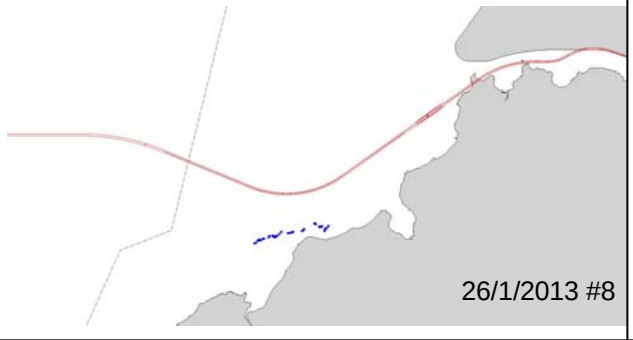

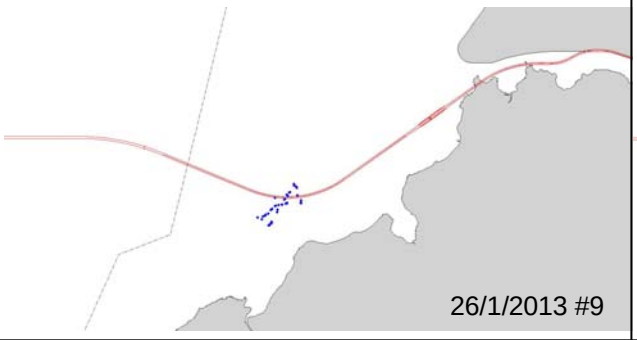

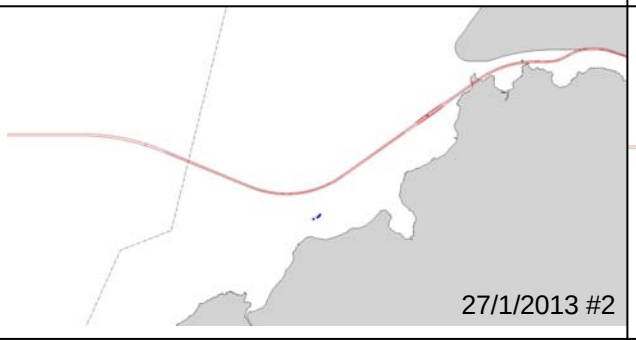

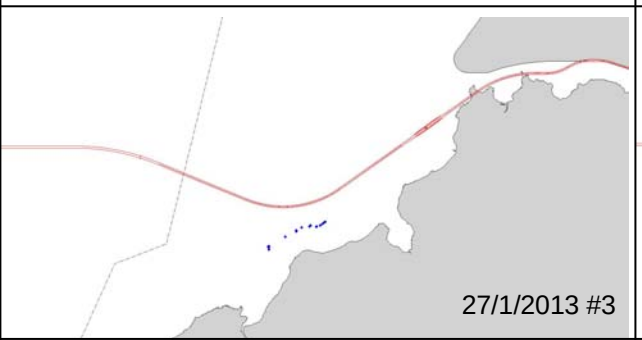

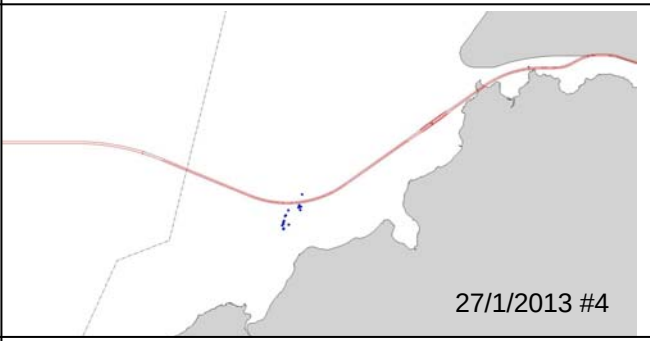

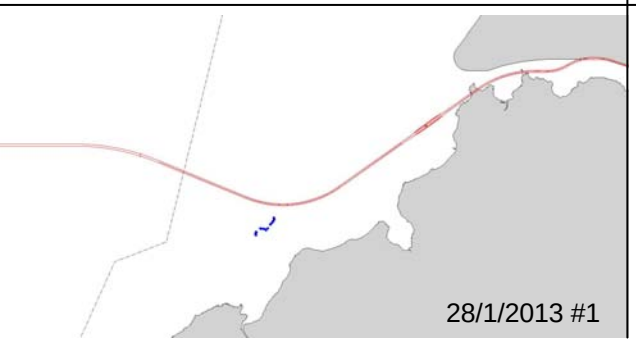

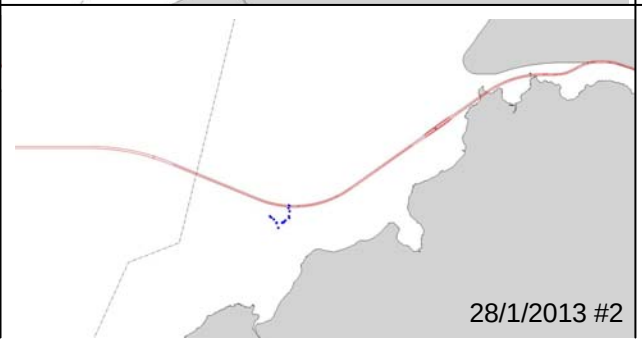

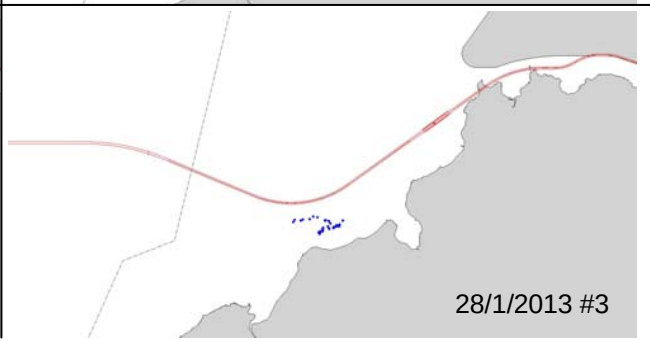

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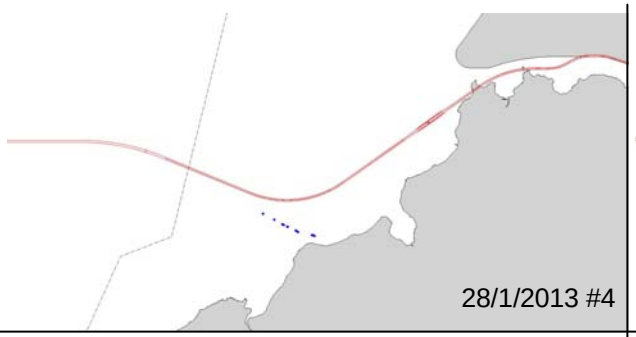

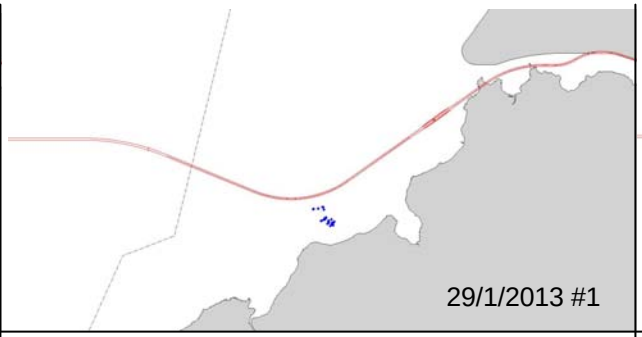

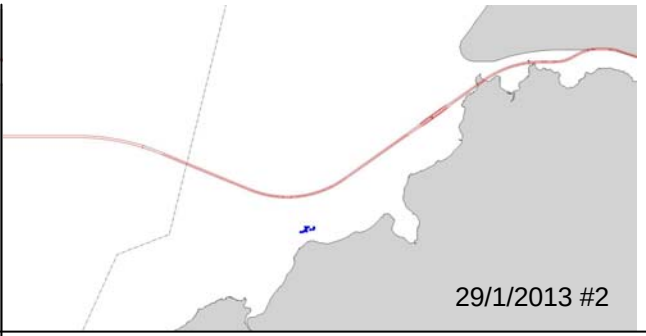

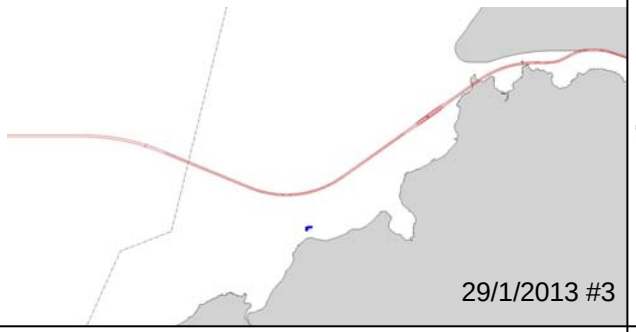

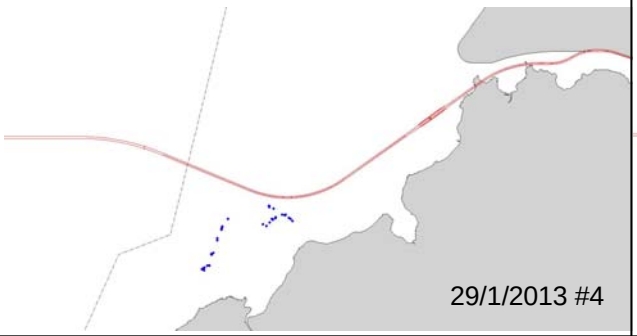

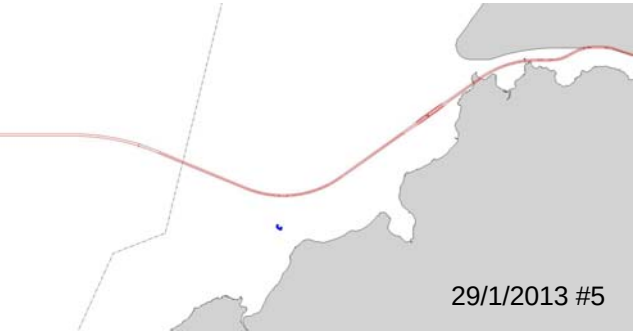

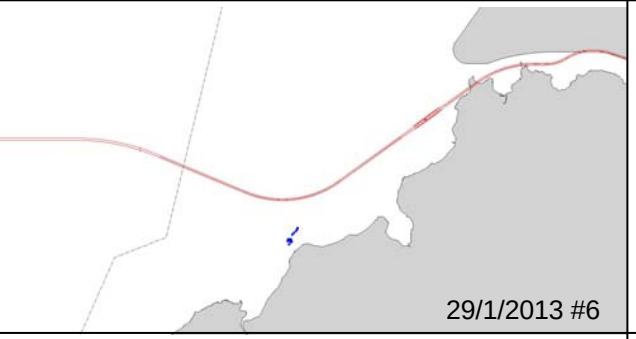

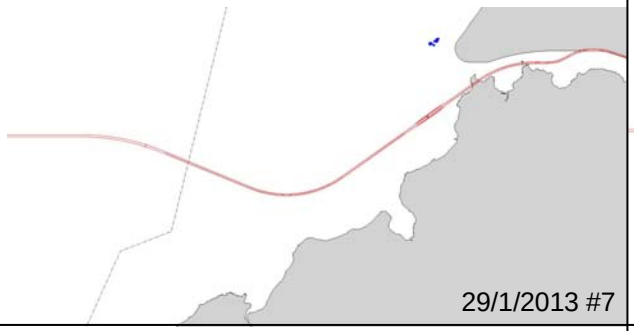

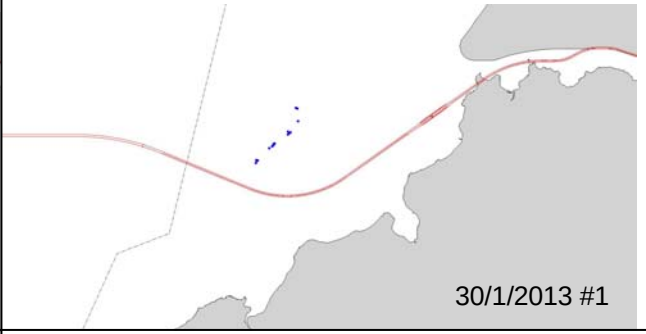

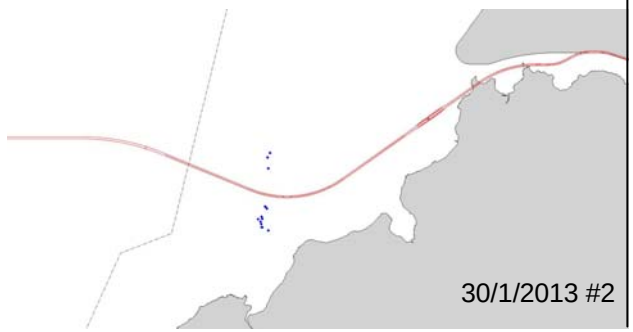

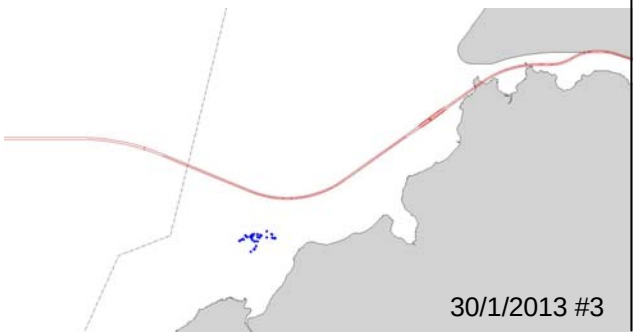

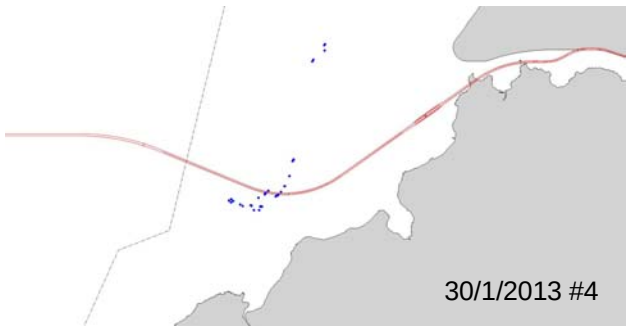

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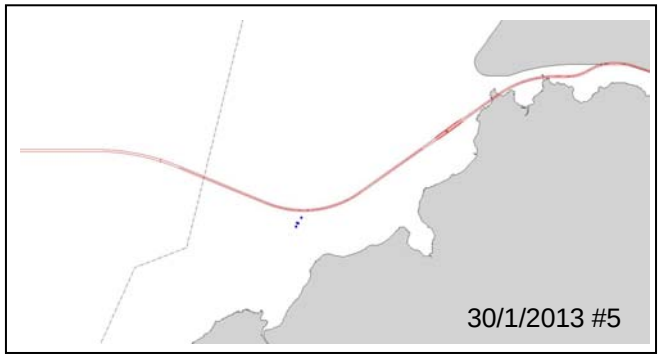

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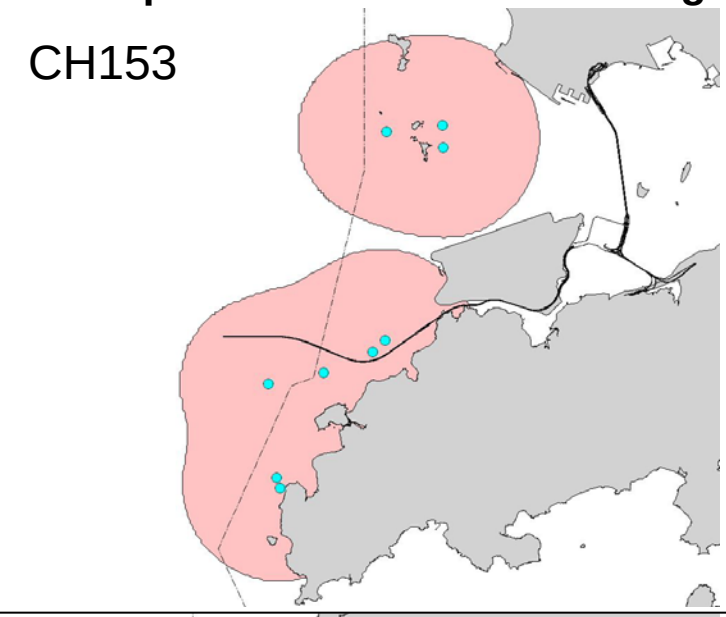
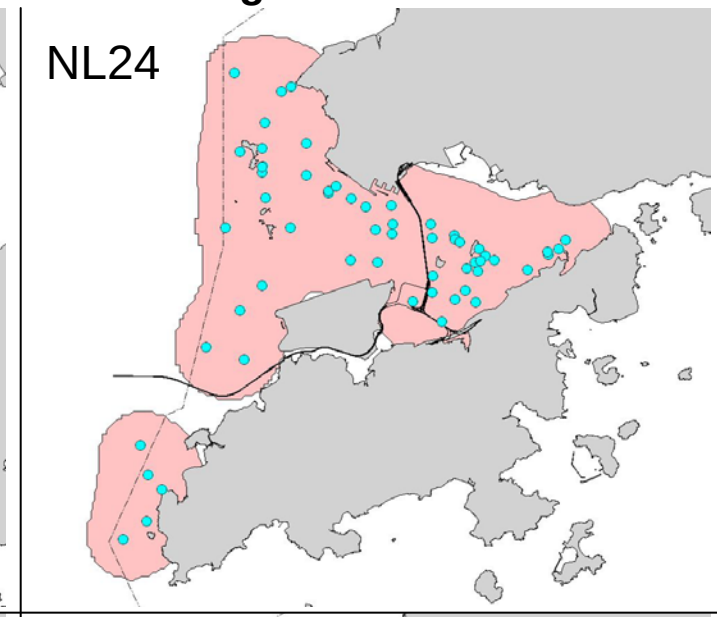
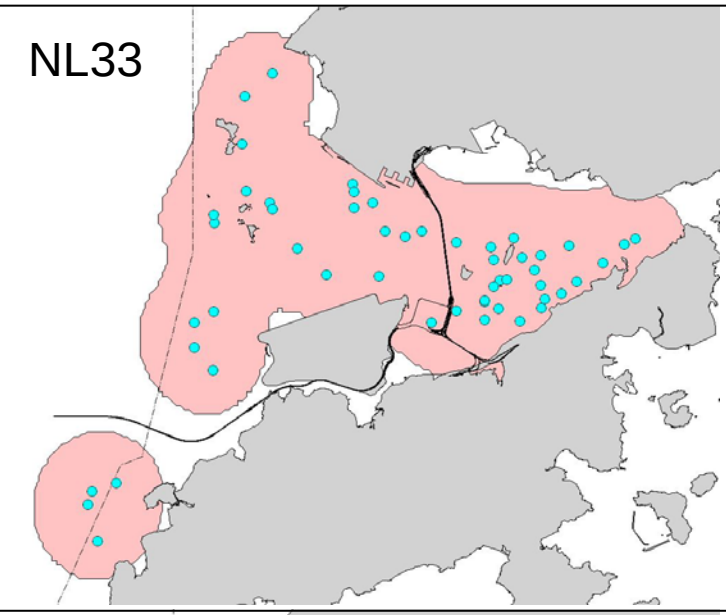
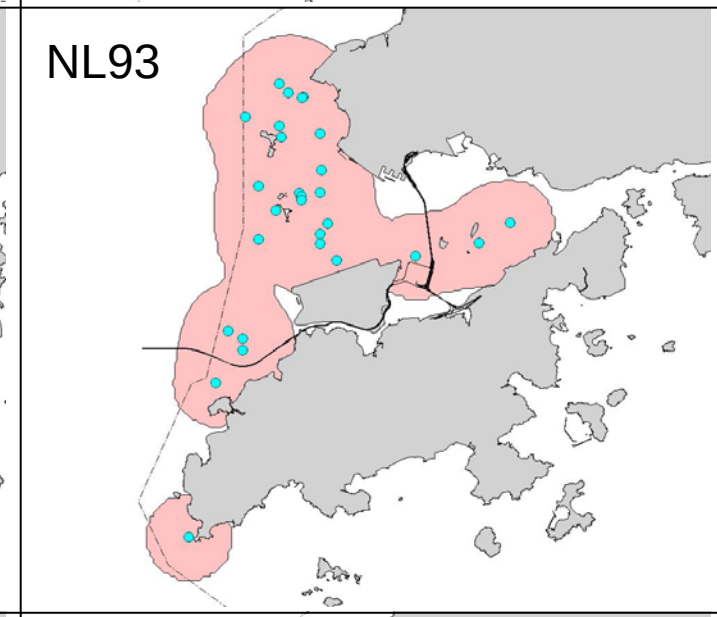
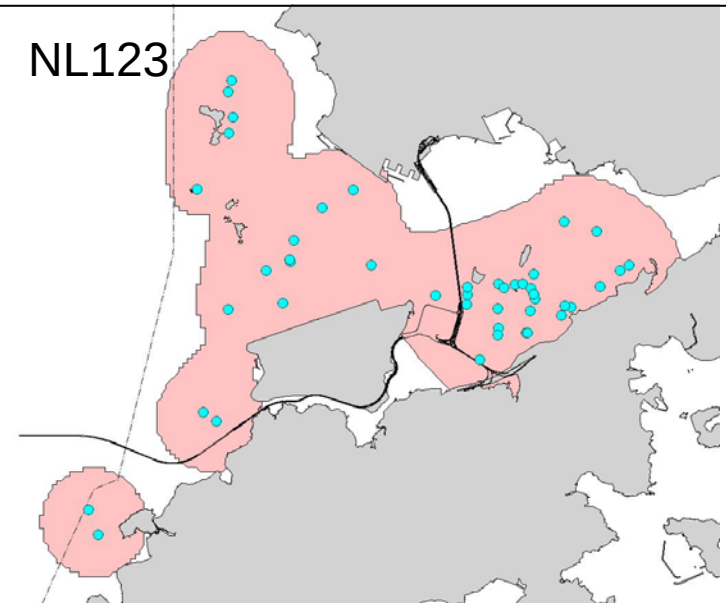
Appendix III. Ranging patterns of 42 individuals that spanned across HKLR09 alignment during 2008-12

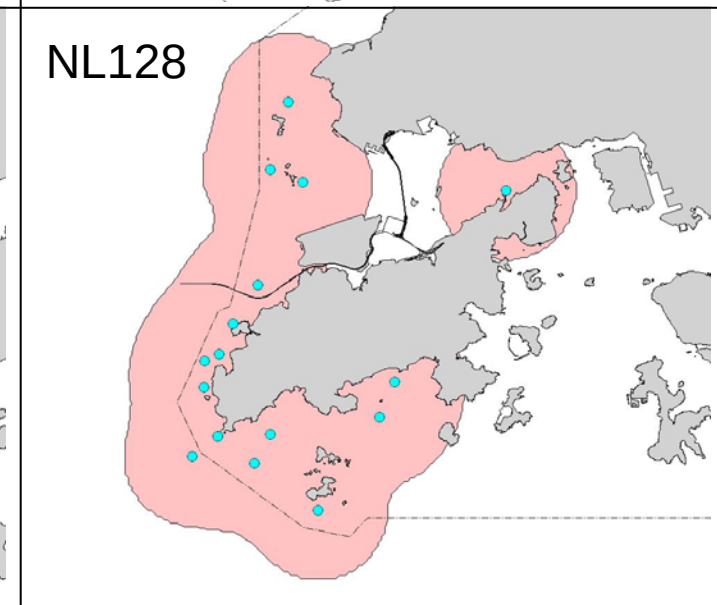












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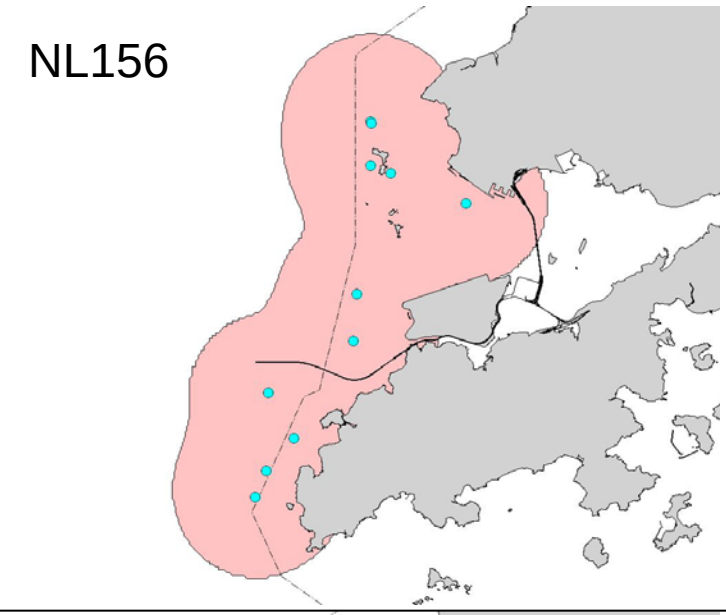

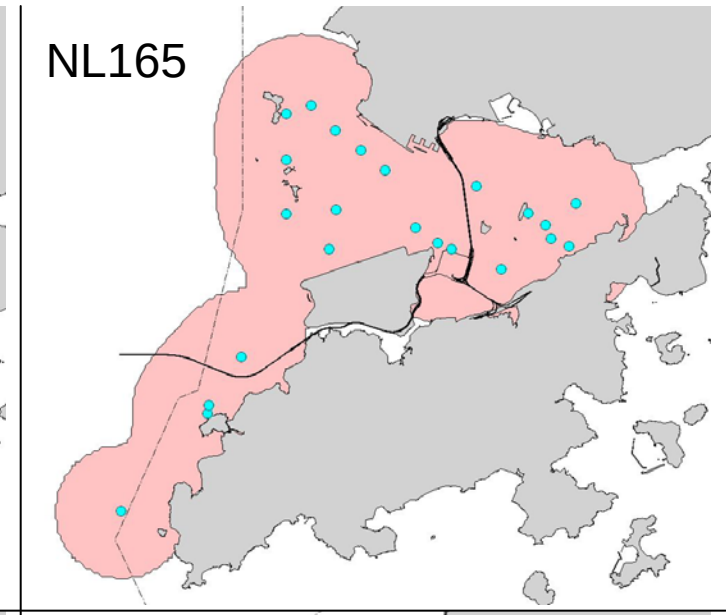

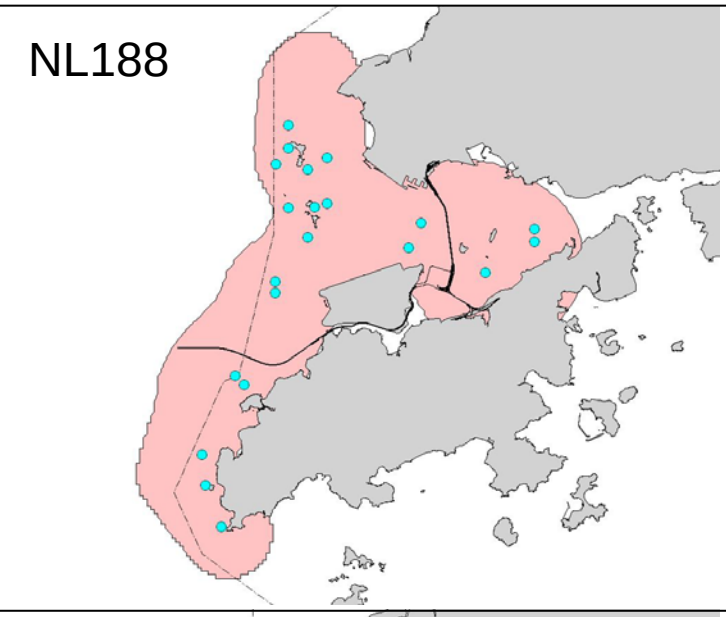

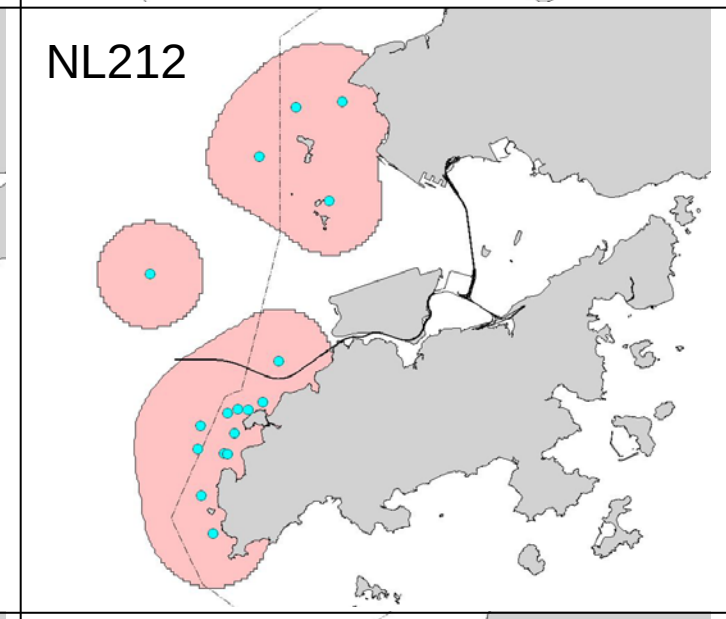

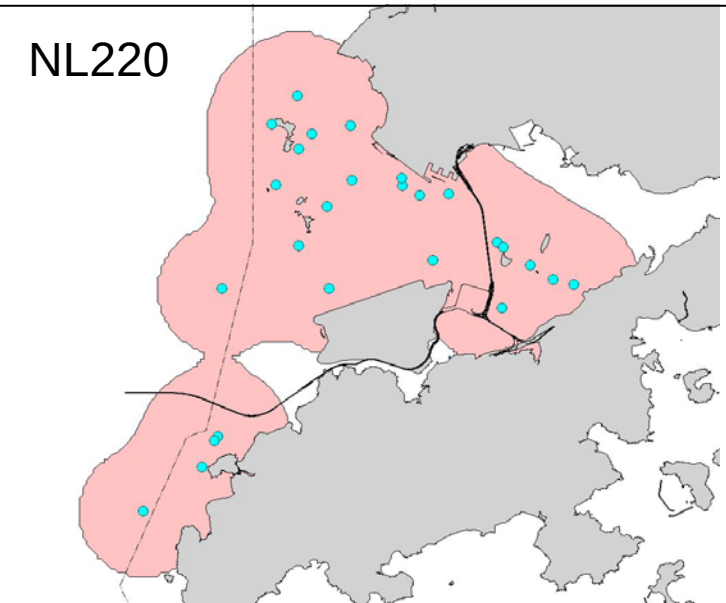

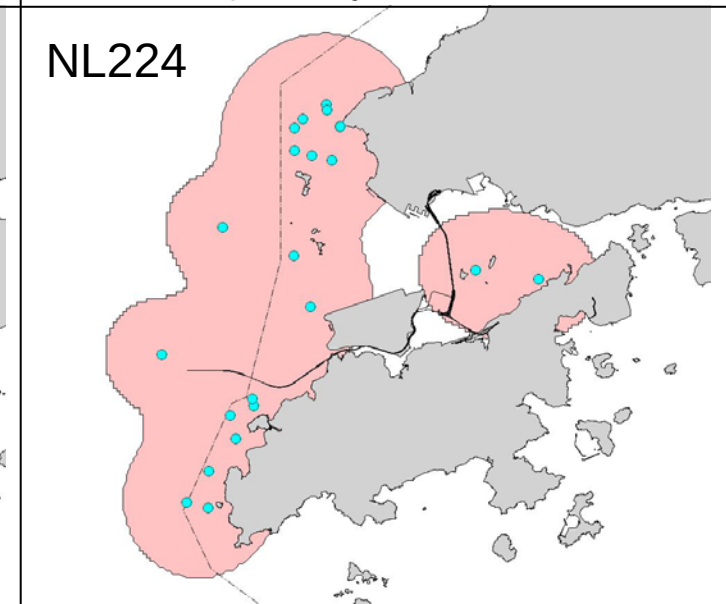

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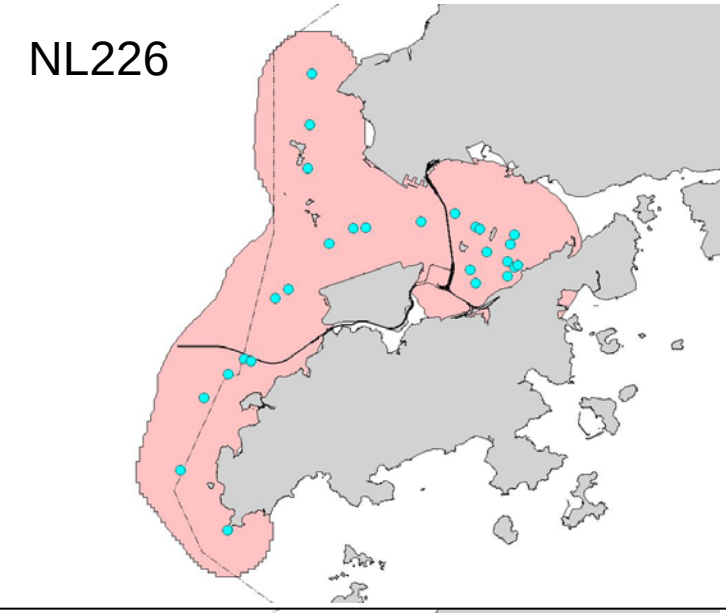

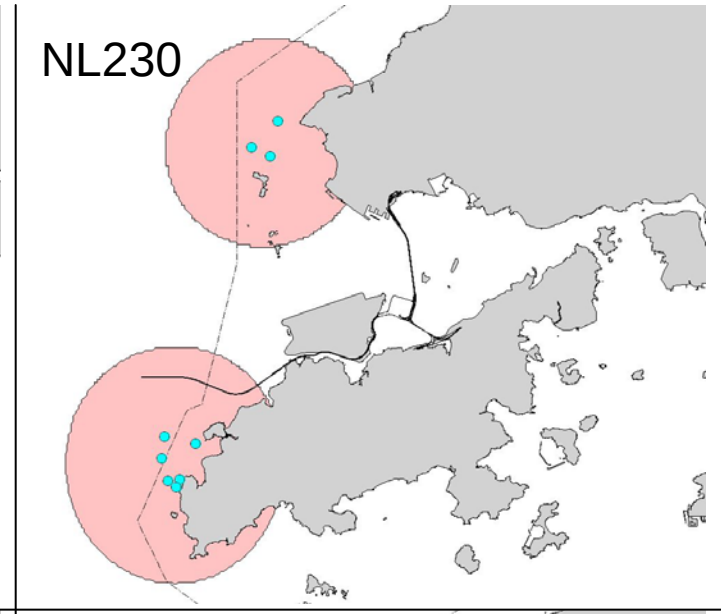

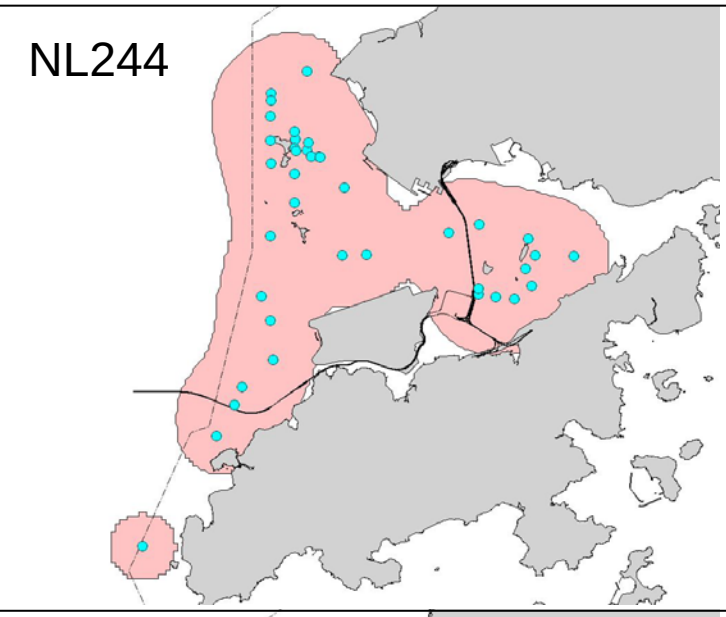

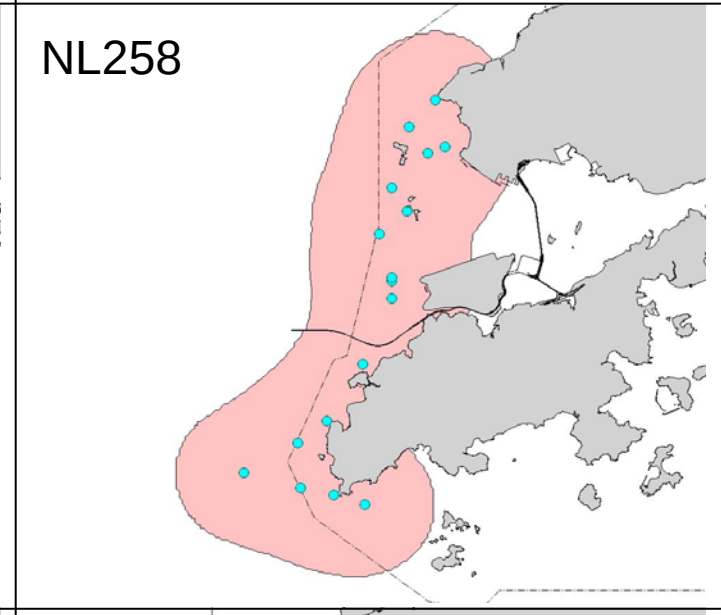

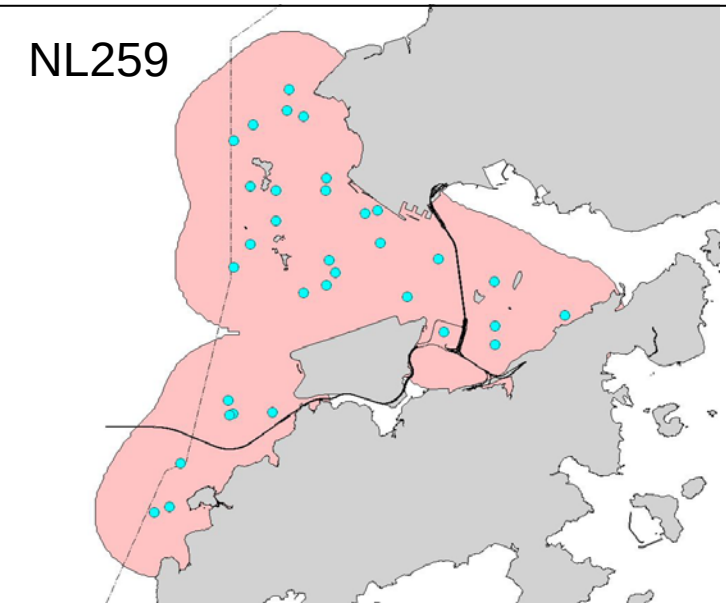

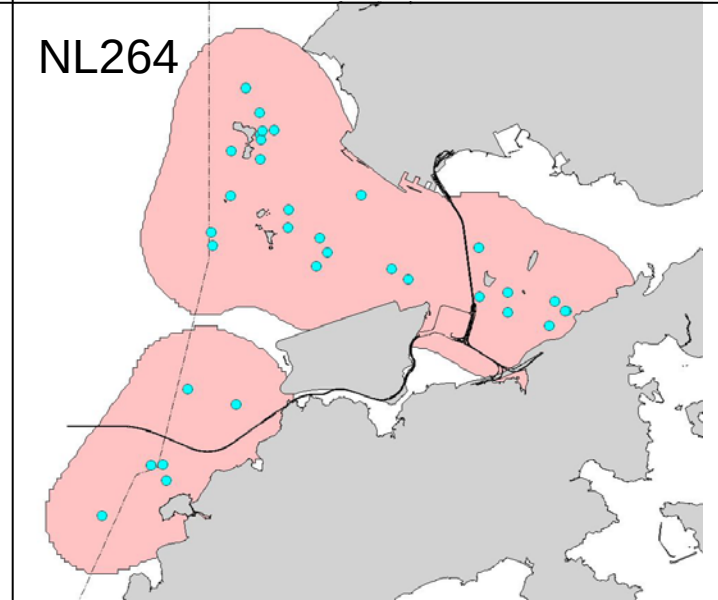

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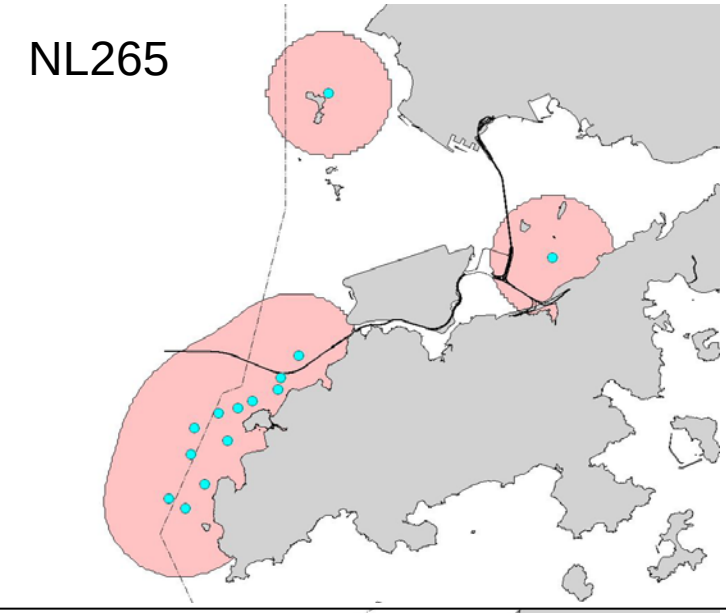

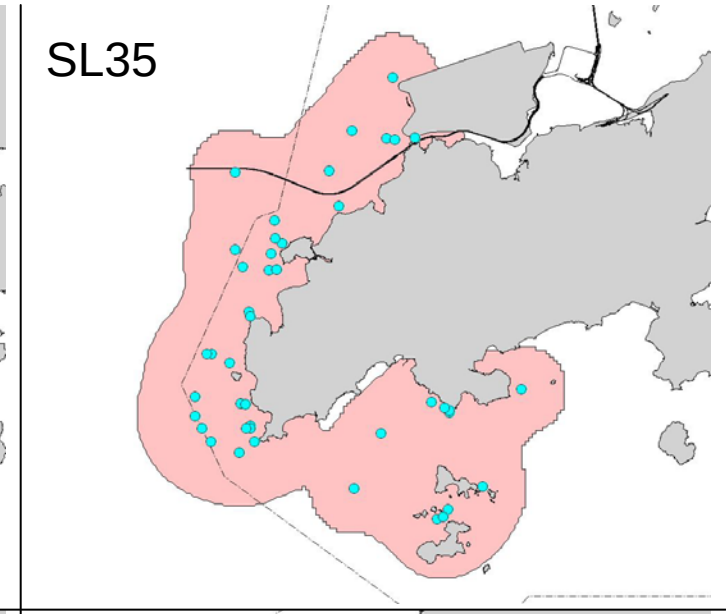

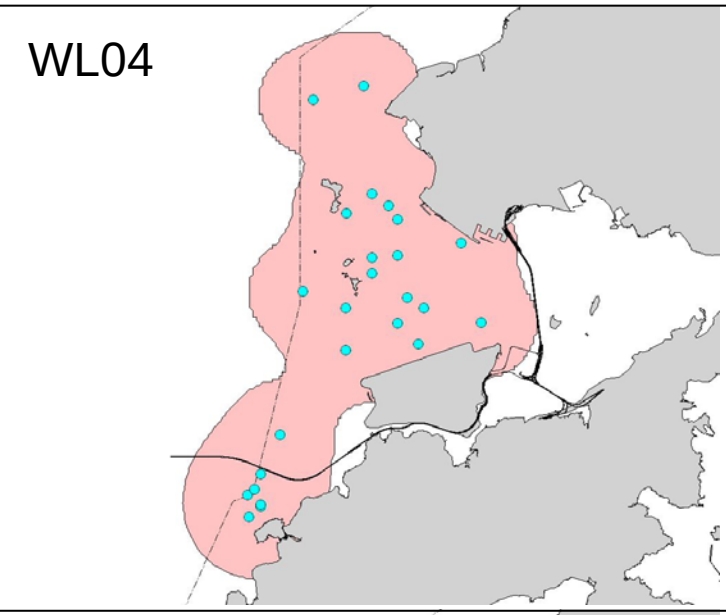

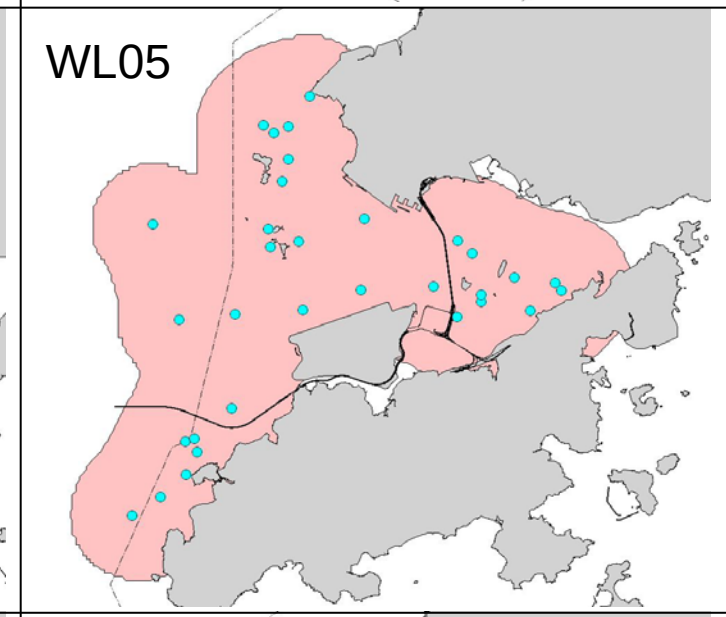

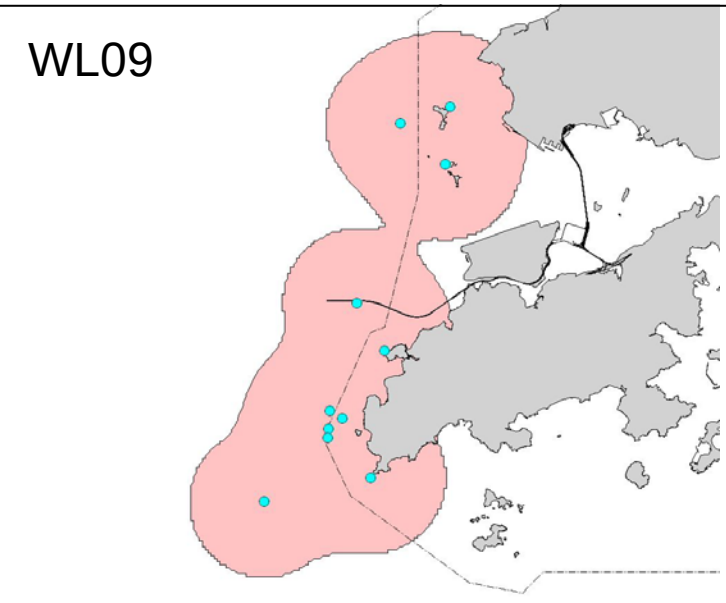

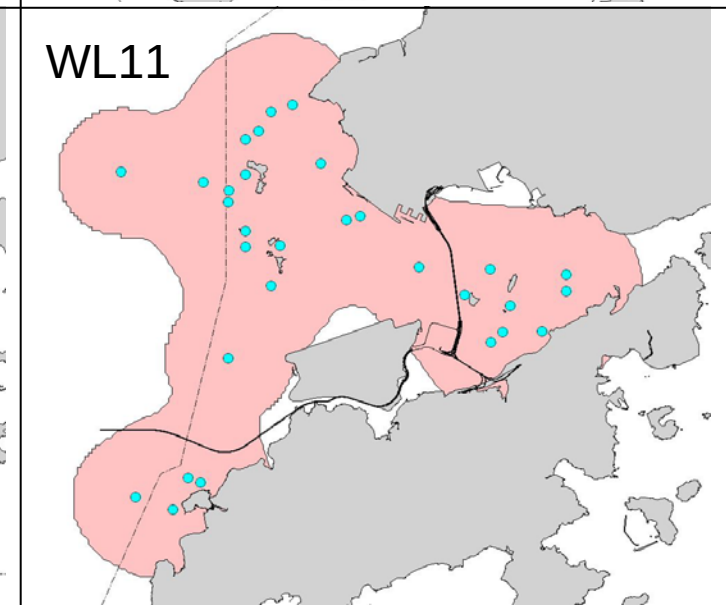

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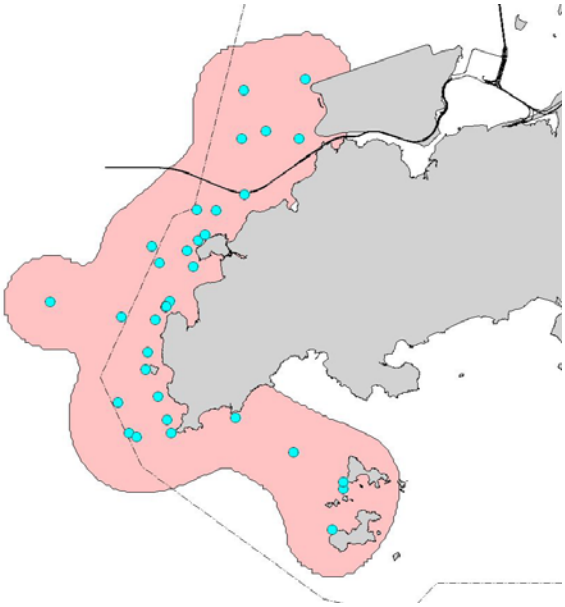

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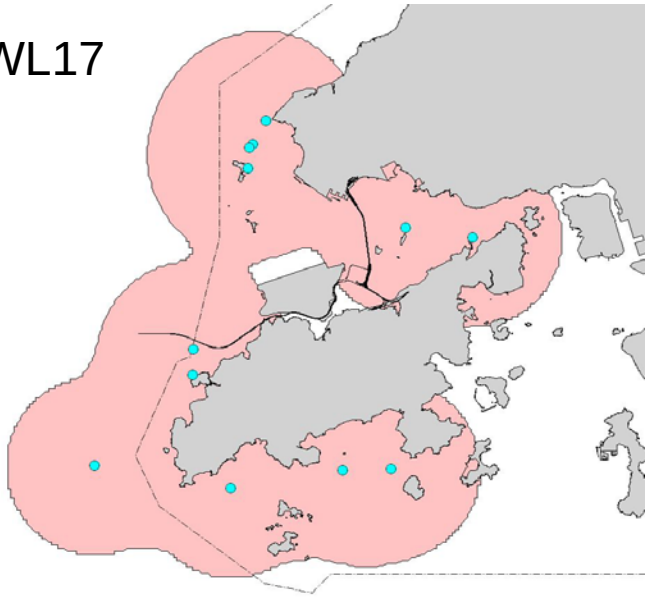

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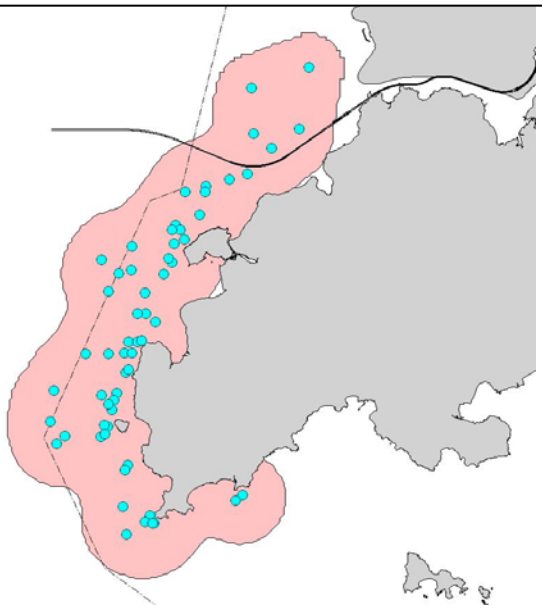

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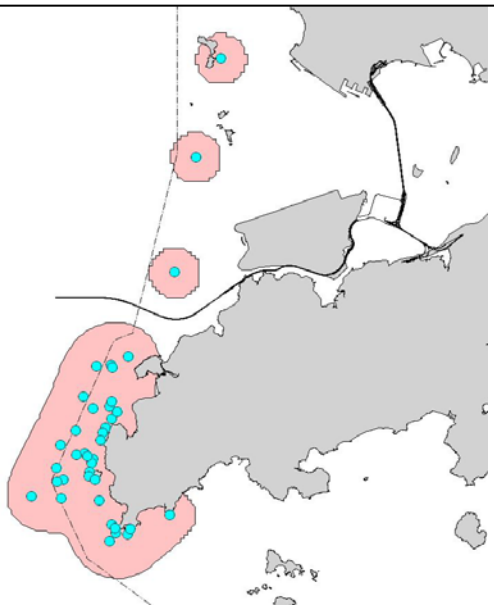

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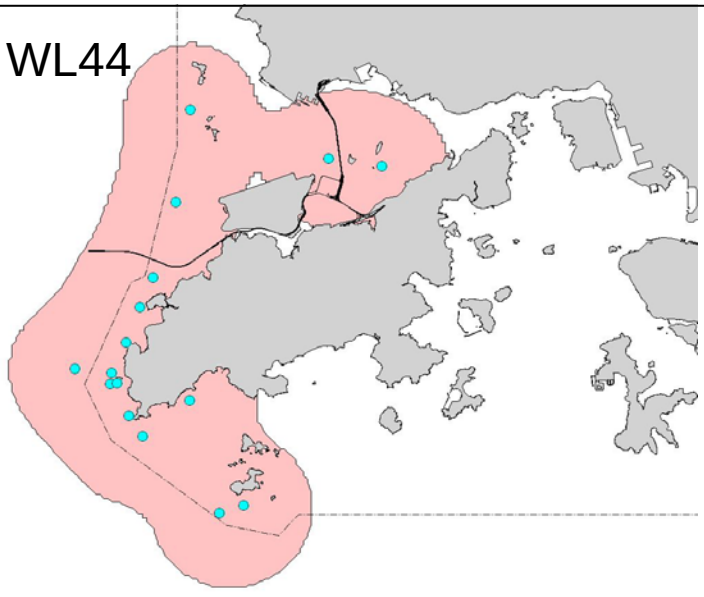

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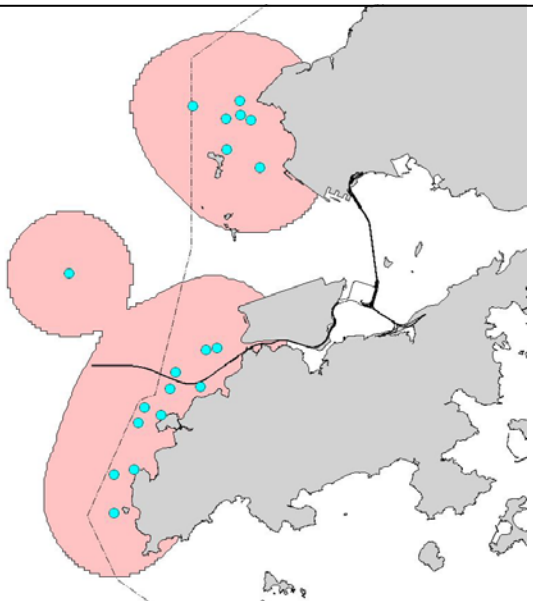

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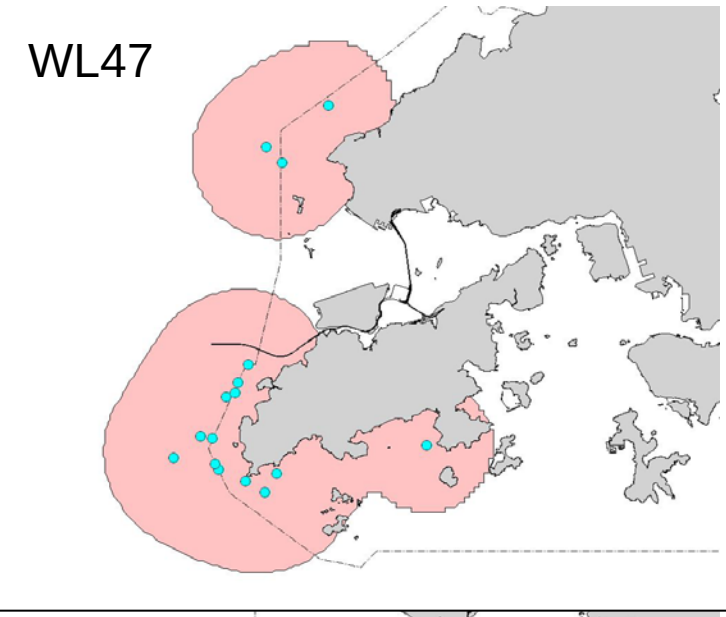

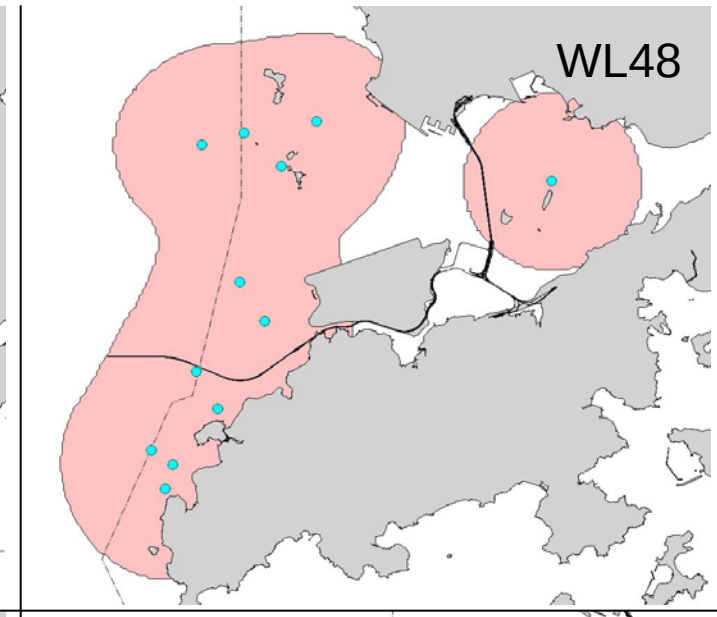

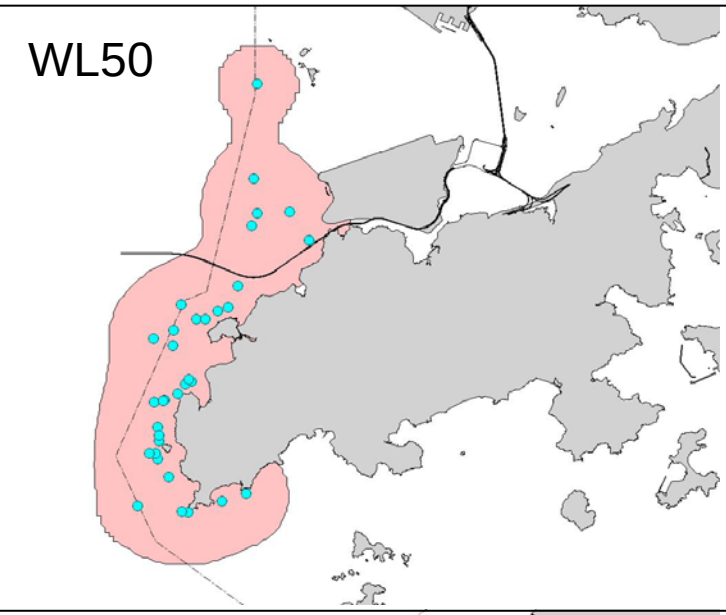

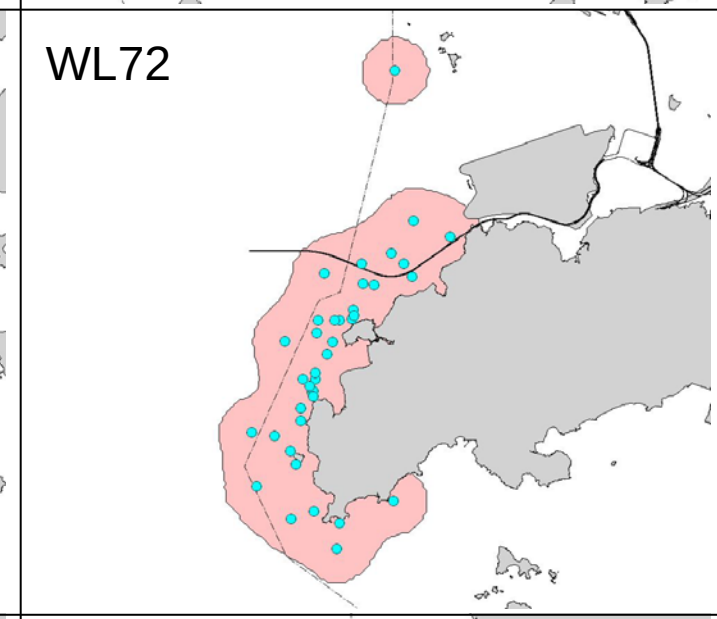

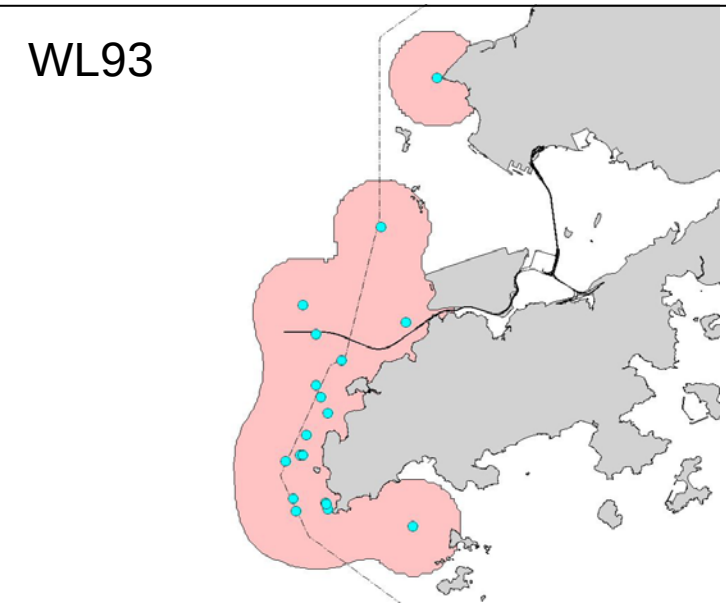

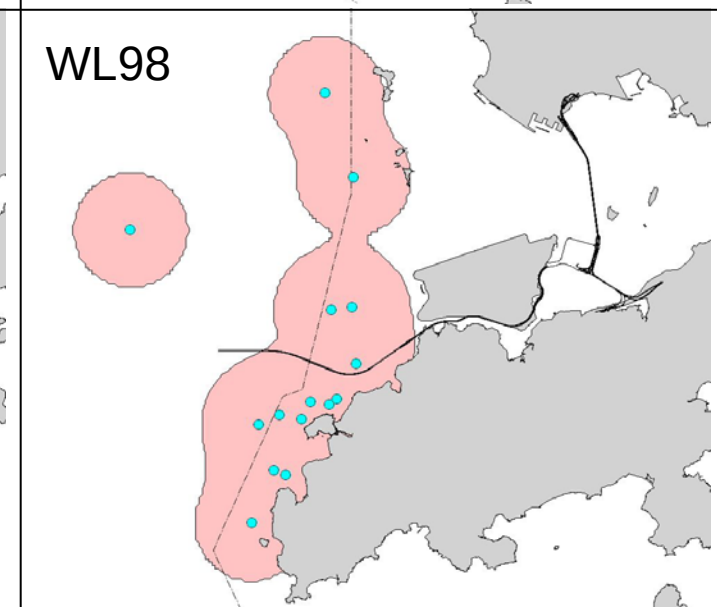

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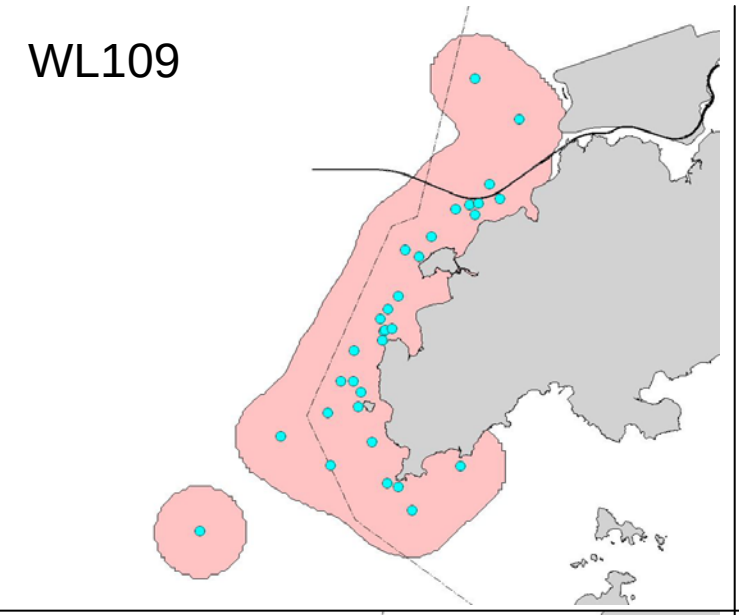

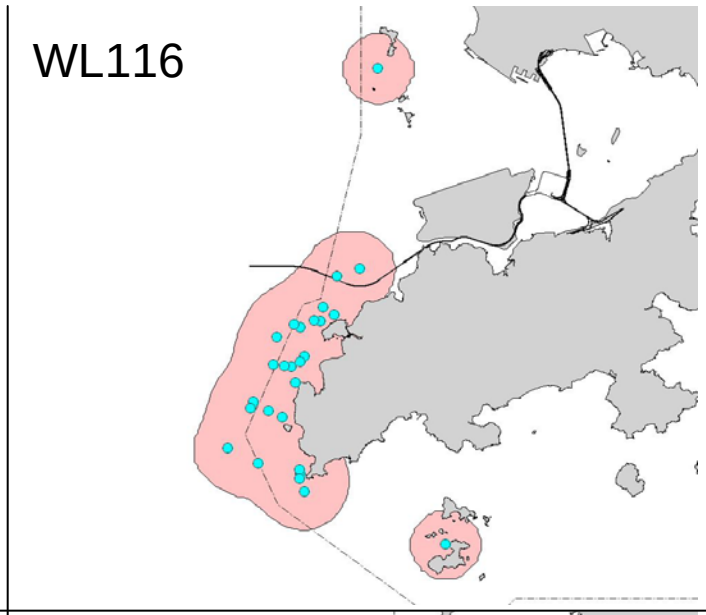

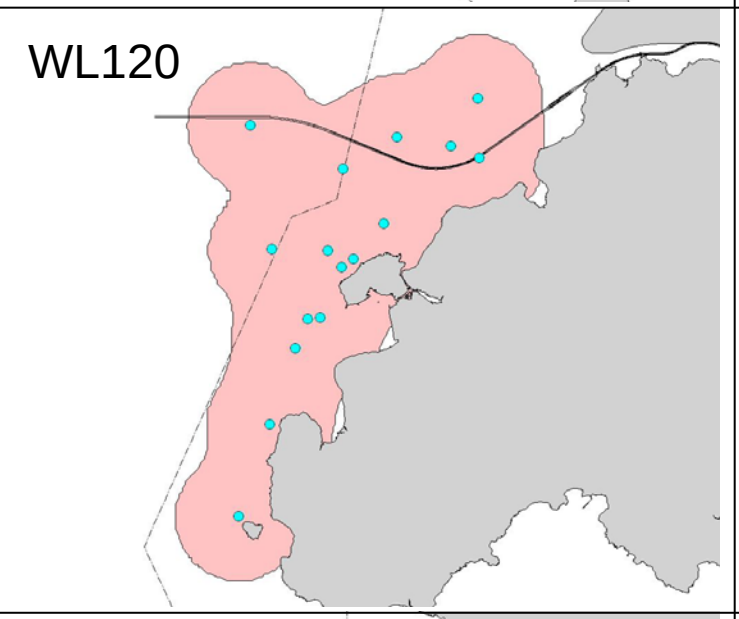

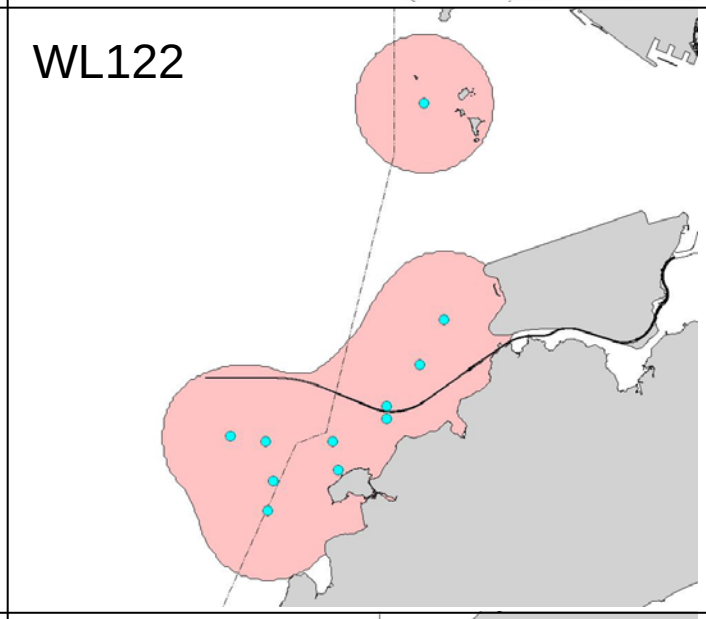

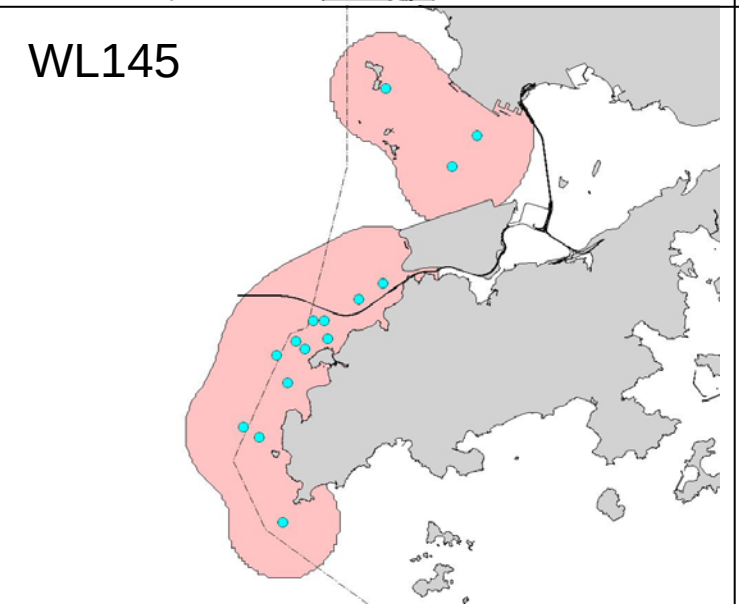

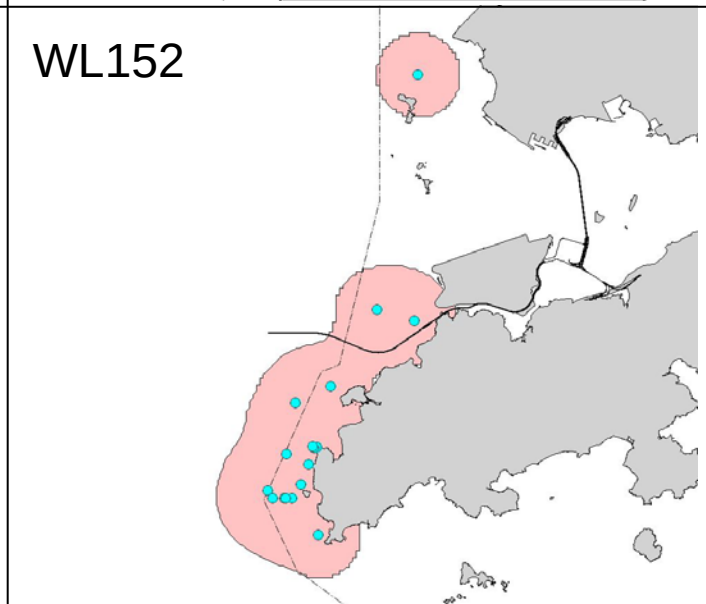

APPENDIX IV. Baseline Monitoring on Shore-based Theodolite Tracking to Investigate Dolphin Behaviour and Movement in relation to Bored Piling Activities (December 2012 - January 2013)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
2-Dec	3-Dec	4-Dec	5-Dec	6-Dec	7-Dec	8-Dec
9-Dec	10-Dec	11-Dec	12-Dec	13-Dec	14-Dec	15-Dec
16-Dec	17-Dec	18-Dec	19-Dec	20-Dec	21-Dec	22-Dec
23-Dec	24-Dec	25-Dec	26-Dec	27-Dec	28-Dec	29-Dec
						Theodolite Tracking Survey
30-Dec	31-Dec					

APPENDIX IV. (cont'd)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1-Jan	2-Jan	3-Jan	4-Jan	5-Jan
			Theodolite Tracking Survey	Theodolite Tracking Survey	Theodolite Tracking Survey	Theodolite Tracking Survey
6-Jan	7-Jan	8-Jan	9-Jan	10-Jan	11-Jan	12-Jan
Theodolite Tracking Survey	Theodolite Tracking Survey	Theodolite Tracking Survey	Theodolite Tracking Survey	Theodolite Tracking Survey	Theodolite Tracking Survey	Theodolite Tracking Survey
13-Jan	14-Jan	15-Jan	16-Jan	17-Jan	18-Jan	19-Jan
Theodolite Tracking Survey	Theodolite Tracking Survey	Theodolite Tracking Survey	Theodolite Tracking Survey	Theodolite Tracking Survey	Theodolite Tracking Survey	Theodolite Tracking Survey
20-Jan	21-Jan	22-Jan	23-Jan	24-Jan	25-Jan	26-Jan
Theodolite Tracking Survey	Theodolite Tracking Survey	Theodolite Tracking Survey	Theodolite Tracking Survey	Theodolite Tracking Survey	Theodolite Tracking Survey	Theodolite Tracking Survey
27-Jan	28-Jan	29-Jan	30-Jan	31-Jan		
Theodolite Tracking Survey	Theodolite Tracking Survey	Theodolite Tracking Survey	Theodolite Tracking Survey			

APPENDIX G
BASELINE AIR, NOISE AND WATER QUALITY MONITORING DATA AND DOLPHIN BASELINE MONITORING REPORT PREPARED UNDER BASELINE MONITORING WORKS IN 2011

1-hour TSP Monitoring Results

Location AMS 1 - Sha Lo Wan			
Date	Time	Weather	Particulate Concentration ($\mu g/m^3$)
18-Oct-11	14:00	Sunny	184.4
	15:00	Sunny	220.8
	16:00	Sunny	199.2
19-Oct-11	13:20	Sunny	195.4
	14:20	Sunny	180.7
	15:20	Sunny	161.2
20-Oct-11	14:20	Sunny	157.5
	15:20	Sunny	160.1
	16:20	Sunny	168.8
21-Oct-11	14:10	Sunny	248.9
	15:10	Sunny	238.4
	16:10	Sunny	246.0
22-Oct-11	14:10	Sunny	210.6
	15:10	Sunny	187.4
	16:10	Sunny	178.8
23-Oct-11	14:10	Sunny	163.0
	15:10	Sunny	151.9
	16:10	Sunny	144.5
24-Oct-11	14:10	Sunny	186.6
	15:10	Sunny	196.9
	16:10	Sunny	177.0
25-Oct-11	14:10	Sunny	175.1
	15:10	Sunny	178.3
	16:10	Sunny	188.2
26-Oct-11	14:10	Sunny	158.4
	15:10	Sunny	183.8
	16:10	Sunny	170.6
27-Oct-11	14:10	Fine	199.8
	15:10	Fine	253.5
	16:10	Fine	202.8
28-Oct-11	14:13	Fine	283.9
	15:13	Fine	234.9
	16:13	Fine	201.8
29-Oct-11	14:25	Sunny	350.7
	15:25	Sunny	353.5
	16:25	Sunny	337.8
30-Oct-11	14:25	Fine	272.1
	15:25	Fine	260.6
	16:25	Fine	256.9
31-Oct-11	14:25	Fine	67.6
	15:25	Fine	93.0
	16:25	Fine	109.2
		Min	67.6
		Max	353.5
		Average	202.2

1-hour TSP Monitoring Results

Location AMS 4 - San Tau			
Date	Time	Weather	Particulate Concentration (µg/m^3)
18-Oct-11	9:30	Sunny	160.9
	10:30	Sunny	167.8
	11:30	Sunny	173.5
19-Oct-11	9:00	Sunny	184.1
	10:00	Sunny	167.9
	11:00	Sunny	161.3
20-Oct-11	9:55	Sunny	142.8
	10:55	Sunny	145.1
	11:55	Sunny	148.3
21-Oct-11	9:50	Sunny	126.7
	10:50	Sunny	138.5
	11:50	Sunny	137.4
22-Oct-11	9:50	Sunny	154.2
	10:50	Sunny	142.4
	11:50	Sunny	138.1
23-Oct-11	9:50	Sunny	124.6
	10:50	Sunny	116.4
	11:50	Sunny	124.6
24-Oct-11	9:50	Sunny	127.4
	10:50	Sunny	124.3
	11:50	Sunny	135.4
25-Oct-11	9:50	Sunny	127.7
	10:50	Sunny	137.3
	11:50	Sunny	128.6
26-Oct-11	9:50	Sunny	113.2
	10:50	Sunny	116.0
	11:50	Sunny	130.8
27-Oct-11	9:50	Fine	136.0
	10:50	Fine	131.7
	11:50	Fine	123.8
28-Oct-11	9:57	Fine	264.6
	10:57	Fine	205.6
	11:57	Fine	247.3
29-Oct-11	9:50	Sunny	249.7
	10:50	Sunny	242.2
	11:50	Sunny	237.6
30-Oct-11	9:50	Fine	235.2
	10:50	Fine	220.3
	11:50	Fine	230.0
31-Oct-11	9:50	Fine	134.1
	10:50	Fine	88.8
	11:50	Fine	55.7
		Min	55.7
		Max	264.6
		Average	157.1

24-hour TSP Baseline Monitoring Results

Location AMS 1 - Sha Lo Wan

Start Date	Weather Condition	Air Temp. (K)	Atmospheric Pressure, Pa (mmHg)	Filter Weight (g)		Particulate weight (g)	Elapse Time		Sampling Time(hrs.)	Flow Rate (m^3/min.)		Av. flow (m^3/min)	Total vol. (m^3)	Conc. ($\mu g/m^3$)
				Initial	Final		Initial	Final		Initial	Final			
18-Oct-11	Sunny	299.3	764.8	3.3755	3.4942	0.1187	0.0	24.0	24.0	1.22	1.22	1.22	1762.8	67.3
19-Oct-11	Sunny	298.4	763.0	3.4059	3.5167	0.1108	24.0	48.0	24.0	1.22	1.22	1.22	1763.4	62.8
20-Oct-11	Sunny	299.3	763.3	3.4237	3.5784	0.1547	48.0	72.0	24.0	1.22	1.22	1.22	1761.2	87.8
21-Oct-11	Sunny	300.6	762.4	3.3904	3.5176	0.1272	72.0	96.0	24.0	1.22	1.22	1.22	1756.7	72.4
22-Oct-11	Sunny	300.1	762.6	3.3995	3.4785	0.0790	96.0	120.0	24.0	1.22	1.22	1.22	1758.3	44.9
23-Oct-11	Sunny	300.1	762.7	3.4033	3.5065	0.1032	120.0	144.0	24.0	1.22	1.22	1.22	1758.4	58.7
24-Oct-11	Sunny	300.5	762.1	3.4317	3.5002	0.0685	144.0	168.0	24.0	1.22	1.22	1.22	1756.7	39.0
25-Oct-11	Sunny	298.3	765.2	3.3949	3.5240	0.1291	168.0	192.0	24.0	1.23	1.23	1.23	1766.0	73.1
26-Oct-11	Sunny	295.1	767.2	3.3971	3.4755	0.0784	192.0	216.0	24.0	1.23	1.23	1.23	1777.0	44.1
27-Oct-11	Fine	297.9	765.1	3.3760	3.4624	0.0864	216.0	240.0	24.0	1.23	1.23	1.23	1767.0	48.9
28-Oct-11	Fine	299.0	765.2	3.3944	3.5003	0.1059	240.0	264.0	24.0	1.23	1.23	1.23	1764.3	60.0
29-Oct-11	Sunny	299.5	764.2	3.3471	3.4754	0.1283	264.0	288.0	24.0	1.22	1.22	1.22	1761.8	72.8
30-Oct-11	Fine	299.1	763.4	3.4148	3.5099	0.0951	288.0	312.0	24.0	1.22	1.22	1.22	1762.1	54.0
31-Oct-11	Fine	299.3	764.1	3.3861	3.5357	0.1496	312.0	336.0	24.0	1.22	1.22	1.22	1762.1	84.9
													Min	39.0
													Max	87.8
													Average	62.2

Location AMS 4 - San Tau

Start Date	Weather Condition	Air Temp. (K)	Atmospheric Pressure, Pa (mmHg)	Filter Weight (g)		Particulate weight (g)	Elapse Time		Sampling Time(hrs.)	Flow Rate (m^3/min.)		Av. flow (m^3/min)	Total vol. (m^3)	Conc. ($\mu g/m^3$)
				Initial	Final		Initial	Final		Initial	Final			
18-Oct-11	Sunny	298.1	766.7	3.3893	3.5286	0.1393	0.0	24.0	24.0	1.24	1.24	1.24	1787.0	78.0
19-Oct-11	Sunny	297.1	766.0	3.4282	3.6500	0.2218	24.0	48.0	24.0	1.24	1.24	1.24	1789.1	124.0
20-Oct-11	Sunny	297.1	765.4	3.4749	3.6689	0.1940	48.0	72.0	24.0	1.24	1.24	1.24	1788.4	108.5
21-Oct-11	Sunny	297.6	765.1	3.3985	3.4583	0.0598	72.0	96.0	24.0	1.24	1.24	1.24	1786.6	33.5
22-Oct-11	Sunny	297.6	764.8	3.4135	3.4846	0.0711	96.0	120.0	24.0	1.24	1.24	1.24	1786.3	39.8
23-Oct-11	Sunny	297.3	764.5	3.3971	3.4773	0.0802	120.0	144.0	24.0	1.24	1.24	1.24	1786.9	44.9
24-Oct-11	Sunny	299.3	764.2	3.3870	3.4898	0.1028	144.0	168.0	24.0	1.24	1.24	1.24	1780.5	57.7
25-Oct-11	Sunny	298.3	765.2	3.4057	3.4858	0.0801	168.0	192.0	24.0	1.24	1.24	1.24	1784.7	44.9
26-Oct-11	Sunny	295.1	767.2	3.4130	3.5144	0.1014	192.0	216.0	24.0	1.25	1.25	1.25	1796.6	56.4
27-Oct-11	Fine	295.6	767.0	3.3711	3.4976	0.1265	216.0	240.0	24.0	1.25	1.25	1.25	1794.9	70.5
28-Oct-11	Fine	297.5	767.2	3.3943	3.4928	0.0985	240.0	264.0	24.0	1.24	1.24	1.24	1789.3	55.0
29-Oct-11	Sunny	297.1	766.7	3.3722	3.4946	0.1224	264.0	288.0	24.0	1.24	1.24	1.24	1790.0	68.4
30-Oct-11	Fine	296.1	765.4	3.3706	3.4374	0.0668	288.0	312.0	24.0	1.24	1.24	1.24	1791.4	37.3
31-Oct-11	Fine	298.5	766.0	3.3897	3.4865	0.0968	312.0	336.0	24.0	1.24	1.24	1.24	1785.1	54.2
													Min	33.5
													Max	124.0
													Average	62.4

Appendix B2

Day-time Noise Level at Sha Lo Wan_NMS 1

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
19-Oct-11	07:00	52.6	55.3	46.7	54.8
19-Oct-11	07:05	47.5	49.0	45.1	
19-Oct-11	07:10	49.2	51.3	45.5	
19-Oct-11	07:15	58.7	63.4	44.4	
19-Oct-11	07:20	58.4	62.2	49.6	
19-Oct-11	07:25	47.4	50.3	42.6	
19-Oct-11	07:30	48.9	51.1	44.7	48.9
19-Oct-11	07:35	47.5	49.5	44.8	
19-Oct-11	07:40	49.4	51.9	45.5	
19-Oct-11	07:45	50.3	53.2	44.3	
19-Oct-11	07:50	49.2	51.9	43.3	
19-Oct-11	07:55	47.3	49.9	41.6	
19-Oct-11	08:00	48.4	51.3	43.9	65.4
19-Oct-11	08:05	63.6	69.8	48.3	
19-Oct-11	08:10	66.9	69.4	50.6	
19-Oct-11	08:15	67.6	72.1	53.3	
19-Oct-11	08:20	62.9	68.3	48.5	
19-Oct-11	08:25	67.8	73.8	48.5	
19-Oct-11	08:30	66.2	71.8	47.4	67.9
19-Oct-11	08:35	66.0	70.2	54.4	
19-Oct-11	08:40	71.8	76.1	58.1	
19-Oct-11	08:45	62.6	66.6	52.3	
19-Oct-11	08:50	68.7	73.0	54.5	
19-Oct-11	08:55	66.3	71.4	52.3	
19-Oct-11	09:00	66.7	68.5	46.3	66.1
19-Oct-11	09:05	63.6	66.4	49.7	
19-Oct-11	09:10	67.6	70.7	53.6	
19-Oct-11	09:15	65.0	69.9	52.2	
19-Oct-11	09:20	66.6	70.8	59.3	
19-Oct-11	09:25	65.7	70.0	54.0	
19-Oct-11	09:30	64.9	69.4	53.5	64.7
19-Oct-11	09:35	63.1	68.2	53.5	
19-Oct-11	09:40	65.9	69.6	48.9	
19-Oct-11	09:45	64.1	69.0	45.3	
19-Oct-11	09:50	67.5	73.7	48.6	
19-Oct-11	09:55	56.1	60.9	46.2	
19-Oct-11	10:00	62.6	66.7	46.1	65.6
19-Oct-11	10:05	61.6	65.9	52.2	
19-Oct-11	10:10	67.5	72.0	50.4	
19-Oct-11	10:15	63.1	67.8	47.1	
19-Oct-11	10:20	67.4	70.2	58.4	
19-Oct-11	10:25	67.3	69.7	52.0	
19-Oct-11	10:30	67.3	72.4	53.8	68.4
19-Oct-11	10:35	66.0	61.8	43.3	
19-Oct-11	10:40	61.5	64.0	51.0	
19-Oct-11	10:45	69.9	75.3	55.6	
19-Oct-11	10:50	68.7	73.0	56.8	
19-Oct-11	10:55	71.2	74.7	62.5	

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
19-Oct-11	11:00	70.4	75.3	55.4	66.4
19-Oct-11	11:05	68.5	71.3	47.6	
19-Oct-11	11:10	56.6	56.6	45.7	
19-Oct-11	11:15	47.3	49.8	44.2	
19-Oct-11	11:20	65.7	70.9	49.1	
19-Oct-11	11:25	66.1	71.2	53.6	
19-Oct-11	11:30	69.7	73.9	53.4	68.8
19-Oct-11	11:35	66.9	71.9	51.8	
19-Oct-11	11:40	68.0	71.9	57.0	
19-Oct-11	11:45	71.8	75.3	58.7	
19-Oct-11	11:50	67.5	72.6	58.1	
19-Oct-11	11:55	66.3	69.9	55.7	
19-Oct-11	12:00	67.7	72.5	54.9	69.7
19-Oct-11	12:05	71.2	72.1	54.5	
19-Oct-11	12:10	70.0	73.2	60.0	
19-Oct-11	12:15	69.6	73.6	60.2	
19-Oct-11	12:20	69.3	73.2	55.2	
19-Oct-11	12:25	69.6	74.1	60.2	
19-Oct-11	12:30	64.4	68.1	54.6	66.4
19-Oct-11	12:35	65.9	70.9	52.7	
19-Oct-11	12:40	65.5	69.1	50.6	
19-Oct-11	12:45	67.0	71.4	53.7	
19-Oct-11	12:50	69.4	74.9	51.2	
19-Oct-11	12:55	63.8	67.6	48.3	
19-Oct-11	13:00	67.4	72.6	54.0	66.6
19-Oct-11	13:05	71.5	76.6	54.5	
19-Oct-11	13:10	59.9	65.4	45.6	
19-Oct-11	13:15	63.3	65.6	43.8	
19-Oct-11	13:20	64.1	68.4	49.0	
19-Oct-11	13:25	63.6	67.7	44.0	
19-Oct-11	13:30	57.2	60.6	45.3	66.5
19-Oct-11	13:35	44.3	46.6	41.1	
19-Oct-11	13:40	67.5	70.5	44.0	
19-Oct-11	13:45	69.9	75.8	44.7	
19-Oct-11	13:50	65.3	70.0	41.0	
19-Oct-11	13:55	68.7	74.8	40.2	
19-Oct-11	14:00	67.6	73.4	43.5	68.9
19-Oct-11	14:05	68.8	73.3	41.9	
19-Oct-11	14:10	68.1	70.8	45.3	
19-Oct-11	14:15	70.2	75.9	44.4	
19-Oct-11	14:20	70.8	76.5	44.2	
19-Oct-11	14:25	66.6	72.3	41.0	
19-Oct-11	14:30	68.4	72.2	40.7	68.7
19-Oct-11	14:35	71.1	77.1	42.0	
19-Oct-11	14:40	67.0	68.5	41.2	
19-Oct-11	14:45	65.2	69.9	38.5	
19-Oct-11	14:50	68.9	74.1	39.7	
19-Oct-11	14:55	69.4	74.1	45.0	

Appendix B2

Day-time Noise Level at Sha Lo Wan_NMS 1

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
19-Oct-11	15:00	66.6	71.6	42.1	69.0
19-Oct-11	15:05	69.1	74.3	42.2	
19-Oct-11	15:10	67.7	71.6	41.2	
19-Oct-11	15:15	70.8	76.3	40.2	
19-Oct-11	15:20	71.3	77.5	42.5	
19-Oct-11	15:25	65.6	65.5	42.8	
19-Oct-11	15:30	65.4	70.6	43.0	66.7
19-Oct-11	15:35	64.3	64.1	39.5	
19-Oct-11	15:40	68.1	69.5	40.9	
19-Oct-11	15:45	65.9	69.5	38.3	
19-Oct-11	15:50	69.1	71.0	40.9	
19-Oct-11	15:55	65.3	71.1	41.6	
19-Oct-11	16:00	62.7	62.4	43.8	69.3
19-Oct-11	16:05	69.6	74.1	43.2	
19-Oct-11	16:10	69.4	74.4	45.0	
19-Oct-11	16:15	68.4	72.9	43.4	
19-Oct-11	16:20	69.5	75.3	43.2	
19-Oct-11	16:25	71.8	77.7	42.6	
19-Oct-11	16:30	65.7	68.8	40.9	68.8
19-Oct-11	16:35	68.5	74.1	40.5	
19-Oct-11	16:40	68.6	74.5	44.2	
19-Oct-11	16:45	69.5	73.0	41.1	
19-Oct-11	16:50	70.0	74.3	43.6	
19-Oct-11	16:55	69.2	75.0	41.7	
19-Oct-11	17:00	69.5	75.1	42.4	68.2
19-Oct-11	17:05	67.5	72.8	43.7	
19-Oct-11	17:10	68.3	74.9	45.4	
19-Oct-11	17:15	65.2	70.1	42.2	
19-Oct-11	17:20	68.8	72.8	42.1	
19-Oct-11	17:25	68.6	74.2	44.1	
19-Oct-11	17:30	68.7	73.2	46.1	67.0
19-Oct-11	17:35	63.3	66.8	52.2	
19-Oct-11	17:40	70.5	75.7	55.0	
19-Oct-11	17:45	62.2	61.6	52.2	
19-Oct-11	17:50	67.4	71.5	52.7	
19-Oct-11	17:55	62.9	65.9	57.4	
19-Oct-11	18:00	75.1	77.9	62.9	75.8
19-Oct-11	18:05	75.2	79.6	59.0	
19-Oct-11	18:10	78.5	83.8	64.5	
19-Oct-11	18:15	74.2	79.8	50.1	
19-Oct-11	18:20	74.9	80.2	55.8	
19-Oct-11	18:25	75.3	71.2	51.3	
19-Oct-11	18:30	72.3	75.6	63.5	77.2
19-Oct-11	18:35	79.2	85.0	59.8	
19-Oct-11	18:40	75.0	79.4	66.1	
19-Oct-11	18:45	79.1	83.5	63.3	
19-Oct-11	18:50	77.6	83.9	64.7	
19-Oct-11	18:55	76.1	80.5	63.2	
	Mean	65.9	69.9	48.9	66.9
	Maximum	79.2	85.0	66.1	77.2
	Minimum	44.3	46.6	38.3	48.9

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
20-Oct-11	07:00	58.3	62.4	45.3	64.5
20-Oct-11	07:05	53.6	57.7	42.8	
20-Oct-11	07:10	62.0	66.5	47.4	
20-Oct-11	07:15	64.9	69.5	53.3	
20-Oct-11	07:20	63.7	66.3	52.3	
20-Oct-11	07:25	69.5	75.1	53.3	
20-Oct-11	07:30	61.7	62.1	48.5	62.0
20-Oct-11	07:35	49.9	50.8	44.8	
20-Oct-11	07:40	60.4	64.8	44.7	
20-Oct-11	07:45	64.3	65.6	43.3	
20-Oct-11	07:50	57.8	60.6	48.3	
20-Oct-11	07:55	65.4	70.3	52.3	
20-Oct-11	08:00	67.6	71.8	56.2	67.9
20-Oct-11	08:05	62.9	67.8	55.1	
20-Oct-11	08:10	63.3	67.4	55.1	
20-Oct-11	08:15	72.4	76.0	54.9	
20-Oct-11	08:20	62.4	66.5	49.6	
20-Oct-11	08:25	68.9	74.4	53.4	
20-Oct-11	08:30	64.7	70.1	49.2	67.3
20-Oct-11	08:35	64.5	70.7	49.9	
20-Oct-11	08:40	68.8	74.7	53.5	
20-Oct-11	08:45	64.0	68.5	52.8	
20-Oct-11	08:50	71.2	75.0	54.5	
20-Oct-11	08:55	64.7	66.6	45.1	
20-Oct-11	09:00	67.2	62.5	47.7	69.5
20-Oct-11	09:05	68.5	73.6	52.7	
20-Oct-11	09:10	69.6	73.2	56.6	
20-Oct-11	09:15	68.9	73.6	56.4	
20-Oct-11	09:20	68.0	71.7	59.2	
20-Oct-11	09:25	72.6	76.9	63.3	
20-Oct-11	09:30	70.1	75.0	62.0	68.5
20-Oct-11	09:35	69.0	74.1	57.6	
20-Oct-11	09:40	70.7	76.2	52.4	
20-Oct-11	09:45	65.2	68.4	46.9	
20-Oct-11	09:50	64.6	68.8	51.1	
20-Oct-11	09:55	68.1	73.4	49.1	
20-Oct-11	10:00	55.0	57.0	45.0	66.1
20-Oct-11	10:05	66.8	72.2	51.1	
20-Oct-11	10:10	67.7	70.9	52.3	
20-Oct-11	10:15	70.2	75.5	53.1	
20-Oct-11	10:20	64.7	69.7	46.9	
20-Oct-11	10:25	50.1	52.9	45.9	
20-Oct-11	10:30	67.3	71.4	55.1	67.5
20-Oct-11	10:35	67.2	72.2	55.8	
20-Oct-11	10:40	69.7	74.5	54.2	
20-Oct-11	10:45	68.3	72.3	55.0	
20-Oct-11	10:50	66.6	71.9	48.7	
20-Oct-11	10:55	64.0	67.7	50.4	

Appendix B2

Day-time Noise Level at Sha Lo Wan_NMS 1

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
20-Oct-11	11:00	72.0	73.9	52.5	68.6
20-Oct-11	11:05	64.6	66.2	49.0	
20-Oct-11	11:10	69.8	74.0	53.1	
20-Oct-11	11:15	68.1	73.9	51.0	
20-Oct-11	11:20	68.6	72.8	51.5	
20-Oct-11	11:25	61.7	63.9	50.1	
20-Oct-11	11:30	65.8	70.1	54.8	68.2
20-Oct-11	11:35	65.3	70.7	54.6	
20-Oct-11	11:40	67.6	71.1	61.8	
20-Oct-11	11:45	72.7	78.2	53.1	
20-Oct-11	11:50	66.4	69.7	55.2	
20-Oct-11	11:55	65.3	69.6	53.5	
20-Oct-11	12:00	64.4	69.1	53.4	68.5
20-Oct-11	12:05	65.6	70.5	56.2	
20-Oct-11	12:10	69.8	74.4	57.3	
20-Oct-11	12:15	64.5	68.7	54.8	
20-Oct-11	12:20	72.6	75.5	63.0	
20-Oct-11	12:25	67.2	70.4	57.5	
20-Oct-11	12:30	70.4	75.5	54.2	66.1
20-Oct-11	12:35	65.7	70.5	53.8	
20-Oct-11	12:40	63.7	69.1	51.5	
20-Oct-11	12:45	63.1	63.9	47.8	
20-Oct-11	12:50	63.0	66.9	48.3	
20-Oct-11	12:55	65.0	70.2	52.2	
20-Oct-11	13:00	67.9	73.2	55.7	68.1
20-Oct-11	13:05	67.0	70.6	56.2	
20-Oct-11	13:10	69.4	74.1	60.3	
20-Oct-11	13:15	70.2	74.4	56.1	
20-Oct-11	13:20	67.5	72.3	57.4	
20-Oct-11	13:25	64.4	68.9	52.3	
20-Oct-11	13:30	65.0	70.0	51.7	66.1
20-Oct-11	13:35	64.7	66.9	52.3	
20-Oct-11	13:40	68.2	74.1	52.5	
20-Oct-11	13:45	67.5	72.2	51.5	
20-Oct-11	13:50	65.3	70.8	49.3	
20-Oct-11	13:55	64.1	69.4	50.3	
20-Oct-11	14:00	63.2	66.5	45.5	60.6
20-Oct-11	14:05	53.4	56.6	44.3	
20-Oct-11	14:10	62.7	67.4	46.3	
20-Oct-11	14:15	55.5	56.2	48.5	
20-Oct-11	14:20	59.9	63.6	47.5	
20-Oct-11	14:25	61.6	66.7	48.7	
20-Oct-11	14:30	60.5	64.4	44.9	66.7
20-Oct-11	14:35	53.2	56.6	45.9	
20-Oct-11	14:40	69.5	74.6	46.4	
20-Oct-11	14:45	67.7	72.5	45.8	
20-Oct-11	14:50	66.5	70.2	45.6	
20-Oct-11	14:55	68.6	73.1	44.5	

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
20-Oct-11	15:00	68.8	73.0	44.5	68.4
20-Oct-11	15:05	69.6	75.2	43.4	
20-Oct-11	15:10	66.1	62.2	45.1	
20-Oct-11	15:15	68.0	73.4	43.8	
20-Oct-11	15:20	68.0	73.2	44.5	
20-Oct-11	15:25	69.2	75.1	46.3	
20-Oct-11	15:30	65.6	70.6	46.1	67.0
20-Oct-11	15:35	63.0	66.7	45.0	
20-Oct-11	15:40	68.6	72.8	48.0	
20-Oct-11	15:45	70.2	75.4	47.2	
20-Oct-11	15:50	63.9	69.7	45.3	
20-Oct-11	15:55	66.4	68.4	42.5	
20-Oct-11	16:00	69.1	72.2	44.4	68.5
20-Oct-11	16:05	68.0	71.7	43.0	
20-Oct-11	16:10	68.4	74.5	43.8	
20-Oct-11	16:15	68.5	74.1	43.3	
20-Oct-11	16:20	67.9	72.1	45.5	
20-Oct-11	16:25	69.0	75.2	44.0	
20-Oct-11	16:30	69.4	73.1	44.2	68.9
20-Oct-11	16:35	70.8	76.6	43.5	
20-Oct-11	16:40	67.5	72.9	44.5	
20-Oct-11	16:45	66.7	70.1	44.0	
20-Oct-11	16:50	68.9	69.0	44.2	
20-Oct-11	16:55	68.8	73.4	47.1	
20-Oct-11	17:00	68.8	75.0	43.9	69.3
20-Oct-11	17:05	70.5	76.0	45.4	
20-Oct-11	17:10	69.7	73.1	44.5	
20-Oct-11	17:15	71.0	76.9	42.5	
20-Oct-11	17:20	66.9	72.4	44.1	
20-Oct-11	17:25	67.5	73.6	41.6	
20-Oct-11	17:30	62.9	55.1	42.8	65.7
20-Oct-11	17:35	59.3	60.3	41.4	
20-Oct-11	17:40	67.3	72.1	47.2	
20-Oct-11	17:45	64.2	69.9	45.0	
20-Oct-11	17:50	69.6	75.5	44.2	
20-Oct-11	17:55	63.7	69.4	44.4	
20-Oct-11	18:00	68.4	72.7	45.4	69.7
20-Oct-11	18:05	70.0	76.1	44.7	
20-Oct-11	18:10	68.6	74.4	44.3	
20-Oct-11	18:15	50.8	53.9	43.6	
20-Oct-11	18:20	56.6	58.8	51.5	
20-Oct-11	18:25	75.0	80.2	58.7	
20-Oct-11	18:30	73.7	77.4	65.4	75.5
20-Oct-11	18:35	75.9	80.4	57.3	
20-Oct-11	18:40	77.9	83.5	60.9	
20-Oct-11	18:45	76.0	80.7	50.4	
20-Oct-11	18:50	72.9	77.0	56.6	
20-Oct-11	18:55	74.4	80.2	56.4	
	Mean	66.3	70.4	50.0	67.5
	Maximum	77.9	83.5	65.4	75.5
	Minimum	49.9	50.8	41.4	60.6

Appendix B2

Day-time Noise Level at Sha Lo Wan_NMS 1

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
21-Oct-11	07:00	60.0	63.8	45.8	67.1
21-Oct-11	07:05	53.8	58.3	42.7	
21-Oct-11	07:10	65.2	69.9	49.7	
21-Oct-11	07:15	65.9	70.3	55.0	
21-Oct-11	07:20	66.5	68.5	56.8	
21-Oct-11	07:25	72.6	78.5	55.3	
21-Oct-11	07:30	64.8	64.9	51.3	65.2
21-Oct-11	07:35	53.9	53.9	49.2	
21-Oct-11	07:40	65.2	69.5	48.7	
21-Oct-11	07:45	67.5	68.5	47.1	
21-Oct-11	07:50	61.0	62.8	52.9	
21-Oct-11	07:55	68.1	72.3	55.7	
21-Oct-11	08:00	72.3	76.2	61.1	71.3
21-Oct-11	08:05	66.6	70.4	59.4	
21-Oct-11	08:10	68.0	71.8	59.3	
21-Oct-11	08:15	75.1	79.6	56.5	
21-Oct-11	08:20	65.9	68.9	55.0	
21-Oct-11	08:25	72.2	77.4	58.0	
21-Oct-11	08:30	67.7	73.2	52.0	70.9
21-Oct-11	08:35	65.5	71.4	51.4	
21-Oct-11	08:40	71.6	77.2	56.9	
21-Oct-11	08:45	67.7	71.6	57.0	
21-Oct-11	08:50	75.4	78.6	58.5	
21-Oct-11	08:55	69.6	70.4	51.7	
21-Oct-11	09:00	70.1	65.0	50.5	71.1
21-Oct-11	09:05	69.6	73.7	56.8	
21-Oct-11	09:10	70.7	73.0	61.4	
21-Oct-11	09:15	69.3	72.2	60.0	
21-Oct-11	09:20	69.6	71.9	63.5	
21-Oct-11	09:25	74.5	78.3	65.8	
21-Oct-11	09:30	72.9	77.3	66.6	71.2
21-Oct-11	09:35	71.3	76.4	60.8	
21-Oct-11	09:40	73.5	78.7	56.4	
21-Oct-11	09:45	67.0	69.9	49.8	
21-Oct-11	09:50	66.0	69.6	54.6	
21-Oct-11	09:55	71.6	76.3	52.8	
21-Oct-11	10:00	59.4	61.0	48.1	69.9
21-Oct-11	10:05	72.9	76.2	55.6	
21-Oct-11	10:10	70.2	73.1	55.1	
21-Oct-11	10:15	73.5	78.7	56.8	
21-Oct-11	10:20	67.7	72.1	51.2	
21-Oct-11	10:25	51.5	53.6	49.4	
21-Oct-11	10:30	70.4	73.1	59.4	70.7
21-Oct-11	10:35	72.4	77.7	60.9	
21-Oct-11	10:40	71.7	75.6	57.3	
21-Oct-11	10:45	71.1	74.7	58.3	
21-Oct-11	10:50	68.8	72.7	52.1	
21-Oct-11	10:55	68.3	71.9	54.4	

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
21-Oct-11	11:00	74.8	75.2	57.3	72.4
21-Oct-11	11:05	69.6	70.1	54.1	
21-Oct-11	11:10	73.4	76.5	56.8	
21-Oct-11	11:15	74.5	80.2	57.5	
21-Oct-11	11:20	70.9	74.4	55.0	
21-Oct-11	11:25	64.9	67.3	53.3	
21-Oct-11	11:30	70.0	73.5	60.6	70.9
21-Oct-11	11:35	69.7	73.3	61.6	
21-Oct-11	11:40	69.2	71.8	66.2	
21-Oct-11	11:45	74.3	80.1	55.4	
21-Oct-11	11:50	70.2	72.7	60.5	
21-Oct-11	11:55	69.2	73.3	57.4	
21-Oct-11	12:00	66.4	69.8	57.0	71.4
21-Oct-11	12:05	66.5	70.3	58.6	
21-Oct-11	12:10	71.1	75.3	59.3	
21-Oct-11	12:15	68.4	71.8	60.4	
21-Oct-11	12:20	75.5	78.2	66.9	
21-Oct-11	12:25	72.5	75.8	61.3	
21-Oct-11	12:30	72.6	77.2	57.9	69.3
21-Oct-11	12:35	69.9	74.7	57.3	
21-Oct-11	12:40	66.6	71.4	55.7	
21-Oct-11	12:45	66.7	67.2	51.9	
21-Oct-11	12:50	66.1	70.0	51.1	
21-Oct-11	12:55	69.8	74.0	58.2	
21-Oct-11	13:00	71.7	76.5	61.1	72.8
21-Oct-11	13:05	71.1	75.1	60.6	
21-Oct-11	13:10	73.8	77.7	66.1	
21-Oct-11	13:15	75.4	78.9	62.8	
21-Oct-11	13:20	73.1	77.3	62.6	
21-Oct-11	13:25	69.4	72.9	57.3	
21-Oct-11	13:30	65.7	70.4	54.6	69.9
21-Oct-11	13:35	67.6	69.6	53.8	
21-Oct-11	13:40	71.8	76.7	57.6	
21-Oct-11	13:45	72.6	77.0	56.8	
21-Oct-11	13:50	69.3	74.6	52.9	
21-Oct-11	13:55	68.6	73.2	55.1	
21-Oct-11	14:00	67.8	69.8	50.7	65.4
21-Oct-11	14:05	56.9	60.0	47.6	
21-Oct-11	14:10	64.9	69.3	50.2	
21-Oct-11	14:15	60.1	59.3	52.1	
21-Oct-11	14:20	65.6	68.9	51.1	
21-Oct-11	14:25	68.3	72.2	54.6	
21-Oct-11	14:30	62.9	65.9	50.3	71.9
21-Oct-11	14:35	58.3	61.2	51.4	
21-Oct-11	14:40	74.6	79.1	50.3	
21-Oct-11	14:45	74.5	79.4	52.5	
21-Oct-11	14:50	71.3	73.7	50.4	
21-Oct-11	14:55	73.0	77.0	49.1	

Appendix B2

Day-time Noise Level at Sha Lo Wan_NMS 1

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
21-Oct-11	15:00	74.0	78.2	49.5	73.7
21-Oct-11	15:05	74.1	78.7	48.7	
21-Oct-11	15:10	71.7	67.0	51.7	
21-Oct-11	15:15	73.9	78.8	49.6	
21-Oct-11	15:20	72.2	77.1	49.2	
21-Oct-11	15:25	75.2	80.7	51.9	
21-Oct-11	15:30	68.4	73.3	48.6	71.7
21-Oct-11	15:35	66.5	69.6	49.7	
21-Oct-11	15:40	71.2	75.0	52.5	
21-Oct-11	15:45	75.9	80.3	51.9	
21-Oct-11	15:50	69.2	74.1	51.3	
21-Oct-11	15:55	72.3	74.3	48.1	
21-Oct-11	16:00	64.1	69.2	48.9	63.3
21-Oct-11	16:05	63.2	67.9	45.5	
21-Oct-11	16:10	64.4	68.6	46.3	
21-Oct-11	16:15	58.5	62.9	46.0	
21-Oct-11	16:20	62.2	66.5	46.3	
21-Oct-11	16:25	65.0	70.4	49.5	
21-Oct-11	16:30	64.9	68.1	49.0	65.3
21-Oct-11	16:35	64.5	69.5	49.1	
21-Oct-11	16:40	66.0	70.8	54.4	
21-Oct-11	16:45	67.2	71.8	52.8	
21-Oct-11	16:50	61.5	66.9	51.0	
21-Oct-11	16:55	65.6	71.0	49.1	
21-Oct-11	17:00	63.4	67.7	48.3	65.3
21-Oct-11	17:05	61.7	67.1	49.5	
21-Oct-11	17:10	63.3	67.3	47.7	
21-Oct-11	17:15	66.1	69.6	51.6	
21-Oct-11	17:20	67.7	73.0	51.1	
21-Oct-11	17:25	66.8	69.3	50.0	
21-Oct-11	17:30	65.1	69.7	48.6	64.9
21-Oct-11	17:35	57.8	61.3	45.7	
21-Oct-11	17:40	65.8	69.4	56.2	
21-Oct-11	17:45	66.4	70.0	57.1	
21-Oct-11	17:50	62.6	67.3	51.1	
21-Oct-11	17:55	66.6	71.9	52.8	
21-Oct-11	18:00	62.9	68.6	46.3	62.7
21-Oct-11	18:05	59.3	63.4	45.0	
21-Oct-11	18:10	61.0	64.7	49.8	
21-Oct-11	18:15	61.6	65.6	49.9	
21-Oct-11	18:20	64.7	70.0	52.2	
21-Oct-11	18:25	64.4	67.5	51.4	
21-Oct-11	18:30	64.9	69.8	49.6	66.4
21-Oct-11	18:35	67.2	71.7	49.7	
21-Oct-11	18:40	68.9	72.9	50.7	
21-Oct-11	18:45	67.2	66.2	46.2	
21-Oct-11	18:50	63.9	67.3	46.2	
21-Oct-11	18:55	63.3	61.4	46.1	
	Mean	67.9	71.5	53.7	68.9
	Maximum	75.9	80.7	66.9	73.7
	Minimum	51.5	53.6	42.7	62.7

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
22-Oct-11	07:00	54.4	56.8	50.8	55.0
22-Oct-11	07:05	56.7	59.2	50.0	
22-Oct-11	07:10	50.7	54.0	45.4	
22-Oct-11	07:15	48.5	51.9	42.2	
22-Oct-11	07:20	52.4	55.3	47.7	
22-Oct-11	07:25	59.0	60.9	49.8	
22-Oct-11	07:30	65.9	69.8	51.7	62.7
22-Oct-11	07:35	63.4	68.4	47.6	
22-Oct-11	07:40	64.7	69.0	45.3	
22-Oct-11	07:45	62.2	64.5	47.7	
22-Oct-11	07:50	53.4	56.2	48.3	
22-Oct-11	07:55	52.8	55.6	47.5	
22-Oct-11	08:00	65.3	68.8	58.3	65.9
22-Oct-11	08:05	64.4	68.2	54.6	
22-Oct-11	08:10	64.6	69.6	50.5	
22-Oct-11	08:15	63.6	68.3	53.6	
22-Oct-11	08:20	63.6	68.3	49.7	
22-Oct-11	08:25	69.9	73.4	63.1	
22-Oct-11	08:30	66.5	70.9	55.8	64.3
22-Oct-11	08:35	62.8	64.6	49.7	
22-Oct-11	08:40	59.0	63.0	50.0	
22-Oct-11	08:45	65.0	69.7	50.6	
22-Oct-11	08:50	58.6	60.7	47.2	
22-Oct-11	08:55	67.1	71.8	51.1	
22-Oct-11	09:00	62.1	66.8	49.7	66.9
22-Oct-11	09:05	67.2	71.8	53.6	
22-Oct-11	09:10	64.9	69.4	52.4	
22-Oct-11	09:15	69.2	73.2	52.6	
22-Oct-11	09:20	67.7	72.1	56.9	
22-Oct-11	09:25	67.3	71.6	48.2	
22-Oct-11	09:30	66.1	71.0	51.4	65.8
22-Oct-11	09:35	66.0	71.2	55.2	
22-Oct-11	09:40	68.6	73.7	53.5	
22-Oct-11	09:45	65.5	68.5	49.8	
22-Oct-11	09:50	62.3	67.0	51.6	
22-Oct-11	09:55	63.5	64.0	50.9	
22-Oct-11	10:00	64.2	68.3	46.5	64.0
22-Oct-11	10:05	62.7	67.2	54.2	
22-Oct-11	10:10	67.4	71.4	50.1	
22-Oct-11	10:15	64.4	68.7	50.9	
22-Oct-11	10:20	60.0	64.1	46.3	
22-Oct-11	10:25	60.8	63.0	43.6	
22-Oct-11	10:30	50.5	53.7	44.0	63.1
22-Oct-11	10:35	64.5	68.9	46.6	
22-Oct-11	10:40	65.9	69.1	49.3	
22-Oct-11	10:45	62.1	67.8	46.0	
22-Oct-11	10:50	64.7	68.7	46.0	
22-Oct-11	10:55	59.2	55.4	45.1	

Appendix B2

Day-time Noise Level at Sha Lo Wan_NMS 1

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
22-Oct-11	11:00	64.0	68.9	50.7	62.0
22-Oct-11	11:05	64.8	67.2	46.7	
22-Oct-11	11:10	51.9	54.9	44.2	
22-Oct-11	11:15	62.1	67.3	46.5	
22-Oct-11	11:20	59.3	63.7	48.7	
22-Oct-11	11:25	61.3	66.4	47.8	
22-Oct-11	11:30	63.6	68.4	47.5	63.8
22-Oct-11	11:35	64.7	69.6	51.8	
22-Oct-11	11:40	62.7	65.1	50.3	
22-Oct-11	11:45	63.7	67.5	58.3	
22-Oct-11	11:50	64.1	67.0	58.1	
22-Oct-11	11:55	63.6	65.8	58.3	
22-Oct-11	12:00	64.4	68.2	58.1	65.7
22-Oct-11	12:05	66.7	70.1	59.3	
22-Oct-11	12:10	64.7	69.9	55.3	
22-Oct-11	12:15	67.1	71.7	54.3	
22-Oct-11	12:20	65.7	70.4	52.4	
22-Oct-11	12:25	65.1	70.2	49.4	
22-Oct-11	12:30	59.7	65.2	47.3	63.2
22-Oct-11	12:35	62.4	67.5	48.0	
22-Oct-11	12:40	63.8	68.9	48.4	
22-Oct-11	12:45	64.4	65.5	51.0	
22-Oct-11	12:50	63.2	67.7	51.6	
22-Oct-11	12:55	64.4	69.7	49.2	
22-Oct-11	13:00	65.3	70.1	50.2	61.5
22-Oct-11	13:05	62.5	64.5	48.8	
22-Oct-11	13:10	62.5	68.2	46.8	
22-Oct-11	13:15	53.9	59.4	43.2	
22-Oct-11	13:20	45.8	47.5	43.5	
22-Oct-11	13:25	60.8	66.3	45.6	
22-Oct-11	13:30	65.4	69.4	56.3	63.4
22-Oct-11	13:35	65.4	70.9	49.1	
22-Oct-11	13:40	59.9	66.4	45.3	
22-Oct-11	13:45	60.1	64.8	49.6	
22-Oct-11	13:50	60.8	65.2	52.5	
22-Oct-11	13:55	64.9	69.6	55.8	
22-Oct-11	14:00	62.2	66.4	51.8	65.6
22-Oct-11	14:05	62.2	68.4	50.6	
22-Oct-11	14:10	67.5	73.2	53.5	
22-Oct-11	14:15	66.9	70.8	52.6	
22-Oct-11	14:20	65.9	69.9	59.1	
22-Oct-11	14:25	66.1	70.4	56.8	
22-Oct-11	14:30	66.8	71.7	57.8	66.8
22-Oct-11	14:35	64.2	67.4	56.9	
22-Oct-11	14:40	62.6	67.2	54.7	
22-Oct-11	14:45	70.7	74.7	60.6	
22-Oct-11	14:50	66.1	69.8	57.6	
22-Oct-11	14:55	65.4	69.3	57.1	

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
22-Oct-11	15:00	64.4	68.2	54.4	63.7
22-Oct-11	15:05	65.0	70.0	47.9	
22-Oct-11	15:10	61.3	65.8	45.5	
22-Oct-11	15:15	58.2	62.8	41.7	
22-Oct-11	15:20	67.3	72.7	44.9	
22-Oct-11	15:25	58.0	63.0	45.3	
22-Oct-11	15:30	63.5	68.4	46.7	63.2
22-Oct-11	15:35	65.1	69.7	54.2	
22-Oct-11	15:40	62.9	68.1	47.5	
22-Oct-11	15:45	61.6	66.4	50.9	
22-Oct-11	15:50	64.2	69.1	53.1	
22-Oct-11	15:55	60.2	63.3	47.8	
22-Oct-11	16:00	59.1	64.2	47.0	58.1
22-Oct-11	16:05	60.2	66.0	44.4	
22-Oct-11	16:10	57.8	62.5	40.7	
22-Oct-11	16:15	55.3	58.9	46.0	
22-Oct-11	16:20	55.2	60.8	44.5	
22-Oct-11	16:25	58.7	64.4	44.7	
22-Oct-11	16:30	55.4	57.7	44.5	62.9
22-Oct-11	16:35	60.9	66.2	46.2	
22-Oct-11	16:40	61.2	66.7	45.3	
22-Oct-11	16:45	63.8	68.8	50.3	
22-Oct-11	16:50	66.8	72.4	52.4	
22-Oct-11	16:55	62.3	66.7	52.2	
22-Oct-11	17:00	65.8	71.1	56.6	65.0
22-Oct-11	17:05	65.3	69.7	56.2	
22-Oct-11	17:10	64.9	70.9	52.4	
22-Oct-11	17:15	62.6	67.7	51.4	
22-Oct-11	17:20	62.8	68.1	52.8	
22-Oct-11	17:25	67.0	72.2	53.8	
22-Oct-11	17:30	66.4	67.7	52.2	67.4
22-Oct-11	17:35	66.0	69.2	54.0	
22-Oct-11	17:40	52.5	55.0	47.8	
22-Oct-11	17:45	58.9	61.9	51.0	
22-Oct-11	17:50	70.8	75.6	55.6	
22-Oct-11	17:55	70.6	75.0	58.1	
22-Oct-11	18:00	75.7	80.7	60.3	74.3
22-Oct-11	18:05	71.9	72.5	58.6	
22-Oct-11	18:10	69.9	73.1	62.9	
22-Oct-11	18:15	72.9	77.6	65.6	
22-Oct-11	18:20	75.1	77.9	60.3	
22-Oct-11	18:25	76.6	81.7	58.4	
22-Oct-11	18:30	74.4	78.8	61.2	75.1
22-Oct-11	18:35	76.1	81.4	60.8	
22-Oct-11	18:40	70.1	69.8	56.1	
22-Oct-11	18:45	77.1	78.0	51.1	
22-Oct-11	18:50	72.2	76.0	51.2	
22-Oct-11	18:55	76.8	82.0	57.5	
	Mean	63.6	67.6	51.2	64.6
	Maximum	77.1	82.0	65.6	75.1
	Minimum	45.8	47.5	40.7	55.0

Appendix B2

Day-time Noise Level at Sha Lo Wan_NMS 1

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
24-Oct-11	07:00	52.2	55.1	45.4	52.5
24-Oct-11	07:05	53.0	56.0	47.3	
24-Oct-11	07:10	52.4	55.3	45.5	
24-Oct-11	07:15	50.1	52.3	44.6	
24-Oct-11	07:20	50.8	53.4	47.4	
24-Oct-11	07:25	54.9	58.1	50.2	
24-Oct-11	07:30	62.1	65.6	49.4	56.3
24-Oct-11	07:35	56.5	59.0	51.7	
24-Oct-11	07:40	53.7	55.8	48.2	
24-Oct-11	07:45	49.2	51.7	45.5	
24-Oct-11	07:50	48.3	50.5	45.4	
24-Oct-11	07:55	49.5	51.4	46.3	
24-Oct-11	08:00	53.4	57.6	48.1	65.9
24-Oct-11	08:05	68.5	72.5	54.1	
24-Oct-11	08:10	65.8	70.6	52.3	
24-Oct-11	08:15	68.2	73.9	55.8	
24-Oct-11	08:20	63.9	64.3	49.3	
24-Oct-11	08:25	64.7	70.0	49.9	
24-Oct-11	08:30	62.8	64.7	50.0	66.4
24-Oct-11	08:35	68.5	74.1	51.7	
24-Oct-11	08:40	65.1	68.1	48.3	
24-Oct-11	08:45	68.8	72.2	45.2	
24-Oct-11	08:50	65.2	65.3	46.0	
24-Oct-11	08:55	64.7	66.4	52.3	
24-Oct-11	09:00	61.9	64.3	52.3	68.9
24-Oct-11	09:05	69.4	74.1	53.5	
24-Oct-11	09:10	71.3	75.5	55.5	
24-Oct-11	09:15	69.4	73.9	60.2	
24-Oct-11	09:20	67.2	71.9	59.1	
24-Oct-11	09:25	69.6	74.3	58.1	
24-Oct-11	09:30	72.2	76.9	60.0	68.4
24-Oct-11	09:35	71.7	75.1	60.8	
24-Oct-11	09:40	65.9	70.9	51.5	
24-Oct-11	09:45	63.4	67.0	50.2	
24-Oct-11	09:50	65.5	66.7	52.3	
24-Oct-11	09:55	55.7	57.5	48.6	
24-Oct-11	10:00	66.2	68.2	52.0	67.8
24-Oct-11	10:05	68.4	73.6	54.8	
24-Oct-11	10:10	71.9	76.8	59.8	
24-Oct-11	10:15	69.2	73.6	53.6	
24-Oct-11	10:20	61.2	64.8	46.2	
24-Oct-11	10:25	45.1	47.4	41.7	
24-Oct-11	10:30	50.8	53.1	43.6	66.3
24-Oct-11	10:35	63.5	68.3	52.7	
24-Oct-11	10:40	65.7	68.8	58.9	
24-Oct-11	10:45	68.5	73.4	56.6	
24-Oct-11	10:50	68.7	73.4	55.4	
24-Oct-11	10:55	67.2	71.6	55.8	

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
24-Oct-11	11:00	65.7	68.6	57.5	65.9
24-Oct-11	11:05	64.0	68.0	45.2	
24-Oct-11	11:10	60.8	57.7	44.3	
24-Oct-11	11:15	67.5	69.9	49.0	
24-Oct-11	11:20	68.8	72.7	54.8	
24-Oct-11	11:25	64.4	67.4	53.5	
24-Oct-11	11:30	65.5	70.4	52.7	68.7
24-Oct-11	11:35	66.4	70.8	56.4	
24-Oct-11	11:40	66.8	70.3	60.6	
24-Oct-11	11:45	73.9	74.9	53.0	
24-Oct-11	11:50	58.8	62.9	47.4	
24-Oct-11	11:55	68.3	72.0	52.4	
24-Oct-11	12:00	68.1	73.0	51.6	65.5
24-Oct-11	12:05	64.8	69.5	52.2	
24-Oct-11	12:10	62.2	67.5	50.2	
24-Oct-11	12:15	63.4	67.3	52.0	
24-Oct-11	12:20	66.6	71.9	50.9	
24-Oct-11	12:25	65.0	68.9	51.6	
24-Oct-11	12:30	61.5	66.5	48.6	62.1
24-Oct-11	12:35	62.6	67.7	46.8	
24-Oct-11	12:40	57.6	62.8	44.2	
24-Oct-11	12:45	63.7	68.3	43.2	
24-Oct-11	12:50	64.0	68.3	47.9	
24-Oct-11	12:55	60.7	63.2	43.2	
24-Oct-11	13:00	50.6	53.4	46.3	67.0
24-Oct-11	13:05	69.0	71.2	53.0	
24-Oct-11	13:10	69.0	73.8	54.1	
24-Oct-11	13:15	67.8	73.3	50.8	
24-Oct-11	13:20	64.3	68.9	49.2	
24-Oct-11	13:25	67.2	72.6	52.3	
24-Oct-11	13:30	65.5	69.5	44.0	63.5
24-Oct-11	13:35	61.7	61.2	44.6	
24-Oct-11	13:40	63.7	68.3	53.1	
24-Oct-11	13:45	62.9	67.4	51.4	
24-Oct-11	13:50	65.4	69.9	50.6	
24-Oct-11	13:55	58.8	58.3	45.2	
24-Oct-11	14:00	52.0	53.5	44.5	65.3
24-Oct-11	14:05	63.5	69.1	47.3	
24-Oct-11	14:10	63.3	68.4	50.8	
24-Oct-11	14:15	57.9	60.6	52.7	
24-Oct-11	14:20	64.9	69.0	52.1	
24-Oct-11	14:25	70.8	76.1	54.0	
24-Oct-11	14:30	67.2	73.3	48.1	67.2
24-Oct-11	14:35	66.7	72.6	51.8	
24-Oct-11	14:40	69.7	74.5	51.1	
24-Oct-11	14:45	67.5	73.1	51.7	
24-Oct-11	14:50	63.9	69.1	52.0	
24-Oct-11	14:55	66.2	70.5	54.6	

Appendix B2

Day-time Noise Level at Sha Lo Wan_NMS 1

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
24-Oct-11	15:00	69.2	71.6	55.4	69.0
24-Oct-11	15:05	71.6	77.1	54.0	
24-Oct-11	15:10	64.7	68.9	54.0	
24-Oct-11	15:15	69.5	74.2	55.3	
24-Oct-11	15:20	69.4	74.9	56.5	
24-Oct-11	15:25	66.8	71.4	56.0	
24-Oct-11	15:30	65.8	71.2	51.8	65.6
24-Oct-11	15:35	65.1	70.6	48.0	
24-Oct-11	15:40	65.8	66.1	49.6	
24-Oct-11	15:45	65.8	69.8	53.5	
24-Oct-11	15:50	64.6	68.6	50.9	
24-Oct-11	15:55	66.4	70.3	54.2	
24-Oct-11	16:00	66.9	70.9	55.5	66.4
24-Oct-11	16:05	66.2	71.6	50.8	
24-Oct-11	16:10	65.5	69.6	54.7	
24-Oct-11	16:15	67.8	71.7	55.1	
24-Oct-11	16:20	66.5	69.9	53.8	
24-Oct-11	16:25	64.7	70.0	54.0	
24-Oct-11	16:30	61.9	66.0	54.9	68.8
24-Oct-11	16:35	64.6	68.1	51.9	
24-Oct-11	16:40	69.3	74.3	54.2	
24-Oct-11	16:45	68.6	72.2	53.5	
24-Oct-11	16:50	70.6	74.1	59.6	
24-Oct-11	16:55	71.3	74.9	59.0	
24-Oct-11	17:00	68.8	73.8	55.6	67.2
24-Oct-11	17:05	64.8	69.1	54.8	
24-Oct-11	17:10	67.1	71.8	52.8	
24-Oct-11	17:15	67.0	71.1	56.8	
24-Oct-11	17:20	69.4	74.3	55.4	
24-Oct-11	17:25	63.5	67.6	53.0	
24-Oct-11	17:30	61.7	64.8	48.1	66.6
24-Oct-11	17:35	65.9	69.1	58.3	
24-Oct-11	17:40	62.1	64.6	50.4	
24-Oct-11	17:45	66.3	70.9	51.5	
24-Oct-11	17:50	67.2	71.3	53.7	
24-Oct-11	17:55	70.5	75.5	55.4	
24-Oct-11	18:00	64.7	68.0	56.5	67.8
24-Oct-11	18:05	67.9	72.7	50.8	
24-Oct-11	18:10	69.0	74.0	57.2	
24-Oct-11	18:15	70.1	74.7	57.9	
24-Oct-11	18:20	67.3	73.1	53.1	
24-Oct-11	18:25	65.1	61.8	50.5	
24-Oct-11	18:30	65.9	64.6	49.7	64.0
24-Oct-11	18:35	62.8	65.4	50.0	
24-Oct-11	18:40	59.6	61.8	45.0	
24-Oct-11	18:45	50.7	53.0	46.9	
24-Oct-11	18:50	55.3	58.5	48.3	
24-Oct-11	18:55	69.0	74.3	56.0	
	Mean	64.2	67.9	51.7	65.5
	Maximum	73.9	77.1	60.8	69.0
	Minimum	45.1	47.4	41.7	52.5

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
25-Oct-11	07:00	49.8	53.2	43.2	51.5
25-Oct-11	07:05	46.3	48.9	41.7	
25-Oct-11	07:10	48.5	51.6	40.3	
25-Oct-11	07:15	51.1	53.4	44.7	
25-Oct-11	07:20	49.3	52.0	44.8	
25-Oct-11	07:25	56.3	59.5	51.5	
25-Oct-11	07:30	54.4	56.1	51.9	52.9
25-Oct-11	07:35	56.0	59.6	49.2	
25-Oct-11	07:40	52.3	54.3	47.9	
25-Oct-11	07:45	49.7	51.5	47.3	
25-Oct-11	07:50	49.5	51.5	47.0	
25-Oct-11	07:55	51.5	54.2	47.1	
25-Oct-11	08:00	63.3	66.7	50.0	68.1
25-Oct-11	08:05	67.7	72.4	54.4	
25-Oct-11	08:10	65.9	70.2	53.3	
25-Oct-11	08:15	70.0	74.9	59.7	
25-Oct-11	08:20	70.6	75.3	53.2	
25-Oct-11	08:25	67.6	73.0	55.2	
25-Oct-11	08:30	67.6	72.7	48.8	65.9
25-Oct-11	08:35	46.4	47.9	43.9	
25-Oct-11	08:40	66.6	69.5	47.9	
25-Oct-11	08:45	70.3	74.2	49.1	
25-Oct-11	08:50	61.7	65.6	48.4	
25-Oct-11	08:55	58.0	59.5	50.3	
25-Oct-11	09:00	71.7	76.4	57.1	69.8
25-Oct-11	09:05	69.7	75.4	58.1	
25-Oct-11	09:10	70.0	75.1	59.0	
25-Oct-11	09:15	67.8	72.2	59.8	
25-Oct-11	09:20	69.7	74.0	60.8	
25-Oct-11	09:25	69.0	73.7	59.7	
25-Oct-11	09:30	68.2	70.6	58.5	69.6
25-Oct-11	09:35	70.7	75.0	58.1	
25-Oct-11	09:40	69.0	73.8	59.0	
25-Oct-11	09:45	71.1	75.7	59.7	
25-Oct-11	09:50	67.6	72.1	59.4	
25-Oct-11	09:55	69.9	73.9	60.8	
25-Oct-11	10:00	71.5	76.0	61.7	70.1
25-Oct-11	10:05	63.6	66.8	58.9	
25-Oct-11	10:10	70.4	73.7	59.4	
25-Oct-11	10:15	72.4	77.3	57.4	
25-Oct-11	10:20	70.6	74.7	57.1	
25-Oct-11	10:25	67.6	71.6	57.2	
25-Oct-11	10:30	66.4	70.2	54.4	68.8
25-Oct-11	10:35	69.1	74.5	53.7	
25-Oct-11	10:40	64.5	64.7	46.6	
25-Oct-11	10:45	70.3	75.3	50.3	
25-Oct-11	10:50	71.7	76.9	56.1	
25-Oct-11	10:55	66.7	70.7	47.8	

Appendix B2

Day-time Noise Level at Sha Lo Wan_NMS 1

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
25-Oct-11	11:00	56.7	58.5	45.4	62.8
25-Oct-11	11:05	52.1	53.9	49.0	
25-Oct-11	11:10	62.7	63.4	50.0	
25-Oct-11	11:15	65.0	69.2	51.9	
25-Oct-11	11:20	66.4	70.8	52.0	
25-Oct-11	11:25	61.3	65.9	48.9	
25-Oct-11	11:30	66.5	70.7	55.7	67.4
25-Oct-11	11:35	73.4	77.3	59.5	
25-Oct-11	11:40	62.4	67.0	51.0	
25-Oct-11	11:45	61.3	65.4	51.7	
25-Oct-11	11:50	61.1	66.1	48.3	
25-Oct-11	11:55	64.0	68.9	48.8	
25-Oct-11	12:00	68.8	73.0	52.8	67.6
25-Oct-11	12:05	67.0	71.5	51.0	
25-Oct-11	12:10	62.8	61.2	47.3	
25-Oct-11	12:15	64.2	69.1	49.8	
25-Oct-11	12:20	69.4	74.1	55.1	
25-Oct-11	12:25	69.5	74.1	56.2	
25-Oct-11	12:30	70.7	76.2	48.4	68.4
25-Oct-11	12:35	68.4	65.3	47.3	
25-Oct-11	12:40	66.5	72.2	48.6	
25-Oct-11	12:45	66.2	71.6	48.3	
25-Oct-11	12:50	66.4	70.5	51.4	
25-Oct-11	12:55	70.1	74.6	50.9	
25-Oct-11	13:00	67.4	73.0	55.1	68.1
25-Oct-11	13:05	71.3	75.8	57.3	
25-Oct-11	13:10	68.2	72.0	54.6	
25-Oct-11	13:15	64.8	66.4	46.5	
25-Oct-11	13:20	66.7	71.3	55.3	
25-Oct-11	13:25	67.6	72.3	47.5	
25-Oct-11	13:30	62.4	59.4	43.4	65.8
25-Oct-11	13:35	57.5	60.6	43.8	
25-Oct-11	13:40	68.8	73.4	54.9	
25-Oct-11	13:45	69.8	72.8	49.6	
25-Oct-11	13:50	60.3	64.8	46.3	
25-Oct-11	13:55	63.4	66.8	48.5	
25-Oct-11	14:00	59.5	65.3	41.2	65.2
25-Oct-11	14:05	61.8	64.9	41.8	
25-Oct-11	14:10	68.2	74.0	48.4	
25-Oct-11	14:15	50.9	52.8	43.5	
25-Oct-11	14:20	68.8	73.6	52.4	
25-Oct-11	14:25	65.0	69.8	50.1	
25-Oct-11	14:30	66.9	71.2	49.9	68.1
25-Oct-11	14:35	66.6	71.1	50.9	
25-Oct-11	14:40	64.2	68.5	49.4	
25-Oct-11	14:45	72.1	77.7	51.8	
25-Oct-11	14:50	63.4	68.5	51.0	
25-Oct-11	14:55	69.3	71.4	47.8	

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
25-Oct-11	15:00	58.3	61.7	49.3	66.8
25-Oct-11	15:05	70.4	75.8	53.9	
25-Oct-11	15:10	68.8	73.9	57.3	
25-Oct-11	15:15	67.8	73.0	52.3	
25-Oct-11	15:20	63.0	69.1	43.7	
25-Oct-11	15:25	62.2	64.4	44.9	
25-Oct-11	15:30	69.8	71.9	60.8	67.9
25-Oct-11	15:35	67.2	71.8	52.0	
25-Oct-11	15:40	64.2	67.3	49.0	
25-Oct-11	15:45	66.7	70.7	53.2	
25-Oct-11	15:50	67.5	71.9	50.7	
25-Oct-11	15:55	69.8	72.7	44.7	
25-Oct-11	16:00	64.9	66.6	47.1	69.3
25-Oct-11	16:05	69.3	73.2	58.5	
25-Oct-11	16:10	70.7	75.9	54.4	
25-Oct-11	16:15	68.0	72.5	56.4	
25-Oct-11	16:20	67.7	67.9	58.0	
25-Oct-11	16:25	71.8	75.5	60.3	
25-Oct-11	16:30	68.8	71.5	56.0	71.2
25-Oct-11	16:35	70.3	75.4	58.8	
25-Oct-11	16:40	73.5	79.3	57.9	
25-Oct-11	16:45	69.8	73.5	60.0	
25-Oct-11	16:50	73.2	77.7	62.1	
25-Oct-11	16:55	69.3	70.9	61.0	
25-Oct-11	17:00	71.1	74.2	61.1	65.9
25-Oct-11	17:05	67.6	70.0	56.0	
25-Oct-11	17:10	58.5	59.5	51.2	
25-Oct-11	17:15	56.8	62.1	46.5	
25-Oct-11	17:20	62.9	66.6	49.1	
25-Oct-11	17:25	62.3	66.5	55.3	
25-Oct-11	17:30	56.3	60.2	49.2	57.9
25-Oct-11	17:35	59.4	63.2	46.4	
25-Oct-11	17:40	55.9	60.9	43.8	
25-Oct-11	17:45	55.9	60.5	42.3	
25-Oct-11	17:50	56.9	61.4	47.4	
25-Oct-11	17:55	60.5	62.1	49.1	
25-Oct-11	18:00	66.1	71.3	49.9	62.5
25-Oct-11	18:05	58.0	63.5	42.4	
25-Oct-11	18:10	59.6	64.1	46.2	
25-Oct-11	18:15	60.8	66.4	49.0	
25-Oct-11	18:20	60.0	64.1	49.1	
25-Oct-11	18:25	64.7	69.6	49.3	
25-Oct-11	18:30	62.0	65.4	49.4	65.0
25-Oct-11	18:35	68.7	73.9	55.1	
25-Oct-11	18:40	67.5	67.9	42.1	
25-Oct-11	18:45	62.7	68.7	44.5	
25-Oct-11	18:50	58.0	61.9	46.3	
25-Oct-11	18:55	63.1	67.6	43.0	
	Mean	64.5	68.3	51.4	65.7
	Maximum	73.5	79.3	62.1	71.2
	Minimum	46.3	47.9	40.3	51.5

Appendix B2

Day-time Noise Level at Sha Lo Wan_NMS 1

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
26-Oct-11	07:00	71.6	74.3	47.0	65.3
26-Oct-11	07:05	64.4	62.9	49.9	
26-Oct-11	07:10	59.6	56.0	52.6	
26-Oct-11	07:15	55.0	56.5	49.8	
26-Oct-11	07:20	59.6	58.5	54.5	
26-Oct-11	07:25	60.2	60.0	52.9	
26-Oct-11	07:30	58.4	60.5	53.8	67.4
26-Oct-11	07:35	63.2	64.9	59.7	
26-Oct-11	07:40	72.5	76.5	59.3	
26-Oct-11	07:45	65.2	68.0	52.3	
26-Oct-11	07:50	60.6	60.2	47.1	
26-Oct-11	07:55	68.9	72.5	50.6	
26-Oct-11	08:00	62.7	68.5	49.8	68.7
26-Oct-11	08:05	65.8	64.3	53.2	
26-Oct-11	08:10	67.0	69.7	59.8	
26-Oct-11	08:15	72.0	76.0	63.5	
26-Oct-11	08:20	70.3	73.5	59.1	
26-Oct-11	08:25	68.3	63.5	58.7	
26-Oct-11	08:30	68.1	69.9	60.1	69.9
26-Oct-11	08:35	71.8	75.0	63.0	
26-Oct-11	08:40	67.1	68.2	61.4	
26-Oct-11	08:45	69.8	75.4	58.8	
26-Oct-11	08:50	71.3	75.7	58.4	
26-Oct-11	08:55	69.3	73.5	57.7	
26-Oct-11	09:00	65.9	70.3	54.3	69.6
26-Oct-11	09:05	65.7	70.9	52.4	
26-Oct-11	09:10	58.4	61.1	54.0	
26-Oct-11	09:15	69.8	75.0	59.1	
26-Oct-11	09:20	73.0	76.9	63.3	
26-Oct-11	09:25	72.4	77.2	59.8	
26-Oct-11	09:30	71.9	76.9	60.4	71.3
26-Oct-11	09:35	74.2	79.0	64.9	
26-Oct-11	09:40	70.5	75.9	56.7	
26-Oct-11	09:45	69.7	75.6	58.0	
26-Oct-11	09:50	71.0	75.0	57.7	
26-Oct-11	09:55	68.3	73.0	59.8	
26-Oct-11	10:00	73.6	76.0	59.2	69.5
26-Oct-11	10:05	68.7	72.6	59.0	
26-Oct-11	10:10	69.1	74.2	55.8	
26-Oct-11	10:15	67.1	71.2	57.1	
26-Oct-11	10:20	64.8	67.4	59.2	
26-Oct-11	10:25	68.3	73.9	56.9	
26-Oct-11	10:30	68.4	73.1	59.8	68.4
26-Oct-11	10:35	71.5	75.6	56.6	
26-Oct-11	10:40	66.2	70.9	54.4	
26-Oct-11	10:45	70.0	73.9	55.6	
26-Oct-11	10:50	65.7	71.6	49.6	
26-Oct-11	10:55	63.5	68.6	54.7	

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
26-Oct-11	11:00	70.5	76.4	55.6	71.1
26-Oct-11	11:05	70.9	73.5	62.6	
26-Oct-11	11:10	72.8	75.1	57.9	
26-Oct-11	11:15	68.6	73.3	60.2	
26-Oct-11	11:20	72.6	76.9	62.6	
26-Oct-11	11:25	69.6	73.8	59.9	
26-Oct-11	11:30	67.5	71.3	61.2	69.4
26-Oct-11	11:35	65.9	68.3	61.4	
26-Oct-11	11:40	70.3	71.9	60.1	
26-Oct-11	11:45	72.4	76.3	64.7	
26-Oct-11	11:50	67.1	70.7	62.8	
26-Oct-11	11:55	69.6	74.5	57.9	
26-Oct-11	12:00	68.0	70.5	60.1	69.8
26-Oct-11	12:05	70.7	76.2	60.1	
26-Oct-11	12:10	69.8	71.6	65.1	
26-Oct-11	12:15	71.6	74.3	66.1	
26-Oct-11	12:20	68.7	72.8	61.9	
26-Oct-11	12:25	69.2	72.8	60.9	
26-Oct-11	12:30	70.6	74.2	60.9	69.5
26-Oct-11	12:35	70.7	75.5	62.9	
26-Oct-11	12:40	69.4	73.5	61.7	
26-Oct-11	12:45	70.1	75.7	54.3	
26-Oct-11	12:50	65.0	64.7	54.1	
26-Oct-11	12:55	68.8	72.2	61.6	
26-Oct-11	13:00	68.2	72.6	59.7	68.3
26-Oct-11	13:05	70.3	75.2	58.7	
26-Oct-11	13:10	68.4	71.5	57.5	
26-Oct-11	13:15	61.7	65.4	53.2	
26-Oct-11	13:20	68.3	71.5	59.2	
26-Oct-11	13:25	69.1	74.3	58.9	
26-Oct-11	13:30	70.3	73.8	62.7	71.3
26-Oct-11	13:35	71.3	72.3	65.0	
26-Oct-11	13:40	74.3	78.2	63.7	
26-Oct-11	13:45	69.6	73.3	57.6	
26-Oct-11	13:50	71.1	75.8	58.6	
26-Oct-11	13:55	68.5	70.8	56.2	
26-Oct-11	14:00	59.3	59.8	52.1	67.0
26-Oct-11	14:05	65.2	69.1	54.7	
26-Oct-11	14:10	66.6	69.4	56.4	
26-Oct-11	14:15	70.2	74.8	59.9	
26-Oct-11	14:20	66.4	68.8	60.3	
26-Oct-11	14:25	67.9	72.2	58.7	
26-Oct-11	14:30	65.4	68.6	52.0	65.9
26-Oct-11	14:35	67.1	71.6	53.4	
26-Oct-11	14:40	69.1	73.3	52.5	
26-Oct-11	14:45	58.0	62.0	50.1	
26-Oct-11	14:50	61.4	59.7	51.0	
26-Oct-11	14:55	66.5	70.1	53.3	

Appendix B2

Day-time Noise Level at Sha Lo Wan_NMS 1

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
26-Oct-11	15:00	63.6	67.1	55.4	66.7
26-Oct-11	15:05	65.6	69.1	59.9	
26-Oct-11	15:10	66.9	69.9	57.9	
26-Oct-11	15:15	69.4	74.1	55.6	
26-Oct-11	15:20	64.5	69.3	56.4	
26-Oct-11	15:25	67.7	69.9	62.6	
26-Oct-11	15:30	68.9	70.5	63.2	68.6
26-Oct-11	15:35	70.3	74.0	62.3	
26-Oct-11	15:40	67.4	71.2	60.7	
26-Oct-11	15:45	69.8	73.7	61.2	
26-Oct-11	15:50	64.9	67.4	55.4	
26-Oct-11	15:55	68.3	72.0	58.2	
26-Oct-11	16:00	70.1	74.5	60.9	68.3
26-Oct-11	16:05	65.8	71.2	53.6	
26-Oct-11	16:10	67.9	71.1	56.1	
26-Oct-11	16:15	65.0	69.6	55.3	
26-Oct-11	16:20	69.0	73.5	57.1	
26-Oct-11	16:25	69.6	74.0	53.8	
26-Oct-11	16:30	64.7	70.3	52.7	70.5
26-Oct-11	16:35	68.5	72.2	54.7	
26-Oct-11	16:40	68.4	72.9	58.7	
26-Oct-11	16:45	72.1	77.6	56.9	
26-Oct-11	16:50	73.3	78.1	58.7	
26-Oct-11	16:55	71.1	76.0	58.1	
26-Oct-11	17:00	64.2	68.6	55.0	68.9
26-Oct-11	17:05	69.2	74.0	54.7	
26-Oct-11	17:10	68.6	73.0	59.9	
26-Oct-11	17:15	68.2	71.8	61.8	
26-Oct-11	17:20	69.6	73.3	59.4	
26-Oct-11	17:25	71.0	75.4	58.0	
26-Oct-11	17:30	70.6	74.2	63.9	66.6
26-Oct-11	17:35	68.3	73.5	55.0	
26-Oct-11	17:40	64.4	68.4	49.8	
26-Oct-11	17:45	61.8	65.2	50.2	
26-Oct-11	17:50	56.0	58.8	51.3	
26-Oct-11	17:55	66.8	66.4	57.1	
26-Oct-11	18:00	66.7	71.1	54.2	67.1
26-Oct-11	18:05	66.5	71.2	55.7	
26-Oct-11	18:10	68.6	73.0	55.0	
26-Oct-11	18:15	66.0	70.6	53.9	
26-Oct-11	18:20	67.7	72.1	55.4	
26-Oct-11	18:25	66.3	70.4	56.0	
26-Oct-11	18:30	69.7	74.9	56.4	65.9
26-Oct-11	18:35	62.3	67.0	50.7	
26-Oct-11	18:40	49.8	51.9	46.5	
26-Oct-11	18:45	60.2	61.0	48.5	
26-Oct-11	18:50	69.7	73.8	53.6	
26-Oct-11	18:55	62.8	68.4	50.0	
	Mean	67.5	71.0	57.2	68.5
	Maximum	74.3	79.0	66.1	71.3
	Minimum	49.8	51.9	46.5	65.3

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
27-Oct-11	07:00	54.2	58.2	48.3	52.8
27-Oct-11	07:05	50.8	53.2	47.4	
27-Oct-11	07:10	54.5	58.9	41.7	
27-Oct-11	07:15	55.0	58.9	46.7	
27-Oct-11	07:20	47.1	49.7	43.6	
27-Oct-11	07:25	50.1	52.0	44.3	
27-Oct-11	07:30	48.9	51.4	42.3	57.2
27-Oct-11	07:35	46.1	48.2	43.0	
27-Oct-11	07:40	46.0	48.3	40.9	
27-Oct-11	07:45	63.9	60.9	41.1	
27-Oct-11	07:50	49.9	53.6	42.5	
27-Oct-11	07:55	56.2	58.9	49.1	
27-Oct-11	08:00	65.3	70.9	52.2	63.0
27-Oct-11	08:05	63.9	69.3	44.4	
27-Oct-11	08:10	57.4	56.8	45.2	
27-Oct-11	08:15	61.0	65.6	47.0	
27-Oct-11	08:20	65.4	70.3	48.0	
27-Oct-11	08:25	59.4	64.4	46.0	
27-Oct-11	08:30	63.3	68.0	49.7	63.7
27-Oct-11	08:35	59.0	63.2	49.2	
27-Oct-11	08:40	66.7	72.1	39.9	
27-Oct-11	08:45	63.7	67.9	44.4	
27-Oct-11	08:50	62.2	65.0	46.4	
27-Oct-11	08:55	63.7	65.1	44.4	
27-Oct-11	09:00	68.8	73.3	48.2	68.1
27-Oct-11	09:05	60.6	59.8	46.2	
27-Oct-11	09:10	66.9	72.0	55.0	
27-Oct-11	09:15	67.9	72.3	57.5	
27-Oct-11	09:20	70.5	75.5	55.9	
27-Oct-11	09:25	68.7	73.2	62.0	
27-Oct-11	09:30	72.3	76.7	63.3	71.1
27-Oct-11	09:35	71.5	76.5	58.9	
27-Oct-11	09:40	68.6	72.3	60.4	
27-Oct-11	09:45	73.0	78.0	56.6	
27-Oct-11	09:50	71.3	76.9	53.7	
27-Oct-11	09:55	66.9	69.1	42.3	
27-Oct-11	10:00	46.5	49.4	42.0	65.9
27-Oct-11	10:05	62.7	69.1	45.3	
27-Oct-11	10:10	63.4	64.7	46.9	
27-Oct-11	10:15	69.6	73.7	47.5	
27-Oct-11	10:20	60.3	62.3	57.1	
27-Oct-11	10:25	69.5	73.6	55.1	
27-Oct-11	10:30	70.1	74.7	47.8	67.1
27-Oct-11	10:35	63.8	67.4	49.2	
27-Oct-11	10:40	67.1	72.7	49.9	
27-Oct-11	10:45	70.0	75.0	49.2	
27-Oct-11	10:50	64.2	65.0	45.6	
27-Oct-11	10:55	55.8	58.1	47.8	

Appendix B2

Day-time Noise Level at Sha Lo Wan_NMS 1

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
27-Oct-11	11:00	71.2	75.6	48.9	69.2
27-Oct-11	11:05	67.0	71.2	52.8	
27-Oct-11	11:10	69.2	70.8	48.3	
27-Oct-11	11:15	66.8	71.2	56.0	
27-Oct-11	11:20	71.0	76.3	57.5	
27-Oct-11	11:25	67.4	70.6	58.3	
27-Oct-11	11:30	68.5	72.6	54.0	67.4
27-Oct-11	11:35	64.1	69.1	53.2	
27-Oct-11	11:40	70.9	73.5	53.4	
27-Oct-11	11:45	66.3	71.0	52.1	
27-Oct-11	11:50	67.0	69.4	51.0	
27-Oct-11	11:55	63.2	68.0	55.0	
27-Oct-11	12:00	69.7	73.0	49.9	67.4
27-Oct-11	12:05	57.9	59.3	48.8	
27-Oct-11	12:10	66.8	71.7	52.0	
27-Oct-11	12:15	68.9	71.4	52.8	
27-Oct-11	12:20	68.4	72.8	58.5	
27-Oct-11	12:25	65.7	70.0	49.6	
27-Oct-11	12:30	60.3	62.6	45.8	65.1
27-Oct-11	12:35	63.5	67.4	46.2	
27-Oct-11	12:40	61.7	62.1	47.5	
27-Oct-11	12:45	65.9	70.2	52.0	
27-Oct-11	12:50	68.4	72.9	53.8	
27-Oct-11	12:55	65.9	69.9	51.2	
27-Oct-11	13:00	67.0	72.6	54.5	65.7
27-Oct-11	13:05	65.2	69.5	55.1	
27-Oct-11	13:10	68.0	72.1	54.9	
27-Oct-11	13:15	64.7	68.0	51.4	
27-Oct-11	13:20	64.2	61.8	50.0	
27-Oct-11	13:25	63.1	66.8	55.9	
27-Oct-11	13:30	65.3	70.2	56.8	69.5
27-Oct-11	13:35	70.0	74.5	55.1	
27-Oct-11	13:40	64.6	66.7	49.7	
27-Oct-11	13:45	64.7	69.4	51.6	
27-Oct-11	13:50	71.1	72.7	62.8	
27-Oct-11	13:55	73.3	76.5	57.3	
27-Oct-11	14:00	69.1	73.5	61.3	70.5
27-Oct-11	14:05	73.0	77.0	61.7	
27-Oct-11	14:10	70.4	75.6	60.5	
27-Oct-11	14:15	67.7	72.3	59.5	
27-Oct-11	14:20	69.7	72.6	65.0	
27-Oct-11	14:25	70.9	73.1	66.1	
27-Oct-11	14:30	72.1	76.5	64.5	70.9
27-Oct-11	14:35	70.7	73.2	63.3	
27-Oct-11	14:40	71.3	75.4	62.2	
27-Oct-11	14:45	66.9	69.2	56.7	
27-Oct-11	14:50	69.6	73.8	59.0	
27-Oct-11	14:55	72.8	77.2	62.7	

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
27-Oct-11	15:00	68.6	72.8	61.7	70.1
27-Oct-11	15:05	68.3	69.7	63.2	
27-Oct-11	15:10	70.9	72.8	60.4	
27-Oct-11	15:15	71.4	75.7	66.1	
27-Oct-11	15:20	71.0	75.7	59.4	
27-Oct-11	15:25	69.3	72.7	58.5	
27-Oct-11	15:30	62.2	66.5	54.4	66.6
27-Oct-11	15:35	63.8	61.8	52.3	
27-Oct-11	15:40	67.8	72.0	54.1	
27-Oct-11	15:45	65.4	68.8	56.1	
27-Oct-11	15:50	68.0	71.3	61.5	
27-Oct-11	15:55	68.8	72.3	59.4	
27-Oct-11	16:00	70.0	74.0	64.0	71.4
27-Oct-11	16:05	73.6	76.7	65.4	
27-Oct-11	16:10	70.3	72.3	65.4	
27-Oct-11	16:15	72.3	75.0	63.6	
27-Oct-11	16:20	71.0	74.5	62.1	
27-Oct-11	16:25	69.7	72.8	64.2	
27-Oct-11	16:30	71.7	75.3	65.1	71.1
27-Oct-11	16:35	72.3	76.5	60.1	
27-Oct-11	16:40	68.4	70.9	60.7	
27-Oct-11	16:45	71.6	75.0	61.1	
27-Oct-11	16:50	71.1	75.8	57.9	
27-Oct-11	16:55	70.4	73.7	62.2	
27-Oct-11	17:00	69.8	73.1	62.9	70.1
27-Oct-11	17:05	70.7	75.0	61.4	
27-Oct-11	17:10	71.1	75.7	62.6	
27-Oct-11	17:15	69.7	74.1	63.8	
27-Oct-11	17:20	67.6	70.0	61.9	
27-Oct-11	17:25	71.0	75.4	63.4	
27-Oct-11	17:30	71.9	75.4	66.4	72.2
27-Oct-11	17:35	74.6	79.0	63.0	
27-Oct-11	17:40	71.3	74.6	63.8	
27-Oct-11	17:45	69.1	74.4	59.7	
27-Oct-11	17:50	72.7	78.3	62.7	
27-Oct-11	17:55	71.6	77.1	62.3	
27-Oct-11	18:00	72.4	76.8	60.2	71.4
27-Oct-11	18:05	69.9	72.9	61.6	
27-Oct-11	18:10	68.9	72.6	62.4	
27-Oct-11	18:15	71.8	76.5	63.4	
27-Oct-11	18:20	73.2	77.5	62.6	
27-Oct-11	18:25	70.9	74.6	63.3	
27-Oct-11	18:30	71.7	75.4	62.3	69.9
27-Oct-11	18:35	70.7	74.3	56.8	
27-Oct-11	18:40	67.4	72.0	58.4	
27-Oct-11	18:45	69.5	73.0	55.7	
27-Oct-11	18:50	68.9	73.5	54.2	
27-Oct-11	18:55	70.0	69.4	50.3	
	Mean	66.5	70.0	54.9	67.4
	Maximum	74.6	79.0	66.4	72.2
	Minimum	46.0	48.2	39.9	52.8

Appendix B2

Day-time Noise Level at Sha Lo Wan_NMS 1

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
28-Oct-11	07:00	57.2	60.5	47.4	58.4
28-Oct-11	07:05	59.1	60.3	51.6	
28-Oct-11	07:10	57.6	61.3	51.3	
28-Oct-11	07:15	56.3	59.6	48.1	
28-Oct-11	07:20	61.6	60.5	46.0	
28-Oct-11	07:25	55.2	59.1	48.0	
28-Oct-11	07:30	60.8	64.5	47.9	59.0
28-Oct-11	07:35	55.5	57.7	49.1	
28-Oct-11	07:40	56.4	58.9	49.1	
28-Oct-11	07:45	59.4	62.0	49.7	
28-Oct-11	07:50	59.4	62.0	45.7	
28-Oct-11	07:55	60.1	63.5	47.7	
28-Oct-11	08:00	56.9	60.9	47.4	65.8
28-Oct-11	08:05	67.6	71.7	50.9	
28-Oct-11	08:10	62.8	64.1	46.5	
28-Oct-11	08:15	68.8	74.5	49.8	
28-Oct-11	08:20	65.6	67.3	47.5	
28-Oct-11	08:25	65.1	71.2	48.7	
28-Oct-11	08:30	63.7	67.5	48.5	65.5
28-Oct-11	08:35	69.5	74.2	48.8	
28-Oct-11	08:40	63.0	62.6	45.9	
28-Oct-11	08:45	56.0	58.4	42.9	
28-Oct-11	08:50	66.6	58.7	44.1	
28-Oct-11	08:55	64.6	68.8	48.4	
28-Oct-11	09:00	65.7	69.7	48.0	68.8
28-Oct-11	09:05	67.5	72.8	50.5	
28-Oct-11	09:10	70.2	74.8	50.5	
28-Oct-11	09:15	69.5	74.9	52.2	
28-Oct-11	09:20	67.9	72.7	52.6	
28-Oct-11	09:25	70.4	75.7	52.4	
28-Oct-11	09:30	71.9	76.9	52.8	67.7
28-Oct-11	09:35	68.0	71.9	53.6	
28-Oct-11	09:40	66.2	65.3	48.6	
28-Oct-11	09:45	65.2	69.5	46.8	
28-Oct-11	09:50	66.7	69.5	46.4	
28-Oct-11	09:55	60.6	63.9	45.5	
28-Oct-11	10:00	66.9	70.8	48.7	66.8
28-Oct-11	10:05	68.3	73.5	48.2	
28-Oct-11	10:10	69.1	73.3	47.3	
28-Oct-11	10:15	67.1	71.5	46.6	
28-Oct-11	10:20	65.0	68.9	45.0	
28-Oct-11	10:25	57.6	61.4	42.0	
28-Oct-11	10:30	60.9	64.0	42.7	66.0
28-Oct-11	10:35	64.7	69.8	47.5	
28-Oct-11	10:40	67.9	72.1	50.2	
28-Oct-11	10:45	67.7	72.2	48.7	
28-Oct-11	10:50	66.0	66.8	48.6	
28-Oct-11	10:55	65.7	70.3	47.3	

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
28-Oct-11	11:00	53.7	56.2	47.2	64.3
28-Oct-11	11:05	66.0	71.5	42.7	
28-Oct-11	11:10	61.1	60.4	41.2	
28-Oct-11	11:15	65.7	65.5	45.3	
28-Oct-11	11:20	65.0	66.0	46.4	
28-Oct-11	11:25	65.7	69.8	47.1	
28-Oct-11	11:30	65.8	69.2	47.8	67.5
28-Oct-11	11:35	67.1	71.1	49.8	
28-Oct-11	11:40	69.3	72.6	51.0	
28-Oct-11	11:45	69.4	72.7	46.4	
28-Oct-11	11:50	62.5	65.7	43.7	
28-Oct-11	11:55	67.7	72.0	48.5	
28-Oct-11	12:00	66.8	68.9	49.2	65.8
28-Oct-11	12:05	66.2	70.6	50.2	
28-Oct-11	12:10	64.7	70.1	45.0	
28-Oct-11	12:15	65.3	68.7	47.5	
28-Oct-11	12:20	67.3	73.3	44.7	
28-Oct-11	12:25	63.3	62.4	45.5	
28-Oct-11	12:30	62.6	67.6	43.7	63.6
28-Oct-11	12:35	63.2	59.6	43.7	
28-Oct-11	12:40	63.2	68.5	41.1	
28-Oct-11	12:45	63.8	65.6	40.3	
28-Oct-11	12:50	64.6	69.3	43.6	
28-Oct-11	12:55	63.7	67.4	41.9	
28-Oct-11	13:00	59.5	63.7	43.5	67.2
28-Oct-11	13:05	69.2	72.4	47.2	
28-Oct-11	13:10	68.1	73.3	49.5	
28-Oct-11	13:15	68.0	72.2	47.8	
28-Oct-11	13:20	66.9	72.2	45.8	
28-Oct-11	13:25	66.9	70.5	48.2	
28-Oct-11	13:30	64.6	69.3	44.5	63.6
28-Oct-11	13:35	64.2	66.3	45.0	
28-Oct-11	13:40	66.1	71.0	48.2	
28-Oct-11	13:45	60.5	59.5	47.3	
28-Oct-11	13:50	63.1	66.8	45.9	
28-Oct-11	13:55	60.1	58.2	43.8	
28-Oct-11	14:00	48.7	50.4	43.3	64.9
28-Oct-11	14:05	64.8	69.8	45.4	
28-Oct-11	14:10	64.4	65.9	47.7	
28-Oct-11	14:15	63.0	66.7	49.1	
28-Oct-11	14:20	65.2	69.6	48.7	
28-Oct-11	14:25	68.6	74.4	48.9	
28-Oct-11	14:30	66.4	69.6	45.0	66.4
28-Oct-11	14:35	65.4	69.8	47.3	
28-Oct-11	14:40	67.6	72.2	48.5	
28-Oct-11	14:45	66.9	72.9	49.0	
28-Oct-11	14:50	63.1	67.4	48.4	
28-Oct-11	14:55	67.5	72.4	49.8	

Appendix B2

Day-time Noise Level at Sha Lo Wan_NMS 1

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
28-Oct-11	15:00	67.1	70.5	50.1	67.7
28-Oct-11	15:05	71.1	77.0	50.1	
28-Oct-11	15:10	66.4	71.4	48.5	
28-Oct-11	15:15	65.4	62.2	49.1	
28-Oct-11	15:20	67.8	70.6	49.6	
28-Oct-11	15:25	65.6	71.1	50.6	
28-Oct-11	15:30	64.9	68.1	47.9	64.5
28-Oct-11	15:35	64.7	70.2	46.5	
28-Oct-11	15:40	65.3	68.5	46.9	
28-Oct-11	15:45	65.0	69.7	49.6	
28-Oct-11	15:50	63.2	68.1	47.8	
28-Oct-11	15:55	63.6	64.6	49.6	
28-Oct-11	16:00	66.9	71.7	50.1	66.7
28-Oct-11	16:05	66.5	72.1	48.7	
28-Oct-11	16:10	66.5	71.2	48.6	
28-Oct-11	16:15	66.9	70.0	49.2	
28-Oct-11	16:20	67.3	70.6	49.4	
28-Oct-11	16:25	66.2	70.9	50.3	
28-Oct-11	16:30	65.3	69.7	49.7	68.2
28-Oct-11	16:35	64.7	68.7	49.8	
28-Oct-11	16:40	69.5	75.0	50.5	
28-Oct-11	16:45	68.2	72.6	49.5	
28-Oct-11	16:50	70.5	75.4	51.5	
28-Oct-11	16:55	68.2	72.6	51.3	
28-Oct-11	17:00	67.8	71.7	49.1	67.4
28-Oct-11	17:05	66.9	72.4	50.7	
28-Oct-11	17:10	65.5	71.0	47.4	
28-Oct-11	17:15	67.9	72.8	56.2	
28-Oct-11	17:20	70.2	75.5	51.3	
28-Oct-11	17:25	63.3	68.4	48.9	
28-Oct-11	17:30	63.9	59.9	45.0	66.7
28-Oct-11	17:35	65.9	69.5	52.9	
28-Oct-11	17:40	64.5	68.8	46.7	
28-Oct-11	17:45	65.5	69.6	47.8	
28-Oct-11	17:50	67.3	71.7	48.6	
28-Oct-11	17:55	70.1	75.3	51.5	
28-Oct-11	18:00	67.2	70.6	52.4	68.1
28-Oct-11	18:05	69.2	73.6	49.5	
28-Oct-11	18:10	68.2	73.5	51.8	
28-Oct-11	18:15	68.7	73.5	52.3	
28-Oct-11	18:20	68.3	74.1	50.4	
28-Oct-11	18:25	66.5	66.5	48.0	
28-Oct-11	18:30	68.0	70.2	47.6	63.5
28-Oct-11	18:35	56.9	59.7	47.4	
28-Oct-11	18:40	59.9	60.2	47.6	
28-Oct-11	18:45	56.0	53.7	47.5	
28-Oct-11	18:50	60.1	64.6	47.5	
28-Oct-11	18:55	66.2	67.7	51.2	
	Mean	64.9	68.3	48.0	65.6
	Maximum	71.9	77.0	56.2	68.8
	Minimum	48.7	50.4	40.3	58.4

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
29-Oct-11	07:00	49.2	53.4	43.3	51.1
29-Oct-11	07:05	50.9	54.8	45.3	
29-Oct-11	07:10	50.2	53.0	44.6	
29-Oct-11	07:15	54.8	55.0	45.4	
29-Oct-11	07:20	48.4	50.4	45.0	
29-Oct-11	07:25	49.3	52.5	46.0	
29-Oct-11	07:30	51.7	54.3	46.2	54.4
29-Oct-11	07:35	55.0	58.4	47.8	
29-Oct-11	07:40	55.4	59.2	47.4	
29-Oct-11	07:45	54.5	57.6	48.1	
29-Oct-11	07:50	57.0	61.1	45.4	
29-Oct-11	07:55	47.3	49.0	45.5	
29-Oct-11	08:00	52.5	55.4	47.0	63.8
29-Oct-11	08:05	60.3	65.1	50.0	
29-Oct-11	08:10	55.6	58.4	47.6	
29-Oct-11	08:15	58.6	60.8	51.2	
29-Oct-11	08:20	69.5	73.7	58.0	
29-Oct-11	08:25	64.9	68.3	59.1	
29-Oct-11	08:30	70.8	76.1	58.3	69.9
29-Oct-11	08:35	68.9	73.0	59.1	
29-Oct-11	08:40	68.4	73.7	54.0	
29-Oct-11	08:45	65.2	70.3	56.0	
29-Oct-11	08:50	71.9	77.6	57.1	
29-Oct-11	08:55	71.1	76.3	57.4	
29-Oct-11	09:00	59.8	64.5	50.4	67.8
29-Oct-11	09:05	62.9	65.1	54.1	
29-Oct-11	09:10	70.4	75.8	57.5	
29-Oct-11	09:15	68.9	73.6	57.2	
29-Oct-11	09:20	67.3	72.7	59.8	
29-Oct-11	09:25	69.7	72.8	64.3	
29-Oct-11	09:30	72.4	77.9	63.7	71.0
29-Oct-11	09:35	68.6	73.0	62.7	
29-Oct-11	09:40	69.9	74.2	63.7	
29-Oct-11	09:45	68.9	73.3	62.6	
29-Oct-11	09:50	73.6	76.9	63.9	
29-Oct-11	09:55	70.2	74.6	65.0	
29-Oct-11	10:00	71.7	76.0	65.2	71.3
29-Oct-11	10:05	73.7	78.5	62.8	
29-Oct-11	10:10	70.2	73.6	60.5	
29-Oct-11	10:15	70.9	74.5	63.4	
29-Oct-11	10:20	69.8	73.7	63.0	
29-Oct-11	10:25	70.2	73.8	61.9	
29-Oct-11	10:30	69.2	74.6	62.4	70.6
29-Oct-11	10:35	71.3	75.9	61.4	
29-Oct-11	10:40	67.3	70.8	61.0	
29-Oct-11	10:45	72.6	77.0	61.3	
29-Oct-11	10:50	70.5	75.1	60.9	
29-Oct-11	10:55	70.7	75.8	59.7	

Appendix B2

Day-time Noise Level at Sha Lo Wan_NMS 1

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
29-Oct-11	11:00	69.4	74.6	57.6	68.0
29-Oct-11	11:05	67.0	71.6	59.7	
29-Oct-11	11:10	70.2	73.4	54.2	
29-Oct-11	11:15	65.0	70.4	56.2	
29-Oct-11	11:20	68.9	73.9	57.6	
29-Oct-11	11:25	64.1	68.3	54.2	
29-Oct-11	11:30	66.3	69.5	52.4	68.6
29-Oct-11	11:35	68.0	71.4	58.9	
29-Oct-11	11:40	70.6	75.5	57.1	
29-Oct-11	11:45	65.1	70.4	50.8	
29-Oct-11	11:50	67.5	69.0	53.1	
29-Oct-11	11:55	71.0	75.7	53.1	
29-Oct-11	12:00	61.2	64.6	50.5	66.7
29-Oct-11	12:05	63.6	67.6	51.3	
29-Oct-11	12:10	67.9	72.7	52.1	
29-Oct-11	12:15	68.9	74.1	57.1	
29-Oct-11	12:20	67.8	71.8	58.1	
29-Oct-11	12:25	66.3	69.2	59.6	
29-Oct-11	12:30	69.6	73.9	57.3	67.6
29-Oct-11	12:35	64.5	70.2	49.7	
29-Oct-11	12:40	66.4	70.8	51.9	
29-Oct-11	12:45	67.0	71.5	55.1	
29-Oct-11	12:50	69.0	73.8	56.0	
29-Oct-11	12:55	67.1	71.8	51.2	
29-Oct-11	13:00	66.2	69.0	53.3	68.5
29-Oct-11	13:05	67.6	72.3	54.0	
29-Oct-11	13:10	62.9	62.3	54.1	
29-Oct-11	13:15	67.8	71.1	59.0	
29-Oct-11	13:20	70.1	74.5	51.3	
29-Oct-11	13:25	71.6	74.9	63.1	
29-Oct-11	13:30	67.0	71.2	57.5	68.6
29-Oct-11	13:35	73.3	76.6	63.0	
29-Oct-11	13:40	68.6	73.5	54.1	
29-Oct-11	13:45	66.0	67.1	51.6	
29-Oct-11	13:50	60.8	63.5	49.3	
29-Oct-11	13:55	66.5	66.8	50.1	
29-Oct-11	14:00	65.0	69.4	49.4	69.0
29-Oct-11	14:05	67.3	71.8	53.0	
29-Oct-11	14:10	66.2	70.5	55.8	
29-Oct-11	14:15	65.2	68.3	57.1	
29-Oct-11	14:20	71.8	76.6	63.6	
29-Oct-11	14:25	72.2	75.9	58.8	
29-Oct-11	14:30	69.3	73.0	58.4	68.0
29-Oct-11	14:35	64.7	70.4	57.0	
29-Oct-11	14:40	69.6	73.5	57.4	
29-Oct-11	14:45	67.7	71.3	55.0	
29-Oct-11	14:50	67.5	72.5	56.0	
29-Oct-11	14:55	67.5	72.7	55.8	

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
29-Oct-11	15:00	67.1	72.5	50.8	67.5
29-Oct-11	15:05	59.7	63.0	51.2	
29-Oct-11	15:10	71.5	77.0	57.1	
29-Oct-11	15:15	68.8	72.5	53.6	
29-Oct-11	15:20	65.4	65.0	54.2	
29-Oct-11	15:25	63.4	66.3	54.7	
29-Oct-11	15:30	66.6	71.8	50.8	68.2
29-Oct-11	15:35	66.8	71.2	56.2	
29-Oct-11	15:40	65.1	69.6	53.7	
29-Oct-11	15:45	70.7	75.8	58.6	
29-Oct-11	15:50	67.3	70.6	58.1	
29-Oct-11	15:55	70.0	74.2	58.4	
29-Oct-11	16:00	69.2	72.6	63.1	69.7
29-Oct-11	16:05	68.8	72.1	63.6	
29-Oct-11	16:10	73.2	78.5	60.3	
29-Oct-11	16:15	68.1	73.4	51.8	
29-Oct-11	16:20	69.5	75.1	53.0	
29-Oct-11	16:25	66.1	71.5	51.2	
29-Oct-11	16:30	68.0	69.4	56.3	69.8
29-Oct-11	16:35	69.4	71.8	57.8	
29-Oct-11	16:40	70.3	68.8	60.8	
29-Oct-11	16:45	71.0	75.4	58.4	
29-Oct-11	16:50	70.7	75.0	59.2	
29-Oct-11	16:55	68.4	72.4	60.4	
29-Oct-11	17:00	68.0	73.1	57.8	70.0
29-Oct-11	17:05	70.7	74.7	62.8	
29-Oct-11	17:10	67.7	72.4	55.0	
29-Oct-11	17:15	70.4	73.9	59.5	
29-Oct-11	17:20	71.1	75.2	58.6	
29-Oct-11	17:25	71.1	74.7	56.5	
29-Oct-11	17:30	58.7	61.9	54.5	70.2
29-Oct-11	17:35	69.8	74.3	60.1	
29-Oct-11	17:40	72.0	75.4	58.5	
29-Oct-11	17:45	70.5	73.9	64.3	
29-Oct-11	17:50	71.1	75.0	63.0	
29-Oct-11	17:55	71.1	75.4	64.5	
29-Oct-11	18:00	69.8	73.3	64.0	70.4
29-Oct-11	18:05	70.2	74.2	63.4	
29-Oct-11	18:10	71.9	76.3	63.9	
29-Oct-11	18:15	70.0	74.2	64.8	
29-Oct-11	18:20	70.9	75.5	63.7	
29-Oct-11	18:25	69.4	73.0	63.5	
29-Oct-11	18:30	71.9	74.8	65.0	70.6
29-Oct-11	18:35	70.2	73.4	65.3	
29-Oct-11	18:40	71.8	76.3	62.2	
29-Oct-11	18:45	68.1	71.6	60.5	
29-Oct-11	18:50	70.2	73.6	60.4	
29-Oct-11	18:55	70.2	74.8	59.5	
	Mean	66.8	70.7	56.6	67.5
	Maximum	73.7	78.5	65.3	71.3
	Minimum	47.3	49.0	43.3	51.1

Appendix B2

Day-time Noise Level at Sha Lo Wan_NMS 1

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
31-Oct-11	07:00	49.3	53.1	43.1	50.9
31-Oct-11	07:05	50.6	54.2	44.6	
31-Oct-11	07:10	50.1	52.6	44.8	
31-Oct-11	07:15	54.5	54.5	44.8	
31-Oct-11	07:20	48.1	50.1	44.6	
31-Oct-11	07:25	49.5	52.0	45.6	
31-Oct-11	07:30	51.1	53.7	46.0	54.3
31-Oct-11	07:35	54.7	58.4	47.2	
31-Oct-11	07:40	55.3	59.4	47.1	
31-Oct-11	07:45	54.7	57.6	47.5	
31-Oct-11	07:50	56.9	61.2	45.5	
31-Oct-11	07:55	47.1	48.9	45.0	
31-Oct-11	08:00	51.8	55.3	46.4	63.4
31-Oct-11	08:05	60.0	64.6	50.1	
31-Oct-11	08:10	55.1	58.6	47.7	
31-Oct-11	08:15	58.7	61.0	51.3	
31-Oct-11	08:20	68.8	73.5	57.9	
31-Oct-11	08:25	65.1	68.4	58.8	
31-Oct-11	08:30	70.6	75.4	57.6	69.6
31-Oct-11	08:35	68.2	72.7	58.7	
31-Oct-11	08:40	67.9	73.6	53.9	
31-Oct-11	08:45	64.6	69.5	55.8	
31-Oct-11	08:50	71.5	76.9	56.5	
31-Oct-11	08:55	71.1	76.3	57.1	
31-Oct-11	09:00	59.4	63.9	50.3	67.7
31-Oct-11	09:05	62.9	64.9	53.8	
31-Oct-11	09:10	70.3	75.6	56.9	
31-Oct-11	09:15	68.5	73.6	56.5	
31-Oct-11	09:20	67.2	71.9	59.2	
31-Oct-11	09:25	69.8	72.7	64.3	
31-Oct-11	09:30	72.6	77.6	63.5	70.8
31-Oct-11	09:35	68.5	72.4	62.0	
31-Oct-11	09:40	69.7	74.2	62.9	
31-Oct-11	09:45	68.7	72.5	61.9	
31-Oct-11	09:50	72.9	77.1	64.0	
31-Oct-11	09:55	70.3	73.9	65.0	
31-Oct-11	10:00	71.5	75.5	64.4	71.0
31-Oct-11	10:05	73.5	78.4	62.6	
31-Oct-11	10:10	70.3	72.9	60.2	
31-Oct-11	10:15	70.3	74.5	62.6	
31-Oct-11	10:20	69.0	73.3	63.1	
31-Oct-11	10:25	69.7	73.8	61.5	
31-Oct-11	10:30	69.2	74.1	61.7	70.3
31-Oct-11	10:35	70.5	75.5	61.1	
31-Oct-11	10:40	67.2	70.4	61.1	
31-Oct-11	10:45	72.4	76.2	61.2	
31-Oct-11	10:50	70.5	74.9	60.4	
31-Oct-11	10:55	70.3	75.9	59.0	

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
31-Oct-11	11:00	68.8	74.2	57.2	67.8
31-Oct-11	11:05	67.0	71.2	59.5	
31-Oct-11	11:10	70.1	73.3	53.7	
31-Oct-11	11:15	64.8	69.7	55.5	
31-Oct-11	11:20	69.1	73.8	57.7	
31-Oct-11	11:25	64.0	67.7	53.8	
31-Oct-11	11:30	66.0	69.2	52.3	68.2
31-Oct-11	11:35	67.2	71.5	59.0	
31-Oct-11	11:40	70.4	74.9	57.2	
31-Oct-11	11:45	64.9	70.3	50.4	
31-Oct-11	11:50	67.5	69.0	52.8	
31-Oct-11	11:55	70.4	75.5	53.1	
31-Oct-11	12:00	61.0	64.3	50.2	66.2
31-Oct-11	12:05	63.2	67.1	51.5	
31-Oct-11	12:10	67.4	72.2	52.2	
31-Oct-11	12:15	68.7	74.1	56.4	
31-Oct-11	12:20	67.1	71.0	57.6	
31-Oct-11	12:25	65.7	69.3	59.1	
31-Oct-11	12:30	69.1	73.8	57.4	67.2
31-Oct-11	12:35	64.6	69.7	49.9	
31-Oct-11	12:40	65.7	70.2	51.5	
31-Oct-11	12:45	66.8	71.3	55.1	
31-Oct-11	12:50	68.4	73.2	55.4	
31-Oct-11	12:55	67.2	71.5	51.4	
31-Oct-11	13:00	66.2	68.8	53.3	68.1
31-Oct-11	13:05	67.4	72.4	54.0	
31-Oct-11	13:10	62.2	61.6	53.8	
31-Oct-11	13:15	67.3	70.3	58.3	
31-Oct-11	13:20	70.0	74.4	50.8	
31-Oct-11	13:25	70.9	74.5	62.9	
31-Oct-11	13:30	67.1	70.6	57.5	68.3
31-Oct-11	13:35	72.9	76.7	62.2	
31-Oct-11	13:40	68.7	73.5	53.9	
31-Oct-11	13:45	65.4	66.5	50.9	
31-Oct-11	13:50	61.0	62.8	49.0	
31-Oct-11	13:55	66.3	66.5	49.5	
31-Oct-11	14:00	64.6	69.6	49.4	68.6
31-Oct-11	14:05	66.5	71.3	53.2	
31-Oct-11	14:10	65.5	69.8	55.8	
31-Oct-11	14:15	65.3	68.2	57.3	
31-Oct-11	14:20	71.7	76.2	63.7	
31-Oct-11	14:25	71.7	75.9	58.1	
31-Oct-11	14:30	69.0	73.1	58.5	67.6
31-Oct-11	14:35	64.7	69.9	56.3	
31-Oct-11	14:40	69.2	73.5	57.0	
31-Oct-11	14:45	67.0	71.4	54.4	
31-Oct-11	14:50	67.4	71.8	55.3	
31-Oct-11	14:55	66.9	71.9	55.7	

Appendix B2

Day-time Noise Level at Sha Lo Wan_NMS 1

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
31-Oct-11	15:00	66.5	71.8	50.5	67.1
31-Oct-11	15:05	59.0	63.2	51.2	
31-Oct-11	15:10	71.1	76.2	57.1	
31-Oct-11	15:15	68.6	72.1	53.2	
31-Oct-11	15:20	64.7	65.2	53.9	
31-Oct-11	15:25	63.2	66.1	54.6	
31-Oct-11	15:30	66.0	71.0	50.2	67.8
31-Oct-11	15:35	66.1	70.6	56.1	
31-Oct-11	15:40	64.4	68.8	53.4	
31-Oct-11	15:45	70.6	75.7	58.0	
31-Oct-11	15:50	66.6	70.3	57.4	
31-Oct-11	15:55	69.6	73.5	58.2	
31-Oct-11	16:00	69.1	71.8	63.1	69.6
31-Oct-11	16:05	68.6	72.0	62.9	
31-Oct-11	16:10	73.3	77.8	60.0	
31-Oct-11	16:15	67.9	73.2	51.4	
31-Oct-11	16:20	69.2	74.3	52.3	
31-Oct-11	16:25	65.5	71.4	50.5	
31-Oct-11	16:30	67.8	69.5	56.1	69.3
31-Oct-11	16:35	68.7	71.4	57.2	
31-Oct-11	16:40	69.8	68.0	60.3	
31-Oct-11	16:45	70.5	75.6	57.7	
31-Oct-11	16:50	70.4	74.8	58.6	
31-Oct-11	16:55	68.1	72.2	60.4	
31-Oct-11	17:00	68.1	72.9	57.6	69.6
31-Oct-11	17:05	70.2	74.0	62.3	
31-Oct-11	17:10	67.7	72.4	54.9	
31-Oct-11	17:15	70.0	74.1	59.0	
31-Oct-11	17:20	70.3	75.2	58.8	
31-Oct-11	17:25	70.4	73.9	56.1	
31-Oct-11	17:30	58.5	61.2	54.6	70.4
31-Oct-11	17:35	69.8	73.6	59.8	
31-Oct-11	17:40	71.3	74.9	58.4	
31-Oct-11	17:45	68.8	71.0	57.9	
31-Oct-11	17:50	72.0	76.4	59.3	
31-Oct-11	17:55	72.8	77.0	59.7	
31-Oct-11	18:00	71.1	75.1	58.5	77.1
31-Oct-11	18:05	74.0	77.9	59.2	
31-Oct-11	18:10	71.0	74.6	57.6	
31-Oct-11	18:15	74.8	77.7	62.3	
31-Oct-11	18:20	80.3	82.3	77.2	
31-Oct-11	18:25	80.8	82.8	70.6	
31-Oct-11	18:30	72.3	73.8	57.0	69.6
31-Oct-11	18:35	73.0	75.7	62.6	
31-Oct-11	18:40	66.2	69.9	56.7	
31-Oct-11	18:45	65.8	55.9	53.2	
31-Oct-11	18:50	66.7	68.2	58.4	
31-Oct-11	18:55	67.6	65.5	57.1	
	Mean	66.7	70.3	56.0	67.5
	Maximum	80.8	82.8	77.2	77.1
	Minimum	47.1	48.9	43.1	50.9

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
1-Nov-11	07:00	51.2	53.7	47.3	53.2
1-Nov-11	07:05	54.7	57.6	50.3	
1-Nov-11	07:10	53.2	56.4	47.2	
1-Nov-11	07:15	51.6	53.5	46.6	
1-Nov-11	07:20	52.0	54.2	48.9	
1-Nov-11	07:25	55.1	58.9	50.5	
1-Nov-11	07:30	61.4	64.6	49.6	56.5
1-Nov-11	07:35	57.7	60.0	52.6	
1-Nov-11	07:40	55.1	56.9	49.6	
1-Nov-11	07:45	50.6	52.8	47.6	
1-Nov-11	07:50	50.9	53.5	46.7	
1-Nov-11	07:55	50.9	52.5	49.0	
1-Nov-11	08:00	54.7	59.1	48.6	67.2
1-Nov-11	08:05	68.9	73.3	54.4	
1-Nov-11	08:10	66.6	71.1	53.1	
1-Nov-11	08:15	70.2	76.5	57.4	
1-Nov-11	08:20	64.7	64.9	50.3	
1-Nov-11	08:25	67.4	72.4	53.1	
1-Nov-11	08:30	64.1	66.1	52.1	68.0
1-Nov-11	08:35	70.7	76.3	53.4	
1-Nov-11	08:40	67.3	70.0	50.6	
1-Nov-11	08:45	70.1	73.4	46.5	
1-Nov-11	08:50	65.7	66.1	45.9	
1-Nov-11	08:55	66.5	68.1	55.1	
1-Nov-11	09:00	61.9	63.8	53.3	70.6
1-Nov-11	09:05	71.0	75.4	55.8	
1-Nov-11	09:10	72.9	76.6	56.9	
1-Nov-11	09:15	70.3	74.0	61.6	
1-Nov-11	09:20	69.2	73.5	61.6	
1-Nov-11	09:25	71.9	76.7	60.5	
1-Nov-11	09:30	74.9	79.5	63.3	70.8
1-Nov-11	09:35	74.0	77.3	64.9	
1-Nov-11	09:40	69.0	73.7	55.9	
1-Nov-11	09:45	65.4	69.0	51.8	
1-Nov-11	09:50	66.8	68.0	53.9	
1-Nov-11	09:55	58.0	59.9	52.1	
1-Nov-11	10:00	69.4	71.5	54.7	71.3
1-Nov-11	10:05	73.0	77.0	59.6	
1-Nov-11	10:10	74.7	79.5	62.6	
1-Nov-11	10:15	73.4	77.6	59.0	
1-Nov-11	10:20	62.3	66.0	47.4	
1-Nov-11	10:25	46.6	48.4	43.9	
1-Nov-11	10:30	51.4	53.3	44.6	67.5
1-Nov-11	10:35	65.6	70.3	56.2	
1-Nov-11	10:40	66.1	68.8	60.4	
1-Nov-11	10:45	69.1	73.7	57.7	
1-Nov-11	10:50	70.2	74.5	57.1	
1-Nov-11	10:55	68.5	72.9	57.8	

Appendix B2

Day-time Noise Level at Sha Lo Wan_NMS 1

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
1-Nov-11	11:00	66.7	69.5	59.0	66.9
1-Nov-11	11:05	66.0	69.4	48.1	
1-Nov-11	11:10	62.7	59.4	45.2	
1-Nov-11	11:15	68.7	71.1	50.7	
1-Nov-11	11:20	68.9	73.1	54.9	
1-Nov-11	11:25	66.0	69.4	54.3	
1-Nov-11	11:30	66.9	71.9	53.7	70.2
1-Nov-11	11:35	68.5	72.4	60.5	
1-Nov-11	11:40	68.2	71.0	63.5	
1-Nov-11	11:45	75.2	76.1	54.2	
1-Nov-11	11:50	60.8	64.8	50.2	
1-Nov-11	11:55	69.9	73.6	53.5	
1-Nov-11	12:00	69.8	74.6	54.7	67.5
1-Nov-11	12:05	67.6	72.9	53.9	
1-Nov-11	12:10	64.1	68.8	53.7	
1-Nov-11	12:15	64.1	68.0	53.4	
1-Nov-11	12:20	68.1	72.9	53.3	
1-Nov-11	12:25	68.4	72.0	54.8	
1-Nov-11	12:30	64.1	68.9	51.5	64.5
1-Nov-11	12:35	66.4	71.3	50.5	
1-Nov-11	12:40	59.5	64.7	46.4	
1-Nov-11	12:45	64.6	68.9	45.8	
1-Nov-11	12:50	66.4	70.5	50.5	
1-Nov-11	12:55	62.8	64.8	46.3	
1-Nov-11	13:00	51.9	55.5	47.1	68.7
1-Nov-11	13:05	70.9	72.8	54.8	
1-Nov-11	13:10	70.3	75.2	55.2	
1-Nov-11	13:15	69.7	74.9	52.6	
1-Nov-11	13:20	65.6	70.2	50.7	
1-Nov-11	13:25	69.4	74.7	53.9	
1-Nov-11	13:30	66.5	70.5	44.7	64.8
1-Nov-11	13:35	62.7	62.1	44.7	
1-Nov-11	13:40	65.6	70.3	54.6	
1-Nov-11	13:45	63.9	68.6	52.5	
1-Nov-11	13:50	67.0	71.1	52.3	
1-Nov-11	13:55	58.4	57.8	44.7	
1-Nov-11	14:00	53.3	54.5	46.4	65.6
1-Nov-11	14:05	64.0	69.5	48.2	
1-Nov-11	14:10	64.2	69.1	51.9	
1-Nov-11	14:15	59.7	60.8	54.1	
1-Nov-11	14:20	64.7	68.0	51.7	
1-Nov-11	14:25	70.9	75.4	54.7	
1-Nov-11	14:30	66.1	71.7	48.1	66.9
1-Nov-11	14:35	66.6	72.6	51.3	
1-Nov-11	14:40	68.6	73.1	50.3	
1-Nov-11	14:45	68.5	74.1	52.4	
1-Nov-11	14:50	64.1	68.2	52.6	
1-Nov-11	14:55	66.0	70.6	54.1	

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
1-Nov-11	15:00	70.0	72.5	55.8	69.9
1-Nov-11	15:05	73.2	78.4	55.5	
1-Nov-11	15:10	64.8	68.9	53.9	
1-Nov-11	15:15	69.6	73.7	56.2	
1-Nov-11	15:20	69.8	75.0	57.6	
1-Nov-11	15:25	67.4	72.6	56.4	
1-Nov-11	15:30	65.5	71.3	51.5	64.6
1-Nov-11	15:35	64.4	69.7	47.2	
1-Nov-11	15:40	64.9	65.1	48.5	
1-Nov-11	15:45	64.6	69.0	51.3	
1-Nov-11	15:50	62.8	66.5	49.2	
1-Nov-11	15:55	64.7	69.0	52.2	
1-Nov-11	16:00	66.8	70.8	54.8	65.5
1-Nov-11	16:05	63.9	69.6	47.4	
1-Nov-11	16:10	64.2	68.8	52.2	
1-Nov-11	16:15	67.1	70.9	53.1	
1-Nov-11	16:20	66.2	69.5	53.3	
1-Nov-11	16:25	63.7	69.6	52.0	
1-Nov-11	16:30	60.8	65.3	52.8	68.3
1-Nov-11	16:35	64.4	67.9	51.8	
1-Nov-11	16:40	70.3	75.4	54.4	
1-Nov-11	16:45	68.2	72.0	52.6	
1-Nov-11	16:50	69.4	73.1	57.9	
1-Nov-11	16:55	70.4	73.7	57.4	
1-Nov-11	17:00	68.9	74.3	55.4	66.5
1-Nov-11	17:05	64.6	68.4	54.2	
1-Nov-11	17:10	67.0	71.3	52.5	
1-Nov-11	17:15	66.1	70.0	54.8	
1-Nov-11	17:20	67.5	72.8	52.9	
1-Nov-11	17:25	62.4	66.5	50.9	
1-Nov-11	17:30	60.5	63.9	45.9	66.5
1-Nov-11	17:35	65.2	68.4	57.1	
1-Nov-11	17:40	61.7	63.0	49.0	
1-Nov-11	17:45	64.8	69.6	49.3	
1-Nov-11	17:50	66.2	70.2	52.5	
1-Nov-11	17:55	71.4	76.5	55.3	
1-Nov-11	18:00	72.4	75.6	56.9	75.5
1-Nov-11	18:05	73.5	76.7	57.1	
1-Nov-11	18:10	71.8	77.4	58.3	
1-Nov-11	18:15	74.4	78.5	57.4	
1-Nov-11	18:20	76.6	79.3	62.9	
1-Nov-11	18:25	79.3	83.1	66.3	
1-Nov-11	18:30	72.7	78.0	58.9	69.3
1-Nov-11	18:35	68.4	72.3	57.7	
1-Nov-11	18:40	67.2	71.5	57.8	
1-Nov-11	18:45	70.5	73.6	58.4	
1-Nov-11	18:50	65.8	70.7	56.3	
1-Nov-11	18:55	67.4	71.4	57.0	
	Mean	65.6	69.3	53.2	66.9
	Maximum	79.3	83.1	66.3	75.5
	Minimum	46.6	48.4	43.9	53.2

Summary of Day-time Noise Level at Sha Lo Wan_NMS 1			
	$L_{eq(30min)}$	L_{10}	L_{90}
Mean	66.9	69.6	52.7
Maximum	77.2	85.0	77.2
Minimum	48.9	46.6	38.3

Appendix B2

Day-time Noise Level at San Tau_NMS 4

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
19-Oct-11	07:00	55.5	56.6	54.2	
19-Oct-11	07:05	62.3	66.7	54.4	
19-Oct-11	07:10	54.9	55.7	54.0	58.3
19-Oct-11	07:15	59.5	59.6	54.1	
19-Oct-11	07:20	55.2	56.1	54.1	
19-Oct-11	07:25	56.4	56.8	54.2	
19-Oct-11	07:30	56.4	58.6	54.1	
19-Oct-11	07:35	56.5	58.1	54.1	
19-Oct-11	07:40	60.0	63.0	54.1	56.8
19-Oct-11	07:45	55.8	57.5	53.9	
19-Oct-11	07:50	54.5	55.5	53.5	
19-Oct-11	07:55	54.8	55.8	53.7	
19-Oct-11	08:00	58.0	60.8	54.0	
19-Oct-11	08:05	59.3	59.7	53.9	
19-Oct-11	08:10	56.4	57.9	54.0	57.5
19-Oct-11	08:15	56.4	58.3	54.1	
19-Oct-11	08:20	56.8	58.9	54.4	
19-Oct-11	08:25	57.2	60.1	54.0	
19-Oct-11	08:30	56.2	58.0	54.0	
19-Oct-11	08:35	55.7	57.1	54.1	
19-Oct-11	08:40	56.6	57.4	54.0	56.6
19-Oct-11	08:45	56.8	58.6	54.0	
19-Oct-11	08:50	56.5	57.8	54.0	
19-Oct-11	08:55	57.7	59.4	54.2	
19-Oct-11	09:00	55.4	56.4	54.0	
19-Oct-11	09:05	55.5	56.7	54.1	
19-Oct-11	09:10	57.7	60.0	54.1	57.0
19-Oct-11	09:15	57.4	59.6	54.3	
19-Oct-11	09:20	56.9	59.5	54.1	
19-Oct-11	09:25	58.3	60.9	54.9	
19-Oct-11	09:30	57.3	59.7	54.2	
19-Oct-11	09:35	56.1	58.1	54.1	
19-Oct-11	09:40	56.3	57.8	54.2	56.6
19-Oct-11	09:45	57.1	58.8	54.1	
19-Oct-11	09:50	56.3	58.1	54.1	
19-Oct-11	09:55	56.1	57.8	54.0	
19-Oct-11	10:00	55.6	57.2	53.9	
19-Oct-11	10:05	57.0	57.6	54.0	
19-Oct-11	10:10	57.9	60.7	54.2	56.3
19-Oct-11	10:15	54.9	55.8	53.4	
19-Oct-11	10:20	55.8	57.9	53.5	
19-Oct-11	10:25	56.2	58.0	53.9	
19-Oct-11	10:30	56.9	59.4	54.2	
19-Oct-11	10:35	58.4	61.6	54.1	
19-Oct-11	10:40	58.5	60.8	53.7	58.3
19-Oct-11	10:45	55.0	55.8	53.3	
19-Oct-11	10:50	56.6	58.7	53.7	
19-Oct-11	10:55	61.3	59.9	53.9	

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
19-Oct-11	11:00	56.2	58.6	53.6	
19-Oct-11	11:05	56.0	57.8	53.8	
19-Oct-11	11:10	57.0	59.3	54.1	56.5
19-Oct-11	11:15	55.7	57.3	53.9	
19-Oct-11	11:20	56.8	59.0	54.1	
19-Oct-11	11:25	57.0	58.3	53.6	
19-Oct-11	11:30	59.9	62.6	54.0	
19-Oct-11	11:35	57.1	59.1	54.2	
19-Oct-11	11:40	56.7	58.9	54.0	57.4
19-Oct-11	11:45	56.3	58.3	54.0	
19-Oct-11	11:50	56.6	58.5	54.1	
19-Oct-11	11:55	56.9	59.4	54.1	
19-Oct-11	12:00	56.3	58.0	54.1	
19-Oct-11	12:05	57.6	60.4	54.2	
19-Oct-11	12:10	56.9	58.8	53.9	57.1
19-Oct-11	12:15	55.2	56.5	53.3	
19-Oct-11	12:20	57.5	60.0	53.4	
19-Oct-11	12:25	58.3	61.3	53.7	
19-Oct-11	12:30	57.6	60.2	54.1	
19-Oct-11	12:35	56.4	58.3	54.0	
19-Oct-11	12:40	57.0	59.5	53.8	56.8
19-Oct-11	12:45	58.7	62.1	45.2	
19-Oct-11	12:50	53.9	57.4	44.6	
19-Oct-11	12:55	56.0	56.9	54.9	
19-Oct-11	13:00	57.2	59.1	55.2	
19-Oct-11	13:05	57.2	58.9	55.0	
19-Oct-11	13:10	57.7	59.1	55.1	60.2
19-Oct-11	13:15	61.5	65.1	55.4	
19-Oct-11	13:20	64.3	68.9	55.1	
19-Oct-11	13:25	57.5	59.9	55.1	
19-Oct-11	13:30	55.7	56.6	54.8	
19-Oct-11	13:35	56.3	57.8	54.5	
19-Oct-11	13:40	56.3	57.7	54.2	55.9
19-Oct-11	13:45	54.9	55.7	54.0	
19-Oct-11	13:50	55.2	56.3	54.0	
19-Oct-11	13:55	56.8	57.8	54.0	
19-Oct-11	14:00	55.2	56.4	54.0	
19-Oct-11	14:05	55.9	57.3	54.2	
19-Oct-11	14:10	56.6	58.7	53.7	55.3
19-Oct-11	14:15	55.2	56.8	52.9	
19-Oct-11	14:20	54.6	56.5	52.7	
19-Oct-11	14:25	53.6	54.6	52.6	
19-Oct-11	14:30	55.0	56.6	53.1	
19-Oct-11	14:35	55.9	57.2	53.0	
19-Oct-11	14:40	54.1	55.4	52.8	54.8
19-Oct-11	14:45	54.3	55.5	53.0	
19-Oct-11	14:50	54.2	55.3	53.1	
19-Oct-11	14:55	54.8	55.8	53.1	

Appendix B2

Day-time Noise Level at San Tau_NMS 4

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
19-Oct-11	15:00	54.8	56.5	53.1	56.3
19-Oct-11	15:05	56.4	59.6	53.1	
19-Oct-11	15:10	57.5	60.7	53.1	
19-Oct-11	15:15	56.5	58.7	53.5	
19-Oct-11	15:20	55.0	56.5	53.2	
19-Oct-11	15:25	56.9	58.8	53.3	
19-Oct-11	15:30	55.3	56.6	53.0	56.6
19-Oct-11	15:35	55.8	56.8	53.6	
19-Oct-11	15:40	57.1	57.8	53.9	
19-Oct-11	15:45	55.6	57.4	53.6	
19-Oct-11	15:50	58.9	60.2	53.4	
19-Oct-11	15:55	55.9	57.3	53.2	
19-Oct-11	16:00	55.6	57.7	53.2	58.1
19-Oct-11	16:05	55.4	57.1	53.0	
19-Oct-11	16:10	55.4	57.7	53.0	
19-Oct-11	16:15	55.4	57.7	53.0	
19-Oct-11	16:20	63.4	66.4	53.9	
19-Oct-11	16:25	54.5	55.8	53.1	
19-Oct-11	16:30	54.0	54.8	53.0	56.2
19-Oct-11	16:35	55.3	57.0	53.4	
19-Oct-11	16:40	56.9	59.4	53.6	
19-Oct-11	16:45	57.3	59.5	53.9	
19-Oct-11	16:50	56.2	57.8	54.0	
19-Oct-11	16:55	56.6	57.8	53.9	
19-Oct-11	17:00	56.1	58.5	53.5	56.2
19-Oct-11	17:05	56.6	58.8	53.8	
19-Oct-11	17:10	55.4	56.8	53.9	
19-Oct-11	17:15	55.5	56.7	53.8	
19-Oct-11	17:20	55.8	57.1	53.6	
19-Oct-11	17:25	57.6	59.6	54.1	
19-Oct-11	17:30	57.4	59.5	54.3	57.7
19-Oct-11	17:35	58.0	59.9	54.0	
19-Oct-11	17:40	56.3	56.8	53.9	
19-Oct-11	17:45	57.7	59.5	54.0	
19-Oct-11	17:50	58.5	60.8	54.0	
19-Oct-11	17:55	57.7	60.3	54.2	
19-Oct-11	18:00	59.2	62.7	54.2	58.1
19-Oct-11	18:05	58.2	61.0	54.1	
19-Oct-11	18:10	58.5	59.3	54.0	
19-Oct-11	18:15	56.8	58.2	53.9	
19-Oct-11	18:20	56.6	57.7	53.9	
19-Oct-11	18:25	58.6	61.2	54.4	
19-Oct-11	18:30	57.1	59.9	54.2	57.0
19-Oct-11	18:35	57.1	58.0	54.3	
19-Oct-11	18:40	57.6	60.0	54.3	
19-Oct-11	18:45	56.9	58.3	54.0	
19-Oct-11	18:50	56.7	58.4	53.9	
19-Oct-11	18:55	56.7	58.6	54.0	
	Mean	56.7	58.5	53.8	57.0
	Maximum	64.3	68.9	55.4	60.2
	Minimum	53.6	54.6	44.6	54.8

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
20-Oct-11	07:00	55.5	56.5	54.4	56.4
20-Oct-11	07:05	56.7	58.0	54.9	
20-Oct-11	07:10	56.5	58.2	55.0	
20-Oct-11	07:15	56.4	57.8	55.0	
20-Oct-11	07:20	56.7	58.1	55.0	
20-Oct-11	07:25	56.4	57.6	55.1	
20-Oct-11	07:30	56.1	57.4	54.9	56.4
20-Oct-11	07:35	56.5	57.7	54.9	
20-Oct-11	07:40	56.8	58.5	55.0	
20-Oct-11	07:45	56.7	58.2	55.1	
20-Oct-11	07:50	56.2	57.2	54.3	
20-Oct-11	07:55	55.8	56.7	54.1	
20-Oct-11	08:00	55.0	55.8	54.0	56.4
20-Oct-11	08:05	57.2	59.1	54.0	
20-Oct-11	08:10	55.9	56.9	53.9	
20-Oct-11	08:15	55.9	57.5	54.0	
20-Oct-11	08:20	57.3	58.5	54.3	
20-Oct-11	08:25	56.5	58.4	54.1	
20-Oct-11	08:30	58.4	60.2	54.1	56.6
20-Oct-11	08:35	55.4	56.5	53.9	
20-Oct-11	08:40	55.0	55.8	54.0	
20-Oct-11	08:45	56.0	58.1	53.9	
20-Oct-11	08:50	55.8	57.6	54.0	
20-Oct-11	08:55	57.9	61.6	54.0	
20-Oct-11	09:00	56.1	57.7	53.9	56.7
20-Oct-11	09:05	57.9	60.2	53.9	
20-Oct-11	09:10	58.0	61.5	53.5	
20-Oct-11	09:15	56.0	58.1	53.5	
20-Oct-11	09:20	55.9	57.2	54.0	
20-Oct-11	09:25	55.9	57.5	54.0	
20-Oct-11	09:30	56.6	59.0	53.9	57.2
20-Oct-11	09:35	57.7	60.8	54.1	
20-Oct-11	09:40	56.1	57.8	53.5	
20-Oct-11	09:45	56.7	58.7	53.6	
20-Oct-11	09:50	57.6	59.5	53.9	
20-Oct-11	09:55	58.2	60.3	54.0	
20-Oct-11	10:00	56.4	59.0	53.9	57.4
20-Oct-11	10:05	56.4	57.7	54.1	
20-Oct-11	10:10	59.5	62.8	54.1	
20-Oct-11	10:15	57.9	60.2	53.4	
20-Oct-11	10:20	56.8	59.8	53.3	
20-Oct-11	10:25	56.1	58.6	53.2	
20-Oct-11	10:30	55.7	57.5	53.6	58.1
20-Oct-11	10:35	57.1	60.0	53.7	
20-Oct-11	10:40	61.5	66.4	53.9	
20-Oct-11	10:45	58.7	60.2	53.5	
20-Oct-11	10:50	55.9	57.9	53.9	
20-Oct-11	10:55	56.3	58.6	53.4	

Appendix B2

Day-time Noise Level at San Tau_NMS 4

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
20-Oct-11	11:00	57.9	60.7	54.0	56.4
20-Oct-11	11:05	56.3	58.4	53.9	
20-Oct-11	11:10	55.9	57.6	53.6	
20-Oct-11	11:15	55.2	56.8	53.7	
20-Oct-11	11:20	56.7	58.1	53.9	
20-Oct-11	11:25	55.7	57.5	53.9	
20-Oct-11	11:30	56.3	58.8	53.8	55.9
20-Oct-11	11:35	54.9	56.2	53.4	
20-Oct-11	11:40	56.0	58.1	53.2	
20-Oct-11	11:45	58.1	61.2	53.2	
20-Oct-11	11:50	55.2	57.0	53.1	
20-Oct-11	11:55	53.9	54.7	53.0	
20-Oct-11	12:00	56.0	57.9	53.3	58.3
20-Oct-11	12:05	55.3	56.8	53.1	
20-Oct-11	12:10	58.6	60.8	53.6	
20-Oct-11	12:15	60.6	58.5	53.4	
20-Oct-11	12:20	59.7	62.3	53.5	
20-Oct-11	12:25	57.4	59.8	53.6	
20-Oct-11	12:30	55.4	56.9	53.4	57.3
20-Oct-11	12:35	55.7	58.2	53.1	
20-Oct-11	12:40	56.0	58.5	53.2	
20-Oct-11	12:45	60.6	61.8	53.2	
20-Oct-11	12:50	58.6	60.5	48.7	
20-Oct-11	12:55	54.1	56.8	45.1	
20-Oct-11	13:00	53.5	56.3	47.1	54.7
20-Oct-11	13:05	54.5	59.0	45.8	
20-Oct-11	13:10	52.6	54.4	45.8	
20-Oct-11	13:15	53.7	56.6	46.8	
20-Oct-11	13:20	57.7	61.7	44.9	
20-Oct-11	13:25	53.9	58.4	46.1	
20-Oct-11	13:30	51.9	55.7	46.3	51.5
20-Oct-11	13:35	53.6	56.6	46.1	
20-Oct-11	13:40	49.1	51.6	45.2	
20-Oct-11	13:45	52.6	55.4	45.2	
20-Oct-11	13:50	50.3	53.7	44.4	
20-Oct-11	13:55	49.7	53.1	45.2	
20-Oct-11	14:00	51.0	53.3	45.1	52.4
20-Oct-11	14:05	49.2	51.9	45.8	
20-Oct-11	14:10	53.5	56.8	48.1	
20-Oct-11	14:15	55.0	57.5	46.5	
20-Oct-11	14:20	52.7	56.6	44.9	
20-Oct-11	14:25	50.2	52.9	44.0	
20-Oct-11	14:30	51.8	54.5	44.0	53.9
20-Oct-11	14:35	53.3	56.6	44.7	
20-Oct-11	14:40	54.8	57.8	44.0	
20-Oct-11	14:45	56.8	61.5	44.0	
20-Oct-11	14:50	53.7	57.1	44.8	
20-Oct-11	14:55	50.3	52.1	45.4	

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
20-Oct-11	15:00	45.9	47.7	43.5	55.2
20-Oct-11	15:05	47.2	49.2	44.7	
20-Oct-11	15:10	55.2	59.4	45.9	
20-Oct-11	15:15	59.2	58.3	45.0	
20-Oct-11	15:20	55.6	57.2	54.3	
20-Oct-11	15:25	55.8	58.5	52.1	
20-Oct-11	15:30	56.2	58.2	52.8	56.9
20-Oct-11	15:35	55.7	57.3	52.4	
20-Oct-11	15:40	56.8	57.9	53.1	
20-Oct-11	15:45	57.1	60.3	53.4	
20-Oct-11	15:50	56.4	58.4	52.8	
20-Oct-11	15:55	58.5	61.5	52.9	
20-Oct-11	16:00	56.1	59.2	53.4	55.7
20-Oct-11	16:05	55.7	58.7	51.5	
20-Oct-11	16:10	54.2	58.4	52.4	
20-Oct-11	16:15	56.3	59.3	52.6	
20-Oct-11	16:20	55.9	58.7	51.7	
20-Oct-11	16:25	55.8	58.5	51.5	
20-Oct-11	16:30	57.6	59.6	52.7	57.1
20-Oct-11	16:35	55.2	58.4	51.6	
20-Oct-11	16:40	55.6	58.5	51.4	
20-Oct-11	16:45	57.9	60.5	51.3	
20-Oct-11	16:50	58.4	61.3	52.7	
20-Oct-11	16:55	56.7	59.8	51.9	
20-Oct-11	17:00	54.9	57.9	52.2	56.5
20-Oct-11	17:05	56.7	58.8	51.8	
20-Oct-11	17:10	56.2	58.3	52.6	
20-Oct-11	17:15	57.8	60.1	51.9	
20-Oct-11	17:20	56.3	58.9	52.7	
20-Oct-11	17:25	56.5	59.4	52.7	
20-Oct-11	17:30	57.2	60.0	51.9	57.4
20-Oct-11	17:35	56.3	58.8	52.6	
20-Oct-11	17:40	56.4	58.8	51.5	
20-Oct-11	17:45	57.1	59.5	51.6	
20-Oct-11	17:50	58.3	60.5	51.8	
20-Oct-11	17:55	58.7	60.7	52.7	
20-Oct-11	18:00	56.5	58.7	52.4	57.2
20-Oct-11	18:05	57.6	60.1	51.9	
20-Oct-11	18:10	57.8	59.4	52.7	
20-Oct-11	18:15	56.1	61.2	52.6	
20-Oct-11	18:20	57.3	62.3	53.4	
20-Oct-11	18:25	57.8	61.9	53.7	
20-Oct-11	18:30	59.4	62.7	53.5	57.8
20-Oct-11	18:35	58.2	61.5	52.9	
20-Oct-11	18:40	57.9	60.3	53.4	
20-Oct-11	18:45	56.4	58.7	53.1	
20-Oct-11	18:50	56.9	57.3	52.7	
20-Oct-11	18:55	57.6	59.9	52.9	
	Mean	55.9	58.3	51.7	56.2
	Maximum	61.5	66.4	55.1	58.3
	Minimum	45.9	47.7	43.5	51.5

Appendix B2

Day-time Noise Level at San Tau_NMS 4

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
21-Oct-11	07:00	56.5	57.4	53.5	56.4
21-Oct-11	07:05	57.4	58.6	53.6	
21-Oct-11	07:10	56.3	57.1	53.5	
21-Oct-11	07:15	55.6	57.3	53.4	
21-Oct-11	07:20	56.9	57.5	53.9	
21-Oct-11	07:25	55.4	56.7	53.8	
21-Oct-11	07:30	58.7	59.3	53.9	57.5
21-Oct-11	07:35	56.2	58.0	53.8	
21-Oct-11	07:40	57.1	59.4	53.8	
21-Oct-11	07:45	58.8	60.5	53.9	
21-Oct-11	07:50	56.9	58.7	53.7	
21-Oct-11	07:55	56.2	58.9	53.6	
21-Oct-11	08:00	57.3	60.4	54.0	56.2
21-Oct-11	08:05	55.3	56.8	53.5	
21-Oct-11	08:10	55.9	57.0	53.6	
21-Oct-11	08:15	56.2	57.4	53.8	
21-Oct-11	08:20	56.4	57.8	53.8	
21-Oct-11	08:25	55.8	56.9	53.4	
21-Oct-11	08:30	54.1	55.7	53.2	57.0
21-Oct-11	08:35	55.7	57.1	53.1	
21-Oct-11	08:40	58.8	60.3	53.1	
21-Oct-11	08:45	57.9	59.8	53.1	
21-Oct-11	08:50	58.2	60.2	53.2	
21-Oct-11	08:55	55.4	57.9	52.8	
21-Oct-11	09:00	55.6	58.7	52.8	55.9
21-Oct-11	09:05	57.2	60.4	53.1	
21-Oct-11	09:10	55.9	58.8	53.1	
21-Oct-11	09:15	56.4	59.1	53.0	
21-Oct-11	09:20	55.3	58.7	53.1	
21-Oct-11	09:25	54.7	58.0	53.0	
21-Oct-11	09:30	54.6	57.6	53.3	55.2
21-Oct-11	09:35	55.9	57.6	53.4	
21-Oct-11	09:40	54.2	56.9	53.3	
21-Oct-11	09:45	56.8	58.3	53.3	
21-Oct-11	09:50	54.6	57.4	53.1	
21-Oct-11	09:55	54.5	57.9	52.9	
21-Oct-11	10:00	56.8	59.3	53.0	56.4
21-Oct-11	10:05	56.3	58.9	53.1	
21-Oct-11	10:10	57.3	59.7	53.4	
21-Oct-11	10:15	56.4	58.9	53.3	
21-Oct-11	10:20	55.2	57.2	52.9	
21-Oct-11	10:25	55.8	57.4	53.1	
21-Oct-11	10:30	57.5	59.8	53.0	56.8
21-Oct-11	10:35	54.9	57.8	52.9	
21-Oct-11	10:40	56.2	58.7	53.1	
21-Oct-11	10:45	55.7	58.0	53.1	
21-Oct-11	10:50	56.4	59.5	53.1	
21-Oct-11	10:55	58.8	61.7	53.0	

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
21-Oct-11	11:00	54.1	57.4	52.7	56.4
21-Oct-11	11:05	56.8	58.1	52.9	
21-Oct-11	11:10	57.9	59.6	53.2	
21-Oct-11	11:15	56.1	58.7	53.1	
21-Oct-11	11:20	55.6	57.2	53.5	
21-Oct-11	11:25	57.1	59.4	52.9	
21-Oct-11	11:30	56.0	57.8	52.8	55.6
21-Oct-11	11:35	55.2	57.1	52.7	
21-Oct-11	11:40	55.7	57.0	52.8	
21-Oct-11	11:45	54.9	57.5	52.9	
21-Oct-11	11:50	56.3	57.8	52.9	
21-Oct-11	11:55	55.2	57.1	53.2	
21-Oct-11	12:00	54.3	57.3	53.1	54.2
21-Oct-11	12:05	54.0	56.9	53.0	
21-Oct-11	12:10	54.4	57.1	53.1	
21-Oct-11	12:15	54.2	56.2	52.8	
21-Oct-11	12:20	54.6	56.8	52.7	
21-Oct-11	12:25	53.6	56.1	52.5	
21-Oct-11	12:30	55.8	56.6	52.6	54.9
21-Oct-11	12:35	54.7	56.3	52.4	
21-Oct-11	12:40	54.9	57.8	52.5	
21-Oct-11	12:45	54.3	56.6	52.4	
21-Oct-11	12:50	54.6	57.4	52.3	
21-Oct-11	12:55	54.8	57.3	52.3	
21-Oct-11	13:00	55.1	57.5	52.4	54.6
21-Oct-11	13:05	54.7	56.4	52.3	
21-Oct-11	13:10	55.2	56.9	52.4	
21-Oct-11	13:15	53.5	57.9	52.4	
21-Oct-11	13:20	54.7	59.7	52.6	
21-Oct-11	13:25	53.9	56.4	52.5	
21-Oct-11	13:30	55.2	59.6	52.5	55.0
21-Oct-11	13:35	55.4	58.0	52.6	
21-Oct-11	13:40	55.8	57.5	52.7	
21-Oct-11	13:45	54.3	56.5	52.4	
21-Oct-11	13:50	54.1	56.9	52.3	
21-Oct-11	13:55	54.8	55.8	52.5	
21-Oct-11	14:00	54.2	56.8	52.4	54.8
21-Oct-11	14:05	54.9	56.4	52.5	
21-Oct-11	14:10	54.5	56.2	52.5	
21-Oct-11	14:15	55.3	57.3	52.7	
21-Oct-11	14:20	55.4	58.1	52.9	
21-Oct-11	14:25	54.2	57.5	52.8	
21-Oct-11	14:30	56.4	58.0	53.1	55.6
21-Oct-11	14:35	55.5	57.6	53.1	
21-Oct-11	14:40	56.7	58.4	53.2	
21-Oct-11	14:45	54.4	56.2	53.2	
21-Oct-11	14:50	55.3	58.7	52.8	
21-Oct-11	14:55	55.1	57.3	52.7	

Appendix B2

Day-time Noise Level at San Tau_NMS 4

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
21-Oct-11	15:00	53.6	56.1	52.8	
21-Oct-11	15:05	55.2	57.5	52.9	
21-Oct-11	15:10	56.7	58.4	52.7	58.3
21-Oct-11	15:15	58.4	60.2	52.6	
21-Oct-11	15:20	57.9	59.8	52.8	
21-Oct-11	15:25	62.4	66.1	54.2	
21-Oct-11	15:30	63.1	66.7	54.5	
21-Oct-11	15:35	65.3	67.2	55.3	
21-Oct-11	15:40	64.3	66.3	54.9	64.3
21-Oct-11	15:45	66.8	66.7	55.2	
21-Oct-11	15:50	63.5	66.8	54.2	
21-Oct-11	15:55	60.7	62.9	54.8	
21-Oct-11	16:00	58.4	60.5	53.1	
21-Oct-11	16:05	58.7	61.8	53.4	
21-Oct-11	16:10	54.6	56.9	52.8	55.8
21-Oct-11	16:15	52.4	55.1	51.2	
21-Oct-11	16:20	52.1	55.3	51.9	
21-Oct-11	16:25	53.6	56.2	52.0	
21-Oct-11	16:30	52.4	55.4	51.8	
21-Oct-11	16:35	54.3	57.6	51.7	
21-Oct-11	16:40	54.5	58.3	52.2	55.4
21-Oct-11	16:45	55.6	57.9	52.8	
21-Oct-11	16:50	57.2	59.6	53.4	
21-Oct-11	16:55	56.8	59.2	53.9	
21-Oct-11	17:00	56.9	58.7	53.2	
21-Oct-11	17:05	57.3	59.4	53.5	
21-Oct-11	17:10	58.7	60.5	53.9	58.2
21-Oct-11	17:15	59.8	62.1	54.1	
21-Oct-11	17:20	57.4	60.5	53.9	
21-Oct-11	17:25	58.2	61.7	54.0	
21-Oct-11	17:30	55.6	57.4	53.2	
21-Oct-11	17:35	56.7	59.9	52.2	
21-Oct-11	17:40	54.2	56.2	52.1	55.1
21-Oct-11	17:45	53.8	55.8	51.9	
21-Oct-11	17:50	53.7	55.6	51.9	
21-Oct-11	17:55	55.6	57.9	52.3	
21-Oct-11	18:00	57.2	59.7	51.7	
21-Oct-11	18:05	55.3	55.9	51.5	
21-Oct-11	18:10	57.3	59.4	51.6	56.9
21-Oct-11	18:15	58.5	60.3	52.6	
21-Oct-11	18:20	55.4	58.2	52.4	
21-Oct-11	18:25	56.9	59.0	52.8	
21-Oct-11	18:30	57.5	60.4	52.5	
21-Oct-11	18:35	54.2	58.1	53.4	
21-Oct-11	18:40	53.1	55.4	52.4	54.2
21-Oct-11	18:45	54.0	56.2	52.7	
21-Oct-11	18:50	52.1	54.8	51.4	
21-Oct-11	18:55	51.8	54.3	50.1	
	Mean	56.1	58.4	53.0	56.3
	Maximum	66.8	67.2	55.3	64.3
	Minimum	51.8	54.3	50.1	54.2

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
22-Oct-11	07:00	50.5	52.1	48.4	
22-Oct-11	07:05	52.2	52.2	47.7	
22-Oct-11	07:10	50.1	51.5	47.6	52.7
22-Oct-11	07:15	51.4	52.4	46.3	
22-Oct-11	07:20	51.6	52.9	48.8	
22-Oct-11	07:25	56.6	54.6	47.5	
22-Oct-11	07:30	55.8	57.4	47.1	
22-Oct-11	07:35	57.0	60.3	48.9	
22-Oct-11	07:40	54.8	57.3	48.0	54.6
22-Oct-11	07:45	55.4	57.7	47.0	
22-Oct-11	07:50	49.0	51.6	45.5	
22-Oct-11	07:55	50.6	53.7	46.2	
22-Oct-11	08:00	50.6	53.6	45.9	
22-Oct-11	08:05	52.2	54.0	47.4	
22-Oct-11	08:10	51.4	53.5	47.1	53.1
22-Oct-11	08:15	53.3	56.7	47.4	
22-Oct-11	08:20	55.0	57.8	48.5	
22-Oct-11	08:25	54.6	58.4	47.5	
22-Oct-11	08:30	53.3	56.6	49.4	
22-Oct-11	08:35	56.5	60.7	47.1	
22-Oct-11	08:40	52.5	56.5	47.1	54.6
22-Oct-11	08:45	55.4	59.7	48.5	
22-Oct-11	08:50	55.0	58.6	50.2	
22-Oct-11	08:55	53.9	57.1	47.8	
22-Oct-11	09:00	53.8	56.6	47.4	
22-Oct-11	09:05	50.5	53.4	47.1	
22-Oct-11	09:10	53.6	56.8	48.3	54.8
22-Oct-11	09:15	54.3	56.9	47.4	
22-Oct-11	09:20	56.3	60.4	47.9	
22-Oct-11	09:25	57.2	61.3	48.1	
22-Oct-11	09:30	49.4	52.6	43.9	
22-Oct-11	09:35	50.9	52.0	43.8	
22-Oct-11	09:40	55.0	58.9	44.9	52.7
22-Oct-11	09:45	51.6	54.5	45.9	
22-Oct-11	09:50	52.7	55.9	45.5	
22-Oct-11	09:55	54.2	58.2	47.5	
22-Oct-11	10:00	55.3	59.1	46.9	
22-Oct-11	10:05	48.3	50.0	44.8	
22-Oct-11	10:10	53.9	57.1	44.7	54.1
22-Oct-11	10:15	54.1	57.2	44.9	
22-Oct-11	10:20	56.2	60.7	44.9	
22-Oct-11	10:25	53.4	57.2	45.2	
22-Oct-11	10:30	53.1	56.9	46.0	
22-Oct-11	10:35	49.9	53.7	45.4	
22-Oct-11	10:40	55.2	60.0	45.5	52.7
22-Oct-11	10:45	51.6	54.2	46.9	
22-Oct-11	10:50	51.7	54.5	44.4	
22-Oct-11	10:55	53.1	54.6	45.2	

Appendix B2

Day-time Noise Level at San Tau_NMS 4

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
22-Oct-11	11:00	54.0	52.7	44.4	53.5
22-Oct-11	11:05	54.8	58.9	48.2	
22-Oct-11	11:10	54.7	58.1	47.6	
22-Oct-11	11:15	52.3	55.7	46.2	
22-Oct-11	11:20	52.4	56.2	45.7	
22-Oct-11	11:25	51.9	54.8	46.0	
22-Oct-11	11:30	51.2	53.9	46.0	52.4
22-Oct-11	11:35	51.4	54.3	47.1	
22-Oct-11	11:40	51.5	54.7	45.0	
22-Oct-11	11:45	52.9	56.2	47.0	
22-Oct-11	11:50	55.4	59.5	45.6	
22-Oct-11	11:55	50.0	53.5	44.2	
22-Oct-11	12:00	52.1	54.6	44.7	51.4
22-Oct-11	12:05	47.9	49.8	44.5	
22-Oct-11	12:10	50.9	53.6	44.7	
22-Oct-11	12:15	53.5	55.3	44.9	
22-Oct-11	12:20	51.6	54.8	46.2	
22-Oct-11	12:25	50.3	54.1	46.0	
22-Oct-11	12:30	55.2	58.5	47.1	53.7
22-Oct-11	12:35	54.4	57.1	46.1	
22-Oct-11	12:40	48.5	50.9	45.3	
22-Oct-11	12:45	53.9	57.9	45.9	
22-Oct-11	12:50	52.8	56.0	47.2	
22-Oct-11	12:55	54.8	59.3	45.1	
22-Oct-11	13:00	47.3	49.0	45.0	53.1
22-Oct-11	13:05	51.3	54.5	46.2	
22-Oct-11	13:10	52.7	56.1	47.0	
22-Oct-11	13:15	55.4	58.0	45.6	
22-Oct-11	13:20	55.7	59.1	46.0	
22-Oct-11	13:25	50.8	54.6	46.0	
22-Oct-11	13:30	48.5	50.9	44.9	51.4
22-Oct-11	13:35	48.2	49.3	45.1	
22-Oct-11	13:40	52.3	55.0	45.4	
22-Oct-11	13:45	51.4	54.7	43.8	
22-Oct-11	13:50	53.8	56.7	45.0	
22-Oct-11	13:55	51.8	54.4	48.0	
22-Oct-11	14:00	52.4	56.9	48.6	55.9
22-Oct-11	14:05	50.5	52.7	48.2	
22-Oct-11	14:10	59.4	64.1	50.7	
22-Oct-11	14:15	56.8	61.8	49.0	
22-Oct-11	14:20	56.5	59.9	48.9	
22-Oct-11	14:25	53.9	57.0	49.0	
22-Oct-11	14:30	52.4	55.4	48.9	54.4
22-Oct-11	14:35	54.8	57.1	48.6	
22-Oct-11	14:40	52.1	54.9	46.7	
22-Oct-11	14:45	57.0	58.8	46.9	
22-Oct-11	14:50	56.6	60.4	47.5	
22-Oct-11	14:55	48.2	50.1	44.6	

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
22-Oct-11	15:00	47.7	48.7	46.2	52.9
22-Oct-11	15:05	47.9	49.8	45.4	
22-Oct-11	15:10	54.6	58.1	47.2	
22-Oct-11	15:15	52.9	56.4	46.1	
22-Oct-11	15:20	51.2	55.1	46.2	
22-Oct-11	15:25	56.4	58.8	46.2	
22-Oct-11	15:30	53.1	56.3	46.2	53.5
22-Oct-11	15:35	53.2	55.5	46.1	
22-Oct-11	15:40	54.3	58.1	46.6	
22-Oct-11	15:45	52.3	55.5	47.2	
22-Oct-11	15:50	53.4	57.0	47.0	
22-Oct-11	15:55	54.1	56.8	46.8	
22-Oct-11	16:00	54.9	57.6	45.7	53.8
22-Oct-11	16:05	54.4	56.2	45.7	
22-Oct-11	16:10	53.5	57.0	46.2	
22-Oct-11	16:15	51.6	55.7	46.2	
22-Oct-11	16:20	51.7	56.1	45.5	
22-Oct-11	16:25	55.1	58.6	46.2	
22-Oct-11	16:30	54.2	57.4	47.4	53.7
22-Oct-11	16:35	54.0	56.2	47.0	
22-Oct-11	16:40	54.0	57.9	47.9	
22-Oct-11	16:45	53.2	56.0	48.5	
22-Oct-11	16:50	53.5	56.5	46.4	
22-Oct-11	16:55	53.3	57.1	48.4	
22-Oct-11	17:00	50.0	51.7	46.8	54.4
22-Oct-11	17:05	58.4	62.5	47.1	
22-Oct-11	17:10	53.7	57.0	46.2	
22-Oct-11	17:15	50.0	54.2	45.5	
22-Oct-11	17:20	52.7	55.8	45.0	
22-Oct-11	17:25	55.2	58.9	48.1	
22-Oct-11	17:30	52.4	55.1	47.3	56.8
22-Oct-11	17:35	55.6	59.3	48.5	
22-Oct-11	17:40	58.9	62.6	54.9	
22-Oct-11	17:45	57.6	60.0	54.8	
22-Oct-11	17:50	55.8	56.8	54.2	
22-Oct-11	17:55	57.8	59.4	54.4	
22-Oct-11	18:00	56.9	58.3	54.3	56.3
22-Oct-11	18:05	55.5	56.5	54.1	
22-Oct-11	18:10	55.4	56.4	54.1	
22-Oct-11	18:15	57.5	59.7	54.1	
22-Oct-11	18:20	56.0	57.2	54.2	
22-Oct-11	18:25	56.1	57.3	54.9	
22-Oct-11	18:30	57.8	61.1	54.8	56.4
22-Oct-11	18:35	56.3	57.9	54.4	
22-Oct-11	18:40	56.8	58.2	54.4	
22-Oct-11	18:45	56.4	57.8	54.6	
22-Oct-11	18:50	55.7	57.3	54.1	
22-Oct-11	18:55	55.2	55.8	54.2	
	Mean	53.4	56.2	47.5	53.9
	Maximum	59.4	64.1	54.9	56.8
	Minimum	47.3	48.7	43.8	51.4

Appendix B2

Day-time Noise Level at San Tau_NMS 4

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
24-Oct-11	07:00	56.3	57.7	54.0	56.1
24-Oct-11	07:05	56.2	56.8	53.9	
24-Oct-11	07:10	55.8	56.7	54.1	
24-Oct-11	07:15	56.6	58.1	54.1	
24-Oct-11	07:20	56.5	56.8	54.0	
24-Oct-11	07:25	55.2	56.3	54.1	
24-Oct-11	07:30	56.1	56.6	54.1	57.2
24-Oct-11	07:35	56.4	58.4	54.2	
24-Oct-11	07:40	56.8	59.1	54.2	
24-Oct-11	07:45	60.2	61.0	54.3	
24-Oct-11	07:50	55.7	57.2	54.1	
24-Oct-11	07:55	55.9	57.2	54.1	
24-Oct-11	08:00	56.8	58.5	54.0	55.3
24-Oct-11	08:05	54.9	56.0	53.4	
24-Oct-11	08:10	55.4	56.4	53.6	
24-Oct-11	08:15	54.7	55.6	53.4	
24-Oct-11	08:20	55.1	56.1	53.5	
24-Oct-11	08:25	54.6	56.0	53.1	
24-Oct-11	08:30	53.7	54.6	52.9	57.3
24-Oct-11	08:35	62.2	65.0	53.5	
24-Oct-11	08:40	53.7	54.7	52.6	
24-Oct-11	08:45	53.9	54.8	52.5	
24-Oct-11	08:50	57.5	57.4	52.6	
24-Oct-11	08:55	54.8	55.7	53.0	
24-Oct-11	09:00	54.0	54.8	52.6	55.0
24-Oct-11	09:05	56.2	57.6	52.5	
24-Oct-11	09:10	54.5	55.7	52.5	
24-Oct-11	09:15	55.7	57.7	53.1	
24-Oct-11	09:20	54.9	56.2	52.8	
24-Oct-11	09:25	53.9	55.1	52.5	
24-Oct-11	09:30	54.1	55.5	52.8	54.2
24-Oct-11	09:35	53.5	54.5	52.3	
24-Oct-11	09:40	53.5	54.5	52.2	
24-Oct-11	09:45	56.0	58.8	52.3	
24-Oct-11	09:50	53.3	54.2	52.2	
24-Oct-11	09:55	54.0	55.1	52.7	
24-Oct-11	10:00	59.8	62.3	52.8	56.1
24-Oct-11	10:05	54.6	56.3	52.4	
24-Oct-11	10:10	54.0	55.3	52.2	
24-Oct-11	10:15	55.4	57.2	52.4	
24-Oct-11	10:20	54.8	56.4	53.0	
24-Oct-11	10:25	54.7	56.1	52.6	
24-Oct-11	10:30	56.2	57.8	52.4	54.6
24-Oct-11	10:35	53.8	54.9	52.4	
24-Oct-11	10:40	53.9	54.8	52.7	
24-Oct-11	10:45	54.3	55.4	52.8	
24-Oct-11	10:50	54.8	56.6	52.7	
24-Oct-11	10:55	54.3	55.8	52.7	

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
24-Oct-11	11:00	53.6	54.5	52.3	54.2
24-Oct-11	11:05	54.1	55.7	52.4	
24-Oct-11	11:10	54.1	55.3	52.4	
24-Oct-11	11:15	54.6	55.9	53.1	
24-Oct-11	11:20	54.1	54.8	53.0	
24-Oct-11	11:25	54.4	55.6	53.1	
24-Oct-11	11:30	55.0	56.4	53.3	54.7
24-Oct-11	11:35	54.6	56.1	53.0	
24-Oct-11	11:40	54.4	55.7	53.0	
24-Oct-11	11:45	54.6	55.8	53.1	
24-Oct-11	11:50	54.6	56.3	53.0	
24-Oct-11	11:55	54.7	55.9	53.1	
24-Oct-11	12:00	54.0	55.1	52.9	54.0
24-Oct-11	12:05	54.2	55.7	52.9	
24-Oct-11	12:10	54.6	56.2	53.1	
24-Oct-11	12:15	53.5	54.6	52.4	
24-Oct-11	12:20	54.2	55.5	52.5	
24-Oct-11	12:25	53.4	54.4	52.2	
24-Oct-11	12:30	54.1	55.3	52.3	54.1
24-Oct-11	12:35	53.7	54.6	52.1	
24-Oct-11	12:40	55.1	56.9	52.9	
24-Oct-11	12:45	53.1	53.8	52.1	
24-Oct-11	12:50	54.1	55.6	52.7	
24-Oct-11	12:55	54.0	55.4	52.5	
24-Oct-11	13:00	54.3	55.4	52.6	54.8
24-Oct-11	13:05	53.5	54.5	52.2	
24-Oct-11	13:10	53.6	54.6	52.3	
24-Oct-11	13:15	54.6	54.7	52.2	
24-Oct-11	13:20	57.7	58.6	52.8	
24-Oct-11	13:25	53.5	54.4	52.3	
24-Oct-11	13:30	57.6	60.0	52.2	54.9
24-Oct-11	13:35	54.9	56.7	52.3	
24-Oct-11	13:40	54.1	55.3	52.8	
24-Oct-11	13:45	54.0	54.8	52.5	
24-Oct-11	13:50	53.3	54.3	52.2	
24-Oct-11	13:55	53.6	54.7	52.3	
24-Oct-11	14:00	53.4	54.5	52.2	55.9
24-Oct-11	14:05	53.7	54.8	52.2	
24-Oct-11	14:10	54.0	55.2	52.6	
24-Oct-11	14:15	53.8	54.8	52.4	
24-Oct-11	14:20	60.6	64.0	52.7	
24-Oct-11	14:25	53.9	55.3	52.5	
24-Oct-11	14:30	54.5	56.2	52.8	56.0
24-Oct-11	14:35	54.1	54.8	52.4	
24-Oct-11	14:40	58.5	63.0	52.9	
24-Oct-11	14:45	53.4	54.4	52.3	
24-Oct-11	14:50	58.4	60.3	52.5	
24-Oct-11	14:55	54.0	55.4	52.6	

Appendix B2

Day-time Noise Level at San Tau_NMS 4

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
24-Oct-11	15:00	54.1	55.3	52.8	
24-Oct-11	15:05	55.2	57.5	53.0	
24-Oct-11	15:10	57.0	59.2	53.1	70.9
24-Oct-11	15:15	66.4	64.0	52.7	
24-Oct-11	15:20	73.9	77.6	53.0	
24-Oct-11	15:25	76.5	82.1	53.4	
24-Oct-11	15:30	71.1	76.3	53.1	
24-Oct-11	15:35	65.9	65.9	52.9	
24-Oct-11	15:40	63.0	61.3	52.9	65.1
24-Oct-11	15:45	55.0	56.0	52.6	
24-Oct-11	15:50	53.9	55.2	52.5	
24-Oct-11	15:55	53.5	54.5	52.4	
24-Oct-11	16:00	54.3	55.0	52.4	
24-Oct-11	16:05	53.6	54.7	52.3	
24-Oct-11	16:10	53.3	54.2	52.2	54.1
24-Oct-11	16:15	53.7	54.8	52.2	
24-Oct-11	16:20	53.9	54.8	52.3	
24-Oct-11	16:25	55.6	58.7	52.3	
24-Oct-11	16:30	53.6	54.7	52.3	
24-Oct-11	16:35	55.5	57.5	52.4	
24-Oct-11	16:40	54.1	55.1	53.0	54.6
24-Oct-11	16:45	54.3	55.3	53.1	
24-Oct-11	16:50	54.4	55.4	53.2	
24-Oct-11	16:55	55.2	56.4	53.8	
24-Oct-11	17:00	54.6	55.5	53.7	
24-Oct-11	17:05	55.7	56.5	54.0	
24-Oct-11	17:10	56.1	56.7	54.1	57.0
24-Oct-11	17:15	58.0	59.5	54.8	
24-Oct-11	17:20	58.2	60.9	55.2	
24-Oct-11	17:25	58.1	60.7	55.4	
24-Oct-11	17:30	54.0	55.8	47.6	
24-Oct-11	17:35	55.3	58.4	49.0	
24-Oct-11	17:40	54.1	55.0	50.0	54.3
24-Oct-11	17:45	52.4	51.4	48.2	
24-Oct-11	17:50	53.2	55.0	49.0	
24-Oct-11	17:55	55.8	58.4	49.7	
24-Oct-11	18:00	58.2	60.1	51.7	
24-Oct-11	18:05	53.7	55.7	49.1	
24-Oct-11	18:10	59.1	61.4	48.1	56.6
24-Oct-11	18:15	53.5	55.3	48.7	
24-Oct-11	18:20	53.9	56.1	47.6	
24-Oct-11	18:25	57.5	59.3	48.6	
24-Oct-11	18:30	57.7	60.5	49.5	
24-Oct-11	18:35	53.0	52.5	47.6	
24-Oct-11	18:40	51.3	53.7	47.3	53.6
24-Oct-11	18:45	50.6	51.5	47.3	
24-Oct-11	18:50	53.9	56.0	49.4	
24-Oct-11	18:55	50.0	51.7	46.6	
	Mean	55.5	56.9	52.4	56.3
	Maximum	76.5	82.1	55.4	70.9
	Minimum	50.0	51.4	46.6	53.6

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
25-Oct-11	07:00	50.7	51.8	48.0	
25-Oct-11	07:05	51.8	52.5	48.1	
25-Oct-11	07:10	50.1	51.7	48.0	52.4
25-Oct-11	07:15	51.0	52.5	46.6	
25-Oct-11	07:20	51.2	53.4	48.3	
25-Oct-11	07:25	56.2	54.2	47.2	
25-Oct-11	07:30	55.5	57.2	47.0	
25-Oct-11	07:35	55.4	58.0	47.2	
25-Oct-11	07:40	48.9	51.2	45.8	53.0
25-Oct-11	07:45	50.6	53.4	46.0	
25-Oct-11	07:50	50.7	53.5	46.2	
25-Oct-11	07:55	52.7	54.3	47.1	
25-Oct-11	08:00	51.1	53.9	47.1	
25-Oct-11	08:05	53.4	56.4	47.8	
25-Oct-11	08:10	54.9	58.1	48.1	54.5
25-Oct-11	08:15	54.1	58.0	47.5	
25-Oct-11	08:20	56.6	60.7	48.6	
25-Oct-11	08:25	54.8	57.0	48.2	
25-Oct-11	08:30	53.5	56.6	48.9	
25-Oct-11	08:35	56.6	60.7	47.4	
25-Oct-11	08:40	52.7	56.0	46.7	53.8
25-Oct-11	08:45	53.6	56.1	47.0	
25-Oct-11	08:50	50.7	53.4	47.3	
25-Oct-11	08:55	53.4	56.3	48.1	
25-Oct-11	09:00	54.1	56.7	47.4	
25-Oct-11	09:05	56.7	60.5	47.5	
25-Oct-11	09:10	57.2	61.6	48.1	55.6
25-Oct-11	09:15	55.4	59.4	48.0	
25-Oct-11	09:20	55.3	58.2	49.7	
25-Oct-11	09:25	54.2	57.1	47.6	
25-Oct-11	09:30	54.9	58.6	48.1	
25-Oct-11	09:35	54.4	58.4	47.6	
25-Oct-11	09:40	51.3	54.8	45.9	52.6
25-Oct-11	09:45	52.6	56.3	45.3	
25-Oct-11	09:50	49.2	52.5	44.3	
25-Oct-11	09:55	50.6	52.3	44.2	
25-Oct-11	10:00	55.5	58.6	44.9	
25-Oct-11	10:05	51.5	54.5	45.5	
25-Oct-11	10:10	52.6	56.3	45.4	52.7
25-Oct-11	10:15	51.3	54.2	46.4	
25-Oct-11	10:20	51.3	54.9	44.6	
25-Oct-11	10:25	52.6	54.4	45.3	
25-Oct-11	10:30	53.8	52.6	44.4	
25-Oct-11	10:35	51.4	54.3	46.2	
25-Oct-11	10:40	51.0	53.9	46.4	52.9
25-Oct-11	10:45	51.1	54.2	45.4	
25-Oct-11	10:50	53.1	56.5	47.3	
25-Oct-11	10:55	55.2	59.3	45.4	

Appendix B2

Day-time Noise Level at San Tau_NMS 4

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
25-Oct-11	11:00	49.9	53.1	44.5	57.0
25-Oct-11	11:05	63.2	67.1	45.3	
25-Oct-11	11:10	48.0	49.4	44.0	
25-Oct-11	11:15	50.4	53.6	44.8	
25-Oct-11	11:20	57.0	60.9	46.0	
25-Oct-11	11:25	51.6	55.0	46.1	
25-Oct-11	11:30	50.7	53.8	45.6	52.6
25-Oct-11	11:35	54.7	58.4	47.1	
25-Oct-11	11:40	50.9	54.0	46.6	
25-Oct-11	11:45	53.9	56.8	46.1	
25-Oct-11	11:50	48.5	50.6	45.0	
25-Oct-11	11:55	53.6	57.4	45.9	
25-Oct-11	12:00	52.8	55.5	47.1	54.5
25-Oct-11	12:05	54.0	57.8	47.0	
25-Oct-11	12:10	55.6	59.5	46.6	
25-Oct-11	12:15	48.4	50.5	44.4	
25-Oct-11	12:20	53.8	57.4	44.8	
25-Oct-11	12:25	57.6	59.8	45.0	
25-Oct-11	12:30	56.4	61.1	45.3	54.4
25-Oct-11	12:35	53.7	56.8	45.2	
25-Oct-11	12:40	53.3	57.0	45.5	
25-Oct-11	12:45	49.8	53.4	44.9	
25-Oct-11	12:50	55.2	59.7	45.9	
25-Oct-11	12:55	55.1	59.5	44.6	
25-Oct-11	13:00	47.2	48.6	45.4	52.8
25-Oct-11	13:05	51.6	54.6	46.1	
25-Oct-11	13:10	52.8	56.0	46.5	
25-Oct-11	13:15	55.0	57.8	46.0	
25-Oct-11	13:20	55.2	58.7	46.3	
25-Oct-11	13:25	50.8	54.2	45.8	
25-Oct-11	13:30	48.9	51.3	45.2	51.1
25-Oct-11	13:35	48.1	49.8	45.0	
25-Oct-11	13:40	52.6	55.4	45.8	
25-Oct-11	13:45	51.3	54.6	44.3	
25-Oct-11	13:50	54.0	56.9	44.8	
25-Oct-11	13:55	47.8	49.7	45.0	
25-Oct-11	14:00	47.7	49.1	46.2	52.2
25-Oct-11	14:05	48.4	50.3	45.8	
25-Oct-11	14:10	52.0	55.9	45.9	
25-Oct-11	14:15	52.1	56.0	45.9	
25-Oct-11	14:20	54.7	58.3	46.4	
25-Oct-11	14:25	53.9	57.7	47.4	
25-Oct-11	14:30	54.1	56.5	46.8	53.2
25-Oct-11	14:35	53.8	57.9	47.7	
25-Oct-11	14:40	52.8	55.7	48.3	
25-Oct-11	14:45	53.8	56.6	46.7	
25-Oct-11	14:50	51.5	54.7	47.8	
25-Oct-11	14:55	52.6	56.5	48.4	

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
25-Oct-11	15:00	50.6	52.3	48.5	55.9
25-Oct-11	15:05	59.3	63.9	50.2	
25-Oct-11	15:10	57.2	61.6	49.0	
25-Oct-11	15:15	56.1	60.2	48.9	
25-Oct-11	15:20	54.1	57.3	48.7	
25-Oct-11	15:25	52.7	55.1	48.8	
25-Oct-11	15:30	55.2	57.2	48.8	55.2
25-Oct-11	15:35	52.0	55.0	47.0	
25-Oct-11	15:40	57.2	58.4	46.9	
25-Oct-11	15:45	56.3	60.1	47.0	
25-Oct-11	15:50	53.3	56.8	48.2	
25-Oct-11	15:55	55.0	58.6	48.0	
25-Oct-11	16:00	54.1	57.6	46.7	53.8
25-Oct-11	16:05	53.3	56.1	46.4	
25-Oct-11	16:10	51.4	54.7	45.9	
25-Oct-11	16:15	56.1	59.0	46.5	
25-Oct-11	16:20	53.4	56.6	46.3	
25-Oct-11	16:25	53.0	55.1	46.1	
25-Oct-11	16:30	53.8	58.1	46.2	53.9
25-Oct-11	16:35	52.7	55.8	47.2	
25-Oct-11	16:40	53.9	57.0	46.6	
25-Oct-11	16:45	54.1	57.1	47.2	
25-Oct-11	16:50	54.8	57.6	46.0	
25-Oct-11	16:55	53.9	56.1	45.9	
25-Oct-11	17:00	53.4	57.2	46.0	54.6
25-Oct-11	17:05	52.6	55.5	47.4	
25-Oct-11	17:10	55.7	59.3	48.2	
25-Oct-11	17:15	50.0	52.2	47.1	
25-Oct-11	17:20	58.0	62.0	47.4	
25-Oct-11	17:25	53.7	57.4	45.7	
25-Oct-11	17:30	50.3	54.1	45.2	54.1
25-Oct-11	17:35	52.9	56.2	45.2	
25-Oct-11	17:40	48.2	49.9	46.0	
25-Oct-11	17:45	51.6	55.3	46.0	
25-Oct-11	17:50	58.8	62.5	46.1	
25-Oct-11	17:55	54.1	57.1	47.6	
25-Oct-11	18:00	52.7	57.0	46.1	53.0
25-Oct-11	18:05	49.7	52.3	46.0	
25-Oct-11	18:10	56.4	60.6	46.6	
25-Oct-11	18:15	52.7	55.7	47.3	
25-Oct-11	18:20	50.5	52.5	46.5	
25-Oct-11	18:25	52.9	54.9	48.2	
25-Oct-11	18:30	50.7	52.6	47.2	52.9
25-Oct-11	18:35	52.4	55.2	47.4	
25-Oct-11	18:40	52.6	53.7	49.6	
25-Oct-11	18:45	50.5	52.1	48.9	
25-Oct-11	18:50	50.7	52.8	47.9	
25-Oct-11	18:55	56.6	58.6	48.5	
	Mean	53.0	56.0	46.6	53.7
	Maximum	63.2	67.1	50.2	57.0
	Minimum	47.2	48.6	44.0	51.1

Appendix B2

Day-time Noise Level at San Tau_NMS 4

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
26-Oct-11	07:00	49.2	52.4	45.0	49.1
26-Oct-11	07:05	45.5	47.1	43.6	
26-Oct-11	07:10	46.0	47.4	42.9	
26-Oct-11	07:15	49.3	51.9	45.2	
26-Oct-11	07:20	47.8	48.7	45.0	
26-Oct-11	07:25	52.7	56.6	46.5	
26-Oct-11	07:30	51.5	54.0	45.6	50.4
26-Oct-11	07:35	53.8	51.4	44.0	
26-Oct-11	07:40	51.2	50.3	44.1	
26-Oct-11	07:45	46.4	47.2	43.7	
26-Oct-11	07:50	46.4	47.5	44.0	
26-Oct-11	07:55	48.0	50.0	44.6	
26-Oct-11	08:00	50.0	52.6	45.0	53.3
26-Oct-11	08:05	52.6	56.2	45.2	
26-Oct-11	08:10	52.2	54.5	45.7	
26-Oct-11	08:15	53.2	56.6	46.2	
26-Oct-11	08:20	55.1	58.9	47.5	
26-Oct-11	08:25	54.6	57.1	45.2	
26-Oct-11	08:30	57.1	61.4	46.8	54.5
26-Oct-11	08:35	51.1	54.2	45.6	
26-Oct-11	08:40	53.8	57.1	46.9	
26-Oct-11	08:45	55.0	58.1	47.2	
26-Oct-11	08:50	53.8	57.0	47.9	
26-Oct-11	08:55	53.8	56.6	49.6	
26-Oct-11	09:00	55.3	57.1	48.0	56.0
26-Oct-11	09:05	54.7	58.1	48.0	
26-Oct-11	09:10	53.4	57.1	46.8	
26-Oct-11	09:15	56.8	57.7	47.0	
26-Oct-11	09:20	52.6	56.2	47.2	
26-Oct-11	09:25	59.3	61.9	46.3	
26-Oct-11	09:30	57.7	56.3	45.3	54.7
26-Oct-11	09:35	49.8	53.2	44.2	
26-Oct-11	09:40	55.6	58.9	45.2	
26-Oct-11	09:45	53.7	57.8	45.9	
26-Oct-11	09:50	52.1	56.1	45.3	
26-Oct-11	09:55	55.3	58.5	46.3	
26-Oct-11	10:00	60.8	62.8	46.4	57.6
26-Oct-11	10:05	55.2	58.1	46.3	
26-Oct-11	10:10	56.5	58.3	54.4	
26-Oct-11	10:15	57.8	60.2	54.1	
26-Oct-11	10:20	56.7	58.7	54.1	
26-Oct-11	10:25	55.7	57.4	54.0	
26-Oct-11	10:30	56.9	58.9	53.9	56.0
26-Oct-11	10:35	54.8	55.6	53.7	
26-Oct-11	10:40	55.1	56.3	53.9	
26-Oct-11	10:45	54.6	55.6	53.6	
26-Oct-11	10:50	56.4	58.1	54.0	
26-Oct-11	10:55	57.3	59.7	54.0	

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
26-Oct-11	11:00	54.8	55.7	53.9	55.8
26-Oct-11	11:05	55.0	55.8	54.0	
26-Oct-11	11:10	57.2	57.0	53.9	
26-Oct-11	11:15	55.4	56.7	53.7	
26-Oct-11	11:20	55.3	56.6	53.9	
26-Oct-11	11:25	56.7	58.7	54.0	
26-Oct-11	11:30	56.3	58.7	54.0	55.9
26-Oct-11	11:35	56.3	58.3	53.9	
26-Oct-11	11:40	56.8	60.0	53.6	
26-Oct-11	11:45	55.4	57.0	53.8	
26-Oct-11	11:50	55.2	56.7	53.6	
26-Oct-11	11:55	55.3	56.8	53.3	
26-Oct-11	12:00	55.5	57.6	53.3	56.4
26-Oct-11	12:05	58.8	60.4	53.3	
26-Oct-11	12:10	55.1	56.8	53.2	
26-Oct-11	12:15	54.9	55.8	53.2	
26-Oct-11	12:20	55.4	57.1	53.4	
26-Oct-11	12:25	57.2	59.8	53.7	
26-Oct-11	12:30	57.6	60.2	54.0	56.8
26-Oct-11	12:35	55.3	56.9	53.3	
26-Oct-11	12:40	56.5	58.5	53.9	
26-Oct-11	12:45	55.9	58.0	53.9	
26-Oct-11	12:50	56.0	57.6	53.8	
26-Oct-11	12:55	58.4	61.4	54.8	
26-Oct-11	13:00	57.7	60.4	54.3	57.7
26-Oct-11	13:05	57.3	59.4	54.4	
26-Oct-11	13:10	59.2	59.9	54.2	
26-Oct-11	13:15	58.0	60.9	54.0	
26-Oct-11	13:20	57.0	59.2	54.1	
26-Oct-11	13:25	56.8	58.8	54.3	
26-Oct-11	13:30	55.3	56.8	53.5	54.8
26-Oct-11	13:35	54.0	54.8	53.1	
26-Oct-11	13:40	54.8	56.2	53.3	
26-Oct-11	13:45	54.8	56.2	53.3	
26-Oct-11	13:50	54.9	56.0	53.1	
26-Oct-11	13:55	54.9	56.2	53.3	
26-Oct-11	14:00	56.1	58.5	53.5	55.1
26-Oct-11	14:05	54.3	55.1	53.3	
26-Oct-11	14:10	54.8	55.8	53.5	
26-Oct-11	14:15	54.7	55.7	53.4	
26-Oct-11	14:20	55.3	56.6	53.8	
26-Oct-11	14:25	55.4	56.8	54.0	
26-Oct-11	14:30	60.5	63.9	54.0	57.0
26-Oct-11	14:35	55.0	56.3	53.9	
26-Oct-11	14:40	55.1	56.2	54.0	
26-Oct-11	14:45	56.9	59.7	54.1	
26-Oct-11	14:50	55.4	56.8	54.0	
26-Oct-11	14:55	55.9	57.1	54.1	

Appendix B2

Day-time Noise Level at San Tau_NMS 4

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
26-Oct-11	15:00	54.8	55.6	53.9	
26-Oct-11	15:05	55.9	57.5	54.1	
26-Oct-11	15:10	57.7	60.5	54.1	56.4
26-Oct-11	15:15	56.3	58.3	54.1	
26-Oct-11	15:20	57.6	60.6	54.1	
26-Oct-11	15:25	55.2	55.9	54.0	
26-Oct-11	15:30	55.7	57.2	54.0	
26-Oct-11	15:35	55.8	57.2	54.2	
26-Oct-11	15:40	55.2	56.0	54.0	55.8
26-Oct-11	15:45	55.3	56.2	54.1	
26-Oct-11	15:50	55.9	57.9	54.1	
26-Oct-11	15:55	56.6	58.8	54.1	
26-Oct-11	16:00	55.4	56.4	54.1	
26-Oct-11	16:05	55.8	57.1	54.2	
26-Oct-11	16:10	58.2	60.9	54.5	56.6
26-Oct-11	16:15	57.7	60.0	54.9	
26-Oct-11	16:20	56.5	58.3	54.3	
26-Oct-11	16:25	55.4	56.6	54.1	
26-Oct-11	16:30	56.0	57.7	54.2	
26-Oct-11	16:35	57.8	59.3	54.1	
26-Oct-11	16:40	56.5	58.1	54.2	56.6
26-Oct-11	16:45	55.7	56.7	54.1	
26-Oct-11	16:50	56.9	59.1	54.5	
26-Oct-11	16:55	56.6	58.9	54.1	
26-Oct-11	17:00	56.5	58.5	54.1	
26-Oct-11	17:05	56.5	58.3	54.3	
26-Oct-11	17:10	57.8	61.0	54.1	56.8
26-Oct-11	17:15	57.6	59.3	54.2	
26-Oct-11	17:20	56.1	58.2	54.0	
26-Oct-11	17:25	55.7	57.2	54.0	
26-Oct-11	17:30	56.5	58.6	54.2	
26-Oct-11	17:35	56.3	57.6	54.2	
26-Oct-11	17:40	55.5	56.6	54.0	55.7
26-Oct-11	17:45	55.4	55.8	54.0	
26-Oct-11	17:50	55.5	56.7	54.1	
26-Oct-11	17:55	54.9	55.8	53.9	
26-Oct-11	18:00	60.7	62.7	54.2	
26-Oct-11	18:05	56.0	57.8	54.0	
26-Oct-11	18:10	58.4	61.6	54.0	57.7
26-Oct-11	18:15	57.1	57.3	53.9	
26-Oct-11	18:20	56.7	57.8	54.0	
26-Oct-11	18:25	55.0	55.8	53.9	
26-Oct-11	18:30	56.3	58.6	53.9	
26-Oct-11	18:35	55.1	56.4	53.7	
26-Oct-11	18:40	55.8	57.6	53.9	55.5
26-Oct-11	18:45	55.5	55.9	53.7	
26-Oct-11	18:50	55.7	56.9	53.8	
26-Oct-11	18:55	54.5	55.4	53.9	
	Mean	55.3	57.1	51.8	55.5
	Maximum	60.8	63.9	54.9	57.7
	Minimum	45.5	47.1	42.9	49.1

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
27-Oct-11	07:00	54.7	55.8	53.2	
27-Oct-11	07:05	54.6	55.5	53.2	
27-Oct-11	07:10	54.8	56.2	53.2	54.7
27-Oct-11	07:15	54.9	56.2	53.5	
27-Oct-11	07:20	54.6	55.7	53.4	
27-Oct-11	07:25	54.5	55.6	53.4	
27-Oct-11	07:30	55.0	56.4	53.6	
27-Oct-11	07:35	55.1	56.4	53.3	
27-Oct-11	07:40	55.5	57.1	53.6	54.9
27-Oct-11	07:45	54.8	55.7	53.3	
27-Oct-11	07:50	54.3	55.0	53.2	
27-Oct-11	07:55	54.7	55.7	53.6	
27-Oct-11	08:00	54.4	55.3	53.3	
27-Oct-11	08:05	56.2	57.4	53.4	
27-Oct-11	08:10	56.5	58.3	53.6	56.6
27-Oct-11	08:15	57.7	61.1	53.9	
27-Oct-11	08:20	56.4	58.7	53.7	
27-Oct-11	08:25	57.6	59.8	54.0	
27-Oct-11	08:30	58.5	59.3	53.9	
27-Oct-11	08:35	56.4	58.6	54.1	
27-Oct-11	08:40	55.5	56.9	53.9	56.6
27-Oct-11	08:45	56.1	57.4	53.6	
27-Oct-11	08:50	54.8	55.9	53.4	
27-Oct-11	08:55	57.5	59.8	53.6	
27-Oct-11	09:00	57.6	60.4	53.9	
27-Oct-11	09:05	55.9	57.8	53.9	
27-Oct-11	09:10	56.5	58.4	53.9	56.5
27-Oct-11	09:15	57.0	59.7	53.9	
27-Oct-11	09:20	55.3	56.6	53.8	
27-Oct-11	09:25	56.3	58.3	54.0	
27-Oct-11	09:30	57.0	60.2	53.8	
27-Oct-11	09:35	55.1	56.4	53.6	
27-Oct-11	09:40	56.5	56.8	53.9	55.9
27-Oct-11	09:45	55.6	57.6	53.4	
27-Oct-11	09:50	55.6	57.6	53.4	
27-Oct-11	09:55	55.6	57.0	53.3	
27-Oct-11	10:00	56.1	57.6	53.2	
27-Oct-11	10:05	54.6	57.2	46.4	
27-Oct-11	10:10	55.5	58.9	47.2	56.0
27-Oct-11	10:15	57.1	59.1	53.5	
27-Oct-11	10:20	55.3	56.8	53.4	
27-Oct-11	10:25	56.7	59.2	53.2	
27-Oct-11	10:30	56.3	58.4	53.3	
27-Oct-11	10:35	55.8	57.5	54.0	
27-Oct-11	10:40	57.3	58.2	54.0	56.1
27-Oct-11	10:45	54.9	56.4	53.2	
27-Oct-11	10:50	56.0	58.5	53.0	
27-Oct-11	10:55	55.7	57.8	53.0	

Appendix B2

Day-time Noise Level at San Tau_NMS 4

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
27-Oct-11	11:00	54.2	54.9	53.0	59.1
27-Oct-11	11:05	55.1	56.4	53.0	
27-Oct-11	11:10	57.6	58.6	53.1	
27-Oct-11	11:15	55.6	55.6	53.0	
27-Oct-11	11:20	64.2	60.5	53.4	
27-Oct-11	11:25	58.5	61.0	53.6	
27-Oct-11	11:30	56.0	58.1	53.2	55.9
27-Oct-11	11:35	56.1	58.5	53.2	
27-Oct-11	11:40	55.3	57.0	53.1	
27-Oct-11	11:45	55.6	57.2	53.2	
27-Oct-11	11:50	56.7	59.7	53.2	
27-Oct-11	11:55	55.8	58.1	53.0	
27-Oct-11	12:00	54.9	56.2	53.1	56.3
27-Oct-11	12:05	55.5	57.6	53.2	
27-Oct-11	12:10	55.7	56.8	53.2	
27-Oct-11	12:15	59.7	62.0	53.1	
27-Oct-11	12:20	54.7	56.3	53.1	
27-Oct-11	12:25	54.4	55.5	53.0	
27-Oct-11	12:30	54.7	56.2	53.0	56.2
27-Oct-11	12:35	55.4	57.6	53.1	
27-Oct-11	12:40	56.2	58.1	53.0	
27-Oct-11	12:45	58.2	60.8	53.0	
27-Oct-11	12:50	56.0	56.9	53.1	
27-Oct-11	12:55	55.8	57.6	53.5	
27-Oct-11	13:00	55.8	57.7	53.9	56.2
27-Oct-11	13:05	55.6	57.3	53.3	
27-Oct-11	13:10	56.8	57.8	53.2	
27-Oct-11	13:15	55.7	57.7	53.2	
27-Oct-11	13:20	57.0	59.1	53.9	
27-Oct-11	13:25	56.3	57.6	53.2	
27-Oct-11	13:30	57.7	60.5	53.9	56.9
27-Oct-11	13:35	55.8	57.5	53.6	
27-Oct-11	13:40	55.0	56.5	53.3	
27-Oct-11	13:45	57.4	60.6	53.5	
27-Oct-11	13:50	57.3	59.5	53.9	
27-Oct-11	13:55	57.4	59.1	54.0	
27-Oct-11	14:00	55.8	57.6	53.9	55.5
27-Oct-11	14:05	55.3	56.7	53.9	
27-Oct-11	14:10	55.8	57.6	53.5	
27-Oct-11	14:15	55.0	56.3	53.4	
27-Oct-11	14:20	56.0	58.4	53.2	
27-Oct-11	14:25	55.2	56.5	53.6	
27-Oct-11	14:30	55.3	56.4	53.8	58.2
27-Oct-11	14:35	54.5	55.5	53.3	
27-Oct-11	14:40	57.0	59.3	53.4	
27-Oct-11	14:45	55.9	57.4	53.9	
27-Oct-11	14:50	63.1	68.3	54.1	
27-Oct-11	14:55	56.0	57.2	53.9	

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
27-Oct-11	15:00	56.2	58.5	53.9	58.0
27-Oct-11	15:05	56.0	57.4	53.7	
27-Oct-11	15:10	56.5	58.8	53.9	
27-Oct-11	15:15	61.8	65.1	54.0	
27-Oct-11	15:20	57.1	59.6	53.7	
27-Oct-11	15:25	56.6	59.4	53.4	
27-Oct-11	15:30	56.5	58.6	53.4	55.7
27-Oct-11	15:35	54.7	56.0	53.1	
27-Oct-11	15:40	54.6	55.7	53.3	
27-Oct-11	15:45	57.1	59.8	53.4	
27-Oct-11	15:50	55.5	56.8	53.2	
27-Oct-11	15:55	55.2	57.2	53.2	
27-Oct-11	16:00	54.7	55.9	53.2	55.3
27-Oct-11	16:05	55.8	57.7	53.3	
27-Oct-11	16:10	55.0	56.6	53.2	
27-Oct-11	16:15	55.1	56.6	53.3	
27-Oct-11	16:20	55.7	57.3	53.5	
27-Oct-11	16:25	55.5	56.9	53.3	
27-Oct-11	16:30	55.0	56.0	53.4	55.5
27-Oct-11	16:35	55.1	56.7	53.4	
27-Oct-11	16:40	54.1	54.8	53.0	
27-Oct-11	16:45	54.2	55.0	53.1	
27-Oct-11	16:50	55.7	57.6	53.2	
27-Oct-11	16:55	57.8	61.2	53.3	
27-Oct-11	17:00	58.3	61.7	53.3	57.0
27-Oct-11	17:05	57.4	60.1	53.4	
27-Oct-11	17:10	56.1	58.0	53.7	
27-Oct-11	17:15	55.3	56.6	53.5	
27-Oct-11	17:20	57.8	59.4	53.3	
27-Oct-11	17:25	56.5	58.9	53.7	
27-Oct-11	17:30	54.6	55.5	53.9	57.0
27-Oct-11	17:35	57.7	61.1	54.2	
27-Oct-11	17:40	57.7	60.6	54.3	
27-Oct-11	17:45	57.5	60.1	54.4	
27-Oct-11	17:50	56.9	59.6	54.1	
27-Oct-11	17:55	56.7	58.7	54.0	
27-Oct-11	18:00	58.2	60.8	54.0	57.3
27-Oct-11	18:05	57.2	59.5	53.9	
27-Oct-11	18:10	57.0	58.8	54.0	
27-Oct-11	18:15	56.4	57.2	54.1	
27-Oct-11	18:20	58.2	59.9	54.0	
27-Oct-11	18:25	56.7	58.4	54.1	
27-Oct-11	18:30	55.8	57.4	53.8	56.3
27-Oct-11	18:35	56.7	59.2	54.1	
27-Oct-11	18:40	56.4	57.8	54.0	
27-Oct-11	18:45	57.3	59.9	54.1	
27-Oct-11	18:50	56.2	58.2	54.0	
27-Oct-11	18:55	55.3	56.6	54.0	
	Mean	56.2	58.0	53.4	56.4
	Maximum	64.2	68.3	54.4	59.1
	Minimum	54.1	54.8	46.4	54.7

Appendix B2

Day-time Noise Level at San Tau_NMS 4

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
28-Oct-11	07:00	56.7	57.6	54.9	57.0
28-Oct-11	07:05	58.5	61.0	54.4	
28-Oct-11	07:10	59.0	58.3	54.1	
28-Oct-11	07:15	55.7	56.5	54.1	
28-Oct-11	07:20	54.7	55.7	53.9	
28-Oct-11	07:25	56.0	57.9	53.9	
28-Oct-11	07:30	55.9	57.8	54.0	56.1
28-Oct-11	07:35	56.0	57.6	54.1	
28-Oct-11	07:40	56.2	57.3	54.4	
28-Oct-11	07:45	55.5	56.7	54.1	
28-Oct-11	07:50	56.2	58.3	54.1	
28-Oct-11	07:55	56.7	59.1	54.2	
28-Oct-11	08:00	57.4	60.3	54.0	56.8
28-Oct-11	08:05	56.5	58.0	54.1	
28-Oct-11	08:10	56.3	58.1	53.9	
28-Oct-11	08:15	56.8	59.0	54.2	
28-Oct-11	08:20	57.3	59.8	53.9	
28-Oct-11	08:25	56.2	58.4	53.6	
28-Oct-11	08:30	57.4	58.2	53.3	56.2
28-Oct-11	08:35	55.1	56.6	53.3	
28-Oct-11	08:40	56.4	58.7	53.5	
28-Oct-11	08:45	55.7	58.0	53.3	
28-Oct-11	08:50	55.5	57.4	53.8	
28-Oct-11	08:55	56.5	58.6	53.5	
28-Oct-11	09:00	55.2	57.0	53.3	56.7
28-Oct-11	09:05	57.1	59.7	53.5	
28-Oct-11	09:10	56.7	59.2	53.8	
28-Oct-11	09:15	58.0	60.2	54.0	
28-Oct-11	09:20	56.1	58.4	53.8	
28-Oct-11	09:25	56.4	58.7	53.7	
28-Oct-11	09:30	56.7	59.2	53.4	55.8
28-Oct-11	09:35	55.4	56.9	53.2	
28-Oct-11	09:40	56.1	58.3	53.3	
28-Oct-11	09:45	55.2	56.9	53.2	
28-Oct-11	09:50	55.4	56.6	53.2	
28-Oct-11	09:55	55.6	57.6	53.2	
28-Oct-11	10:00	55.9	58.3	53.0	56.6
28-Oct-11	10:05	59.1	62.5	53.3	
28-Oct-11	10:10	53.4	56.0	47.1	
28-Oct-11	10:15	57.4	60.2	48.5	
28-Oct-11	10:20	55.0	56.4	53.1	
28-Oct-11	10:25	56.7	58.5	53.5	
28-Oct-11	10:30	54.6	55.5	53.2	56.0
28-Oct-11	10:35	56.4	58.3	54.0	
28-Oct-11	10:40	55.9	57.6	53.8	
28-Oct-11	10:45	56.0	57.8	53.7	
28-Oct-11	10:50	57.1	59.9	53.9	
28-Oct-11	10:55	55.7	56.9	53.2	

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
28-Oct-11	11:00	56.8	59.7	53.5	57.0
28-Oct-11	11:05	55.3	57.4	53.1	
28-Oct-11	11:10	54.3	55.2	52.9	
28-Oct-11	11:15	56.0	57.8	52.9	
28-Oct-11	11:20	59.2	61.5	53.1	
28-Oct-11	11:25	58.6	61.5	53.0	
28-Oct-11	11:30	56.5	58.7	53.4	56.9
28-Oct-11	11:35	54.5	55.9	53.1	
28-Oct-11	11:40	55.2	56.7	53.4	
28-Oct-11	11:45	59.8	63.5	53.6	
28-Oct-11	11:50	56.0	57.7	53.9	
28-Oct-11	11:55	57.1	58.1	53.9	
28-Oct-11	12:00	56.1	58.0	54.0	57.0
28-Oct-11	12:05	56.0	58.1	53.9	
28-Oct-11	12:10	56.8	58.8	54.2	
28-Oct-11	12:15	56.3	58.0	54.0	
28-Oct-11	12:20	57.4	60.0	53.6	
28-Oct-11	12:25	58.9	61.9	54.9	
28-Oct-11	12:30	60.1	63.1	54.5	58.5
28-Oct-11	12:35	56.8	59.1	54.2	
28-Oct-11	12:40	59.1	62.1	55.2	
28-Oct-11	12:45	58.1	60.5	54.4	
28-Oct-11	12:50	58.8	61.1	54.1	
28-Oct-11	12:55	57.1	59.9	54.0	
28-Oct-11	13:00	55.8	56.8	53.9	57.2
28-Oct-11	13:05	56.2	57.9	54.1	
28-Oct-11	13:10	59.9	63.6	54.2	
28-Oct-11	13:15	56.8	58.8	54.1	
28-Oct-11	13:20	56.7	58.6	54.0	
28-Oct-11	13:25	56.3	59.0	53.9	
28-Oct-11	13:30	57.2	60.1	54.1	57.4
28-Oct-11	13:35	56.5	58.4	54.1	
28-Oct-11	13:40	56.6	58.9	54.2	
28-Oct-11	13:45	57.5	58.1	54.4	
28-Oct-11	13:50	56.4	58.1	54.3	
28-Oct-11	13:55	59.4	62.3	55.6	
28-Oct-11	14:00	57.6	59.3	55.2	58.5
28-Oct-11	14:05	56.4	57.6	55.0	
28-Oct-11	14:10	56.2	57.3	55.0	
28-Oct-11	14:15	62.9	64.0	54.9	
28-Oct-11	14:20	56.2	57.7	54.6	
28-Oct-11	14:25	57.0	58.7	55.0	
28-Oct-11	14:30	56.3	57.7	54.8	57.2
28-Oct-11	14:35	58.1	60.3	55.9	
28-Oct-11	14:40	57.6	59.7	55.3	
28-Oct-11	14:45	57.2	59.0	55.2	
28-Oct-11	14:50	56.7	58.0	55.1	
28-Oct-11	14:55	57.3	59.2	54.7	

Appendix B2

Day-time Noise Level at San Tau_NMS 4

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
28-Oct-11	15:00	56.2	57.7	54.4	58.1
28-Oct-11	15:05	57.3	59.6	54.9	
28-Oct-11	15:10	61.3	63.5	55.0	
28-Oct-11	15:15	57.8	60.0	54.7	
28-Oct-11	15:20	57.7	60.2	55.0	
28-Oct-11	15:25	56.0	57.1	54.5	
28-Oct-11	15:30	56.7	59.0	54.4	58.2
28-Oct-11	15:35	60.5	64.1	55.0	
28-Oct-11	15:40	59.6	62.3	56.1	
28-Oct-11	15:45	57.0	58.9	54.9	
28-Oct-11	15:50	58.0	59.9	55.0	
28-Oct-11	15:55	55.5	56.3	54.4	
28-Oct-11	16:00	58.5	60.5	55.1	57.7
28-Oct-11	16:05	57.1	59.0	54.6	
28-Oct-11	16:10	56.9	59.4	54.4	
28-Oct-11	16:15	57.6	60.4	54.4	
28-Oct-11	16:20	57.1	58.6	54.9	
28-Oct-11	16:25	58.5	61.3	54.7	
28-Oct-11	16:30	57.1	58.9	54.9	57.6
28-Oct-11	16:35	57.0	58.6	55.0	
28-Oct-11	16:40	57.5	60.0	55.0	
28-Oct-11	16:45	57.3	59.1	55.0	
28-Oct-11	16:50	57.7	60.2	55.0	
28-Oct-11	16:55	58.6	61.2	55.3	
28-Oct-11	17:00	58.3	61.0	54.9	58.8
28-Oct-11	17:05	57.4	59.7	54.5	
28-Oct-11	17:10	61.5	63.5	55.0	
28-Oct-11	17:15	58.2	61.0	55.0	
28-Oct-11	17:20	57.7	59.7	55.3	
28-Oct-11	17:25	57.9	59.8	54.8	
28-Oct-11	17:30	56.1	57.8	54.1	58.5
28-Oct-11	17:35	55.7	57.0	54.2	
28-Oct-11	17:40	58.5	62.3	54.4	
28-Oct-11	17:45	55.5	56.5	54.0	
28-Oct-11	17:50	56.9	58.9	54.4	
28-Oct-11	17:55	62.9	66.3	55.2	
28-Oct-11	18:00	57.1	58.9	54.4	57.8
28-Oct-11	18:05	59.6	61.8	54.8	
28-Oct-11	18:10	57.2	59.1	54.4	
28-Oct-11	18:15	56.9	58.7	54.6	
28-Oct-11	18:20	55.7	56.5	54.3	
28-Oct-11	18:25	58.9	62.1	55.1	
28-Oct-11	18:30	62.2	65.9	54.7	58.9
28-Oct-11	18:35	57.5	60.1	54.2	
28-Oct-11	18:40	59.6	61.4	54.4	
28-Oct-11	18:45	57.3	58.8	54.4	
28-Oct-11	18:50	56.0	57.5	54.1	
28-Oct-11	18:55	57.8	60.7	54.8	
	Mean	57.1	59.1	54.1	57.4
	Maximum	62.9	66.3	56.1	58.9
	Minimum	53.4	55.2	47.1	55.8

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
29-Oct-11	07:00	56.6	57.6	55.0	56.6
29-Oct-11	07:05	56.1	57.2	54.7	
29-Oct-11	07:10	57.8	59.5	54.9	
29-Oct-11	07:15	56.6	58.0	54.7	
29-Oct-11	07:20	56.7	57.1	54.4	
29-Oct-11	07:25	55.7	56.8	54.4	
29-Oct-11	07:30	56.3	57.9	54.9	55.9
29-Oct-11	07:35	55.9	57.1	54.5	
29-Oct-11	07:40	56.6	57.7	54.1	
29-Oct-11	07:45	56.1	56.9	54.1	
29-Oct-11	07:50	55.9	57.1	54.0	
29-Oct-11	07:55	54.4	55.5	53.3	
29-Oct-11	08:00	55.0	56.3	53.6	56.3
29-Oct-11	08:05	55.8	57.4	53.8	
29-Oct-11	08:10	57.0	60.0	53.4	
29-Oct-11	08:15	55.6	57.1	53.2	
29-Oct-11	08:20	56.1	57.8	53.1	
29-Oct-11	08:25	57.7	60.2	54.0	
29-Oct-11	08:30	56.9	59.0	53.9	55.8
29-Oct-11	08:35	56.1	57.7	53.6	
29-Oct-11	08:40	54.6	55.8	53.1	
29-Oct-11	08:45	56.1	57.7	53.2	
29-Oct-11	08:50	54.6	55.7	53.2	
29-Oct-11	08:55	56.2	58.2	54.0	
29-Oct-11	09:00	56.3	57.8	54.0	56.7
29-Oct-11	09:05	57.6	60.4	54.0	
29-Oct-11	09:10	56.4	58.3	53.8	
29-Oct-11	09:15	55.8	57.4	53.5	
29-Oct-11	09:20	57.9	60.6	53.5	
29-Oct-11	09:25	55.8	57.7	53.4	
29-Oct-11	09:30	56.6	58.8	54.0	56.9
29-Oct-11	09:35	56.2	58.5	53.5	
29-Oct-11	09:40	56.4	58.4	53.9	
29-Oct-11	09:45	56.6	58.8	54.0	
29-Oct-11	09:50	55.6	57.1	53.6	
29-Oct-11	09:55	59.1	62.7	53.9	
29-Oct-11	10:00	57.7	60.2	54.0	57.1
29-Oct-11	10:05	58.0	60.3	54.2	
29-Oct-11	10:10	57.5	59.8	54.7	
29-Oct-11	10:15	55.4	56.4	54.3	
29-Oct-11	10:20	57.3	59.9	48.7	
29-Oct-11	10:25	56.5	60.0	48.3	
29-Oct-11	10:30	56.4	58.7	53.2	59.1
29-Oct-11	10:35	57.2	60.0	53.4	
29-Oct-11	10:40	57.3	60.0	53.5	
29-Oct-11	10:45	58.4	61.8	53.4	
29-Oct-11	10:50	63.5	67.7	53.6	
29-Oct-11	10:55	56.7	58.8	53.6	

Appendix B2

Day-time Noise Level at San Tau_NMS 4

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
29-Oct-11	11:00	55.9	57.5	54.1	56.2
29-Oct-11	11:05	56.0	58.1	53.2	
29-Oct-11	11:10	56.1	58.2	53.7	
29-Oct-11	11:15	54.8	55.7	53.5	
29-Oct-11	11:20	56.7	58.3	54.1	
29-Oct-11	11:25	57.5	59.9	54.8	
29-Oct-11	11:30	57.9	59.7	55.0	57.5
29-Oct-11	11:35	58.2	60.7	55.1	
29-Oct-11	11:40	56.1	57.5	54.5	
29-Oct-11	11:45	57.3	59.2	55.0	
29-Oct-11	11:50	56.8	58.7	54.5	
29-Oct-11	11:55	58.4	60.6	55.4	
29-Oct-11	12:00	56.4	58.2	54.4	56.9
29-Oct-11	12:05	56.4	57.9	54.2	
29-Oct-11	12:10	58.1	61.1	54.4	
29-Oct-11	12:15	56.2	57.5	54.1	
29-Oct-11	12:20	57.9	60.8	54.1	
29-Oct-11	12:25	56.1	58.0	54.0	
29-Oct-11	12:30	55.4	56.8	53.9	58.5
29-Oct-11	12:35	55.2	56.5	53.9	
29-Oct-11	12:40	55.0	56.0	53.9	
29-Oct-11	12:45	57.1	59.8	54.2	
29-Oct-11	12:50	56.9	59.4	54.3	
29-Oct-11	12:55	63.5	67.8	54.7	
29-Oct-11	13:00	62.1	66.6	54.3	58.8
29-Oct-11	13:05	57.7	60.2	54.3	
29-Oct-11	13:10	58.0	60.6	54.9	
29-Oct-11	13:15	59.0	61.5	55.2	
29-Oct-11	13:20	56.5	58.8	54.1	
29-Oct-11	13:25	56.5	58.7	54.0	
29-Oct-11	13:30	56.0	57.5	54.0	57.2
29-Oct-11	13:35	57.0	58.9	54.6	
29-Oct-11	13:40	58.6	61.3	54.2	
29-Oct-11	13:45	57.4	59.5	54.5	
29-Oct-11	13:50	57.5	60.0	54.6	
29-Oct-11	13:55	56.4	58.2	54.3	
29-Oct-11	14:00	56.4	57.6	54.2	56.9
29-Oct-11	14:05	57.4	58.9	54.9	
29-Oct-11	14:10	58.3	60.8	54.4	
29-Oct-11	14:15	55.4	56.1	54.2	
29-Oct-11	14:20	56.8	58.8	54.9	
29-Oct-11	14:25	56.4	57.9	54.9	
29-Oct-11	14:30	55.9	56.9	54.6	58.2
29-Oct-11	14:35	56.7	58.6	54.9	
29-Oct-11	14:40	57.9	60.3	55.0	
29-Oct-11	14:45	59.7	61.9	55.3	
29-Oct-11	14:50	58.8	61.3	56.0	
29-Oct-11	14:55	59.0	62.1	55.2	

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
29-Oct-11	15:00	57.1	58.4	54.5	59.0
29-Oct-11	15:05	61.0	63.3	55.1	
29-Oct-11	15:10	58.8	60.7	55.0	
29-Oct-11	15:15	57.8	60.3	55.1	
29-Oct-11	15:20	57.8	60.3	55.2	
29-Oct-11	15:25	60.2	63.1	55.2	
29-Oct-11	15:30	58.3	60.3	55.2	57.8
29-Oct-11	15:35	57.2	58.8	55.1	
29-Oct-11	15:40	57.3	59.1	55.1	
29-Oct-11	15:45	57.5	60.2	55.0	
29-Oct-11	15:50	58.8	60.9	56.0	
29-Oct-11	15:55	57.4	59.1	55.2	
29-Oct-11	16:00	56.4	58.2	54.4	58.0
29-Oct-11	16:05	56.3	57.8	54.3	
29-Oct-11	16:10	57.1	59.4	54.9	
29-Oct-11	16:15	57.6	59.7	55.0	
29-Oct-11	16:20	61.3	61.9	55.0	
29-Oct-11	16:25	56.8	58.4	54.9	
29-Oct-11	16:30	57.9	60.8	55.0	58.3
29-Oct-11	16:35	58.3	60.2	55.2	
29-Oct-11	16:40	57.8	59.8	55.3	
29-Oct-11	16:45	56.8	58.6	55.0	
29-Oct-11	16:50	58.6	60.7	55.2	
29-Oct-11	16:55	59.6	62.3	55.7	
29-Oct-11	17:00	60.1	62.9	56.2	58.7
29-Oct-11	17:05	57.7	59.3	56.0	
29-Oct-11	17:10	59.5	61.3	57.1	
29-Oct-11	17:15	57.8	59.6	55.3	
29-Oct-11	17:20	57.7	59.4	55.4	
29-Oct-11	17:25	58.8	61.1	55.1	
29-Oct-11	17:30	59.8	62.8	55.6	57.9
29-Oct-11	17:35	57.0	58.5	54.9	
29-Oct-11	17:40	59.1	61.9	54.9	
29-Oct-11	17:45	57.3	59.8	54.7	
29-Oct-11	17:50	56.0	57.5	54.1	
29-Oct-11	17:55	57.1	57.8	54.3	
29-Oct-11	18:00	55.8	56.7	54.5	57.7
29-Oct-11	18:05	58.6	61.3	55.1	
29-Oct-11	18:10	58.5	61.9	54.8	
29-Oct-11	18:15	57.7	58.6	54.2	
29-Oct-11	18:20	58.0	60.6	54.9	
29-Oct-11	18:25	56.9	58.9	54.9	
29-Oct-11	18:30	58.4	61.5	54.7	57.2
29-Oct-11	18:35	58.0	61.0	54.5	
29-Oct-11	18:40	56.7	59.0	54.1	
29-Oct-11	18:45	55.6	56.4	54.1	
29-Oct-11	18:50	56.1	56.8	54.5	
29-Oct-11	18:55	57.7	57.9	54.1	
	Mean	57.3	59.3	54.4	57.5
	Maximum	63.5	67.8	57.1	59.1
	Minimum	54.4	55.5	48.3	55.8

Appendix B2

Day-time Noise Level at San Tau_NMS 4

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
31-Oct-11	07:00	55.5	56.8	54.1	55.4
31-Oct-11	07:05	55.1	55.8	54.0	
31-Oct-11	07:10	55.4	56.5	54.1	
31-Oct-11	07:15	55.2	55.9	54.1	
31-Oct-11	07:20	55.8	56.0	54.1	
31-Oct-11	07:25	55.3	56.1	54.1	
31-Oct-11	07:30	55.4	56.2	54.0	56.0
31-Oct-11	07:35	56.9	58.3	54.1	
31-Oct-11	07:40	57.1	59.4	54.2	
31-Oct-11	07:45	55.0	55.8	54.1	
31-Oct-11	07:50	55.9	57.5	54.2	
31-Oct-11	07:55	55.3	56.5	54.1	
31-Oct-11	08:00	56.5	58.5	54.2	56.6
31-Oct-11	08:05	56.0	57.3	54.0	
31-Oct-11	08:10	56.0	57.7	53.9	
31-Oct-11	08:15	56.8	59.3	54.0	
31-Oct-11	08:20	56.8	59.2	54.1	
31-Oct-11	08:25	57.4	59.1	54.0	
31-Oct-11	08:30	57.8	60.3	53.9	56.0
31-Oct-11	08:35	55.0	56.4	53.7	
31-Oct-11	08:40	56.4	58.1	54.0	
31-Oct-11	08:45	54.9	56.2	53.4	
31-Oct-11	08:50	56.2	58.1	53.9	
31-Oct-11	08:55	55.0	55.6	53.5	
31-Oct-11	09:00	55.0	55.9	53.4	56.0
31-Oct-11	09:05	55.2	56.7	53.8	
31-Oct-11	09:10	55.6	56.9	53.8	
31-Oct-11	09:15	56.9	59.1	53.9	
31-Oct-11	09:20	57.3	59.8	53.9	
31-Oct-11	09:25	55.3	57.1	53.4	
31-Oct-11	09:30	57.6	60.6	53.7	56.2
31-Oct-11	09:35	55.8	56.7	53.8	
31-Oct-11	09:40	56.1	57.7	54.0	
31-Oct-11	09:45	56.7	59.2	53.5	
31-Oct-11	09:50	55.6	57.4	53.4	
31-Oct-11	09:55	54.7	56.0	53.3	
31-Oct-11	10:00	55.5	56.8	53.3	55.7
31-Oct-11	10:05	55.4	57.0	52.9	
31-Oct-11	10:10	54.2	54.9	52.2	
31-Oct-11	10:15	57.5	61.3	52.9	
31-Oct-11	10:20	55.0	56.7	52.9	
31-Oct-11	10:25	55.9	57.8	52.9	
31-Oct-11	10:30	56.9	59.3	53.0	56.0
31-Oct-11	10:35	55.7	58.1	52.8	
31-Oct-11	10:40	57.0	59.4	52.9	
31-Oct-11	10:45	55.7	58.0	52.9	
31-Oct-11	10:50	53.7	54.7	52.3	
31-Oct-11	10:55	56.5	59.1	52.8	

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
31-Oct-11	11:00	56.8	59.6	52.5	58.3
31-Oct-11	11:05	54.8	56.1	52.4	
31-Oct-11	11:10	63.1	64.8	52.7	
31-Oct-11	11:15	55.4	57.5	53.0	
31-Oct-11	11:20	56.5	58.8	53.0	
31-Oct-11	11:25	56.1	58.2	53.2	
31-Oct-11	11:30	55.7	57.8	52.9	55.6
31-Oct-11	11:35	55.7	55.9	52.7	
31-Oct-11	11:40	56.3	58.4	52.9	
31-Oct-11	11:45	54.7	55.7	52.6	
31-Oct-11	11:50	55.8	57.6	54.0	
31-Oct-11	11:55	54.9	55.7	54.0	
31-Oct-11	12:00	56.3	58.3	54.0	57.0
31-Oct-11	12:05	58.1	60.9	54.1	
31-Oct-11	12:10	55.6	56.7	54.0	
31-Oct-11	12:15	56.1	57.8	54.1	
31-Oct-11	12:20	56.2	58.2	54.0	
31-Oct-11	12:25	58.7	61.6	54.3	
31-Oct-11	12:30	57.9	61.2	54.1	56.3
31-Oct-11	12:35	55.8	57.5	54.0	
31-Oct-11	12:40	54.9	57.3	44.8	
31-Oct-11	12:45	56.0	57.6	54.1	
31-Oct-11	12:50	56.2	58.2	54.1	
31-Oct-11	12:55	56.4	58.3	54.3	
31-Oct-11	13:00	59.6	63.1	54.5	57.9
31-Oct-11	13:05	56.1	58.2	54.1	
31-Oct-11	13:10	58.2	60.9	54.3	
31-Oct-11	13:15	57.9	60.7	53.6	
31-Oct-11	13:20	57.6	60.3	52.9	
31-Oct-11	13:25	57.5	60.8	53.1	
31-Oct-11	13:30	55.4	57.7	52.9	54.7
31-Oct-11	13:35	54.2	55.4	52.9	
31-Oct-11	13:40	55.6	57.2	52.7	
31-Oct-11	13:45	53.8	54.7	52.7	
31-Oct-11	13:50	54.3	55.8	52.9	
31-Oct-11	13:55	54.5	55.8	52.4	
31-Oct-11	14:00	54.7	56.2	52.8	55.5
31-Oct-11	14:05	54.1	55.0	52.8	
31-Oct-11	14:10	55.8	58.2	53.2	
31-Oct-11	14:15	54.6	56.1	52.9	
31-Oct-11	14:20	55.3	56.8	52.9	
31-Oct-11	14:25	57.4	60.1	52.9	
31-Oct-11	14:30	54.2	55.3	52.6	54.4
31-Oct-11	14:35	54.9	56.4	52.9	
31-Oct-11	14:40	53.1	53.8	52.1	
31-Oct-11	14:45	55.1	56.4	52.5	
31-Oct-11	14:50	54.3	55.7	52.9	
31-Oct-11	14:55	54.5	55.7	53.0	

Appendix B2

Day-time Noise Level at San Tau_NMS 4

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
31-Oct-11	15:00	56.5	58.5	53.0	
31-Oct-11	15:05	56.6	57.6	52.6	
31-Oct-11	15:10	53.5	54.4	52.3	55.7
31-Oct-11	15:15	55.6	57.8	53.0	
31-Oct-11	15:20	55.6	57.8	52.9	
31-Oct-11	15:25	55.7	57.5	53.0	
31-Oct-11	15:30	55.8	57.8	53.0	
31-Oct-11	15:35	58.6	61.7	53.3	
31-Oct-11	15:40	55.9	58.5	53.1	57.6
31-Oct-11	15:45	60.9	65.1	53.0	
31-Oct-11	15:50	54.9	56.5	52.9	
31-Oct-11	15:55	56.3	58.8	52.8	
31-Oct-11	16:00	54.6	56.3	52.9	
31-Oct-11	16:05	54.2	55.9	52.4	
31-Oct-11	16:10	56.3	57.9	52.5	54.9
31-Oct-11	16:15	54.9	57.2	52.4	
31-Oct-11	16:20	54.8	55.7	52.2	
31-Oct-11	16:25	54.0	55.2	52.8	
31-Oct-11	16:30	56.5	59.0	52.8	
31-Oct-11	16:35	54.3	55.5	52.9	
31-Oct-11	16:40	55.1	55.9	52.9	56.2
31-Oct-11	16:45	59.5	64.0	53.1	
31-Oct-11	16:50	54.8	56.1	53.2	
31-Oct-11	16:55	54.5	55.6	53.3	
31-Oct-11	17:00	54.8	55.8	53.6	
31-Oct-11	17:05	54.9	56.5	53.3	
31-Oct-11	17:10	58.3	61.9	53.8	56.2
31-Oct-11	17:15	56.3	58.2	53.9	
31-Oct-11	17:20	55.5	56.9	54.1	
31-Oct-11	17:25	56.1	57.7	54.2	
31-Oct-11	17:30	57.4	59.7	54.9	
31-Oct-11	17:35	58.0	61.1	54.9	
31-Oct-11	17:40	57.4	59.5	54.3	57.0
31-Oct-11	17:45	56.7	59.4	54.1	
31-Oct-11	17:50	56.2	58.4	54.0	
31-Oct-11	17:55	56.2	58.2	53.9	
31-Oct-11	18:00	55.6	57.0	53.9	
31-Oct-11	18:05	57.5	59.8	53.9	
31-Oct-11	18:10	56.1	57.6	54.0	56.5
31-Oct-11	18:15	57.5	59.2	53.4	
31-Oct-11	18:20	55.1	56.7	53.2	
31-Oct-11	18:25	56.6	58.4	53.4	
31-Oct-11	18:30	54.3	55.2	53.2	
31-Oct-11	18:35	56.9	58.5	53.4	
31-Oct-11	18:40	55.9	57.5	53.1	56.3
31-Oct-11	18:45	57.0	58.7	53.2	
31-Oct-11	18:50	55.9	58.4	53.1	
31-Oct-11	18:55	57.3	59.4	53.2	
	Mean	56.0	57.8	53.3	56.2
	Maximum	63.1	65.1	54.9	58.3
	Minimum	53.1	53.8	44.8	54.4

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
1-Nov-11	07:00	56.2	57.5	54.1	
1-Nov-11	07:05	57.0	58.8	54.1	
1-Nov-11	07:10	55.8	56.6	54.1	55.9
1-Nov-11	07:15	55.1	55.9	54.0	
1-Nov-11	07:20	55.4	56.4	54.2	
1-Nov-11	07:25	55.8	56.8	54.4	
1-Nov-11	07:30	55.3	56.4	54.0	
1-Nov-11	07:35	54.7	55.7	53.7	
1-Nov-11	07:40	55.0	55.8	53.5	55.5
1-Nov-11	07:45	56.1	56.8	53.5	
1-Nov-11	07:50	55.6	57.0	53.4	
1-Nov-11	07:55	56.3	58.4	53.9	
1-Nov-11	08:00	56.3	57.7	53.9	
1-Nov-11	08:05	54.5	55.6	53.2	
1-Nov-11	08:10	55.4	56.6	53.3	56.0
1-Nov-11	08:15	56.2	58.0	54.1	
1-Nov-11	08:20	56.7	58.5	54.0	
1-Nov-11	08:25	56.6	58.9	53.9	
1-Nov-11	08:30	56.7	59.3	54.0	
1-Nov-11	08:35	55.5	57.3	53.6	
1-Nov-11	08:40	55.0	55.9	53.4	55.8
1-Nov-11	08:45	55.3	56.8	53.9	
1-Nov-11	08:50	55.9	57.7	53.9	
1-Nov-11	08:55	56.2	57.9	53.6	
1-Nov-11	09:00	58.1	61.5	53.7	
1-Nov-11	09:05	54.5	55.4	53.2	
1-Nov-11	09:10	55.2	56.1	53.4	56.2
1-Nov-11	09:15	56.3	57.3	53.6	
1-Nov-11	09:20	57.0	59.3	53.7	
1-Nov-11	09:25	55.2	56.8	53.3	
1-Nov-11	09:30	55.7	58.0	53.3	
1-Nov-11	09:35	56.8	58.6	53.5	
1-Nov-11	09:40	54.8	55.9	53.1	56.1
1-Nov-11	09:45	57.4	60.6	53.4	
1-Nov-11	09:50	56.2	58.5	53.1	
1-Nov-11	09:55	55.2	57.1	53.1	
1-Nov-11	10:00	55.0	56.8	53.1	
1-Nov-11	10:05	55.2	56.4	53.0	
1-Nov-11	10:10	53.8	54.7	53.0	55.7
1-Nov-11	10:15	56.9	58.8	53.1	
1-Nov-11	10:20	55.9	57.9	53.2	
1-Nov-11	10:25	56.5	59.3	53.2	
1-Nov-11	10:30	56.4	58.9	53.2	
1-Nov-11	10:35	55.3	57.6	52.9	
1-Nov-11	10:40	56.3	58.6	53.1	56.0
1-Nov-11	10:45	56.1	57.3	53.1	
1-Nov-11	10:50	54.6	55.7	53.0	
1-Nov-11	10:55	57.1	60.0	53.4	

Appendix B2

Day-time Noise Level at San Tau_NMS 4

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
1-Nov-11	11:00	56.0	57.7	53.1	
1-Nov-11	11:05	56.1	57.9	53.4	
1-Nov-11	11:10	56.0	57.1	53.1	55.7
1-Nov-11	11:15	55.4	56.6	53.1	
1-Nov-11	11:20	54.4	55.3	53.1	
1-Nov-11	11:25	56.3	58.2	53.3	
1-Nov-11	11:30	58.7	61.0	53.3	
1-Nov-11	11:35	58.7	61.3	53.4	
1-Nov-11	11:40	56.0	59.0	53.0	56.9
1-Nov-11	11:45	55.1	56.9	53.1	
1-Nov-11	11:50	54.5	55.4	53.0	
1-Nov-11	11:55	56.3	58.5	52.9	
1-Nov-11	12:00	54.8	56.1	53.0	
1-Nov-11	12:05	55.6	56.7	53.7	
1-Nov-11	12:10	55.2	56.3	53.3	55.7
1-Nov-11	12:15	57.1	59.3	53.4	
1-Nov-11	12:20	56.1	57.0	53.5	
1-Nov-11	12:25	54.8	56.1	53.3	
1-Nov-11	12:30	54.3	55.4	53.1	
1-Nov-11	12:35	54.7	56.0	53.1	
1-Nov-11	12:40	54.4	56.5	46.4	55.0
1-Nov-11	12:45	53.0	56.0	44.6	
1-Nov-11	12:50	57.7	60.5	53.1	
1-Nov-11	12:55	54.4	56.3	52.3	
1-Nov-11	13:00	53.8	55.1	52.0	
1-Nov-11	13:05	59.8	62.8	52.2	
1-Nov-11	13:10	54.7	56.5	52.5	56.6
1-Nov-11	13:15	55.9	57.9	52.4	
1-Nov-11	13:20	56.6	59.1	52.5	
1-Nov-11	13:25	55.8	58.0	53.0	
1-Nov-11	13:30	55.7	57.8	52.8	
1-Nov-11	13:35	54.9	56.2	53.0	
1-Nov-11	13:40	57.2	59.6	52.8	55.6
1-Nov-11	13:45	56.9	60.5	52.9	
1-Nov-11	13:50	54.0	55.4	52.5	
1-Nov-11	13:55	53.6	54.6	52.2	
1-Nov-11	14:00	54.5	55.6	52.3	
1-Nov-11	14:05	54.4	55.5	52.9	
1-Nov-11	14:10	54.7	56.5	52.7	55.5
1-Nov-11	14:15	56.1	58.1	52.5	
1-Nov-11	14:20	54.2	55.6	52.4	
1-Nov-11	14:25	57.8	61.1	52.9	
1-Nov-11	14:30	54.9	56.4	53.0	
1-Nov-11	14:35	56.6	58.8	53.3	
1-Nov-11	14:40	55.5	57.4	53.3	55.7
1-Nov-11	14:45	55.3	57.3	53.0	
1-Nov-11	14:50	56.2	58.5	53.1	
1-Nov-11	14:55	55.3	57.1	53.0	

Date	dB(A)				
	Time	L_{eq}	L_{10}	L_{90}	$L_{eq\ (30\text{-}min)}$
1-Nov-11	15:00	55.2	57.3	52.7	
1-Nov-11	15:05	55.8	58.4	53.1	
1-Nov-11	15:10	56.7	59.1	53.1	55.7
1-Nov-11	15:15	55.1	56.8	53.1	
1-Nov-11	15:20	55.6	57.4	53.2	
1-Nov-11	15:25	55.8	57.6	53.1	
1-Nov-11	15:30	58.6	62.5	53.4	
1-Nov-11	15:35	55.4	56.9	53.3	
1-Nov-11	15:40	54.6	55.7	53.1	56.5
1-Nov-11	15:45	55.4	57.2	53.4	
1-Nov-11	15:50	57.8	59.4	53.7	
1-Nov-11	15:55	55.5	56.4	53.4	
1-Nov-11	16:00	55.5	56.4	53.4	
1-Nov-11	16:05	56.0	58.1	53.7	
1-Nov-11	16:10	55.1	56.2	53.9	56.4
1-Nov-11	16:15	54.7	55.6	53.9	
1-Nov-11	16:20	59.8	63.2	54.0	
1-Nov-11	16:25	54.6	55.5	53.9	
1-Nov-11	16:30	54.8	55.6	54.0	
1-Nov-11	16:35	54.6	55.4	53.9	
1-Nov-11	16:40	55.0	55.8	54.0	54.9
1-Nov-11	16:45	55.0	56.1	53.9	
1-Nov-11	16:50	55.2	55.7	54.0	
1-Nov-11	16:55	54.5	55.5	53.8	
1-Nov-11	17:00	54.4	55.3	53.5	
1-Nov-11	17:05	55.5	56.8	54.0	
1-Nov-11	17:10	54.7	55.6	53.9	54.9
1-Nov-11	17:15	54.5	55.4	53.9	
1-Nov-11	17:20	54.7	55.5	53.9	
1-Nov-11	17:25	55.4	57.0	54.0	
1-Nov-11	17:30	58.6	59.5	53.9	
1-Nov-11	17:35	57.6	55.8	53.6	
1-Nov-11	17:40	54.9	56.2	53.3	56.4
1-Nov-11	17:45	55.0	55.8	53.4	
1-Nov-11	17:50	55.7	56.8	53.9	
1-Nov-11	17:55	55.2	56.2	54.0	
1-Nov-11	18:00	56.7	58.7	54.0	
1-Nov-11	18:05	55.6	57.4	53.8	
1-Nov-11	18:10	55.1	56.2	53.9	56.7
1-Nov-11	18:15	56.8	58.0	53.9	
1-Nov-11	18:20	58.0	57.8	53.9	
1-Nov-11	18:25	57.4	57.8	53.9	
1-Nov-11	18:30	57.0	59.4	54.0	
1-Nov-11	18:35	58.5	61.3	54.0	
1-Nov-11	18:40	57.3	58.9	53.9	57.1
1-Nov-11	18:45	55.8	56.5	53.8	
1-Nov-11	18:50	57.6	59.3	54.0	
1-Nov-11	18:55	55.8	57.8	53.9	
	Mean	55.8	57.4	53.3	55.9
	Maximum	59.8	63.2	54.4	57.1
	Minimum	53.0	54.6	44.6	54.9

Summary of Day-time Noise Level at San Tau_NMS 4			
	$L_{eq(30min)}$	L_{10}	L_{90}
Mean	56.0	57.7	52.1
Maximum	70.9	82.1	57.1
Minimum	49.1	47.1	42.9

Appendix B3

Evening Time and Holiday Noise Level at Sha Lo Wan_NMS 1

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
18-Oct-11	19:00	63.5	66.8	53.0
18-Oct-11	19:05	53.4	57.3	45.5
18-Oct-11	19:10	62.0	65.6	55.2
18-Oct-11	19:15	68.3	72.4	55.2
18-Oct-11	19:20	67.2	72.1	56.8
18-Oct-11	19:25	66.2	70.8	51.2
18-Oct-11	19:30	64.4	68.2	46.8
18-Oct-11	19:35	59.3	62.8	48.3
18-Oct-11	19:40	62.4	67.9	48.1
18-Oct-11	19:45	61.8	67.4	45.0
18-Oct-11	19:50	62.0	67.9	47.2
18-Oct-11	19:55	61.6	67.2	48.8
18-Oct-11	20:00	68.2	73.5	54.3
18-Oct-11	20:05	64.5	68.6	54.3
18-Oct-11	20:10	57.6	60.6	44.4
18-Oct-11	20:15	63.1	68.9	47.5
18-Oct-11	20:20	60.3	63.5	48.2
18-Oct-11	20:25	64.9	70.0	50.4
18-Oct-11	20:30	62.5	67.0	48.7
18-Oct-11	20:35	59.9	61.9	45.7
18-Oct-11	20:40	59.4	61.8	46.4
18-Oct-11	20:45	63.0	67.7	47.0
18-Oct-11	20:50	60.6	60.5	47.2
18-Oct-11	20:55	63.5	67.2	54.0
18-Oct-11	21:00	66.0	71.8	49.4
18-Oct-11	21:05	59.9	63.2	48.4
18-Oct-11	21:10	65.0	69.5	52.5
18-Oct-11	21:15	65.1	69.9	47.1
18-Oct-11	21:20	62.1	66.4	47.0
18-Oct-11	21:25	64.2	68.0	44.5
18-Oct-11	21:30	61.3	65.6	45.9
18-Oct-11	21:35	55.2	55.6	45.4
18-Oct-11	21:40	65.0	65.5	44.9
18-Oct-11	21:45	61.6	60.6	45.2
18-Oct-11	21:50	57.6	59.4	47.6
18-Oct-11	21:55	64.3	70.2	50.3
18-Oct-11	22:00	63.9	64.5	46.4
18-Oct-11	22:05	57.5	62.1	47.3
18-Oct-11	22:10	62.7	67.3	47.8
18-Oct-11	22:15	65.3	70.1	52.8
18-Oct-11	22:20	68.4	73.4	52.2
18-Oct-11	22:25	60.2	65.7	43.8
18-Oct-11	22:30	60.7	65.6	45.1
18-Oct-11	22:35	64.7	70.0	48.7
18-Oct-11	22:40	48.7	52.3	41.9
18-Oct-11	22:45	48.4	50.6	41.6
18-Oct-11	22:50	56.7	60.7	47.9
18-Oct-11	22:55	60.4	65.0	52.1
	Mean	61.8	65.6	48.4
	Maximum	68.4	73.5	56.8
	Minimum	48.4	50.6	41.6

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
19-Oct-11	19:00	78.7	81.7	56.6
19-Oct-11	19:05	71.3	69.9	62.2
19-Oct-11	19:10	70.6	69.2	53.7
19-Oct-11	19:15	77.5	79.8	57.3
19-Oct-11	19:20	74.0	78.0	54.5
19-Oct-11	19:25	78.3	84.0	61.1
19-Oct-11	19:30	74.3	77.6	56.1
19-Oct-11	19:35	69.4	74.2	58.6
19-Oct-11	19:40	75.8	80.6	57.9
19-Oct-11	19:45	76.6	81.4	62.8
19-Oct-11	19:50	76.5	79.6	58.8
19-Oct-11	19:55	70.1	74.7	58.4
19-Oct-11	20:00	76.5	80.6	51.7
19-Oct-11	20:05	68.5	68.0	44.9
19-Oct-11	20:10	68.7	69.5	47.9
19-Oct-11	20:15	67.7	69.7	52.1
19-Oct-11	20:20	72.2	76.0	59.1
19-Oct-11	20:25	75.4	80.1	63.1
19-Oct-11	20:30	73.4	77.3	59.0
19-Oct-11	20:35	65.9	69.8	57.6
19-Oct-11	20:40	69.0	70.9	54.8
19-Oct-11	20:45	74.3	77.6	56.8
19-Oct-11	20:50	73.6	77.7	61.3
19-Oct-11	20:55	73.8	78.1	60.7
19-Oct-11	21:00	70.6	75.5	57.8
19-Oct-11	21:05	63.4	67.0	50.2
19-Oct-11	21:10	70.3	72.8	61.6
19-Oct-11	21:15	74.8	79.5	58.8
19-Oct-11	21:20	74.7	78.8	60.0
19-Oct-11	21:25	78.1	83.3	58.9
19-Oct-11	21:30	71.5	75.0	63.8
19-Oct-11	21:35	74.7	78.7	59.8
19-Oct-11	21:40	73.8	78.6	59.2
19-Oct-11	21:45	77.2	80.7	54.3
19-Oct-11	21:50	58.8	62.8	52.1
19-Oct-11	21:55	72.9	76.7	58.1
19-Oct-11	22:00	74.8	78.6	62.9
19-Oct-11	22:05	74.3	78.3	65.9
19-Oct-11	22:10	73.7	76.3	66.1
19-Oct-11	22:15	74.7	77.8	61.1
19-Oct-11	22:20	74.1	76.8	54.6
19-Oct-11	22:25	71.4	74.1	54.6
19-Oct-11	22:30	74.2	76.0	52.4
19-Oct-11	22:35	72.6	72.5	55.1
19-Oct-11	22:40	74.7	79.8	63.9
19-Oct-11	22:45	73.9	77.1	64.5
19-Oct-11	22:50	71.6	75.2	59.3
19-Oct-11	22:55	76.2	80.5	52.6
	Mean	72.9	76.2	57.8
	Maximum	78.7	84.0	66.1
	Minimum	58.8	62.8	44.9

Appendix B3

Evening Time and Holiday Noise Level at Sha Lo Wan_NMS 1

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
20-Oct-11	19:00	79.2	83.5	59.5
20-Oct-11	19:05	77.7	83.5	53.2
20-Oct-11	19:10	71.4	74.2	57.0
20-Oct-11	19:15	75.9	80.6	57.9
20-Oct-11	19:20	75.0	75.6	61.2
20-Oct-11	19:25	73.5	77.4	62.3
20-Oct-11	19:30	69.2	73.5	60.7
20-Oct-11	19:35	67.5	73.5	53.4
20-Oct-11	19:40	66.2	71.1	53.8
20-Oct-11	19:45	64.3	69.6	55.2
20-Oct-11	19:50	64.7	69.2	56.6
20-Oct-11	19:55	71.4	76.0	61.1
20-Oct-11	20:00	67.6	73.2	48.2
20-Oct-11	20:05	59.9	61.5	51.8
20-Oct-11	20:10	62.3	62.9	55.8
20-Oct-11	20:15	69.9	74.5	57.9
20-Oct-11	20:20	63.7	69.4	48.4
20-Oct-11	20:25	69.2	74.4	56.4
20-Oct-11	20:30	68.6	74.4	49.1
20-Oct-11	20:35	67.0	71.3	49.5
20-Oct-11	20:40	70.4	73.2	53.1
20-Oct-11	20:45	68.6	74.1	55.9
20-Oct-11	20:50	66.2	71.6	57.3
20-Oct-11	20:55	69.2	74.6	59.0
20-Oct-11	21:00	66.5	72.4	55.1
20-Oct-11	21:05	68.4	73.2	53.6
20-Oct-11	21:10	67.1	72.5	52.6
20-Oct-11	21:15	67.2	71.3	59.6
20-Oct-11	21:20	70.0	76.3	53.4
20-Oct-11	21:25	71.2	76.0	54.0
20-Oct-11	21:30	67.2	72.4	55.0
20-Oct-11	21:35	64.2	66.9	47.9
20-Oct-11	21:40	70.0	75.0	50.1
20-Oct-11	21:45	61.0	64.2	49.2
20-Oct-11	21:50	69.8	73.4	57.8
20-Oct-11	21:55	69.9	73.2	58.8
20-Oct-11	22:00	71.5	77.8	50.6
20-Oct-11	22:05	60.7	64.6	51.4
20-Oct-11	22:10	68.5	73.1	62.1
20-Oct-11	22:15	70.7	75.1	59.0
20-Oct-11	22:20	70.0	72.4	54.2
20-Oct-11	22:25	67.4	74.1	49.0
20-Oct-11	22:30	59.9	61.2	43.9
20-Oct-11	22:35	65.7	66.2	53.1
20-Oct-11	22:40	56.6	57.2	46.0
20-Oct-11	22:45	67.1	72.3	52.7
20-Oct-11	22:50	65.3	69.8	50.3
20-Oct-11	22:55	72.2	75.1	49.4
	Mean	68.1	72.3	54.2
	Maximum	79.2	83.5	62.3
	Minimum	56.6	57.2	43.9

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
21-Oct-11	19:00	59.1	64.0	47.3
21-Oct-11	19:05	67.1	72.3	50.3
21-Oct-11	19:10	64.6	68.6	50.0
21-Oct-11	19:15	67.0	73.0	50.8
21-Oct-11	19:20	68.6	70.8	46.5
21-Oct-11	19:25	67.1	71.8	49.6
21-Oct-11	19:30	68.1	71.8	58.8
21-Oct-11	19:35	64.3	67.3	58.2
21-Oct-11	19:40	60.6	65.0	51.8
21-Oct-11	19:45	64.0	69.1	54.9
21-Oct-11	19:50	66.3	71.7	48.3
21-Oct-11	19:55	61.7	67.1	46.6
21-Oct-11	20:00	58.1	61.4	45.2
21-Oct-11	20:05	61.4	63.5	43.4
21-Oct-11	20:10	64.3	67.2	45.4
21-Oct-11	20:15	62.2	68.4	45.3
21-Oct-11	20:20	57.5	53.8	45.5
21-Oct-11	20:25	60.8	66.1	47.6
21-Oct-11	20:30	59.9	63.4	46.0
21-Oct-11	20:35	60.9	63.8	47.9
21-Oct-11	20:40	60.5	65.2	49.3
21-Oct-11	20:45	60.6	65.4	49.0
21-Oct-11	20:50	67.5	72.1	55.3
21-Oct-11	20:55	65.6	68.6	53.2
21-Oct-11	21:00	62.1	65.9	52.0
21-Oct-11	21:05	65.1	70.3	48.3
21-Oct-11	21:10	63.0	67.1	54.8
21-Oct-11	21:15	64.9	69.7	53.7
21-Oct-11	21:20	64.9	69.5	52.5
21-Oct-11	21:25	62.4	64.8	52.6
21-Oct-11	21:30	65.4	70.5	50.5
21-Oct-11	21:35	59.8	64.6	48.5
21-Oct-11	21:40	63.8	68.2	48.6
21-Oct-11	21:45	57.9	61.9	49.0
21-Oct-11	21:50	59.7	63.8	48.8
21-Oct-11	21:55	49.5	52.3	43.2
21-Oct-11	22:00	59.5	64.8	45.0
21-Oct-11	22:05	62.5	67.5	48.8
21-Oct-11	22:10	58.2	61.6	47.5
21-Oct-11	22:15	64.8	68.7	46.6
21-Oct-11	22:20	62.2	67.4	50.0
21-Oct-11	22:25	57.2	61.9	47.3
21-Oct-11	22:30	60.5	66.3	46.9
21-Oct-11	22:35	60.0	65.8	43.7
21-Oct-11	22:40	52.2	53.1	45.1
21-Oct-11	22:45	52.5	57.2	42.1
21-Oct-11	22:50	60.1	62.9	46.7
21-Oct-11	22:55	59.9	62.8	51.8
	Mean	61.8	65.8	49.0
	Maximum	68.6	73.0	58.8
	Minimum	49.5	52.3	42.1

Appendix B3

Evening Time and Holiday Noise Level at Sha Lo Wan_NMS 1

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
22-Oct-11	19:00	77.6	82.7	52.6
22-Oct-11	19:05	70.4	75.3	58.8
22-Oct-11	19:10	76.7	80.8	55.1
22-Oct-11	19:15	77.9	82.2	59.5
22-Oct-11	19:20	75.0	80.1	60.9
22-Oct-11	19:25	75.4	79.9	51.4
22-Oct-11	19:30	70.1	75.3	54.4
22-Oct-11	19:35	71.7	76.9	58.2
22-Oct-11	19:40	74.3	76.5	54.0
22-Oct-11	19:45	72.7	75.7	59.7
22-Oct-11	19:50	74.9	79.8	57.8
22-Oct-11	19:55	69.1	73.0	53.9
22-Oct-11	20:00	71.4	75.1	51.3
22-Oct-11	20:05	66.2	66.5	44.1
22-Oct-11	20:10	70.3	75.0	57.7
22-Oct-11	20:15	73.0	76.7	55.3
22-Oct-11	20:20	72.3	69.9	56.2
22-Oct-11	20:25	69.2	73.4	55.8
22-Oct-11	20:30	70.3	75.6	55.1
22-Oct-11	20:35	69.9	73.1	57.0
22-Oct-11	20:40	71.2	76.8	58.7
22-Oct-11	20:45	70.3	74.7	55.0
22-Oct-11	20:50	71.4	77.3	46.8
22-Oct-11	20:55	71.1	73.0	51.0
22-Oct-11	21:00	73.1	78.3	59.4
22-Oct-11	21:05	76.2	80.3	59.1
22-Oct-11	21:10	76.3	81.3	60.0
22-Oct-11	21:15	53.3	55.6	43.0
22-Oct-11	21:20	64.7	66.8	49.3
22-Oct-11	21:25	66.5	71.1	51.4
22-Oct-11	21:30	60.5	63.8	46.7
22-Oct-11	21:35	76.9	81.9	54.8
22-Oct-11	21:40	74.1	70.1	43.2
22-Oct-11	21:45	70.6	71.1	47.7
22-Oct-11	21:50	74.3	74.6	59.6
22-Oct-11	21:55	71.3	69.8	47.5
22-Oct-11	22:00	75.3	78.8	55.2
22-Oct-11	22:05	71.8	77.6	55.4
22-Oct-11	22:10	71.2	76.4	50.7
22-Oct-11	22:15	71.6	74.6	42.6
22-Oct-11	22:20	45.5	48.9	39.7
22-Oct-11	22:25	66.6	66.8	45.8
22-Oct-11	22:30	68.5	70.0	47.4
22-Oct-11	22:35	71.8	74.6	56.1
22-Oct-11	22:40	74.7	81.0	55.6
22-Oct-11	22:45	65.9	67.8	44.1
22-Oct-11	22:50	74.5	75.5	49.7
22-Oct-11	22:55	73.7	75.2	50.1
	Mean	70.9	74.1	52.8
	Maximum	77.9	82.7	60.9
	Minimum	45.5	48.9	39.7

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
23-Oct-11	07:00	63.1	66.8	49.8
23-Oct-11	07:05	65.7	64.8	56.1
23-Oct-11	07:10	63.6	67.4	57.2
23-Oct-11	07:15	63.4	67.4	52.4
23-Oct-11	07:20	73.3	67.8	44.7
23-Oct-11	07:25	56.3	60.6	46.3
23-Oct-11	07:30	59.9	64.1	47.2
23-Oct-11	07:35	54.9	57.5	47.1
23-Oct-11	07:40	59.4	62.3	50.9
23-Oct-11	07:45	70.4	72.4	54.7
23-Oct-11	07:50	71.4	74.5	46.4
23-Oct-11	07:55	70.8	76.4	50.0
23-Oct-11	08:00	61.1	64.5	47.6
23-Oct-11	08:05	67.4	71.4	47.8
23-Oct-11	08:10	60.5	57.8	41.5
23-Oct-11	08:15	69.8	75.7	44.1
23-Oct-11	08:20	68.3	70.6	46.0
23-Oct-11	08:25	66.3	72.5	48.4
23-Oct-11	08:30	65.0	70.7	47.4
23-Oct-11	08:35	71.1	74.8	46.8
23-Oct-11	08:40	61.6	57.3	44.1
23-Oct-11	08:45	43.9	45.7	41.4
23-Oct-11	08:50	68.3	53.0	42.7
23-Oct-11	08:55	65.2	71.6	45.1
23-Oct-11	09:00	70.0	75.6	44.3
23-Oct-11	09:05	65.9	71.8	47.8
23-Oct-11	09:10	69.8	74.8	45.7
23-Oct-11	09:15	70.5	76.3	44.3
23-Oct-11	09:20	68.7	74.2	46.6
23-Oct-11	09:25	71.4	77.3	47.8
23-Oct-11	09:30	71.7	77.7	46.0
23-Oct-11	09:35	65.3	69.3	46.8
23-Oct-11	09:40	67.6	60.4	46.0
23-Oct-11	09:45	67.2	72.2	43.7
23-Oct-11	09:50	68.4	72.7	40.8
23-Oct-11	09:55	66.4	71.1	43.3
23-Oct-11	10:00	68.4	73.8	45.9
23-Oct-11	10:05	68.8	73.5	41.9
23-Oct-11	10:10	67.3	69.9	35.5
23-Oct-11	10:15	65.2	69.6	40.0
23-Oct-11	10:20	69.1	73.6	44.3
23-Oct-11	10:25	70.6	75.6	42.7
23-Oct-11	10:30	71.0	75.5	42.2
23-Oct-11	10:35	66.5	71.6	42.7
23-Oct-11	10:40	70.9	76.2	42.4
23-Oct-11	10:45	67.8	71.5	41.8
23-Oct-11	10:50	63.5	61.1	42.4
23-Oct-11	10:55	64.2	69.8	39.0

Appendix B3

Evening Time and Holiday Noise Level at Sha Lo Wan_NMS 1

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
23-Oct-11	11:00	42.0	44.8	37.1
23-Oct-11	11:05	68.7	75.0	40.8
23-Oct-11	11:10	61.6	63.3	38.5
23-Oct-11	11:15	64.2	61.3	42.7
23-Oct-11	11:20	61.3	59.4	38.1
23-Oct-11	11:25	67.8	72.8	41.4
23-Oct-11	11:30	66.4	68.7	43.3
23-Oct-11	11:35	68.1	71.9	44.1
23-Oct-11	11:40	71.9	75.3	41.7
23-Oct-11	11:45	65.8	71.4	40.9
23-Oct-11	11:50	66.7	69.3	40.1
23-Oct-11	11:55	67.3	72.5	44.9
23-Oct-11	12:00	66.4	65.6	47.2
23-Oct-11	12:05	67.7	72.5	48.4
23-Oct-11	12:10	67.4	72.8	40.7
23-Oct-11	12:15	67.4	71.1	43.4
23-Oct-11	12:20	68.9	74.7	39.3
23-Oct-11	12:25	61.9	56.5	39.6
23-Oct-11	12:30	64.2	69.3	39.0
23-Oct-11	12:35	64.7	52.0	40.8
23-Oct-11	12:40	69.4	74.4	38.2
23-Oct-11	12:45	64.5	63.7	38.0
23-Oct-11	12:50	65.6	70.5	39.8
23-Oct-11	12:55	67.2	72.0	40.7
23-Oct-11	13:00	69.1	75.0	41.0
23-Oct-11	13:05	69.5	73.8	41.8
23-Oct-11	13:10	68.1	73.5	45.6
23-Oct-11	13:15	68.9	71.7	45.6
23-Oct-11	13:20	70.2	76.1	42.8
23-Oct-11	13:25	67.0	69.0	44.3
23-Oct-11	13:30	64.6	69.7	45.3
23-Oct-11	13:35	67.5	72.0	45.8
23-Oct-11	13:40	68.9	74.4	43.7
23-Oct-11	13:45	58.7	52.2	43.4
23-Oct-11	13:50	60.9	64.5	42.0
23-Oct-11	13:55	61.8	58.6	42.6
23-Oct-11	14:00	46.0	48.3	42.8
23-Oct-11	14:05	66.1	71.3	44.2
23-Oct-11	14:10	65.9	64.0	45.5
23-Oct-11	14:15	68.4	72.9	46.3
23-Oct-11	14:20	66.3	71.1	45.6
23-Oct-11	14:25	67.4	72.8	44.2
23-Oct-11	14:30	66.6	66.7	42.5
23-Oct-11	14:35	64.7	67.9	43.3
23-Oct-11	14:40	66.0	70.5	46.8
23-Oct-11	14:45	67.2	73.2	47.0
23-Oct-11	14:50	62.5	66.2	45.7
23-Oct-11	14:55	69.2	75.3	45.2

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
23-Oct-11	15:00	65.1	70.0	45.5
23-Oct-11	15:05	71.1	76.9	46.5
23-Oct-11	15:10	69.0	74.2	43.3
23-Oct-11	15:15	62.1	51.0	43.8
23-Oct-11	15:20	66.8	67.0	43.3
23-Oct-11	15:25	65.3	71.3	46.1
23-Oct-11	15:30	64.9	65.4	44.3
23-Oct-11	15:35	64.8	69.9	45.6
23-Oct-11	15:40	65.2	71.0	44.9
23-Oct-11	15:45	64.3	70.2	46.0
23-Oct-11	15:50	62.3	68.2	45.1
23-Oct-11	15:55	61.2	59.0	45.2
23-Oct-11	16:00	67.1	73.1	45.4
23-Oct-11	16:05	67.7	73.6	46.6
23-Oct-11	16:10	67.6	73.7	42.8
23-Oct-11	16:15	66.8	68.5	43.6
23-Oct-11	16:20	68.6	72.3	45.4
23-Oct-11	16:25	67.9	72.8	47.4
23-Oct-11	16:30	69.2	74.2	45.2
23-Oct-11	16:35	64.9	70.0	48.1
23-Oct-11	16:40	70.3	75.8	47.5
23-Oct-11	16:45	68.8	73.1	46.1
23-Oct-11	16:50	71.3	76.8	43.9
23-Oct-11	16:55	65.8	70.6	43.8
23-Oct-11	17:00	67.0	70.4	43.0
23-Oct-11	17:05	69.5	75.8	46.8
23-Oct-11	17:10	64.3	70.3	42.7
23-Oct-11	17:15	69.4	75.3	55.9
23-Oct-11	17:20	71.6	76.9	47.4
23-Oct-11	17:25	63.5	69.2	44.9
23-Oct-11	17:30	66.3	55.6	42.7
23-Oct-11	17:35	66.8	70.3	47.9
23-Oct-11	17:40	67.7	73.3	43.2
23-Oct-11	17:45	65.6	68.7	45.2
23-Oct-11	17:50	67.4	72.6	44.0
23-Oct-11	17:55	70.0	76.1	47.7
23-Oct-11	18:00	70.1	73.2	49.3
23-Oct-11	18:05	70.6	74.5	48.5
23-Oct-11	18:10	68.4	73.8	47.1
23-Oct-11	18:15	67.8	72.9	47.1
23-Oct-11	18:20	69.5	75.8	48.6
23-Oct-11	18:25	68.8	71.3	46.4
23-Oct-11	18:30	70.5	76.3	46.1
23-Oct-11	18:35	51.2	54.5	45.3
23-Oct-11	18:40	61.0	59.3	50.3
23-Oct-11	18:45	61.9	55.0	48.4
23-Oct-11	18:50	65.5	71.6	47.5
23-Oct-11	18:55	64.2	61.9	47.2

Appendix B3

Evening Time and Holiday Noise Level at Sha Lo Wan_NMS 1

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
23-Oct-11	19:00	67.1	71.0	49.2
23-Oct-11	19:05	69.1	65.6	56.1
23-Oct-11	19:10	68.4	72.7	56.2
23-Oct-11	19:15	68.7	74.3	50.3
23-Oct-11	19:20	69.4	74.3	48.7
23-Oct-11	19:25	69.3	71.2	50.1
23-Oct-11	19:30	68.1	73.3	48.5
23-Oct-11	19:35	70.8	76.7	48.4
23-Oct-11	19:40	69.5	75.8	48.6
23-Oct-11	19:45	67.2	72.9	47.7
23-Oct-11	19:50	63.5	62.9	46.9
23-Oct-11	19:55	69.8	73.9	51.7
23-Oct-11	20:00	67.2	65.0	48.7
23-Oct-11	20:05	69.8	73.9	52.3
23-Oct-11	20:10	71.6	73.3	56.1
23-Oct-11	20:15	77.0	82.9	61.2
23-Oct-11	20:20	74.1	79.0	64.2
23-Oct-11	20:25	78.5	79.3	66.1
23-Oct-11	20:30	76.5	81.8	67.0
23-Oct-11	20:35	74.1	78.5	55.5
23-Oct-11	20:40	67.6	70.6	57.6
23-Oct-11	20:45	74.8	78.5	62.3
23-Oct-11	20:50	71.9	76.5	62.2
23-Oct-11	20:55	73.5	78.0	63.7
23-Oct-11	21:00	75.4	79.6	62.4
23-Oct-11	21:05	74.5	79.8	64.3
23-Oct-11	21:10	76.7	79.3	65.5
23-Oct-11	21:15	72.2	75.3	58.1
23-Oct-11	21:20	71.5	77.9	59.2
23-Oct-11	21:25	76.2	82.1	59.3
23-Oct-11	21:30	73.6	79.3	51.3
23-Oct-11	21:35	74.1	77.9	52.2
23-Oct-11	21:40	52.2	54.1	49.6
23-Oct-11	21:45	53.6	56.8	49.1
23-Oct-11	21:50	69.5	73.4	59.5
23-Oct-11	21:55	74.4	78.2	58.5
23-Oct-11	22:00	73.1	78.6	57.5
23-Oct-11	22:05	71.0	74.1	56.6
23-Oct-11	22:10	75.3	81.2	53.0
23-Oct-11	22:15	56.4	60.7	49.8
23-Oct-11	22:20	76.2	80.2	56.9
23-Oct-11	22:25	73.9	79.8	56.6
23-Oct-11	22:30	74.8	80.2	56.8
23-Oct-11	22:35	71.6	75.0	51.6
23-Oct-11	22:40	57.2	55.4	49.9
23-Oct-11	22:45	68.0	72.2	51.6
23-Oct-11	22:50	65.4	68.7	48.0
23-Oct-11	22:55	69.9	71.6	52.3
	Mean	67.1	70.4	47.4
	Maximum	78.5	82.9	67.0
	Minimum	42.0	44.8	35.5

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
24-Oct-11	19:00	75.9	79.1	60.1
24-Oct-11	19:05	71.0	75.5	56.4
24-Oct-11	19:10	74.1	79.1	59.9
24-Oct-11	19:15	73.3	78.1	62.0
24-Oct-11	19:20	74.2	78.7	62.4
24-Oct-11	19:25	68.3	72.5	59.3
24-Oct-11	19:30	69.4	74.1	59.4
24-Oct-11	19:35	68.3	73.7	54.9
24-Oct-11	19:40	65.7	70.5	54.2
24-Oct-11	19:45	64.0	68.9	56.0
24-Oct-11	19:50	65.4	69.2	58.1
24-Oct-11	19:55	72.1	76.7	62.2
24-Oct-11	20:00	68.5	73.1	49.4
24-Oct-11	20:05	60.0	61.7	52.1
24-Oct-11	20:10	62.4	63.6	55.5
24-Oct-11	20:15	70.8	75.7	58.8
24-Oct-11	20:20	65.6	71.0	50.3
24-Oct-11	20:25	69.8	75.0	57.6
24-Oct-11	20:30	68.3	74.0	49.2
24-Oct-11	20:35	66.5	69.9	49.7
24-Oct-11	20:40	71.4	74.5	53.9
24-Oct-11	20:45	68.7	74.7	55.5
24-Oct-11	20:50	65.2	70.4	56.8
24-Oct-11	20:55	68.2	73.3	58.9
24-Oct-11	21:00	67.5	73.3	56.0
24-Oct-11	21:05	69.0	74.3	53.4
24-Oct-11	21:10	65.7	71.1	51.9
24-Oct-11	21:15	65.9	70.4	58.1
24-Oct-11	21:20	69.0	74.7	52.1
24-Oct-11	21:25	69.5	74.0	53.3
24-Oct-11	21:30	67.2	72.4	54.0
24-Oct-11	21:35	60.9	63.3	46.4
24-Oct-11	21:40	66.9	72.6	49.3
24-Oct-11	21:45	59.7	63.6	47.7
24-Oct-11	21:50	67.9	71.7	56.9
24-Oct-11	21:55	68.2	71.6	57.5
24-Oct-11	22:00	70.5	76.6	50.5
24-Oct-11	22:05	61.5	65.3	51.5
24-Oct-11	22:10	69.2	73.8	62.1
24-Oct-11	22:15	70.6	74.7	59.4
24-Oct-11	22:20	70.7	73.6	54.6
24-Oct-11	22:25	65.8	71.7	49.0
24-Oct-11	22:30	59.0	60.3	43.9
24-Oct-11	22:35	64.5	65.9	51.7
24-Oct-11	22:40	55.2	56.5	44.7
24-Oct-11	22:45	68.3	73.9	52.3
24-Oct-11	22:50	64.4	68.9	50.1
24-Oct-11	22:55	69.2	71.6	46.9
	Mean	67.4	71.6	54.3
	Maximum	75.9	79.1	62.4
	Minimum	55.2	56.5	43.9

Appendix B3

Evening Time and Holiday Noise Level at Sha Lo Wan_NMS 1

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
25-Oct-11	19:00	60.8	65.6	49.3
25-Oct-11	19:05	71.8	75.7	49.9
25-Oct-11	19:10	62.7	68.7	46.1
25-Oct-11	19:15	62.4	66.5	44.5
25-Oct-11	19:20	68.0	71.4	51.6
25-Oct-11	19:25	68.4	73.5	51.3
25-Oct-11	19:30	68.1	70.5	52.1
25-Oct-11	19:35	69.7	75.0	56.2
25-Oct-11	19:40	66.8	72.2	54.6
25-Oct-11	19:45	67.5	68.7	50.1
25-Oct-11	19:50	69.4	72.2	51.2
25-Oct-11	19:55	58.8	64.4	46.7
25-Oct-11	20:00	57.7	61.0	46.5
25-Oct-11	20:05	66.1	70.8	50.7
25-Oct-11	20:10	58.7	64.5	46.5
25-Oct-11	20:15	60.1	65.6	45.8
25-Oct-11	20:20	55.8	59.5	42.9
25-Oct-11	20:25	49.2	50.7	42.8
25-Oct-11	20:30	58.4	63.1	44.6
25-Oct-11	20:35	60.9	66.6	41.4
25-Oct-11	20:40	62.6	66.2	42.1
25-Oct-11	20:45	60.1	65.3	49.5
25-Oct-11	20:50	59.5	64.6	49.3
25-Oct-11	20:55	57.4	60.9	49.7
25-Oct-11	21:00	60.8	65.7	47.8
25-Oct-11	21:05	62.3	67.6	48.7
25-Oct-11	21:10	60.7	64.9	49.5
25-Oct-11	21:15	64.6	69.6	51.4
25-Oct-11	21:20	62.4	67.3	49.9
25-Oct-11	21:25	65.2	70.4	50.2
25-Oct-11	21:30	64.0	69.9	44.5
25-Oct-11	21:35	59.1	53.7	44.4
25-Oct-11	21:40	64.7	61.0	44.6
25-Oct-11	21:45	59.3	61.4	45.1
25-Oct-11	21:50	61.0	60.9	50.1
25-Oct-11	21:55	60.5	65.0	51.3
25-Oct-11	22:00	69.7	73.9	56.8
25-Oct-11	22:05	67.4	72.9	53.0
25-Oct-11	22:10	67.4	71.5	48.1
25-Oct-11	22:15	60.4	64.8	45.9
25-Oct-11	22:20	62.3	67.0	49.5
25-Oct-11	22:25	65.9	70.7	49.1
25-Oct-11	22:30	61.5	65.7	47.0
25-Oct-11	22:35	55.8	56.9	46.4
25-Oct-11	22:40	57.2	60.0	48.0
25-Oct-11	22:45	62.6	67.3	48.0
25-Oct-11	22:50	55.7	55.4	44.3
25-Oct-11	22:55	64.4	69.8	51.7
	Mean	62.4	66.2	48.3
	Maximum	71.8	75.7	56.8
	Minimum	49.2	50.7	41.4

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
26-Oct-11	19:00	62.6	64.0	51.9
26-Oct-11	19:05	61.1	61.5	54.6
26-Oct-11	19:10	69.5	74.1	58.3
26-Oct-11	19:15	68.1	72.7	57.5
26-Oct-11	19:20	67.9	71.9	53.5
26-Oct-11	19:25	65.2	69.9	55.4
26-Oct-11	19:30	68.0	72.3	53.6
26-Oct-11	19:35	65.1	69.1	54.6
26-Oct-11	19:40	68.0	71.5	55.6
26-Oct-11	19:45	69.6	72.9	57.4
26-Oct-11	19:50	68.3	70.7	56.5
26-Oct-11	19:55	69.4	73.5	59.2
26-Oct-11	20:00	61.8	67.3	51.1
26-Oct-11	20:05	53.0	55.3	50.0
26-Oct-11	20:10	62.0	62.2	50.2
26-Oct-11	20:15	63.4	64.8	51.7
26-Oct-11	20:20	63.6	67.3	52.9
26-Oct-11	20:25	67.4	71.5	55.7
26-Oct-11	20:30	67.9	72.9	56.0
26-Oct-11	20:35	63.7	68.1	49.8
26-Oct-11	20:40	61.4	66.0	49.1
26-Oct-11	20:45	58.3	59.4	47.0
26-Oct-11	20:50	55.8	56.6	47.2
26-Oct-11	20:55	57.3	61.0	48.7
26-Oct-11	21:00	67.6	71.9	52.9
26-Oct-11	21:05	65.2	69.9	53.6
26-Oct-11	21:10	62.8	65.8	48.1
26-Oct-11	21:15	65.3	69.6	54.6
26-Oct-11	21:20	68.3	74.1	55.4
26-Oct-11	21:25	65.1	70.0	49.8
26-Oct-11	21:30	56.7	62.3	46.0
26-Oct-11	21:35	50.5	52.7	47.5
26-Oct-11	21:40	68.2	71.7	53.0
26-Oct-11	21:45	74.0	79.0	57.2
26-Oct-11	21:50	66.2	71.1	56.3
26-Oct-11	21:55	71.6	77.2	59.1
26-Oct-11	22:00	71.0	76.0	58.9
26-Oct-11	22:05	75.5	79.9	51.7
26-Oct-11	22:10	67.8	72.9	51.3
26-Oct-11	22:15	58.8	61.2	48.2
26-Oct-11	22:20	72.3	78.0	55.7
26-Oct-11	22:25	72.5	77.5	54.6
26-Oct-11	22:30	68.7	73.5	53.1
26-Oct-11	22:35	61.4	66.8	48.2
26-Oct-11	22:40	59.1	63.0	48.6
26-Oct-11	22:45	60.2	62.9	49.4
26-Oct-11	22:50	64.0	67.0	52.6
26-Oct-11	22:55	68.6	73.3	47.3
	Mean	65.0	68.8	52.7
	Maximum	75.5	79.9	59.2
	Minimum	50.5	52.7	46.0

Appendix B3

Evening Time and Holiday Noise Level at Sha Lo Wan_NMS 1

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
27-Oct-11	19:00	62.4	64.6	49.2
27-Oct-11	19:05	60.3	61.9	52.0
27-Oct-11	19:10	71.5	77.2	57.8
27-Oct-11	19:15	69.8	72.8	54.9
27-Oct-11	19:20	72.8	76.4	53.4
27-Oct-11	19:25	72.4	77.7	52.5
27-Oct-11	19:30	66.3	67.3	51.3
27-Oct-11	19:35	69.1	71.4	50.6
27-Oct-11	19:40	71.8	77.1	55.5
27-Oct-11	19:45	67.3	70.5	54.6
27-Oct-11	19:50	69.2	73.1	54.8
27-Oct-11	19:55	69.3	73.5	54.3
27-Oct-11	20:00	66.4	71.2	56.1
27-Oct-11	20:05	68.3	73.2	54.2
27-Oct-11	20:10	70.5	75.2	57.9
27-Oct-11	20:15	69.4	71.3	54.6
27-Oct-11	20:20	60.2	63.2	54.8
27-Oct-11	20:25	70.0	73.9	54.7
27-Oct-11	20:30	71.2	74.7	57.3
27-Oct-11	20:35	64.8	67.5	55.7
27-Oct-11	20:40	68.0	72.3	56.2
27-Oct-11	20:45	70.9	74.4	48.7
27-Oct-11	20:50	70.1	71.6	51.4
27-Oct-11	20:55	68.1	73.4	56.6
27-Oct-11	21:00	71.3	74.5	55.3
27-Oct-11	21:05	55.2	57.6	50.1
27-Oct-11	21:10	66.2	70.0	61.4
27-Oct-11	21:15	71.9	76.8	61.0
27-Oct-11	21:20	74.3	74.3	61.2
27-Oct-11	21:25	74.0	78.8	59.4
27-Oct-11	21:30	72.1	74.7	57.6
27-Oct-11	21:35	71.8	76.8	58.4
27-Oct-11	21:40	75.5	80.6	59.6
27-Oct-11	21:45	67.9	73.0	55.5
27-Oct-11	21:50	68.9	74.2	53.9
27-Oct-11	21:55	69.4	74.0	54.5
27-Oct-11	22:00	62.3	62.1	52.0
27-Oct-11	22:05	64.2	66.7	55.1
27-Oct-11	22:10	66.2	70.7	54.3
27-Oct-11	22:15	65.9	70.3	53.2
27-Oct-11	22:20	71.8	76.2	56.7
27-Oct-11	22:25	69.1	73.3	57.5
27-Oct-11	22:30	70.3	76.1	53.0
27-Oct-11	22:35	54.0	55.4	51.1
27-Oct-11	22:40	54.2	56.4	50.8
27-Oct-11	22:45	66.8	69.8	60.1
27-Oct-11	22:50	70.9	75.6	57.0
27-Oct-11	22:55	72.1	76.9	59.2
	Mean	68.1	71.7	55.1
	Maximum	75.5	80.6	61.4
	Minimum	54.0	55.4	48.7

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
28-Oct-11	19:00	71.1	74.6	54.4
28-Oct-11	19:05	70.0	70.1	55.7
28-Oct-11	19:10	70.9	75.6	57.9
28-Oct-11	19:15	70.6	76.0	55.7
28-Oct-11	19:20	71.4	76.2	55.5
28-Oct-11	19:25	68.5	71.4	54.6
28-Oct-11	19:30	68.5	73.3	53.9
28-Oct-11	19:35	69.5	74.9	51.4
28-Oct-11	19:40	67.5	72.8	51.1
28-Oct-11	19:45	65.3	70.5	51.5
28-Oct-11	19:50	64.2	65.7	52.2
28-Oct-11	19:55	70.5	74.9	56.9
28-Oct-11	20:00	67.6	68.7	48.6
28-Oct-11	20:05	64.7	67.6	52.0
28-Oct-11	20:10	66.5	68.1	55.4
28-Oct-11	20:15	73.6	78.9	59.6
28-Oct-11	20:20	69.8	74.5	56.9
28-Oct-11	20:25	73.9	77.0	61.8
28-Oct-11	20:30	72.4	77.4	57.9
28-Oct-11	20:35	70.3	74.0	52.2
28-Oct-11	20:40	69.4	72.5	55.3
28-Oct-11	20:45	71.7	76.4	58.9
28-Oct-11	20:50	68.1	73.1	59.1
28-Oct-11	20:55	70.5	75.6	61.3
28-Oct-11	21:00	71.3	76.2	58.9
28-Oct-11	21:05	71.3	76.9	58.7
28-Oct-11	21:10	71.0	75.1	58.4
28-Oct-11	21:15	68.6	72.6	58.0
28-Oct-11	21:20	69.8	75.9	55.5
28-Oct-11	21:25	72.7	77.9	56.0
28-Oct-11	21:30	70.3	75.8	52.2
28-Oct-11	21:35	67.2	70.6	49.1
28-Oct-11	21:40	59.1	63.1	49.0
28-Oct-11	21:45	56.5	59.7	48.0
28-Oct-11	21:50	68.4	72.2	58.1
28-Oct-11	21:55	71.1	74.8	57.9
28-Oct-11	22:00	71.7	77.4	53.9
28-Oct-11	22:05	66.2	69.6	53.9
28-Oct-11	22:10	72.0	77.3	57.3
28-Oct-11	22:15	63.0	67.2	54.5
28-Oct-11	22:20	73.1	76.6	55.6
28-Oct-11	22:25	69.6	75.4	52.6
28-Oct-11	22:30	66.5	70.2	49.8
28-Oct-11	22:35	67.6	70.2	51.3
28-Oct-11	22:40	55.7	55.9	47.1
28-Oct-11	22:45	67.9	72.6	51.4
28-Oct-11	22:50	64.5	68.5	49.0
28-Oct-11	22:55	69.2	71.5	49.1
	Mean	68.6	72.6	54.5
	Maximum	73.9	78.9	61.8
	Minimum	55.7	55.9	47.1

Appendix B3

Evening Time and Holiday Noise Level at Sha Lo Wan_NMS 1

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
29-Oct-11	19:00	68.1	73.3	51.6
29-Oct-11	19:05	61.4	64.8	51.4
29-Oct-11	19:10	65.9	71.2	52.1
29-Oct-11	19:15	66.7	72.1	50.6
29-Oct-11	19:20	56.8	59.0	48.4
29-Oct-11	19:25	64.2	64.5	49.3
29-Oct-11	19:30	66.0	69.6	51.4
29-Oct-11	19:35	71.1	76.4	58.0
29-Oct-11	19:40	69.4	74.0	59.5
29-Oct-11	19:45	70.3	75.6	54.7
29-Oct-11	19:50	65.2	69.5	53.7
29-Oct-11	19:55	63.6	63.7	51.9
29-Oct-11	20:00	64.9	64.5	54.4
29-Oct-11	20:05	67.1	71.9	55.1
29-Oct-11	20:10	64.7	66.6	53.5
29-Oct-11	20:15	68.6	73.6	59.3
29-Oct-11	20:20	69.2	73.6	60.1
29-Oct-11	20:25	66.6	70.8	58.1
29-Oct-11	20:30	69.0	74.0	55.1
29-Oct-11	20:35	66.5	71.7	54.6
29-Oct-11	20:40	68.8	72.4	54.9
29-Oct-11	20:45	69.3	74.2	54.4
29-Oct-11	20:50	64.7	69.2	53.7
29-Oct-11	20:55	67.9	72.2	60.3
29-Oct-11	21:00	67.8	71.7	56.5
29-Oct-11	21:05	69.9	73.8	56.5
29-Oct-11	21:10	69.7	75.5	54.7
29-Oct-11	21:15	65.8	70.9	51.5
29-Oct-11	21:20	63.4	67.9	49.2
29-Oct-11	21:25	68.2	63.5	50.8
29-Oct-11	21:30	57.1	55.6	49.6
29-Oct-11	21:35	70.1	72.8	56.1
29-Oct-11	21:40	69.7	74.2	57.2
29-Oct-11	21:45	67.1	72.2	55.9
29-Oct-11	21:50	67.6	69.2	53.0
29-Oct-11	21:55	69.9	71.5	59.2
29-Oct-11	22:00	69.3	74.0	58.2
29-Oct-11	22:05	69.5	73.2	63.8
29-Oct-11	22:10	71.6	74.5	63.7
29-Oct-11	22:15	71.2	75.3	60.8
29-Oct-11	22:20	68.9	73.7	58.8
29-Oct-11	22:25	69.1	72.8	51.3
29-Oct-11	22:30	62.6	66.0	47.7
29-Oct-11	22:35	60.3	62.6	49.0
29-Oct-11	22:40	58.1	61.2	49.3
29-Oct-11	22:45	63.5	66.0	51.0
29-Oct-11	22:50	65.3	61.7	51.3
29-Oct-11	22:55	65.2	69.3	52.5
	Mean	66.6	69.9	54.5
	Maximum	71.6	76.4	63.8
	Minimum	56.8	55.6	47.7

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
30-Oct-11	07:00	73.7	77.1	48.4
30-Oct-11	07:05	64.7	63.6	49.9
30-Oct-11	07:10	63.6	61.5	53.6
30-Oct-11	07:15	59.9	62.3	52.3
30-Oct-11	07:20	59.3	58.9	53.0
30-Oct-11	07:25	63.9	64.5	53.1
30-Oct-11	07:30	59.9	63.2	54.0
30-Oct-11	07:35	66.7	70.2	60.1
30-Oct-11	07:40	72.0	76.8	57.5
30-Oct-11	07:45	64.9	68.6	50.4
30-Oct-11	07:50	61.3	60.4	48.0
30-Oct-11	07:55	68.2	71.6	50.0
30-Oct-11	08:00	61.8	67.1	48.7
30-Oct-11	08:05	65.0	64.5	51.2
30-Oct-11	08:10	66.9	70.1	58.2
30-Oct-11	08:15	71.9	76.1	62.2
30-Oct-11	08:20	70.4	73.7	59.1
30-Oct-11	08:25	68.7	64.5	57.7
30-Oct-11	08:30	68.4	70.7	59.6
30-Oct-11	08:35	72.2	75.8	64.1
30-Oct-11	08:40	69.0	69.6	63.3
30-Oct-11	08:45	72.6	77.4	62.3
30-Oct-11	08:50	74.5	78.9	62.1
30-Oct-11	08:55	70.5	74.6	59.5
30-Oct-11	09:00	69.4	73.6	58.3
30-Oct-11	09:05	67.4	72.8	54.2
30-Oct-11	09:10	59.0	61.8	55.1
30-Oct-11	09:15	71.0	75.6	61.5
30-Oct-11	09:20	73.3	78.0	63.2
30-Oct-11	09:25	73.5	78.8	60.9
30-Oct-11	09:30	72.3	77.6	59.8
30-Oct-11	09:35	73.3	78.1	63.6
30-Oct-11	09:40	70.2	75.7	55.1
30-Oct-11	09:45	68.2	73.9	56.5
30-Oct-11	09:50	71.7	76.7	57.7
30-Oct-11	09:55	68.1	72.2	60.3
30-Oct-11	10:00	73.4	76.5	58.6
30-Oct-11	10:05	69.3	73.5	58.7
30-Oct-11	10:10	69.8	75.6	55.3
30-Oct-11	10:15	67.6	70.6	58.4
30-Oct-11	10:20	65.8	67.9	60.3
30-Oct-11	10:25	69.1	74.3	58.3
30-Oct-11	10:30	69.7	74.5	60.5
30-Oct-11	10:35	71.6	75.7	55.3
30-Oct-11	10:40	66.0	70.6	53.9
30-Oct-11	10:45	70.1	73.6	56.0
30-Oct-11	10:50	66.2	71.3	51.3
30-Oct-11	10:55	64.0	69.2	55.1

Appendix B3

Evening Time and Holiday Noise Level at Sha Lo Wan_NMS 1

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
30-Oct-11	11:00	70.7	75.7	57.0
30-Oct-11	11:05	70.4	72.6	62.4
30-Oct-11	11:10	73.2	76.0	57.5
30-Oct-11	11:15	68.7	73.2	61.2
30-Oct-11	11:20	72.2	76.3	61.3
30-Oct-11	11:25	70.4	74.9	59.8
30-Oct-11	11:30	68.2	72.4	61.2
30-Oct-11	11:35	67.5	69.8	62.6
30-Oct-11	11:40	71.1	72.7	60.2
30-Oct-11	11:45	71.6	74.9	65.8
30-Oct-11	11:50	69.3	72.5	64.5
30-Oct-11	11:55	70.1	74.6	59.8
30-Oct-11	12:00	69.3	72.2	61.9
30-Oct-11	12:05	69.6	74.6	60.9
30-Oct-11	12:10	67.9	70.1	63.1
30-Oct-11	12:15	72.0	74.6	67.2
30-Oct-11	12:20	69.3	73.0	63.0
30-Oct-11	12:25	70.1	73.7	62.2
30-Oct-11	12:30	70.9	74.1	62.3
30-Oct-11	12:35	70.4	74.8	64.1
30-Oct-11	12:40	68.7	72.5	61.5
30-Oct-11	12:45	70.6	75.5	56.7
30-Oct-11	12:50	65.1	65.2	54.1
30-Oct-11	12:55	69.6	73.4	61.2
30-Oct-11	13:00	67.9	72.4	60.3
30-Oct-11	13:05	70.3	75.1	59.0
30-Oct-11	13:10	68.5	71.9	57.8
30-Oct-11	13:15	62.1	65.8	53.8
30-Oct-11	13:20	68.1	71.9	59.5
30-Oct-11	13:25	68.7	73.8	60.0
30-Oct-11	13:30	70.7	74.3	62.7
30-Oct-11	13:35	71.5	73.1	64.8
30-Oct-11	13:40	73.8	78.5	63.9
30-Oct-11	13:45	70.0	74.4	58.3
30-Oct-11	13:50	71.0	75.5	59.4
30-Oct-11	13:55	68.0	70.8	56.3
30-Oct-11	14:00	60.0	61.0	52.8
30-Oct-11	14:05	65.0	69.7	55.2
30-Oct-11	14:10	65.9	69.1	55.8
30-Oct-11	14:15	69.6	74.6	59.6
30-Oct-11	14:20	66.4	69.7	60.1
30-Oct-11	14:25	70.3	74.3	59.2
30-Oct-11	14:30	67.8	71.9	53.4
30-Oct-11	14:35	66.5	71.4	54.0
30-Oct-11	14:40	69.8	74.8	53.7
30-Oct-11	14:45	60.0	64.0	51.8
30-Oct-11	14:50	63.1	61.6	52.2
30-Oct-11	14:55	67.1	71.3	54.3

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
30-Oct-11	15:00	64.7	68.0	56.2
30-Oct-11	15:05	67.6	71.3	61.2
30-Oct-11	15:10	68.8	72.2	59.3
30-Oct-11	15:15	70.4	75.3	57.5
30-Oct-11	15:20	67.4	72.3	58.9
30-Oct-11	15:25	69.7	72.4	64.6
30-Oct-11	15:30	70.8	73.0	65.4
30-Oct-11	15:35	72.0	75.9	64.4
30-Oct-11	15:40	69.9	73.2	62.9
30-Oct-11	15:45	71.2	75.6	62.3
30-Oct-11	15:50	66.3	68.9	56.8
30-Oct-11	15:55	69.4	73.8	59.2
30-Oct-11	16:00	72.9	76.9	62.4
30-Oct-11	16:05	70.5	73.5	61.8
30-Oct-11	16:10	69.0	72.6	62.6
30-Oct-11	16:15	70.4	74.2	61.4
30-Oct-11	16:20	70.6	75.5	62.7
30-Oct-11	16:25	69.4	73.5	63.0
30-Oct-11	16:30	66.9	69.6	61.3
30-Oct-11	16:35	70.9	74.8	62.6
30-Oct-11	16:40	71.8	75.2	66.1
30-Oct-11	16:45	73.9	79.1	63.0
30-Oct-11	16:50	71.1	74.3	63.0
30-Oct-11	16:55	70.1	73.9	63.7
30-Oct-11	17:00	73.2	76.8	65.3
30-Oct-11	17:05	69.9	72.4	65.5
30-Oct-11	17:10	71.9	75.0	63.5
30-Oct-11	17:15	70.2	74.2	62.2
30-Oct-11	17:20	69.1	72.6	64.0
30-Oct-11	17:25	71.7	75.2	65.2
30-Oct-11	17:30	72.0	75.9	59.7
30-Oct-11	17:35	67.8	70.8	60.6
30-Oct-11	17:40	71.6	74.8	60.8
30-Oct-11	17:45	69.2	73.7	59.5
30-Oct-11	17:50	72.5	77.6	62.8
30-Oct-11	17:55	71.3	76.4	61.6
30-Oct-11	18:00	72.0	76.4	60.3
30-Oct-11	18:05	70.1	72.4	61.6
30-Oct-11	18:10	68.8	72.4	62.4
30-Oct-11	18:15	71.6	76.4	63.1
30-Oct-11	18:20	72.9	77.2	62.4
30-Oct-11	18:25	71.0	74.0	63.2
30-Oct-11	18:30	71.1	75.2	62.1
30-Oct-11	18:35	70.2	74.4	56.6
30-Oct-11	18:40	66.8	71.6	58.0
30-Oct-11	18:45	69.5	72.5	55.5
30-Oct-11	18:50	69.1	73.3	54.3
30-Oct-11	18:55	69.3	69.5	49.6

Appendix B3

Evening Time and Holiday Noise Level at Sha Lo Wan_NMS 1

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
30-Oct-11	19:00	62.3	64.5	48.8
30-Oct-11	19:05	60.5	62.1	51.5
30-Oct-11	19:10	70.7	76.4	57.2
30-Oct-11	19:15	69.9	72.7	55.0
30-Oct-11	19:20	72.3	76.4	52.7
30-Oct-11	19:25	71.9	77.0	52.4
30-Oct-11	19:30	66.0	66.6	51.3
30-Oct-11	19:35	68.9	71.6	50.5
30-Oct-11	19:40	70.3	73.8	48.7
30-Oct-11	19:45	69.4	71.4	51.3
30-Oct-11	19:50	68.2	73.4	56.3
30-Oct-11	19:55	71.3	74.4	54.6
30-Oct-11	20:00	54.8	57.8	50.1
30-Oct-11	20:05	66.3	69.4	60.6
30-Oct-11	20:10	71.9	76.8	60.3
30-Oct-11	20:15	73.9	74.3	61.1
30-Oct-11	20:20	73.2	78.7	59.1
30-Oct-11	20:25	72.0	74.6	57.5
30-Oct-11	20:30	71.0	76.6	55.0
30-Oct-11	20:35	67.0	69.8	54.7
30-Oct-11	20:40	69.0	73.1	54.9
30-Oct-11	20:45	68.8	72.9	54.4
30-Oct-11	20:50	65.9	70.7	55.5
30-Oct-11	20:55	67.7	73.2	54.3
30-Oct-11	21:00	70.2	74.7	57.4
30-Oct-11	21:05	69.4	71.1	54.2
30-Oct-11	21:10	60.0	62.5	54.6
30-Oct-11	21:15	70.0	73.4	54.9
30-Oct-11	21:20	71.1	74.2	57.3
30-Oct-11	21:25	64.2	67.5	55.9
30-Oct-11	21:30	67.4	72.3	56.2
30-Oct-11	21:35	71.4	76.1	57.7
30-Oct-11	21:40	74.9	79.9	58.8
30-Oct-11	21:45	67.1	72.5	55.1
30-Oct-11	21:50	69.0	73.8	53.5
30-Oct-11	21:55	69.4	73.7	53.8
30-Oct-11	22:00	62.0	62.2	51.7
30-Oct-11	22:05	63.4	66.4	55.1
30-Oct-11	22:10	65.7	70.8	53.7
30-Oct-11	22:15	65.7	70.3	52.8
30-Oct-11	22:20	71.4	75.8	56.0
30-Oct-11	22:25	69.0	73.3	57.3
30-Oct-11	22:30	70.4	75.9	52.5
30-Oct-11	22:35	53.6	55.6	51.0
30-Oct-11	22:40	53.6	55.7	50.5
30-Oct-11	22:45	66.9	69.7	60.1
30-Oct-11	22:50	70.8	75.6	56.9
30-Oct-11	22:55	72.2	76.4	58.4
	Mean	68.7	72.3	58.1
	Maximum	74.9	79.9	67.2
	Minimum	53.6	55.6	48.0

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
31-Oct-11	19:00	64.5	58.1	59.2
31-Oct-11	19:05	65.7	68.9	56.2
31-Oct-11	19:10	71.3	74.3	65.4
31-Oct-11	19:15	72.3	75.9	57.5
31-Oct-11	19:20	78.5	80.1	76.2
31-Oct-11	19:25	77.2	79.2	74.9
31-Oct-11	19:30	74.8	76.3	72.8
31-Oct-11	19:35	77.2	79.8	71.5
31-Oct-11	19:40	75.9	79.6	63.7
31-Oct-11	19:45	70.0	74.3	55.3
31-Oct-11	19:50	74.5	67.0	44.4
31-Oct-11	19:55	62.7	55.9	44.1
31-Oct-11	20:00	51.8	52.6	44.2
31-Oct-11	20:05	52.8	53.9	44.2
31-Oct-11	20:10	50.7	53.1	44.1
31-Oct-11	20:15	47.3	49.1	44.0
31-Oct-11	20:20	53.2	53.6	44.2
31-Oct-11	20:25	50.5	53.4	44.2
31-Oct-11	20:30	51.9	54.1	44.3
31-Oct-11	20:35	54.4	55.1	44.5
31-Oct-11	20:40	52.3	52.9	45.0
31-Oct-11	20:45	57.8	54.5	45.1
31-Oct-11	20:50	60.1	62.4	46.7
31-Oct-11	20:55	59.8	63.0	48.7
31-Oct-11	21:00	62.5	65.2	51.1
31-Oct-11	21:05	71.2	76.1	57.1
31-Oct-11	21:10	71.3	77.4	55.3
31-Oct-11	21:15	68.0	74.3	51.5
31-Oct-11	21:20	66.5	72.8	49.4
31-Oct-11	21:25	68.8	65.3	50.9
31-Oct-11	21:30	57.0	55.5	49.6
31-Oct-11	21:35	71.4	75.1	56.4
31-Oct-11	21:40	68.2	72.5	55.7
31-Oct-11	21:45	69.4	74.8	55.9
31-Oct-11	21:50	68.0	69.2	53.2
31-Oct-11	21:55	70.5	72.6	58.9
31-Oct-11	22:00	70.3	75.1	58.1
31-Oct-11	22:05	70.7	74.4	63.4
31-Oct-11	22:10	75.0	80.3	63.3
31-Oct-11	22:15	74.8	80.9	61.2
31-Oct-11	22:20	71.1	78.1	58.0
31-Oct-11	22:25	71.7	77.1	51.0
31-Oct-11	22:30	62.1	65.1	46.5
31-Oct-11	22:35	59.8	59.0	47.1
31-Oct-11	22:40	57.3	61.0	47.6
31-Oct-11	22:45	64.2	67.0	50.3
31-Oct-11	22:50	67.2	64.2	51.6
31-Oct-11	22:55	69.2	74.8	54.7
	Mean	65.3	67.4	53.7
	Maximum	78.5	80.9	76.2
	Minimum	47.3	49.1	44.0

Summary of Evening Time and Holiday Noise Level at Sha Lo Wan_NMS 1			
	L_{eq}	L_{10}	L_{90}
Mean	67.1	70.6	52.9
Maximum	79.2	84.0	76.2
Minimum	42.0	44.8	35.5

Appendix B3

Evening Time and Holiday Noise Level at San Tau_NMS 4

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
18-Oct-11	19:00	54.3	55.1	53.4
18-Oct-11	19:05	56.2	58.2	54.1
18-Oct-11	19:10	54.9	55.7	54.0
18-Oct-11	19:15	56.9	59.3	54.1
18-Oct-11	19:20	56.4	58.6	53.9
18-Oct-11	19:25	57.9	59.9	54.2
18-Oct-11	19:30	56.3	57.8	54.2
18-Oct-11	19:35	56.9	58.7	54.1
18-Oct-11	19:40	56.6	58.7	54.1
18-Oct-11	19:45	58.6	61.4	54.4
18-Oct-11	19:50	56.6	58.7	54.1
18-Oct-11	19:55	55.5	56.4	54.0
18-Oct-11	20:00	55.3	56.4	54.0
18-Oct-11	20:05	55.3	56.0	54.0
18-Oct-11	20:10	55.9	56.9	54.2
18-Oct-11	20:15	56.5	57.8	54.9
18-Oct-11	20:20	57.0	58.7	55.1
18-Oct-11	20:25	57.0	58.5	55.0
18-Oct-11	20:30	57.5	59.2	55.0
18-Oct-11	20:35	57.2	58.7	55.1
18-Oct-11	20:40	58.0	60.1	55.9
18-Oct-11	20:45	59.8	61.3	55.8
18-Oct-11	20:50	57.5	59.2	55.2
18-Oct-11	20:55	58.3	61.2	55.2
18-Oct-11	21:00	59.2	62.4	55.1
18-Oct-11	21:05	57.7	57.3	54.6
18-Oct-11	21:10	56.5	56.8	55.0
18-Oct-11	21:15	57.3	58.8	55.7
18-Oct-11	21:20	55.9	57.2	54.4
18-Oct-11	21:25	58.3	60.4	54.9
18-Oct-11	21:30	55.5	56.5	54.4
18-Oct-11	21:35	60.7	63.5	55.1
18-Oct-11	21:40	57.0	58.8	54.9
18-Oct-11	21:45	56.4	57.6	55.0
18-Oct-11	21:50	57.1	58.5	55.0
18-Oct-11	21:55	57.8	59.5	55.1
18-Oct-11	22:00	59.4	62.4	55.6
18-Oct-11	22:05	58.7	60.8	56.1
18-Oct-11	22:10	59.9	63.4	55.9
18-Oct-11	22:15	58.4	61.3	55.4
18-Oct-11	22:20	58.9	62.5	55.4
18-Oct-11	22:25	61.7	64.9	56.3
18-Oct-11	22:30	60.7	65.2	54.9
18-Oct-11	22:35	57.8	58.8	54.6
18-Oct-11	22:40	57.5	59.4	54.9
18-Oct-11	22:45	57.8	60.9	55.0
18-Oct-11	22:50	56.0	57.1	54.4
18-Oct-11	22:55	57.0	58.1	54.6
	Mean	57.4	59.3	54.8
	Maximum	61.7	65.2	56.3
	Minimum	54.3	55.1	53.4

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
19-Oct-11	19:00	56.5	59.0	54.1
19-Oct-11	19:05	57.0	59.6	54.0
19-Oct-11	19:10	54.7	55.4	53.4
19-Oct-11	19:15	55.3	56.3	53.5
19-Oct-11	19:20	56.6	58.4	53.7
19-Oct-11	19:25	55.4	56.1	53.7
19-Oct-11	19:30	55.5	56.4	53.8
19-Oct-11	19:35	57.0	58.0	54.0
19-Oct-11	19:40	58.1	60.9	54.3
19-Oct-11	19:45	57.5	60.7	54.2
19-Oct-11	19:50	55.2	55.9	53.9
19-Oct-11	19:55	55.5	56.8	53.9
19-Oct-11	20:00	55.2	55.8	53.9
19-Oct-11	20:05	54.9	55.8	54.0
19-Oct-11	20:10	55.3	56.3	54.1
19-Oct-11	20:15	56.7	58.9	54.2
19-Oct-11	20:20	58.0	61.9	54.3
19-Oct-11	20:25	57.7	60.9	54.3
19-Oct-11	20:30	57.7	61.0	54.1
19-Oct-11	20:35	57.2	59.6	54.2
19-Oct-11	20:40	58.9	62.1	54.4
19-Oct-11	20:45	58.8	61.6	54.4
19-Oct-11	20:50	57.4	59.9	54.5
19-Oct-11	20:55	56.9	59.5	54.1
19-Oct-11	21:00	56.3	58.9	53.8
19-Oct-11	21:05	58.3	61.4	53.9
19-Oct-11	21:10	55.5	56.5	53.9
19-Oct-11	21:15	55.1	56.2	54.0
19-Oct-11	21:20	57.1	59.4	54.0
19-Oct-11	21:25	56.9	57.5	54.1
19-Oct-11	21:30	57.3	60.3	54.1
19-Oct-11	21:35	56.4	57.6	54.4
19-Oct-11	21:40	57.4	59.7	54.5
19-Oct-11	21:45	57.5	60.1	54.2
19-Oct-11	21:50	56.3	57.7	54.1
19-Oct-11	21:55	56.1	57.5	54.2
19-Oct-11	22:00	56.6	58.6	54.2
19-Oct-11	22:05	55.7	56.7	54.0
19-Oct-11	22:10	56.8	57.3	54.0
19-Oct-11	22:15	55.2	55.8	53.9
19-Oct-11	22:20	56.0	57.4	54.3
19-Oct-11	22:25	55.8	56.6	54.1
19-Oct-11	22:30	55.0	55.8	53.9
19-Oct-11	22:35	59.3	61.2	54.2
19-Oct-11	22:40	55.2	55.9	53.9
19-Oct-11	22:45	55.1	56.2	53.9
19-Oct-11	22:50	57.0	58.4	53.9
19-Oct-11	22:55	56.2	58.2	54.0
	Mean	56.5	58.3	54.1
	Maximum	59.3	62.1	54.5
	Minimum	54.7	55.4	53.4

Appendix B3

Evening Time and Holiday Noise Level at San Tau_NMS 4

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
20-Oct-11	19:00	58.2	61.5	53.4
20-Oct-11	19:05	57.7	59.7	53.6
20-Oct-11	19:10	56.8	58.6	52.8
20-Oct-11	19:15	56.5	58.9	52.8
20-Oct-11	19:20	56.7	59.2	52.7
20-Oct-11	19:25	57.8	59.8	52.9
20-Oct-11	19:30	56.9	58.7	52.9
20-Oct-11	19:35	57.2	59.3	53.1
20-Oct-11	19:40	56.8	59.1	53.2
20-Oct-11	19:45	57.3	59.9	53.2
20-Oct-11	19:50	57.0	58.7	52.8
20-Oct-11	19:55	56.8	58.2	52.8
20-Oct-11	20:00	55.4	57.6	53.1
20-Oct-11	20:05	58.9	60.3	53.4
20-Oct-11	20:10	57.2	59.4	53.4
20-Oct-11	20:15	57.8	59.9	53.2
20-Oct-11	20:20	56.5	59.8	53.2
20-Oct-11	20:25	56.9	58.5	53.1
20-Oct-11	20:30	57.2	60.5	53.1
20-Oct-11	20:35	57.8	60.8	53.0
20-Oct-11	20:40	58.1	61.3	53.1
20-Oct-11	20:45	58.2	60.9	53.0
20-Oct-11	20:50	57.8	59.7	53.2
20-Oct-11	20:55	56.9	59.4	53.3
20-Oct-11	21:00	57.2	59.1	53.5
20-Oct-11	21:05	58.5	60.3	53.6
20-Oct-11	21:10	57.2	59.0	53.6
20-Oct-11	21:15	56.8	58.7	53.3
20-Oct-11	21:20	56.5	59.3	53.1
20-Oct-11	21:25	56.9	58.4	53.2
20-Oct-11	21:30	57.3	59.6	53.1
20-Oct-11	21:35	55.4	57.5	53.2
20-Oct-11	21:40	56.7	58.7	53.3
20-Oct-11	21:45	57.6	59.9	53.4
20-Oct-11	21:50	56.8	59.2	53.6
20-Oct-11	21:55	56.2	57.5	53.3
20-Oct-11	22:00	56.7	58.2	53.3
20-Oct-11	22:05	58.4	59.6	53.5
20-Oct-11	22:10	58.1	60.6	53.5
20-Oct-11	22:15	56.9	57.9	53.2
20-Oct-11	22:20	56.4	58.1	53.2
20-Oct-11	22:25	55.3	57.4	53.2
20-Oct-11	22:30	57.1	59.2	53.2
20-Oct-11	22:35	56.8	58.3	53.1
20-Oct-11	22:40	57.9	60.5	53.2
20-Oct-11	22:45	57.6	60.2	53.2
20-Oct-11	22:50	56.2	59.5	53.1
20-Oct-11	22:55	58.2	60.7	53.4
	Mean	57.1	59.3	53.2
	Maximum	58.9	61.5	53.6
	Minimum	55.3	57.4	52.7

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
21-Oct-11	19:00	52.5	55.6	49.8
21-Oct-11	19:05	51.6	54.7	49.7
21-Oct-11	19:10	51.9	55.2	49.5
21-Oct-11	19:15	55.2	58.9	52.3
21-Oct-11	19:20	53.4	54.7	51.4
21-Oct-11	19:25	52.8	54.8	51.0
21-Oct-11	19:30	52.0	54.5	50.7
21-Oct-11	19:35	53.1	55.4	51.2
21-Oct-11	19:40	53.3	55.6	51.5
21-Oct-11	19:45	53.2	56.1	51.2
21-Oct-11	19:50	52.5	54.4	50.7
21-Oct-11	19:55	52.9	55.7	50.9
21-Oct-11	20:00	53.6	56.8	50.2
21-Oct-11	20:05	54.1	57.1	50.2
21-Oct-11	20:10	53.5	55.9	49.9
21-Oct-11	20:15	54.8	56.2	49.8
21-Oct-11	20:20	53.9	57.6	49.8
21-Oct-11	20:25	54.7	57.4	49.7
21-Oct-11	20:30	54.5	58.2	48.9
21-Oct-11	20:35	53.7	57.9	49.8
21-Oct-11	20:40	55.5	59.6	48.6
21-Oct-11	20:45	56.1	59.2	48.5
21-Oct-11	20:50	55.8	57.8	48.7
21-Oct-11	20:55	54.9	58.3	48.9
21-Oct-11	21:00	55.2	58.9	49.3
21-Oct-11	21:05	54.8	58.4	49.5
21-Oct-11	21:10	56.7	59.2	49.6
21-Oct-11	21:15	57.2	58.4	49.8
21-Oct-11	21:20	53.5	55.6	48.9
21-Oct-11	21:25	52.7	54.7	49.5
21-Oct-11	21:30	54.6	57.2	49.2
21-Oct-11	21:35	52.3	55.9	49.3
21-Oct-11	21:40	51.7	55.1	49.1
21-Oct-11	21:45	52.4	56.3	48.7
21-Oct-11	21:50	53.6	56.8	48.5
21-Oct-11	21:55	52.7	55.2	48.2
21-Oct-11	22:00	54.7	57.7	48.0
21-Oct-11	22:05	55.2	58.3	48.7
21-Oct-11	22:10	56.1	58.9	48.6
21-Oct-11	22:15	55.8	58.1	48.5
21-Oct-11	22:20	54.9	56.4	48.0
21-Oct-11	22:25	55.9	58.2	48.4
21-Oct-11	22:30	54.5	57.3	48.2
21-Oct-11	22:35	54.3	58.1	48.5
21-Oct-11	22:40	52.8	55.3	48.6
21-Oct-11	22:45	50.7	53.6	48.6
21-Oct-11	22:50	54.2	57.5	48.7
21-Oct-11	22:55	50.6	54.2	48.3
	Mean	53.9	56.7	49.5
	Maximum	57.2	59.6	52.3
	Minimum	50.6	53.6	48.0

Appendix B3

Evening Time and Holiday Noise Level at San Tau_NMS 4

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
22-Oct-11	19:00	56.1	57.5	54.3
22-Oct-11	19:05	56.4	58.4	54.4
22-Oct-11	19:10	57.0	58.3	54.9
22-Oct-11	19:15	56.8	58.9	54.7
22-Oct-11	19:20	56.8	58.5	54.6
22-Oct-11	19:25	57.4	59.9	54.9
22-Oct-11	19:30	59.6	63.0	55.0
22-Oct-11	19:35	57.5	59.5	54.6
22-Oct-11	19:40	56.7	58.4	55.0
22-Oct-11	19:45	56.5	58.3	54.9
22-Oct-11	19:50	56.9	58.4	54.9
22-Oct-11	19:55	55.6	56.6	54.5
22-Oct-11	20:00	55.5	56.4	54.3
22-Oct-11	20:05	56.8	58.5	54.4
22-Oct-11	20:10	57.1	58.5	54.3
22-Oct-11	20:15	57.5	59.3	54.3
22-Oct-11	20:20	55.1	55.8	54.1
22-Oct-11	20:25	55.0	55.8	54.1
22-Oct-11	20:30	56.8	58.7	54.9
22-Oct-11	20:35	55.3	56.3	54.2
22-Oct-11	20:40	56.6	58.5	54.5
22-Oct-11	20:45	57.1	59.1	54.8
22-Oct-11	20:50	56.5	57.9	54.9
22-Oct-11	20:55	57.6	60.0	54.6
22-Oct-11	21:00	58.3	60.2	54.5
22-Oct-11	21:05	60.1	61.5	54.5
22-Oct-11	21:10	56.9	58.5	54.6
22-Oct-11	21:15	57.4	59.4	54.8
22-Oct-11	21:20	57.7	59.0	54.9
22-Oct-11	21:25	56.5	58.2	54.7
22-Oct-11	21:30	58.2	59.5	54.4
22-Oct-11	21:35	55.8	56.7	54.2
22-Oct-11	21:40	56.8	58.5	54.3
22-Oct-11	21:45	56.6	58.3	54.5
22-Oct-11	21:50	55.1	55.8	54.1
22-Oct-11	21:55	57.4	57.5	54.2
22-Oct-11	22:00	54.9	55.7	54.0
22-Oct-11	22:05	55.7	56.9	54.1
22-Oct-11	22:10	55.1	56.1	54.0
22-Oct-11	22:15	60.6	63.7	54.1
22-Oct-11	22:20	55.9	56.1	53.9
22-Oct-11	22:25	56.3	57.8	54.1
22-Oct-11	22:30	55.7	56.7	54.2
22-Oct-11	22:35	55.9	57.0	54.1
22-Oct-11	22:40	56.4	57.4	54.2
22-Oct-11	22:45	55.1	55.8	54.1
22-Oct-11	22:50	55.1	55.8	54.1
22-Oct-11	22:55	55.0	55.8	54.1
	Mean	56.6	58.1	54.4
	Maximum	60.6	63.7	55.0
	Minimum	54.9	55.7	53.9

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
23-Oct-11	07:00	55.9	56.7	54.2
23-Oct-11	07:05	56.8	58.0	54.5
23-Oct-11	07:10	55.3	56.3	54.1
23-Oct-11	07:15	55.2	56.1	54.1
23-Oct-11	07:20	55.5	56.7	54.2
23-Oct-11	07:25	56.0	56.7	54.3
23-Oct-11	07:30	56.1	56.8	54.3
23-Oct-11	07:35	56.0	57.4	54.1
23-Oct-11	07:40	60.2	64.2	54.3
23-Oct-11	07:45	62.0	66.8	54.2
23-Oct-11	07:50	55.4	56.5	54.2
23-Oct-11	07:55	55.6	56.4	54.1
23-Oct-11	08:00	55.6	56.8	54.2
23-Oct-11	08:05	56.6	58.2	54.4
23-Oct-11	08:10	57.8	59.1	54.4
23-Oct-11	08:15	57.1	59.2	54.6
23-Oct-11	08:20	57.2	59.6	54.4
23-Oct-11	08:25	62.1	66.1	54.6
23-Oct-11	08:30	57.8	60.4	54.6
23-Oct-11	08:35	56.4	58.1	54.0
23-Oct-11	08:40	56.7	59.1	54.0
23-Oct-11	08:45	56.0	56.8	53.9
23-Oct-11	08:50	55.1	56.4	53.9
23-Oct-11	08:55	56.7	58.6	53.8
23-Oct-11	09:00	56.4	58.5	54.0
23-Oct-11	09:05	57.2	59.4	54.2
23-Oct-11	09:10	57.4	60.1	54.2
23-Oct-11	09:15	60.6	63.9	54.4
23-Oct-11	09:20	57.2	59.3	54.8
23-Oct-11	09:25	58.0	60.4	54.9
23-Oct-11	09:30	56.0	57.5	54.3
23-Oct-11	09:35	58.1	60.7	55.0
23-Oct-11	09:40	58.6	60.0	54.8
23-Oct-11	09:45	56.1	57.7	54.3
23-Oct-11	09:50	56.3	58.4	54.1
23-Oct-11	09:55	55.9	57.4	54.3
23-Oct-11	10:00	59.0	62.0	54.9
23-Oct-11	10:05	56.7	58.7	54.3
23-Oct-11	10:10	56.7	58.2	54.4
23-Oct-11	10:15	57.6	59.1	54.1
23-Oct-11	10:20	56.0	57.5	54.3
23-Oct-11	10:25	57.1	59.3	54.1
23-Oct-11	10:30	55.6	56.7	54.1
23-Oct-11	10:35	55.2	56.2	54.1
23-Oct-11	10:40	56.3	58.1	54.3
23-Oct-11	10:45	56.4	58.4	54.3
23-Oct-11	10:50	56.1	57.7	54.2
23-Oct-11	10:55	55.6	56.8	54.2

Appendix B3

Evening Time and Holiday Noise Level at San Tau_NMS 4

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
23-Oct-11	11:00	56.9	58.8	54.1
23-Oct-11	11:05	66.5	63.0	54.2
23-Oct-11	11:10	56.9	58.1	54.2
23-Oct-11	11:15	55.5	56.7	54.2
23-Oct-11	11:20	56.6	58.6	54.4
23-Oct-11	11:25	57.0	58.7	54.4
23-Oct-11	11:30	56.1	57.7	54.3
23-Oct-11	11:35	56.5	58.1	54.2
23-Oct-11	11:40	55.9	57.3	54.1
23-Oct-11	11:45	56.4	57.4	54.0
23-Oct-11	11:50	55.8	57.0	54.1
23-Oct-11	11:55	55.2	56.4	54.0
23-Oct-11	12:00	55.3	56.4	54.1
23-Oct-11	12:05	56.3	58.1	54.1
23-Oct-11	12:10	56.0	57.8	54.1
23-Oct-11	12:15	56.1	57.9	54.1
23-Oct-11	12:20	56.6	58.7	54.2
23-Oct-11	12:25	55.8	57.4	54.0
23-Oct-11	12:30	56.5	58.5	54.1
23-Oct-11	12:35	57.3	60.1	54.2
23-Oct-11	12:40	56.5	58.7	54.1
23-Oct-11	12:45	61.5	63.9	54.1
23-Oct-11	12:50	55.8	57.5	54.0
23-Oct-11	12:55	57.8	60.2	54.1
23-Oct-11	13:00	56.7	58.7	53.9
23-Oct-11	13:05	55.5	57.0	53.9
23-Oct-11	13:10	57.6	60.5	54.0
23-Oct-11	13:15	55.7	57.4	53.9
23-Oct-11	13:20	54.8	55.7	53.6
23-Oct-11	13:25	55.2	56.4	53.2
23-Oct-11	13:30	54.2	55.0	53.1
23-Oct-11	13:35	58.3	61.3	53.3
23-Oct-11	13:40	55.9	57.6	53.8
23-Oct-11	13:45	56.0	57.7	53.9
23-Oct-11	13:50	54.5	55.7	53.2
23-Oct-11	13:55	56.1	56.5	53.2
23-Oct-11	14:00	57.9	60.3	54.1
23-Oct-11	14:05	56.2	58.1	53.9
23-Oct-11	14:10	56.8	59.0	54.1
23-Oct-11	14:15	57.8	60.1	55.0
23-Oct-11	14:20	57.0	59.2	54.4
23-Oct-11	14:25	56.3	58.0	54.4
23-Oct-11	14:30	57.0	58.6	55.0
23-Oct-11	14:35	57.2	59.3	54.8
23-Oct-11	14:40	56.1	58.1	54.1
23-Oct-11	14:45	56.6	59.0	54.1
23-Oct-11	14:50	56.1	57.5	54.1
23-Oct-11	14:55	55.4	56.6	54.0

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
23-Oct-11	15:00	54.7	55.7	53.9
23-Oct-11	15:05	58.7	62.3	53.9
23-Oct-11	15:10	57.8	59.7	53.2
23-Oct-11	15:15	55.2	56.7	53.4
23-Oct-11	15:20	54.6	55.6	53.4
23-Oct-11	15:25	54.9	56.4	53.3
23-Oct-11	15:30	55.6	57.2	53.9
23-Oct-11	15:35	55.4	56.6	53.6
23-Oct-11	15:40	56.2	58.4	53.9
23-Oct-11	15:45	56.9	59.6	53.7
23-Oct-11	15:50	55.5	57.5	53.1
23-Oct-11	15:55	59.4	60.2	53.1
23-Oct-11	16:00	54.6	56.2	53.0
23-Oct-11	16:05	55.6	57.7	52.9
23-Oct-11	16:10	55.1	57.0	52.9
23-Oct-11	16:15	55.1	56.5	52.9
23-Oct-11	16:20	54.7	56.5	53.0
23-Oct-11	16:25	54.1	55.9	47.9
23-Oct-11	16:30	55.4	57.9	46.0
23-Oct-11	16:35	54.8	56.2	53.1
23-Oct-11	16:40	54.2	55.3	53.0
23-Oct-11	16:45	60.5	62.7	52.9
23-Oct-11	16:50	58.4	57.7	53.2
23-Oct-11	16:55	54.5	55.8	53.0
23-Oct-11	17:00	56.6	59.4	53.2
23-Oct-11	17:05	55.8	58.2	53.2
23-Oct-11	17:10	55.2	56.7	53.3
23-Oct-11	17:15	55.5	57.0	53.4
23-Oct-11	17:20	55.4	56.9	53.4
23-Oct-11	17:25	55.7	57.5	53.5
23-Oct-11	17:30	56.4	58.8	53.9
23-Oct-11	17:35	55.9	58.4	53.9
23-Oct-11	17:40	57.0	59.1	54.1
23-Oct-11	17:45	56.1	57.5	54.7
23-Oct-11	17:50	59.1	63.1	54.4
23-Oct-11	17:55	57.2	59.1	55.0
23-Oct-11	18:00	57.4	59.1	55.3
23-Oct-11	18:05	58.3	60.7	55.2
23-Oct-11	18:10	56.6	58.1	55.0
23-Oct-11	18:15	58.1	60.7	55.3
23-Oct-11	18:20	56.0	57.2	54.9
23-Oct-11	18:25	58.2	60.4	55.0
23-Oct-11	18:30	60.5	63.5	55.0
23-Oct-11	18:35	59.3	62.0	55.0
23-Oct-11	18:40	57.6	60.4	54.9
23-Oct-11	18:45	57.7	59.0	54.4
23-Oct-11	18:50	55.6	56.5	54.6
23-Oct-11	18:55	57.6	60.1	54.9

Appendix B3

Evening Time and Holiday Noise Level at San Tau_NMS 4

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
23-Oct-11	19:00	59.2	61.5	55.0
23-Oct-11	19:05	56.8	58.6	54.8
23-Oct-11	19:10	56.9	58.7	54.9
23-Oct-11	19:15	56.3	57.8	54.8
23-Oct-11	19:20	57.6	59.4	54.9
23-Oct-11	19:25	57.1	58.3	54.9
23-Oct-11	19:30	56.3	57.1	54.9
23-Oct-11	19:35	56.4	57.5	54.9
23-Oct-11	19:40	56.1	57.5	54.9
23-Oct-11	19:45	57.0	58.3	54.6
23-Oct-11	19:50	56.0	56.8	54.5
23-Oct-11	19:55	56.0	57.1	54.5
23-Oct-11	20:00	56.4	57.8	54.8
23-Oct-11	20:05	56.2	56.9	54.4
23-Oct-11	20:10	56.3	57.2	54.9
23-Oct-11	20:15	58.5	61.4	55.1
23-Oct-11	20:20	56.8	57.8	54.9
23-Oct-11	20:25	55.4	56.3	54.3
23-Oct-11	20:30	57.4	59.6	54.9
23-Oct-11	20:35	58.5	61.7	54.9
23-Oct-11	20:40	57.6	59.3	54.5
23-Oct-11	20:45	58.2	60.2	55.2
23-Oct-11	20:50	57.6	59.2	55.5
23-Oct-11	20:55	57.7	60.5	55.3
23-Oct-11	21:00	58.0	60.4	55.1
23-Oct-11	21:05	58.2	61.0	55.1
23-Oct-11	21:10	56.1	57.1	54.6
23-Oct-11	21:15	57.1	59.3	54.3
23-Oct-11	21:20	55.1	55.8	54.1
23-Oct-11	21:25	55.7	56.5	54.1
23-Oct-11	21:30	56.3	56.8	54.7
23-Oct-11	21:35	55.3	56.0	54.1
23-Oct-11	21:40	57.1	57.5	54.3
23-Oct-11	21:45	55.6	56.7	54.3
23-Oct-11	21:50	57.0	59.8	54.3
23-Oct-11	21:55	56.6	57.3	54.1
23-Oct-11	22:00	55.1	56.1	54.1
23-Oct-11	22:05	57.6	59.5	54.3
23-Oct-11	22:10	56.2	57.5	54.1
23-Oct-11	22:15	56.2	57.5	54.2
23-Oct-11	22:20	55.7	56.2	54.2
23-Oct-11	22:25	55.4	56.4	54.4
23-Oct-11	22:30	56.8	58.8	54.5
23-Oct-11	22:35	57.8	58.2	54.9
23-Oct-11	22:40	58.5	60.9	55.2
23-Oct-11	22:45	58.8	59.0	55.4
23-Oct-11	22:50	55.1	55.8	54.2
23-Oct-11	22:55	58.1	60.3	54.9
	Mean	56.7	58.4	54.1
	Maximum	66.5	66.8	55.5
	Minimum	54.1	55.0	46.0

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
24-Oct-11	19:00	50.6	52.1	47.1
24-Oct-11	19:05	51.0	51.8	47.9
24-Oct-11	19:10	52.9	56.1	49.3
24-Oct-11	19:15	57.4	62.5	50.0
24-Oct-11	19:20	54.0	54.9	48.5
24-Oct-11	19:25	52.7	54.3	47.3
24-Oct-11	19:30	51.1	51.4	46.5
24-Oct-11	19:35	54.0	55.1	48.5
24-Oct-11	19:40	54.0	56.2	47.4
24-Oct-11	19:45	54.6	58.1	47.4
24-Oct-11	19:50	51.2	53.0	46.7
24-Oct-11	19:55	54.0	54.3	47.3
24-Oct-11	20:00	55.5	58.7	48.8
24-Oct-11	20:05	54.8	56.6	49.4
24-Oct-11	20:10	53.1	55.3	48.1
24-Oct-11	20:15	56.7	59.4	47.6
24-Oct-11	20:20	59.1	62.4	47.6
24-Oct-11	20:25	55.0	58.6	46.5
24-Oct-11	20:30	54.9	57.9	47.1
24-Oct-11	20:35	57.4	60.5	47.7
24-Oct-11	20:40	56.4	59.5	47.5
24-Oct-11	20:45	56.9	60.1	47.3
24-Oct-11	20:50	55.2	58.9	47.3
24-Oct-11	20:55	55.4	58.9	46.8
24-Oct-11	21:00	56.4	60.5	47.5
24-Oct-11	21:05	55.7	59.1	48.1
24-Oct-11	21:10	58.2	62.5	47.6
24-Oct-11	21:15	53.7	56.6	47.6
24-Oct-11	21:20	51.5	54.6	46.2
24-Oct-11	21:25	57.8	61.6	47.3
24-Oct-11	21:30	57.6	61.8	47.8
24-Oct-11	21:35	53.6	55.9	45.4
24-Oct-11	21:40	51.9	54.6	45.7
24-Oct-11	21:45	48.0	50.6	45.1
24-Oct-11	21:50	54.8	59.0	46.4
24-Oct-11	21:55	55.1	59.1	49.2
24-Oct-11	22:00	56.0	59.3	48.4
24-Oct-11	22:05	56.3	56.7	49.0
24-Oct-11	22:10	57.0	59.8	49.4
24-Oct-11	22:15	56.2	60.2	49.9
24-Oct-11	22:20	55.1	58.2	49.3
24-Oct-11	22:25	57.3	60.5	48.8
24-Oct-11	22:30	56.5	58.2	48.6
24-Oct-11	22:35	54.9	59.0	48.9
24-Oct-11	22:40	51.5	54.2	48.0
24-Oct-11	22:45	49.5	50.8	47.0
24-Oct-11	22:50	56.0	60.4	48.6
24-Oct-11	22:55	56.7	58.9	48.9
	Mean	54.7	57.5	47.8
	Maximum	59.1	62.5	50.0
	Minimum	48.0	50.6	45.1

Appendix B3

Evening Time and Holiday Noise Level at San Tau_NMS 4

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
25-Oct-11	19:00	56.0	59.2	49.5
25-Oct-11	19:05	59.0	62.7	49.5
25-Oct-11	19:10	56.0	58.9	49.0
25-Oct-11	19:15	57.4	61.0	49.4
25-Oct-11	19:20	56.7	61.0	47.6
25-Oct-11	19:25	54.2	58.1	47.0
25-Oct-11	19:30	53.4	55.7	46.7
25-Oct-11	19:35	53.1	56.5	46.5
25-Oct-11	19:40	53.2	56.6	45.9
25-Oct-11	19:45	53.3	56.7	45.8
25-Oct-11	19:50	51.4	55.2	45.4
25-Oct-11	19:55	55.9	59.6	46.0
25-Oct-11	20:00	56.3	60.5	47.2
25-Oct-11	20:05	51.3	55.0	47.0
25-Oct-11	20:10	50.0	51.7	47.0
25-Oct-11	20:15	52.5	54.7	47.5
25-Oct-11	20:20	53.2	56.2	47.2
25-Oct-11	20:25	54.6	58.5	48.0
25-Oct-11	20:30	54.7	57.9	47.4
25-Oct-11	20:35	52.2	54.6	48.1
25-Oct-11	20:40	52.8	56.3	47.4
25-Oct-11	20:45	53.8	57.9	46.9
25-Oct-11	20:50	54.9	58.5	47.4
25-Oct-11	20:55	54.9	59.0	48.2
25-Oct-11	21:00	56.7	61.4	48.5
25-Oct-11	21:05	55.0	59.2	47.1
25-Oct-11	21:10	54.5	56.9	48.0
25-Oct-11	21:15	53.1	55.8	47.3
25-Oct-11	21:20	51.5	53.3	47.5
25-Oct-11	21:25	62.0	67.0	47.5
25-Oct-11	21:30	56.3	57.5	48.0
25-Oct-11	21:35	53.2	56.4	48.2
25-Oct-11	21:40	50.9	52.9	47.3
25-Oct-11	21:45	54.9	59.2	49.3
25-Oct-11	21:50	57.0	59.8	48.2
25-Oct-11	21:55	55.2	58.8	47.5
25-Oct-11	22:00	52.7	56.7	46.4
25-Oct-11	22:05	53.2	56.8	46.5
25-Oct-11	22:10	57.7	62.1	47.7
25-Oct-11	22:15	54.5	58.4	47.5
25-Oct-11	22:20	58.2	61.9	47.6
25-Oct-11	22:25	55.2	58.2	47.3
25-Oct-11	22:30	51.8	55.5	46.4
25-Oct-11	22:35	49.7	51.1	46.7
25-Oct-11	22:40	48.5	50.4	46.3
25-Oct-11	22:45	51.7	54.1	45.9
25-Oct-11	22:50	52.6	56.1	46.5
25-Oct-11	22:55	48.4	50.3	46.3
	Mean	54.1	57.3	47.4
	Maximum	62.0	67.0	49.5
	Minimum	48.4	50.3	45.4

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
26-Oct-11	19:00	55.1	55.9	53.9
26-Oct-11	19:05	56.1	58.1	53.9
26-Oct-11	19:10	55.3	55.9	53.9
26-Oct-11	19:15	54.7	55.7	53.9
26-Oct-11	19:20	54.5	55.5	53.8
26-Oct-11	19:25	56.0	57.8	54.0
26-Oct-11	19:30	56.0	57.6	54.1
26-Oct-11	19:35	57.3	59.5	54.1
26-Oct-11	19:40	55.7	57.1	54.1
26-Oct-11	19:45	58.1	61.8	54.1
26-Oct-11	19:50	55.6	56.7	53.9
26-Oct-11	19:55	55.4	56.7	54.0
26-Oct-11	20:00	54.7	55.6	53.8
26-Oct-11	20:05	55.7	56.3	53.9
26-Oct-11	20:10	57.3	58.6	54.0
26-Oct-11	20:15	57.5	60.1	54.0
26-Oct-11	20:20	56.1	56.8	53.9
26-Oct-11	20:25	54.8	55.7	53.6
26-Oct-11	20:30	56.5	57.9	53.9
26-Oct-11	20:35	55.1	56.4	53.9
26-Oct-11	20:40	57.5	59.9	53.6
26-Oct-11	20:45	55.3	55.7	53.6
26-Oct-11	20:50	55.6	57.2	53.9
26-Oct-11	20:55	56.1	56.9	53.9
26-Oct-11	21:00	55.1	56.2	53.9
26-Oct-11	21:05	59.1	62.9	54.2
26-Oct-11	21:10	57.5	60.1	54.0
26-Oct-11	21:15	55.4	56.4	53.9
26-Oct-11	21:20	56.2	57.8	54.0
26-Oct-11	21:25	57.6	60.9	54.1
26-Oct-11	21:30	55.2	56.1	53.9
26-Oct-11	21:35	54.7	55.7	53.8
26-Oct-11	21:40	56.0	57.0	53.7
26-Oct-11	21:45	54.5	55.5	53.7
26-Oct-11	21:50	55.1	56.4	53.9
26-Oct-11	21:55	54.4	55.1	53.5
26-Oct-11	22:00	59.6	62.0	54.1
26-Oct-11	22:05	58.4	61.4	54.0
26-Oct-11	22:10	56.1	57.7	54.0
26-Oct-11	22:15	56.4	58.3	54.0
26-Oct-11	22:20	56.6	57.4	54.0
26-Oct-11	22:25	60.0	62.5	54.0
26-Oct-11	22:30	56.3	58.3	54.0
26-Oct-11	22:35	55.2	55.8	54.1
26-Oct-11	22:40	54.7	55.6	54.0
26-Oct-11	22:45	56.0	57.7	54.0
26-Oct-11	22:50	55.2	55.8	54.0
26-Oct-11	22:55	55.9	56.6	53.9
	Mean	56.1	57.6	53.9
	Maximum	60.0	62.9	54.2
	Minimum	54.4	55.1	53.5

Appendix B3

Evening Time and Holiday Noise Level at San Tau_NMS 4

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
27-Oct-11	19:00	57.5	60.3	54.3
27-Oct-11	19:05	57.6	60.0	54.3
27-Oct-11	19:10	59.3	62.1	54.5
27-Oct-11	19:15	58.3	61.4	55.0
27-Oct-11	19:20	60.8	64.8	54.9
27-Oct-11	19:25	58.5	60.8	55.3
27-Oct-11	19:30	58.1	60.6	54.5
27-Oct-11	19:35	56.6	58.5	54.1
27-Oct-11	19:40	57.0	58.9	54.2
27-Oct-11	19:45	56.9	58.6	54.3
27-Oct-11	19:50	55.9	57.3	54.2
27-Oct-11	19:55	56.6	58.3	54.2
27-Oct-11	20:00	56.9	59.1	54.4
27-Oct-11	20:05	56.4	58.3	54.6
27-Oct-11	20:10	58.2	60.7	54.6
27-Oct-11	20:15	55.8	57.1	54.1
27-Oct-11	20:20	57.6	60.1	54.3
27-Oct-11	20:25	56.6	58.5	54.0
27-Oct-11	20:30	56.2	57.7	54.0
27-Oct-11	20:35	56.0	57.4	54.0
27-Oct-11	20:40	55.3	56.1	54.3
27-Oct-11	20:45	55.5	56.5	54.2
27-Oct-11	20:50	56.7	58.5	54.4
27-Oct-11	20:55	57.8	60.9	54.5
27-Oct-11	21:00	57.2	59.3	54.3
27-Oct-11	21:05	55.4	56.5	54.2
27-Oct-11	21:10	57.5	59.6	54.4
27-Oct-11	21:15	57.0	58.6	54.4
27-Oct-11	21:20	56.8	59.1	54.1
27-Oct-11	21:25	58.1	60.7	54.6
27-Oct-11	21:30	55.5	56.7	54.1
27-Oct-11	21:35	58.4	60.6	54.4
27-Oct-11	21:40	57.4	59.3	54.1
27-Oct-11	21:45	55.4	56.5	54.2
27-Oct-11	21:50	56.6	58.7	54.1
27-Oct-11	21:55	56.2	57.9	54.2
27-Oct-11	22:00	55.8	57.9	53.9
27-Oct-11	22:05	57.4	59.8	54.1
27-Oct-11	22:10	58.2	61.1	54.2
27-Oct-11	22:15	55.3	56.7	53.9
27-Oct-11	22:20	60.2	63.5	54.5
27-Oct-11	22:25	57.5	60.0	54.0
27-Oct-11	22:30	56.3	58.4	54.0
27-Oct-11	22:35	55.8	57.7	53.9
27-Oct-11	22:40	55.8	57.6	53.9
27-Oct-11	22:45	55.5	56.8	54.0
27-Oct-11	22:50	56.2	58.1	54.1
27-Oct-11	22:55	57.8	60.9	54.0
	Mean	57.0	59.1	54.3
	Maximum	60.8	64.8	55.3
	Minimum	55.3	56.1	53.9

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
28-Oct-11	19:00	56.9	58.8	54.9
28-Oct-11	19:05	56.2	57.6	54.9
28-Oct-11	19:10	57.2	59.7	54.3
28-Oct-11	19:15	57.4	60.1	54.4
28-Oct-11	19:20	57.8	60.2	54.4
28-Oct-11	19:25	58.7	61.8	54.4
28-Oct-11	19:30	57.9	61.0	54.4
28-Oct-11	19:35	58.6	61.1	55.0
28-Oct-11	19:40	58.2	60.8	55.0
28-Oct-11	19:45	57.2	59.5	54.4
28-Oct-11	19:50	56.8	59.0	54.5
28-Oct-11	19:55	56.8	59.2	54.1
28-Oct-11	20:00	66.0	70.4	56.4
28-Oct-11	20:05	56.0	57.5	54.2
28-Oct-11	20:10	55.5	56.5	54.1
28-Oct-11	20:15	57.5	60.4	54.2
28-Oct-11	20:20	55.2	56.1	54.0
28-Oct-11	20:25	57.2	59.7	54.1
28-Oct-11	20:30	55.3	56.5	54.0
28-Oct-11	20:35	55.1	56.1	54.0
28-Oct-11	20:40	55.4	56.5	54.2
28-Oct-11	20:45	56.7	58.4	54.2
28-Oct-11	20:50	59.0	60.6	54.3
28-Oct-11	20:55	57.5	59.8	54.2
28-Oct-11	21:00	56.8	58.7	54.2
28-Oct-11	21:05	58.3	61.3	54.4
28-Oct-11	21:10	55.8	56.8	54.8
28-Oct-11	21:15	59.5	62.9	55.1
28-Oct-11	21:20	59.6	62.4	55.2
28-Oct-11	21:25	57.4	59.6	54.7
28-Oct-11	21:30	59.2	62.0	55.0
28-Oct-11	21:35	56.3	58.5	54.1
28-Oct-11	21:40	57.8	60.4	54.7
28-Oct-11	21:45	56.4	58.1	54.2
28-Oct-11	21:50	57.7	59.0	54.6
28-Oct-11	21:55	57.2	59.0	54.6
28-Oct-11	22:00	57.2	58.5	54.6
28-Oct-11	22:05	56.9	58.4	54.9
28-Oct-11	22:10	55.4	56.3	54.3
28-Oct-11	22:15	59.4	62.8	55.0
28-Oct-11	22:20	57.9	60.1	55.3
28-Oct-11	22:25	59.8	63.0	55.3
28-Oct-11	22:30	56.1	56.9	54.9
28-Oct-11	22:35	58.1	60.5	55.1
28-Oct-11	22:40	57.0	57.6	55.1
28-Oct-11	22:45	58.1	60.1	55.3
28-Oct-11	22:50	58.7	60.5	55.9
28-Oct-11	22:55	59.1	61.8	56.0
	Mean	57.5	59.6	54.7
	Maximum	66.0	70.4	56.4
	Minimum	55.1	56.1	54.0

Appendix B3

Evening Time and Holiday Noise Level at San Tau_NMS 4

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
29-Oct-11	19:00	57.6	59.6	54.4
29-Oct-11	19:05	57.4	58.2	54.3
29-Oct-11	19:10	56.6	57.8	54.9
29-Oct-11	19:15	58.6	60.7	55.2
29-Oct-11	19:20	58.5	61.5	54.7
29-Oct-11	19:25	58.1	61.3	54.9
29-Oct-11	19:30	58.1	60.8	54.7
29-Oct-11	19:35	56.9	59.4	54.5
29-Oct-11	19:40	58.6	61.0	55.0
29-Oct-11	19:45	57.0	58.8	55.0
29-Oct-11	19:50	57.4	59.5	54.9
29-Oct-11	19:55	60.2	62.8	56.0
29-Oct-11	20:00	58.2	60.3	55.3
29-Oct-11	20:05	58.8	61.7	55.3
29-Oct-11	20:10	55.6	56.6	54.9
29-Oct-11	20:15	56.8	58.2	55.2
29-Oct-11	20:20	56.0	57.0	55.0
29-Oct-11	20:25	58.2	60.0	55.2
29-Oct-11	20:30	58.3	60.8	55.0
29-Oct-11	20:35	57.9	59.9	55.0
29-Oct-11	20:40	57.3	58.6	54.7
29-Oct-11	20:45	56.6	58.6	54.4
29-Oct-11	20:50	56.2	57.3	54.2
29-Oct-11	20:55	55.5	56.4	54.3
29-Oct-11	21:00	56.1	57.5	54.4
29-Oct-11	21:05	59.6	62.0	54.9
29-Oct-11	21:10	58.0	60.6	54.8
29-Oct-11	21:15	58.0	59.6	55.0
29-Oct-11	21:20	60.7	61.8	55.1
29-Oct-11	21:25	58.4	62.1	54.5
29-Oct-11	21:30	56.9	58.4	54.4
29-Oct-11	21:35	57.2	59.2	54.3
29-Oct-11	21:40	54.7	55.6	53.9
29-Oct-11	21:45	55.6	56.4	54.0
29-Oct-11	21:50	57.4	59.3	54.3
29-Oct-11	21:55	57.4	59.5	54.5
29-Oct-11	22:00	58.5	60.4	54.8
29-Oct-11	22:05	56.7	58.3	54.4
29-Oct-11	22:10	57.3	59.9	54.4
29-Oct-11	22:15	57.3	59.9	54.3
29-Oct-11	22:20	56.5	57.8	54.6
29-Oct-11	22:25	57.7	59.1	54.7
29-Oct-11	22:30	56.4	57.5	54.5
29-Oct-11	22:35	58.3	60.7	54.9
29-Oct-11	22:40	57.3	59.3	54.5
29-Oct-11	22:45	55.8	56.8	54.8
29-Oct-11	22:50	56.1	57.2	54.7
29-Oct-11	22:55	56.1	57.3	54.5
	Mean	57.4	59.2	54.7
	Maximum	60.7	62.8	56.0
	Minimum	54.7	55.6	53.9

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
30-Oct-11	07:00	56.1	56.8	55.1
30-Oct-11	07:05	56.2	57.3	55.1
30-Oct-11	07:10	57.0	58.8	55.1
30-Oct-11	07:15	55.5	56.4	54.9
30-Oct-11	07:20	57.7	58.8	55.1
30-Oct-11	07:25	56.4	57.7	55.0
30-Oct-11	07:30	57.3	58.6	55.1
30-Oct-11	07:35	56.3	57.5	54.9
30-Oct-11	07:40	56.2	57.5	54.9
30-Oct-11	07:45	56.5	58.0	54.5
30-Oct-11	07:50	57.9	59.4	54.3
30-Oct-11	07:55	56.6	56.9	54.1
30-Oct-11	08:00	55.3	56.4	54.0
30-Oct-11	08:05	55.3	56.7	53.9
30-Oct-11	08:10	56.0	58.1	53.9
30-Oct-11	08:15	55.3	56.7	53.5
30-Oct-11	08:20	55.9	57.7	53.4
30-Oct-11	08:25	56.8	59.3	53.9
30-Oct-11	08:30	55.6	56.8	53.9
30-Oct-11	08:35	55.9	57.9	53.9
30-Oct-11	08:40	58.4	60.2	53.7
30-Oct-11	08:45	56.0	58.1	53.5
30-Oct-11	08:50	54.8	56.2	53.3
30-Oct-11	08:55	55.2	56.5	53.6
30-Oct-11	09:00	55.5	56.8	53.6
30-Oct-11	09:05	60.2	64.2	54.1
30-Oct-11	09:10	56.5	58.8	53.9
30-Oct-11	09:15	57.0	59.7	53.4
30-Oct-11	09:20	55.6	57.2	53.9
30-Oct-11	09:25	57.7	60.0	54.3
30-Oct-11	09:30	56.6	58.7	53.4
30-Oct-11	09:35	55.2	56.8	53.3
30-Oct-11	09:40	55.6	57.4	53.3
30-Oct-11	09:45	56.3	57.8	53.6
30-Oct-11	09:50	57.3	60.0	53.9
30-Oct-11	09:55	55.7	57.7	53.3
30-Oct-11	10:00	56.4	59.0	53.3
30-Oct-11	10:05	57.4	60.2	53.1
30-Oct-11	10:10	56.7	59.4	53.2
30-Oct-11	10:15	56.5	58.1	53.3
30-Oct-11	10:20	57.2	58.6	53.3
30-Oct-11	10:25	54.2	56.1	49.0
30-Oct-11	10:30	54.2	57.9	45.3
30-Oct-11	10:35	55.3	59.3	45.2
30-Oct-11	10:40	53.9	57.0	47.3
30-Oct-11	10:45	54.6	57.7	44.4
30-Oct-11	10:50	54.9	58.1	44.5
30-Oct-11	10:55	52.2	56.2	45.7

Appendix B3

Evening Time and Holiday Noise Level at San Tau_NMS 4

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
30-Oct-11	11:00	50.2	53.1	44.3
30-Oct-11	11:05	49.2	51.8	44.9
30-Oct-11	11:10	51.2	54.6	44.7
30-Oct-11	11:15	50.1	53.4	44.3
30-Oct-11	11:20	54.5	58.1	44.3
30-Oct-11	11:25	53.6	57.6	46.9
30-Oct-11	11:30	54.4	57.9	47.2
30-Oct-11	11:35	55.3	57.8	44.7
30-Oct-11	11:40	53.2	56.9	46.2
30-Oct-11	11:45	53.7	57.7	44.9
30-Oct-11	11:50	51.9	55.8	45.3
30-Oct-11	11:55	53.9	56.6	46.6
30-Oct-11	12:00	52.0	54.6	46.4
30-Oct-11	12:05	53.5	56.7	46.0
30-Oct-11	12:10	52.3	54.3	45.2
30-Oct-11	12:15	52.8	56.4	45.2
30-Oct-11	12:20	55.8	59.6	48.0
30-Oct-11	12:25	51.0	54.3	45.6
30-Oct-11	12:30	57.6	61.0	50.1
30-Oct-11	12:35	56.2	58.2	48.7
30-Oct-11	12:40	57.6	59.4	48.0
30-Oct-11	12:45	56.4	58.0	54.0
30-Oct-11	12:50	59.4	62.5	54.3
30-Oct-11	12:55	59.1	61.5	54.9
30-Oct-11	13:00	58.4	60.8	55.1
30-Oct-11	13:05	60.2	63.5	54.6
30-Oct-11	13:10	58.4	61.0	54.4
30-Oct-11	13:15	60.5	64.3	55.2
30-Oct-11	13:20	60.4	63.3	55.5
30-Oct-11	13:25	59.1	62.0	55.1
30-Oct-11	13:30	57.8	60.1	54.6
30-Oct-11	13:35	56.2	57.6	54.1
30-Oct-11	13:40	57.0	58.8	54.2
30-Oct-11	13:45	57.2	58.6	54.1
30-Oct-11	13:50	56.8	58.7	54.1
30-Oct-11	13:55	56.2	57.9	54.1
30-Oct-11	14:00	56.8	58.6	54.2
30-Oct-11	14:05	57.2	59.7	54.1
30-Oct-11	14:10	59.1	61.9	54.6
30-Oct-11	14:15	56.9	59.4	54.1
30-Oct-11	14:20	55.9	58.0	53.4
30-Oct-11	14:25	56.0	58.2	53.3
30-Oct-11	14:30	56.3	58.9	53.2
30-Oct-11	14:35	56.7	58.9	53.3
30-Oct-11	14:40	55.1	56.8	53.0
30-Oct-11	14:45	56.2	58.7	53.3
30-Oct-11	14:50	54.8	56.1	53.1
30-Oct-11	14:55	57.7	60.1	53.4

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
30-Oct-11	15:00	55.0	56.7	53.1
30-Oct-11	15:05	56.6	59.4	53.4
30-Oct-11	15:10	54.8	56.4	53.1
30-Oct-11	15:15	57.1	58.9	53.2
30-Oct-11	15:20	54.6	55.8	53.0
30-Oct-11	15:25	54.9	55.9	53.1
30-Oct-11	15:30	54.6	56.1	53.0
30-Oct-11	15:35	54.0	54.8	52.9
30-Oct-11	15:40	54.7	56.1	53.1
30-Oct-11	15:45	56.7	58.0	53.3
30-Oct-11	15:50	54.4	55.5	53.0
30-Oct-11	15:55	54.6	55.8	53.2
30-Oct-11	16:00	57.5	58.6	53.5
30-Oct-11	16:05	54.9	55.7	53.0
30-Oct-11	16:10	54.3	55.5	53.0
30-Oct-11	16:15	54.5	55.6	53.1
30-Oct-11	16:20	54.5	55.6	53.2
30-Oct-11	16:25	57.1	59.6	53.1
30-Oct-11	16:30	54.3	55.6	53.0
30-Oct-11	16:35	54.6	55.7	53.0
30-Oct-11	16:40	53.9	54.8	53.0
30-Oct-11	16:45	53.7	54.7	52.9
30-Oct-11	16:50	54.0	54.8	53.0
30-Oct-11	16:55	53.7	54.7	52.9
30-Oct-11	17:00	54.8	56.6	53.0
30-Oct-11	17:05	54.6	55.8	53.0
30-Oct-11	17:10	59.4	59.1	52.9
30-Oct-11	17:15	53.6	54.5	52.8
30-Oct-11	17:20	54.4	55.9	52.9
30-Oct-11	17:25	53.7	54.6	52.6
30-Oct-11	17:30	58.0	60.9	52.9
30-Oct-11	17:35	53.8	54.8	52.7
30-Oct-11	17:40	53.6	54.5	52.8
30-Oct-11	17:45	56.0	59.4	52.9
30-Oct-11	17:50	56.0	58.6	53.2
30-Oct-11	17:55	54.8	56.7	52.9
30-Oct-11	18:00	54.1	55.5	52.4
30-Oct-11	18:05	53.3	54.0	52.4
30-Oct-11	18:10	57.4	59.5	52.9
30-Oct-11	18:15	53.6	54.6	52.6
30-Oct-11	18:20	54.0	54.5	52.4
30-Oct-11	18:25	54.8	55.6	52.9
30-Oct-11	18:30	55.0	56.5	53.1
30-Oct-11	18:35	55.0	56.3	53.0
30-Oct-11	18:40	55.5	56.9	52.9
30-Oct-11	18:45	56.6	59.5	53.0
30-Oct-11	18:50	54.6	55.9	52.9
30-Oct-11	18:55	55.0	56.5	53.0

Appendix B3

Evening Time and Holiday Noise Level at San Tau_NMS 4

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
30-Oct-11	19:00	54.7	56.4	53.0
30-Oct-11	19:05	55.8	57.9	53.1
30-Oct-11	19:10	54.9	56.3	53.3
30-Oct-11	19:15	54.5	55.5	53.1
30-Oct-11	19:20	56.1	57.6	53.3
30-Oct-11	19:25	56.1	57.8	53.4
30-Oct-11	19:30	56.1	57.8	53.3
30-Oct-11	19:35	54.5	55.5	53.1
30-Oct-11	19:40	57.3	59.9	53.5
30-Oct-11	19:45	56.2	57.4	54.0
30-Oct-11	19:50	54.7	55.6	53.5
30-Oct-11	19:55	55.2	55.8	53.3
30-Oct-11	20:00	54.8	55.7	53.3
30-Oct-11	20:05	56.1	57.2	53.4
30-Oct-11	20:10	56.2	58.4	53.9
30-Oct-11	20:15	55.4	56.1	53.3
30-Oct-11	20:20	54.9	55.8	53.4
30-Oct-11	20:25	54.7	55.7	53.4
30-Oct-11	20:30	55.7	57.9	53.7
30-Oct-11	20:35	54.2	54.8	53.1
30-Oct-11	20:40	56.8	59.1	53.7
30-Oct-11	20:45	54.2	54.9	53.2
30-Oct-11	20:50	55.4	57.5	53.3
30-Oct-11	20:55	56.4	59.2	53.6
30-Oct-11	21:00	57.4	60.1	53.7
30-Oct-11	21:05	54.3	55.0	53.2
30-Oct-11	21:10	55.4	56.6	53.9
30-Oct-11	21:15	57.6	60.5	53.9
30-Oct-11	21:20	54.4	55.3	53.1
30-Oct-11	21:25	56.1	57.1	53.3
30-Oct-11	21:30	58.1	61.7	53.9
30-Oct-11	21:35	57.0	59.6	53.7
30-Oct-11	21:40	55.5	57.0	53.5
30-Oct-11	21:45	55.1	55.7	54.0
30-Oct-11	21:50	57.5	60.1	54.1
30-Oct-11	21:55	56.9	58.9	54.5
30-Oct-11	22:00	57.5	60.4	54.3
30-Oct-11	22:05	57.6	59.8	54.8
30-Oct-11	22:10	56.0	57.1	54.3
30-Oct-11	22:15	56.7	58.6	54.3
30-Oct-11	22:20	55.3	56.4	54.0
30-Oct-11	22:25	55.7	56.8	54.0
30-Oct-11	22:30	57.0	60.3	53.4
30-Oct-11	22:35	56.6	58.5	53.9
30-Oct-11	22:40	56.2	57.8	53.6
30-Oct-11	22:45	57.7	60.4	53.8
30-Oct-11	22:50	56.3	57.6	53.3
30-Oct-11	22:55	55.7	56.4	53.2
	Mean	55.7	57.6	52.5
	Maximum	60.5	64.3	55.5
	Minimum	49.2	51.8	44.3

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
31-Oct-11	19:00	55.4	56.0	53.2
31-Oct-11	19:05	55.1	56.6	53.1
31-Oct-11	19:10	55.6	57.2	53.2
31-Oct-11	19:15	56.1	56.7	53.2
31-Oct-11	19:20	54.5	55.6	53.2
31-Oct-11	19:25	55.7	57.5	53.3
31-Oct-11	19:30	57.7	60.1	53.5
31-Oct-11	19:35	56.0	57.8	53.3
31-Oct-11	19:40	54.6	55.7	53.3
31-Oct-11	19:45	55.8	57.6	53.2
31-Oct-11	19:50	55.9	57.9	53.4
31-Oct-11	19:55	55.5	57.2	53.4
31-Oct-11	20:00	55.5	57.2	53.9
31-Oct-11	20:05	55.2	55.8	53.2
31-Oct-11	20:10	54.3	55.4	53.1
31-Oct-11	20:15	56.9	59.1	53.9
31-Oct-11	20:20	54.7	55.8	53.3
31-Oct-11	20:25	56.4	57.8	53.4
31-Oct-11	20:30	56.8	57.9	53.9
31-Oct-11	20:35	56.8	59.0	53.5
31-Oct-11	20:40	56.0	57.4	53.4
31-Oct-11	20:45	58.0	60.7	53.7
31-Oct-11	20:50	56.5	57.8	53.5
31-Oct-11	20:55	56.7	59.2	53.2
31-Oct-11	21:00	54.0	54.8	53.1
31-Oct-11	21:05	56.8	58.6	53.5
31-Oct-11	21:10	56.5	58.3	53.5
31-Oct-11	21:15	55.2	56.6	53.3
31-Oct-11	21:20	59.6	63.6	53.5
31-Oct-11	21:25	54.8	55.6	53.2
31-Oct-11	21:30	56.7	56.2	53.2
31-Oct-11	21:35	56.8	59.1	53.5
31-Oct-11	21:40	54.1	54.8	53.2
31-Oct-11	21:45	56.7	58.8	53.4
31-Oct-11	21:50	54.2	54.9	53.2
31-Oct-11	21:55	58.2	57.3	53.3
31-Oct-11	22:00	56.3	56.4	53.1
31-Oct-11	22:05	56.2	58.1	53.2
31-Oct-11	22:10	57.1	58.1	53.5
31-Oct-11	22:15	57.7	59.6	53.7
31-Oct-11	22:20	55.4	56.5	53.4
31-Oct-11	22:25	56.3	57.2	53.7
31-Oct-11	22:30	59.6	59.7	53.9
31-Oct-11	22:35	56.1	56.9	53.3
31-Oct-11	22:40	55.3	56.6	53.2
31-Oct-11	22:45	55.1	55.7	53.1
31-Oct-11	22:50	55.3	55.5	53.0
31-Oct-11	22:55	57.6	61.0	53.0
	Mean	56.1	57.5	53.4
	Maximum	59.6	63.6	53.9
	Minimum	54.0	54.8	53.0

Summary of Evening Time and Holiday Noise Level at San Tau_NMS 4			
	L_{eq}	L_{10}	L_{90}
Mean	56.2	58.2	52.9
Maximum	66.5	70.4	56.4
Minimum	48.0	50.3	44.3

Appendix B4

Night Time Noise Level at Sha Lo Wan_NMS 1

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
18-Oct-11	23:00	66.0	70.4	53.4
18-Oct-11	23:05	68.7	74.2	53.0
18-Oct-11	23:10	66.1	70.6	50.2
18-Oct-11	23:15	60.0	59.8	48.2
18-Oct-11	23:20	68.4	73.7	50.0
18-Oct-11	23:25	66.9	71.6	51.3
18-Oct-11	23:30	68.3	73.6	54.9
18-Oct-11	23:35	65.2	70.7	51.3
18-Oct-11	23:40	61.6	67.2	47.7
18-Oct-11	23:45	59.4	64.5	48.6
18-Oct-11	23:50	69.8	72.8	50.0
18-Oct-11	23:55	68.8	74.2	47.9
	Mean	65.8	70.3	50.5
	Maximum	69.8	74.2	54.9
	Minimum	59.4	59.8	47.7

Appendix B4

Night Time Noise Level at Sha Lo Wan_NMS 1

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
19-Oct-11	00:00	54.0	57.1	47.6
19-Oct-11	00:05	67.9	73.0	58.0
19-Oct-11	00:10	67.4	72.4	54.1
19-Oct-11	00:15	68.1	73.0	56.3
19-Oct-11	00:20	66.2	71.9	48.5
19-Oct-11	00:25	59.4	57.7	42.6
19-Oct-11	00:30	58.0	61.9	49.5
19-Oct-11	00:35	67.0	70.2	57.8
19-Oct-11	00:40	63.9	68.0	53.1
19-Oct-11	00:45	64.0	69.7	50.4
19-Oct-11	00:50	64.0	69.5	53.3
19-Oct-11	00:55	66.1	71.7	50.4
19-Oct-11	01:00	65.2	69.9	45.2
19-Oct-11	01:05	60.6	58.4	48.1
19-Oct-11	01:10	63.4	58.8	43.8
19-Oct-11	01:15	48.5	51.4	44.5
19-Oct-11	01:20	51.1	52.2	44.3
19-Oct-11	01:25	54.6	57.8	49.0
19-Oct-11	01:30	55.3	58.8	47.9
19-Oct-11	01:35	50.0	52.8	46.9
19-Oct-11	01:40	51.7	54.6	45.9
19-Oct-11	01:45	46.6	48.8	44.2
19-Oct-11	01:50	44.8	46.2	43.1
19-Oct-11	01:55	52.3	55.9	44.1
19-Oct-11	02:00	50.4	53.5	46.2
19-Oct-11	02:05	49.8	49.1	41.0
19-Oct-11	02:10	53.2	54.5	43.9
19-Oct-11	02:15	47.9	50.6	44.0
19-Oct-11	02:20	50.7	53.6	45.1
19-Oct-11	02:25	51.5	54.6	44.1
19-Oct-11	02:30	50.2	52.8	43.6
19-Oct-11	02:35	49.4	52.1	45.9
19-Oct-11	02:40	51.9	56.0	45.4
19-Oct-11	02:45	50.2	53.1	44.3
19-Oct-11	02:50	46.3	48.5	43.4
19-Oct-11	02:55	49.9	52.7	43.5
19-Oct-11	03:00	52.6	56.0	45.3
19-Oct-11	03:05	49.6	51.4	44.1
19-Oct-11	03:10	49.8	51.8	47.0
19-Oct-11	03:15	46.2	47.7	44.3
19-Oct-11	03:20	51.2	54.2	45.7
19-Oct-11	03:25	52.1	53.8	49.3
19-Oct-11	03:30	51.9	53.9	49.3
19-Oct-11	03:35	56.2	57.7	53.8
19-Oct-11	03:40	56.6	59.2	52.9
19-Oct-11	03:45	54.6	56.8	51.0
19-Oct-11	03:50	53.6	56.2	48.4
19-Oct-11	03:55	58.1	61.8	47.1
19-Oct-11	04:00	51.4	54.9	45.9
19-Oct-11	04:05	53.5	55.9	50.2
19-Oct-11	04:10	54.3	56.8	51.2
19-Oct-11	04:15	56.1	59.6	48.7
19-Oct-11	04:20	56.1	58.9	50.4
19-Oct-11	04:25	57.4	60.4	53.1
19-Oct-11	04:30	55.7	57.9	51.3
19-Oct-11	04:35	54.5	56.7	51.2
19-Oct-11	04:40	55.1	57.5	50.6
19-Oct-11	04:45	47.4	50.7	41.3
19-Oct-11	04:50	48.5	50.8	45.1
19-Oct-11	04:55	47.1	48.4	43.4
19-Oct-11	05:00	55.5	60.5	45.1
19-Oct-11	05:05	45.1	46.8	42.6
19-Oct-11	05:10	47.9	51.1	43.5
19-Oct-11	05:15	52.7	57.7	42.3
19-Oct-11	05:20	45.2	46.9	42.6
19-Oct-11	05:25	47.9	50.5	43.8
19-Oct-11	05:30	47.0	48.9	44.5
19-Oct-11	05:35	49.6	52.5	43.1
19-Oct-11	05:40	44.7	46.1	42.3
19-Oct-11	05:45	45.6	49.1	41.0
19-Oct-11	05:50	51.3	53.0	44.4
19-Oct-11	05:55	50.2	54.9	44.2
19-Oct-11	06:00	48.4	52.0	42.4
19-Oct-11	06:05	52.1	56.0	43.5
19-Oct-11	06:10	49.2	52.6	44.5
19-Oct-11	06:15	48.0	51.0	44.3
19-Oct-11	06:20	47.6	49.5	44.4
19-Oct-11	06:25	50.3	51.7	44.5
19-Oct-11	06:30	49.6	52.5	43.2
19-Oct-11	06:35	50.8	52.9	44.5
19-Oct-11	06:40	54.5	56.7	48.5
19-Oct-11	06:45	51.0	53.5	46.7
19-Oct-11	06:50	53.6	56.8	47.1
19-Oct-11	06:55	55.4	57.9	51.4
19-Oct-11	23:00	70.3	66.0	50.4
19-Oct-11	23:05	74.8	78.3	55.6
19-Oct-11	23:10	70.0	74.7	53.7
19-Oct-11	23:15	77.9	83.3	60.9
19-Oct-11	23:20	73.7	79.0	59.7
19-Oct-11	23:25	77.8	83.5	66.1
19-Oct-11	23:30	76.0	81.1	46.4
19-Oct-11	23:35	53.9	58.2	44.6
19-Oct-11	23:40	70.8	72.7	59.3
19-Oct-11	23:45	77.4	80.3	46.8
19-Oct-11	23:50	65.0	67.6	57.4
19-Oct-11	23:55	79.3	84.6	55.5
	Mean	55.6	58.5	47.7
	Maximum	79.3	84.6	66.1
	Minimum	44.7	46.1	41.0

Appendix B4

Night Time Noise Level at Sha Lo Wan_NMS 1

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
20-Oct-11	00:00	72.0	75.5	54.6
20-Oct-11	00:05	75.3	81.0	56.0
20-Oct-11	00:10	75.0	77.3	58.5
20-Oct-11	00:15	75.0	79.2	50.3
20-Oct-11	00:20	68.9	69.0	46.4
20-Oct-11	00:25	69.3	68.2	47.0
20-Oct-11	00:30	70.4	74.5	54.1
20-Oct-11	00:35	64.5	69.5	51.7
20-Oct-11	00:40	69.3	71.3	57.9
20-Oct-11	00:45	73.5	78.1	59.7
20-Oct-11	00:50	73.1	78.0	61.2
20-Oct-11	00:55	75.0	80.0	58.5
20-Oct-11	01:00	73.8	76.3	59.0
20-Oct-11	01:05	72.2	75.2	65.8
20-Oct-11	01:10	71.6	76.5	52.2
20-Oct-11	01:15	61.0	64.9	46.2
20-Oct-11	01:20	71.0	73.3	60.6
20-Oct-11	01:25	77.3	81.8	59.8
20-Oct-11	01:30	74.3	74.5	52.1
20-Oct-11	01:35	63.1	66.6	45.9
20-Oct-11	01:40	66.3	65.8	47.1
20-Oct-11	01:45	68.6	70.2	42.5
20-Oct-11	01:50	45.2	46.7	43.2
20-Oct-11	01:55	45.3	46.9	43.3
20-Oct-11	02:00	63.2	65.0	43.7
20-Oct-11	02:05	59.1	62.4	49.2
20-Oct-11	02:10	69.9	70.4	50.9
20-Oct-11	02:15	59.8	62.9	51.7
20-Oct-11	02:20	75.3	79.4	66.6
20-Oct-11	02:25	67.2	68.6	49.8
20-Oct-11	02:30	63.0	65.9	44.3
20-Oct-11	02:35	44.7	45.9	43.3
20-Oct-11	02:40	57.2	59.5	47.2
20-Oct-11	02:45	61.0	64.7	46.9
20-Oct-11	02:50	68.4	69.3	50.0
20-Oct-11	02:55	48.2	49.9	43.1
20-Oct-11	03:00	69.5	72.7	53.7
20-Oct-11	03:05	66.4	62.0	48.2
20-Oct-11	03:10	58.6	62.3	46.3
20-Oct-11	03:15	69.8	72.2	54.6
20-Oct-11	03:20	67.9	70.8	55.3
20-Oct-11	03:25	68.1	70.7	52.3
20-Oct-11	03:30	70.3	74.7	54.6
20-Oct-11	03:35	66.4	70.8	53.2
20-Oct-11	03:40	68.6	70.6	61.4
20-Oct-11	03:45	72.3	76.1	59.8
20-Oct-11	03:50	71.6	73.5	67.0
20-Oct-11	03:55	77.8	81.8	64.4
20-Oct-11	04:00	75.1	79.7	68.0
20-Oct-11	04:05	71.3	75.8	58.4
20-Oct-11	04:10	70.2	68.7	53.4
20-Oct-11	04:15	62.3	65.3	58.2
20-Oct-11	04:20	68.1	71.4	47.5
20-Oct-11	04:25	61.1	63.2	45.1
20-Oct-11	04:30	64.2	68.5	49.4
20-Oct-11	04:35	73.2	77.6	57.7
20-Oct-11	04:40	59.3	58.5	45.7
20-Oct-11	04:45	46.8	48.4	44.5
20-Oct-11	04:50	47.8	49.8	45.4
20-Oct-11	04:55	48.5	51.1	43.7
20-Oct-11	05:00	44.4	45.8	42.3
20-Oct-11	05:05	55.0	55.5	44.3
20-Oct-11	05:10	57.3	55.8	44.4
20-Oct-11	05:15	62.0	59.2	45.2
20-Oct-11	05:20	58.8	60.5	54.3
20-Oct-11	05:25	61.3	64.4	55.9
20-Oct-11	05:30	71.7	75.8	45.5
20-Oct-11	05:35	68.6	68.1	43.1
20-Oct-11	05:40	43.2	44.5	40.7
20-Oct-11	05:45	56.4	59.5	40.1
20-Oct-11	05:50	57.3	63.4	43.2
20-Oct-11	05:55	54.2	58.9	42.6
20-Oct-11	06:00	58.0	60.4	53.6
20-Oct-11	06:05	55.4	58.1	40.2
20-Oct-11	06:10	59.5	64.5	41.0
20-Oct-11	06:15	56.3	57.5	43.3
20-Oct-11	06:20	61.7	65.8	47.5
20-Oct-11	06:25	65.0	68.6	48.5
20-Oct-11	06:30	70.0	73.6	62.9
20-Oct-11	06:35	71.8	75.1	50.9
20-Oct-11	06:40	58.0	62.7	44.3
20-Oct-11	06:45	55.7	55.9	41.9
20-Oct-11	06:50	55.5	57.0	42.4
20-Oct-11	06:55	57.4	62.7	41.3
20-Oct-11	23:00	67.5	67.4	56.2
20-Oct-11	23:05	68.0	71.0	61.3
20-Oct-11	23:10	70.7	74.8	59.3
20-Oct-11	23:15	70.9	74.7	52.7
20-Oct-11	23:20	72.4	78.6	58.5
20-Oct-11	23:25	78.5	81.6	63.8
20-Oct-11	23:30	76.3	83.5	45.1
20-Oct-11	23:35	54.4	59.8	43.8
20-Oct-11	23:40	67.6	70.0	57.2
20-Oct-11	23:45	74.6	77.0	45.0
20-Oct-11	23:50	66.0	70.7	55.8
20-Oct-11	23:55	68.2	71.4	56.7
	Mean	64.7	67.4	51.1
	Maximum	78.5	83.5	68.0
	Minimum	43.2	44.5	40.1

Appendix B4

Night Time Noise Level at Sha Lo Wan_NMS 1

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
21-Oct-11	00:00	71.5	74.8	57.4
21-Oct-11	00:05	76.8	84.0	63.5
21-Oct-11	00:10	78.9	86.4	60.8
21-Oct-11	00:15	78.9	84.1	61.1
21-Oct-11	00:20	73.2	76.2	66.8
21-Oct-11	00:25	77.5	84.5	57.2
21-Oct-11	00:30	79.2	83.1	61.3
21-Oct-11	00:35	76.8	82.1	51.9
21-Oct-11	00:40	69.9	70.5	48.2
21-Oct-11	00:45	70.7	68.6	49.2
21-Oct-11	00:50	73.7	78.5	58.0
21-Oct-11	00:55	68.2	74.1	54.3
21-Oct-11	01:00	71.2	73.1	59.9
21-Oct-11	01:05	75.7	80.2	61.8
21-Oct-11	01:10	70.6	74.8	48.5
21-Oct-11	01:15	61.4	64.4	52.8
21-Oct-11	01:20	74.2	75.0	55.5
21-Oct-11	01:25	66.3	70.6	56.8
21-Oct-11	01:30	79.6	84.1	71.7
21-Oct-11	01:35	73.6	75.1	55.5
21-Oct-11	01:40	67.3	71.1	48.7
21-Oct-11	01:45	50.9	53.0	48.9
21-Oct-11	01:50	61.1	64.2	52.0
21-Oct-11	01:55	66.5	71.5	50.9
21-Oct-11	02:00	73.9	76.7	53.2
21-Oct-11	02:05	76.9	83.2	55.4
21-Oct-11	02:10	64.9	69.8	50.0
21-Oct-11	02:15	76.6	80.7	63.6
21-Oct-11	02:20	82.7	89.4	62.7
21-Oct-11	02:25	73.2	72.8	54.6
21-Oct-11	02:30	66.7	70.4	49.2
21-Oct-11	02:35	69.4	68.2	49.8
21-Oct-11	02:40	73.2	74.7	46.4
21-Oct-11	02:45	47.7	48.2	47.4
21-Oct-11	02:50	50.3	53.4	47.5
21-Oct-11	02:55	52.7	55.1	46.5
21-Oct-11	03:00	74.2	77.8	58.2
21-Oct-11	03:05	72.3	68.7	52.7
21-Oct-11	03:10	61.7	66.8	49.9
21-Oct-11	03:15	76.2	79.1	59.7
21-Oct-11	03:20	70.6	73.3	57.7
21-Oct-11	03:25	72.6	76.9	54.3
21-Oct-11	03:30	73.2	78.1	56.8
21-Oct-11	03:35	70.5	76.0	56.0
21-Oct-11	03:40	71.3	74.3	63.4
21-Oct-11	03:45	76.1	81.1	62.2
21-Oct-11	03:50	76.3	79.1	70.4
21-Oct-11	03:55	70.4	74.6	62.5
21-Oct-11	04:00	78.3	83.9	70.3
21-Oct-11	04:05	75.1	80.9	61.9
21-Oct-11	04:10	74.9	75.0	55.9
21-Oct-11	04:15	68.0	72.7	61.9
21-Oct-11	04:20	69.6	73.0	48.6
21-Oct-11	04:25	65.0	68.9	46.6
21-Oct-11	04:30	65.5	71.0	48.5
21-Oct-11	04:35	74.0	78.5	58.6
21-Oct-11	04:40	61.2	61.7	46.8
21-Oct-11	04:45	49.3	52.3	46.7
21-Oct-11	04:50	51.2	55.3	47.2
21-Oct-11	04:55	50.4	53.7	45.5
21-Oct-11	05:00	48.4	50.3	44.3
21-Oct-11	05:05	60.6	63.0	47.4
21-Oct-11	05:10	61.8	61.5	47.0
21-Oct-11	05:15	65.4	64.2	47.1
21-Oct-11	05:20	62.3	64.8	55.9
21-Oct-11	05:25	65.3	70.3	57.2
21-Oct-11	05:30	76.4	81.7	47.6
21-Oct-11	05:35	73.9	75.6	45.0
21-Oct-11	05:40	47.9	50.9	42.9
21-Oct-11	05:45	62.0	66.8	42.7
21-Oct-11	05:50	62.4	70.3	44.7
21-Oct-11	05:55	57.9	63.7	44.2
21-Oct-11	06:00	63.3	67.0	55.4
21-Oct-11	06:05	60.7	64.2	42.2
21-Oct-11	06:10	64.5	70.9	42.7
21-Oct-11	06:15	60.5	63.4	43.5
21-Oct-11	06:20	63.5	68.8	47.7
21-Oct-11	06:25	66.4	71.6	47.9
21-Oct-11	06:30	72.2	77.1	62.8
21-Oct-11	06:35	74.7	78.9	52.3
21-Oct-11	06:40	61.7	67.9	45.3
21-Oct-11	06:45	57.0	58.5	41.2
21-Oct-11	06:50	54.8	56.4	40.8
21-Oct-11	06:55	58.6	65.4	40.1
21-Oct-11	23:00	62.9	65.8	45.6
21-Oct-11	23:05	65.3	69.9	57.1
21-Oct-11	23:10	69.0	73.9	55.9
21-Oct-11	23:15	64.7	70.0	51.1
21-Oct-11	23:20	66.7	71.5	49.7
21-Oct-11	23:25	63.8	69.3	49.7
21-Oct-11	23:30	66.6	73.0	48.4
21-Oct-11	23:35	62.0	66.4	46.5
21-Oct-11	23:40	62.2	67.2	48.1
21-Oct-11	23:45	68.7	75.0	49.3
21-Oct-11	23:50	69.1	73.4	55.9
21-Oct-11	23:55	67.1	72.6	53.9
	Mean	67.3	71.0	52.7
	Maximum	82.7	89.4	71.7
	Minimum	47.7	48.2	40.1

Appendix B4

Night Time Noise Level at Sha Lo Wan_NMS 1

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
22-Oct-11	00:00	69.1	73.9	58.4
22-Oct-11	00:05	66.4	71.4	56.4
22-Oct-11	00:10	67.9	72.7	58.3
22-Oct-11	00:15	69.2	73.6	55.9
22-Oct-11	00:20	67.6	73.3	52.0
22-Oct-11	00:25	68.3	73.1	48.1
22-Oct-11	00:30	62.7	68.3	44.0
22-Oct-11	00:35	57.4	58.0	43.8
22-Oct-11	00:40	66.8	70.2	46.2
22-Oct-11	00:45	67.4	72.7	54.5
22-Oct-11	00:50	67.7	73.5	49.5
22-Oct-11	00:55	51.6	54.9	46.0
22-Oct-11	01:00	50.4	54.0	44.5
22-Oct-11	01:05	51.5	54.4	47.2
22-Oct-11	01:10	55.4	58.5	42.0
22-Oct-11	01:15	49.4	51.8	43.5
22-Oct-11	01:20	48.3	51.1	43.1
22-Oct-11	01:25	48.6	52.5	42.2
22-Oct-11	01:30	45.0	44.8	40.6
22-Oct-11	01:35	47.7	49.4	42.5
22-Oct-11	01:40	44.7	47.5	41.2
22-Oct-11	01:45	44.2	46.5	41.0
22-Oct-11	01:50	44.3	47.2	40.6
22-Oct-11	01:55	47.0	50.9	40.6
22-Oct-11	02:00	46.3	45.6	41.4
22-Oct-11	02:05	47.0	49.6	43.8
22-Oct-11	02:10	49.0	52.7	42.3
22-Oct-11	02:15	47.2	51.5	39.6
22-Oct-11	02:20	46.8	49.3	43.3
22-Oct-11	02:25	47.6	49.8	44.4
22-Oct-11	02:30	51.2	54.6	46.2
22-Oct-11	02:35	45.5	47.2	42.3
22-Oct-11	02:40	49.9	53.4	44.4
22-Oct-11	02:45	46.8	48.8	42.7
22-Oct-11	02:50	45.8	48.0	42.3
22-Oct-11	02:55	51.6	57.0	41.2
22-Oct-11	03:00	46.8	48.6	44.4
22-Oct-11	03:05	46.5	48.4	44.3
22-Oct-11	03:10	44.6	46.6	42.1
22-Oct-11	03:15	47.8	50.0	44.4
22-Oct-11	03:20	48.2	50.1	44.5
22-Oct-11	03:25	50.1	52.1	46.4
22-Oct-11	03:30	51.5	53.8	47.6
22-Oct-11	03:35	53.8	56.7	48.5
22-Oct-11	03:40	51.9	54.2	45.6
22-Oct-11	03:45	53.1	56.9	44.3
22-Oct-11	03:50	50.4	52.8	47.1
22-Oct-11	03:55	49.1	50.3	44.3
22-Oct-11	04:00	48.8	51.6	43.3
22-Oct-11	04:05	50.8	54.1	46.1
22-Oct-11	04:10	49.4	51.3	46.6
22-Oct-11	04:15	49.7	53.0	43.4
22-Oct-11	04:20	58.3	59.8	42.6
22-Oct-11	04:25	50.1	53.5	44.6
22-Oct-11	04:30	44.2	45.7	42.2
22-Oct-11	04:35	47.0	50.5	42.2
22-Oct-11	04:40	52.1	54.8	48.6
22-Oct-11	04:45	48.9	52.3	45.0
22-Oct-11	04:50	47.1	49.9	42.1
22-Oct-11	04:55	51.9	53.7	44.4
22-Oct-11	05:00	47.5	49.8	44.0
22-Oct-11	05:05	48.1	49.9	45.5
22-Oct-11	05:10	48.1	51.2	43.2
22-Oct-11	05:15	61.5	63.5	43.0
22-Oct-11	05:20	51.6	54.2	42.5
22-Oct-11	05:25	47.8	50.0	44.4
22-Oct-11	05:30	60.7	65.6	44.8
22-Oct-11	05:35	50.6	54.1	43.5
22-Oct-11	05:40	53.1	56.6	46.4
22-Oct-11	05:45	49.3	51.5	44.9
22-Oct-11	05:50	49.2	51.6	43.9
22-Oct-11	05:55	54.3	57.9	45.2
22-Oct-11	06:00	45.6	47.8	42.2
22-Oct-11	06:05	45.1	46.9	42.5
22-Oct-11	06:10	48.2	50.6	44.4
22-Oct-11	06:15	55.8	58.7	51.0
22-Oct-11	06:20	57.8	62.7	49.0
22-Oct-11	06:25	50.3	53.1	45.3
22-Oct-11	06:30	52.5	56.4	42.1
22-Oct-11	06:35	54.4	58.9	44.4
22-Oct-11	06:40	51.4	54.9	44.9
22-Oct-11	06:45	50.3	52.9	46.0
22-Oct-11	06:50	62.8	67.9	49.0
22-Oct-11	06:55	53.3	56.4	48.0
22-Oct-11	23:00	74.4	71.5	45.7
22-Oct-11	23:05	69.0	71.7	59.3
22-Oct-11	23:10	79.8	84.8	64.0
22-Oct-11	23:15	79.4	83.2	62.4
22-Oct-11	23:20	77.2	82.5	56.5
22-Oct-11	23:25	74.4	79.8	57.3
22-Oct-11	23:30	72.7	72.8	53.9
22-Oct-11	23:35	73.6	79.0	52.1
22-Oct-11	23:40	75.2	79.6	57.3
22-Oct-11	23:45	71.7	76.2	59.9
22-Oct-11	23:50	78.6	84.0	52.6
22-Oct-11	23:55	62.6	66.9	49.5
	Mean	54.8	57.9	46.5
	Maximum	79.8	84.8	64.0
	Minimum	44.2	44.8	39.6

Appendix B4

Night Time Noise Level at Sha Lo Wan_NMS 1

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
23-Oct-11	00:00	72.7	77.4	63.7
23-Oct-11	00:05	73.5	78.9	56.8
23-Oct-11	00:10	75.3	80.1	57.4
23-Oct-11	00:15	76.6	80.4	54.0
23-Oct-11	00:20	65.8	73.0	52.5
23-Oct-11	00:25	77.1	82.0	57.5
23-Oct-11	00:30	74.0	77.7	46.6
23-Oct-11	00:35	56.6	60.5	44.7
23-Oct-11	00:40	70.9	74.0	58.2
23-Oct-11	00:45	78.8	83.1	60.5
23-Oct-11	00:50	72.8	77.0	52.8
23-Oct-11	00:55	73.4	78.9	58.9
23-Oct-11	01:00	76.8	82.8	54.8
23-Oct-11	01:05	67.8	71.0	49.9
23-Oct-11	01:10	70.2	72.5	52.6
23-Oct-11	01:15	72.3	77.7	41.6
23-Oct-11	01:20	40.8	43.5	37.7
23-Oct-11	01:25	44.1	46.8	40.0
23-Oct-11	01:30	70.2	71.2	44.6
23-Oct-11	01:35	59.3	62.7	43.0
23-Oct-11	01:40	63.1	63.4	39.5
23-Oct-11	01:45	45.9	47.8	43.1
23-Oct-11	01:50	49.3	52.4	45.2
23-Oct-11	01:55	61.4	62.4	51.2
23-Oct-11	02:00	74.8	79.2	55.2
23-Oct-11	02:05	78.6	83.5	53.4
23-Oct-11	02:10	61.4	65.1	43.7
23-Oct-11	02:15	69.2	70.1	44.3
23-Oct-11	02:20	42.0	46.5	37.6
23-Oct-11	02:25	44.7	47.8	39.0
23-Oct-11	02:30	68.3	63.9	49.0
23-Oct-11	02:35	51.8	54.6	47.5
23-Oct-11	02:40	50.8	54.9	38.2
23-Oct-11	02:45	70.6	72.2	52.6
23-Oct-11	02:50	68.7	68.7	46.7
23-Oct-11	02:55	69.8	62.8	38.3
23-Oct-11	03:00	43.7	46.6	38.2
23-Oct-11	03:05	73.3	71.9	48.2
23-Oct-11	03:10	64.4	61.1	39.5
23-Oct-11	03:15	44.9	47.5	40.1
23-Oct-11	03:20	43.4	45.7	40.0
23-Oct-11	03:25	46.9	49.5	42.2
23-Oct-11	03:30	57.6	60.3	41.7
23-Oct-11	03:35	72.8	70.6	42.3
23-Oct-11	03:40	40.5	42.6	38.4
23-Oct-11	03:45	40.8	43.4	37.0
23-Oct-11	03:50	40.7	42.4	38.5
23-Oct-11	03:55	44.8	46.7	42.5
23-Oct-11	04:00	47.9	49.8	44.8
23-Oct-11	04:05	53.0	55.7	42.4
23-Oct-11	04:10	73.9	73.4	43.2
23-Oct-11	04:15	44.6	46.0	42.0
23-Oct-11	04:20	72.9	72.0	48.2
23-Oct-11	04:25	56.3	58.8	43.4
23-Oct-11	04:30	54.3	56.8	48.8
23-Oct-11	04:35	63.3	66.5	46.8
23-Oct-11	04:40	66.5	66.4	48.5
23-Oct-11	04:45	72.6	69.5	42.6
23-Oct-11	04:50	59.8	61.5	41.4
23-Oct-11	04:55	56.6	57.8	40.4
23-Oct-11	05:00	61.4	67.1	44.0
23-Oct-11	05:05	72.8	76.8	48.0
23-Oct-11	05:10	69.1	53.7	39.4
23-Oct-11	05:15	54.5	57.1	39.0
23-Oct-11	05:20	43.7	45.2	40.0
23-Oct-11	05:25	53.6	57.6	40.4
23-Oct-11	05:30	59.8	64.8	40.1
23-Oct-11	05:35	56.5	54.8	42.5
23-Oct-11	05:40	48.2	51.3	41.1
23-Oct-11	05:45	61.4	64.1	50.8
23-Oct-11	05:50	67.5	71.2	48.9
23-Oct-11	05:55	52.5	56.7	43.5
23-Oct-11	06:00	44.3	46.2	41.1
23-Oct-11	06:05	67.1	61.5	42.0
23-Oct-11	06:10	44.2	46.7	40.6
23-Oct-11	06:15	61.1	63.4	41.5
23-Oct-11	06:20	46.5	48.4	43.2
23-Oct-11	06:25	58.9	63.3	46.1
23-Oct-11	06:30	61.0	59.8	46.3
23-Oct-11	06:35	70.0	71.1	55.8
23-Oct-11	06:40	76.6	76.4	43.5
23-Oct-11	06:45	61.1	65.8	47.8
23-Oct-11	06:50	55.2	60.5	45.7
23-Oct-11	06:55	60.5	64.6	44.7
23-Oct-11	23:00	68.4	67.6	55.3
23-Oct-11	23:05	73.5	68.4	51.5
23-Oct-11	23:10	75.0	78.9	47.7
23-Oct-11	23:15	58.7	61.4	48.5
23-Oct-11	23:20	73.7	73.4	61.0
23-Oct-11	23:25	76.1	81.0	59.7
23-Oct-11	23:30	59.0	62.5	51.7
23-Oct-11	23:35	77.3	79.0	62.6
23-Oct-11	23:40	77.6	81.6	58.4
23-Oct-11	23:45	77.1	82.1	62.9
23-Oct-11	23:50	72.7	74.7	54.6
23-Oct-11	23:55	75.5	80.7	58.4
	Mean	61.9	64.0	46.9
	Maximum	78.8	83.5	63.7
	Minimum	40.5	42.4	37.0

Appendix B4

Night Time Noise Level at Sha Lo Wan_NMS 1

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
24-Oct-11	00:00	72.7	77.9	63.3
24-Oct-11	00:05	81.3	86.0	66.4
24-Oct-11	00:10	74.0	77.6	65.0
24-Oct-11	00:15	75.5	81.3	50.8
24-Oct-11	00:20	62.1	56.4	44.8
24-Oct-11	00:25	65.5	68.4	46.0
24-Oct-11	00:30	72.3	74.1	62.9
24-Oct-11	00:35	70.8	74.5	54.1
24-Oct-11	00:40	63.7	66.2	47.8
24-Oct-11	00:45	76.7	80.4	64.6
24-Oct-11	00:50	76.9	79.7	53.9
24-Oct-11	00:55	50.2	53.1	45.8
24-Oct-11	01:00	53.1	56.6	45.5
24-Oct-11	01:05	54.0	56.9	48.0
24-Oct-11	01:10	56.3	59.9	50.0
24-Oct-11	01:15	62.3	66.1	53.1
24-Oct-11	01:20	56.4	60.3	49.5
24-Oct-11	01:25	56.3	59.7	51.0
24-Oct-11	01:30	61.8	64.4	54.8
24-Oct-11	01:35	54.4	58.1	48.6
24-Oct-11	01:40	52.7	56.0	47.2
24-Oct-11	01:45	47.9	48.9	46.5
24-Oct-11	01:50	47.7	50.0	45.7
24-Oct-11	01:55	48.7	50.0	46.7
24-Oct-11	02:00	52.4	55.4	46.0
24-Oct-11	02:05	53.6	54.6	46.7
24-Oct-11	02:10	57.7	60.9	51.4
24-Oct-11	02:15	58.2	60.5	48.5
24-Oct-11	02:20	57.7	61.9	46.7
24-Oct-11	02:25	50.3	53.8	44.4
24-Oct-11	02:30	49.4	53.0	43.3
24-Oct-11	02:35	54.4	55.9	52.5
24-Oct-11	02:40	57.4	59.5	54.6
24-Oct-11	02:45	58.3	59.9	55.0
24-Oct-11	02:50	47.3	48.4	41.3
24-Oct-11	02:55	45.6	47.6	42.2
24-Oct-11	03:00	51.2	55.1	46.3
24-Oct-11	03:05	57.2	59.5	54.1
24-Oct-11	03:10	64.1	69.3	53.5
24-Oct-11	03:15	63.8	68.2	54.1
24-Oct-11	03:20	53.6	57.6	44.4
24-Oct-11	03:25	46.1	47.7	44.1
24-Oct-11	03:30	64.8	69.1	44.7
24-Oct-11	03:35	61.6	64.2	57.2
24-Oct-11	03:40	64.5	69.0	52.4
24-Oct-11	03:45	62.1	65.2	55.4
24-Oct-11	03:50	62.8	66.6	55.1
24-Oct-11	03:55	55.3	59.3	47.7
24-Oct-11	04:00	50.4	54.9	43.0
24-Oct-11	04:05	59.7	63.7	43.8
24-Oct-11	04:10	56.4	60.7	47.6
24-Oct-11	04:15	58.6	63.3	46.1
24-Oct-11	04:20	57.2	61.5	48.0
24-Oct-11	04:25	48.4	50.2	46.2
24-Oct-11	04:30	50.5	53.8	47.1
24-Oct-11	04:35	49.9	53.2	46.0
24-Oct-11	04:40	52.1	55.5	47.7
24-Oct-11	04:45	50.4	53.5	45.1
24-Oct-11	04:50	49.2	51.8	45.1
24-Oct-11	04:55	53.9	56.2	48.9
24-Oct-11	05:00	46.1	49.0	41.6
24-Oct-11	05:05	53.4	54.2	42.7
24-Oct-11	05:10	55.7	55.6	48.1
24-Oct-11	05:15	48.8	51.4	45.0
24-Oct-11	05:20	53.2	55.8	50.6
24-Oct-11	05:25	51.0	52.8	47.4
24-Oct-11	05:30	50.9	52.5	48.5
24-Oct-11	05:35	51.0	54.5	46.3
24-Oct-11	05:40	48.6	50.4	45.3
24-Oct-11	05:45	55.6	59.9	45.0
24-Oct-11	05:50	43.7	46.5	40.0
24-Oct-11	05:55	47.9	51.9	41.5
24-Oct-11	06:00	47.4	49.7	43.1
24-Oct-11	06:05	53.2	57.1	43.4
24-Oct-11	06:10	48.9	51.5	44.6
24-Oct-11	06:15	44.9	47.8	40.0
24-Oct-11	06:20	51.6	54.7	47.1
24-Oct-11	06:25	49.4	52.2	42.7
24-Oct-11	06:30	46.0	48.1	40.8
24-Oct-11	06:35	51.0	53.7	43.3
24-Oct-11	06:40	54.8	57.7	46.0
24-Oct-11	06:45	55.1	57.9	46.3
24-Oct-11	06:50	56.3	59.6	46.5
24-Oct-11	06:55	51.1	54.5	44.9
24-Oct-11	23:00	67.0	67.8	54.4
24-Oct-11	23:05	66.8	70.1	58.9
24-Oct-11	23:10	70.4	74.5	58.3
24-Oct-11	23:15	70.0	74.4	51.1
24-Oct-11	23:20	67.4	67.6	53.8
24-Oct-11	23:25	67.7	68.5	47.3
24-Oct-11	23:30	64.2	65.2	49.8
24-Oct-11	23:35	68.4	74.4	52.3
24-Oct-11	23:40	70.9	76.2	51.1
24-Oct-11	23:45	66.1	70.8	56.5
24-Oct-11	23:50	74.3	79.8	57.2
24-Oct-11	23:55	72.3	77.6	54.2
	Mean	57.5	60.5	49.0
	Maximum	81.3	86.0	66.4
	Minimum	43.7	46.5	40.0

Appendix B4

Night Time Noise Level at Sha Lo Wan_NMS 1

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
25-Oct-11	00:00	69.8	74.0	60.0
25-Oct-11	00:05	72.4	77.4	59.2
25-Oct-11	00:10	71.0	74.9	56.4
25-Oct-11	00:15	71.7	75.0	60.4
25-Oct-11	00:20	71.0	76.3	48.2
25-Oct-11	00:25	53.6	56.7	44.5
25-Oct-11	00:30	65.5	68.6	56.3
25-Oct-11	00:35	70.4	73.1	60.6
25-Oct-11	00:40	68.2	73.0	55.5
25-Oct-11	00:45	64.8	65.0	50.7
25-Oct-11	00:50	70.5	72.1	50.3
25-Oct-11	00:55	59.7	62.9	47.0
25-Oct-11	01:00	56.0	57.4	46.3
25-Oct-11	01:05	53.0	56.2	47.6
25-Oct-11	01:10	53.1	56.8	46.1
25-Oct-11	01:15	47.6	49.8	44.0
25-Oct-11	01:20	50.7	54.7	44.2
25-Oct-11	01:25	48.3	51.0	44.4
25-Oct-11	01:30	47.6	48.7	43.5
25-Oct-11	01:35	45.7	48.3	42.3
25-Oct-11	01:40	45.6	49.2	40.7
25-Oct-11	01:45	44.7	47.3	42.0
25-Oct-11	01:50	44.4	45.7	42.3
25-Oct-11	01:55	46.6	48.7	40.8
25-Oct-11	02:00	50.5	54.0	44.1
25-Oct-11	02:05	44.3	46.7	40.6
25-Oct-11	02:10	47.6	50.3	42.8
25-Oct-11	02:15	50.2	55.0	41.7
25-Oct-11	02:20	48.7	50.7	43.7
25-Oct-11	02:25	47.7	49.9	44.0
25-Oct-11	02:30	45.1	48.1	42.1
25-Oct-11	02:35	47.8	51.8	42.1
25-Oct-11	02:40	52.9	55.5	44.5
25-Oct-11	02:45	45.3	47.7	41.2
25-Oct-11	02:50	45.5	46.9	43.6
25-Oct-11	02:55	43.4	45.1	41.4
25-Oct-11	03:00	44.4	46.8	41.5
25-Oct-11	03:05	45.3	47.3	42.5
25-Oct-11	03:10	47.3	49.8	43.7
25-Oct-11	03:15	45.8	47.9	42.8
25-Oct-11	03:20	51.4	53.9	46.2
25-Oct-11	03:25	49.6	53.0	44.1
25-Oct-11	03:30	44.6	46.7	42.2
25-Oct-11	03:35	55.6	58.0	43.5
25-Oct-11	03:40	47.8	49.4	45.2
25-Oct-11	03:45	51.6	55.1	44.7
25-Oct-11	03:50	55.4	59.7	44.0
25-Oct-11	03:55	50.2	53.2	43.7
25-Oct-11	04:00	48.0	50.2	43.4
25-Oct-11	04:05	47.0	49.9	42.8
25-Oct-11	04:10	50.5	53.5	43.2
25-Oct-11	04:15	46.7	48.9	42.1
25-Oct-11	04:20	48.0	51.1	42.7
25-Oct-11	04:25	45.6	46.8	43.8
25-Oct-11	04:30	48.5	51.0	43.2
25-Oct-11	04:35	47.9	51.6	42.4
25-Oct-11	04:40	50.1	53.9	39.0
25-Oct-11	04:45	53.2	56.6	44.8
25-Oct-11	04:50	45.5	47.8	42.4
25-Oct-11	04:55	45.9	47.8	43.2
25-Oct-11	05:00	48.3	50.3	45.1
25-Oct-11	05:05	52.4	55.2	47.7
25-Oct-11	05:10	51.2	55.7	41.0
25-Oct-11	05:15	46.3	46.4	40.2
25-Oct-11	05:20	50.7	53.6	44.9
25-Oct-11	05:25	54.9	57.6	46.2
25-Oct-11	05:30	44.2	47.2	40.4
25-Oct-11	05:35	49.2	53.6	40.7
25-Oct-11	05:40	43.0	45.2	40.2
25-Oct-11	05:45	43.1	44.9	40.3
25-Oct-11	05:50	49.1	49.7	43.0
25-Oct-11	05:55	49.7	53.3	42.5
25-Oct-11	06:00	44.9	47.5	40.3
25-Oct-11	06:05	42.0	44.0	39.2
25-Oct-11	06:10	43.5	45.8	40.5
25-Oct-11	06:15	46.4	49.3	41.5
25-Oct-11	06:20	48.0	50.3	44.0
25-Oct-11	06:25	46.3	49.6	41.0
25-Oct-11	06:30	53.7	57.7	42.4
25-Oct-11	06:35	50.7	52.8	43.6
25-Oct-11	06:40	50.4	53.1	45.0
25-Oct-11	06:45	52.1	54.4	46.2
25-Oct-11	06:50	48.1	51.6	42.1
25-Oct-11	06:55	46.3	49.9	40.0
25-Oct-11	23:00	61.8	66.0	44.5
25-Oct-11	23:05	61.1	59.5	44.0
25-Oct-11	23:10	64.3	67.8	46.3
25-Oct-11	23:15	62.6	65.6	51.0
25-Oct-11	23:20	65.2	70.6	56.0
25-Oct-11	23:25	64.1	69.8	47.4
25-Oct-11	23:30	68.5	72.0	54.3
25-Oct-11	23:35	69.8	74.6	53.1
25-Oct-11	23:40	64.4	70.4	46.6
25-Oct-11	23:45	60.0	66.3	42.9
25-Oct-11	23:50	54.6	60.8	42.1
25-Oct-11	23:55	68.2	72.9	52.9
	Mean	52.6	55.5	45.0
	Maximum	72.4	77.4	60.6
	Minimum	42.0	44.0	39.0

Appendix B4

Night Time Noise Level at Sha Lo Wan_NMS 1

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
26-Oct-11	00:00	66.2	71.4	50.7
26-Oct-11	00:05	67.3	71.8	51.2
26-Oct-11	00:10	69.7	75.2	52.4
26-Oct-11	00:15	65.1	67.3	54.1
26-Oct-11	00:20	69.3	73.1	57.1
26-Oct-11	00:25	68.6	72.3	55.1
26-Oct-11	00:30	64.9	68.9	51.2
26-Oct-11	00:35	68.0	71.8	42.6
26-Oct-11	00:40	57.0	61.1	43.3
26-Oct-11	00:45	67.5	72.0	52.9
26-Oct-11	00:50	68.1	72.9	51.2
26-Oct-11	00:55	63.5	69.1	45.6
26-Oct-11	01:00	48.3	52.1	41.8
26-Oct-11	01:05	55.9	59.5	46.6
26-Oct-11	01:10	49.1	51.3	46.0
26-Oct-11	01:15	52.1	56.1	45.0
26-Oct-11	01:20	60.5	65.2	43.6
26-Oct-11	01:25	47.6	49.6	44.4
26-Oct-11	01:30	49.2	51.9	45.2
26-Oct-11	01:35	54.9	59.3	47.4
26-Oct-11	01:40	50.8	55.7	43.3
26-Oct-11	01:45	48.0	51.0	42.9
26-Oct-11	01:50	50.5	53.1	45.6
26-Oct-11	01:55	54.3	57.0	48.6
26-Oct-11	02:00	51.0	55.0	41.3
26-Oct-11	02:05	50.2	53.2	44.5
26-Oct-11	02:10	48.2	51.6	42.8
26-Oct-11	02:15	58.1	63.1	44.7
26-Oct-11	02:20	47.5	50.3	43.7
26-Oct-11	02:25	54.9	58.7	46.5
26-Oct-11	02:30	47.9	50.8	41.7
26-Oct-11	02:35	47.0	51.1	39.7
26-Oct-11	02:40	49.9	52.8	44.1
26-Oct-11	02:45	46.2	48.3	43.1
26-Oct-11	02:50	57.4	62.5	47.1
26-Oct-11	02:55	60.0	64.1	51.5
26-Oct-11	03:00	53.6	56.2	49.4
26-Oct-11	03:05	58.2	62.0	50.6
26-Oct-11	03:10	58.1	60.9	53.0
26-Oct-11	03:15	61.3	64.7	53.1
26-Oct-11	03:20	52.3	54.7	49.1
26-Oct-11	03:25	55.8	59.9	50.1
26-Oct-11	03:30	60.7	64.4	52.8
26-Oct-11	03:35	60.8	63.2	55.8
26-Oct-11	03:40	58.8	61.3	54.8
26-Oct-11	03:45	60.3	63.4	54.1
26-Oct-11	03:50	57.4	61.5	48.4
26-Oct-11	03:55	59.1	61.2	54.6
26-Oct-11	04:00	56.9	59.7	50.7
26-Oct-11	04:05	66.1	71.3	59.1
26-Oct-11	04:10	71.0	75.9	58.7
26-Oct-11	04:15	65.3	68.3	52.6
26-Oct-11	04:20	63.5	65.4	47.4
26-Oct-11	04:25	54.7	53.7	47.5
26-Oct-11	04:30	53.8	53.2	47.8
26-Oct-11	04:35	59.8	60.9	49.4
26-Oct-11	04:40	67.2	67.6	47.3
26-Oct-11	04:45	48.6	49.8	47.1
26-Oct-11	04:50	55.5	59.7	45.9
26-Oct-11	04:55	57.4	61.0	51.6
26-Oct-11	05:00	53.6	51.9	47.1
26-Oct-11	05:05	51.6	54.9	47.6
26-Oct-11	05:10	59.2	63.2	50.5
26-Oct-11	05:15	60.8	60.9	52.7
26-Oct-11	05:20	60.8	61.6	50.4
26-Oct-11	05:25	69.0	70.3	57.8
26-Oct-11	05:30	61.3	62.3	54.3
26-Oct-11	05:35	60.3	62.0	52.9
26-Oct-11	05:40	56.5	58.7	51.1
26-Oct-11	05:45	52.3	52.4	53.5
26-Oct-11	05:50	53.2	55.2	50.9
26-Oct-11	05:55	56.2	59.4	51.7
26-Oct-11	06:00	58.0	60.3	56.4
26-Oct-11	06:05	65.8	66.6	52.0
26-Oct-11	06:10	62.9	63.0	54.6
26-Oct-11	06:15	54.3	55.5	51.3
26-Oct-11	06:20	58.7	57.0	53.5
26-Oct-11	06:25	55.9	58.3	53.2
26-Oct-11	06:30	63.9	61.6	52.6
26-Oct-11	06:35	64.3	68.3	52.7
26-Oct-11	06:40	66.6	71.1	60.3
26-Oct-11	06:45	69.8	72.7	53.8
26-Oct-11	06:50	59.3	62.5	50.6
26-Oct-11	06:55	69.4	72.8	57.8
26-Oct-11	23:00	67.4	73.8	46.0
26-Oct-11	23:05	57.7	58.6	48.2
26-Oct-11	23:10	68.7	74.4	43.8
26-Oct-11	23:15	60.8	56.0	44.3
26-Oct-11	23:20	70.0	76.0	50.6
26-Oct-11	23:25	45.6	48.3	41.5
26-Oct-11	23:30	45.8	48.2	43.0
26-Oct-11	23:35	59.8	62.3	45.4
26-Oct-11	23:40	60.8	66.0	48.8
26-Oct-11	23:45	58.4	63.4	46.7
26-Oct-11	23:50	66.5	61.6	48.7
26-Oct-11	23:55	69.7	75.2	54.3
	Mean	58.6	61.4	49.4
	Maximum	71.0	76.0	60.3
	Minimum	45.6	48.2	39.7

Appendix B4

Night Time Noise Level at Sha Lo Wan_NMS 1

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
27-Oct-11	00:00	70.1	75.1	54.3
27-Oct-11	00:05	69.7	73.5	54.8
27-Oct-11	00:10	67.5	73.5	53.9
27-Oct-11	00:15	68.4	73.4	53.1
27-Oct-11	00:20	69.8	75.2	53.0
27-Oct-11	00:25	69.8	75.8	52.9
27-Oct-11	00:30	53.4	55.9	48.3
27-Oct-11	00:35	68.8	73.5	51.4
27-Oct-11	00:40	63.3	68.0	52.8
27-Oct-11	00:45	70.6	75.1	57.5
27-Oct-11	00:50	70.9	76.6	56.7
27-Oct-11	00:55	71.1	77.0	56.0
27-Oct-11	01:00	73.3	78.5	54.6
27-Oct-11	01:05	61.9	60.5	45.8
27-Oct-11	01:10	51.5	54.0	48.1
27-Oct-11	01:15	56.0	58.6	49.3
27-Oct-11	01:20	55.0	57.5	48.9
27-Oct-11	01:25	56.1	60.0	46.4
27-Oct-11	01:30	57.1	57.9	49.4
27-Oct-11	01:35	52.9	56.2	45.5
27-Oct-11	01:40	55.3	57.3	50.0
27-Oct-11	01:45	43.5	45.2	41.2
27-Oct-11	01:50	44.2	45.9	41.9
27-Oct-11	01:55	43.6	44.9	42.1
27-Oct-11	02:00	46.3	47.7	44.3
27-Oct-11	02:05	50.0	53.3	45.6
27-Oct-11	02:10	56.5	55.6	46.5
27-Oct-11	02:15	60.7	65.1	48.6
27-Oct-11	02:20	62.0	65.6	46.4
27-Oct-11	02:25	54.9	57.7	46.4
27-Oct-11	02:30	53.3	54.9	50.6
27-Oct-11	02:35	48.0	50.7	43.8
27-Oct-11	02:40	51.1	55.6	45.4
27-Oct-11	02:45	46.9	47.9	45.3
27-Oct-11	02:50	46.9	48.1	45.4
27-Oct-11	02:55	52.6	57.4	45.1
27-Oct-11	03:00	50.2	52.4	47.2
27-Oct-11	03:05	55.6	59.6	50.1
27-Oct-11	03:10	57.8	62.3	50.3
27-Oct-11	03:15	52.9	55.6	49.7
27-Oct-11	03:20	53.6	55.9	50.4
27-Oct-11	03:25	57.8	60.4	53.5
27-Oct-11	03:30	53.8	55.5	48.8
27-Oct-11	03:35	56.4	60.3	48.1
27-Oct-11	03:40	58.6	62.2	47.3
27-Oct-11	03:45	58.9	63.1	43.3
27-Oct-11	03:50	53.3	56.8	43.9
27-Oct-11	03:55	49.2	50.4	45.4
27-Oct-11	04:00	55.5	58.6	48.9
27-Oct-11	04:05	56.7	59.7	52.2
27-Oct-11	04:10	56.1	59.0	50.1

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
27-Oct-11	04:15	58.5	62.8	49.0
27-Oct-11	04:20	55.5	58.1	50.3
27-Oct-11	04:25	53.4	56.8	48.4
27-Oct-11	04:30	54.4	57.3	50.1
27-Oct-11	04:35	54.8	57.1	50.6
27-Oct-11	04:40	53.2	57.0	44.0
27-Oct-11	04:45	45.9	47.5	44.1
27-Oct-11	04:50	54.9	58.4	46.8
27-Oct-11	04:55	51.9	55.2	46.7
27-Oct-11	05:00	56.5	59.5	50.7
27-Oct-11	05:05	49.6	54.3	42.5
27-Oct-11	05:10	54.6	58.2	45.7
27-Oct-11	05:15	45.1	46.7	43.2
27-Oct-11	05:20	44.9	47.3	42.2
27-Oct-11	05:25	45.0	46.7	42.4
27-Oct-11	05:30	51.5	53.9	47.4
27-Oct-11	05:35	61.8	65.8	50.3
27-Oct-11	05:40	52.4	55.6	46.6
27-Oct-11	05:45	55.0	59.0	47.8
27-Oct-11	05:50	48.1	52.0	40.7
27-Oct-11	05:55	50.8	54.6	42.5
27-Oct-11	06:00	52.0	54.8	44.6
27-Oct-11	06:05	55.9	60.0	45.3
27-Oct-11	06:10	53.2	57.4	43.6
27-Oct-11	06:15	48.3	51.8	43.2
27-Oct-11	06:20	45.5	48.4	41.4
27-Oct-11	06:25	44.8	47.2	41.8
27-Oct-11	06:30	49.7	53.6	43.6
27-Oct-11	06:35	52.5	55.4	45.1
27-Oct-11	06:40	55.1	58.9	46.3
27-Oct-11	06:45	49.0	51.7	44.0
27-Oct-11	06:50	57.9	57.4	48.7
27-Oct-11	06:55	59.1	59.9	45.7
27-Oct-11	23:00	68.9	74.0	55.6
27-Oct-11	23:05	57.9	60.8	55.6
27-Oct-11	23:10	58.0	60.9	53.7
27-Oct-11	23:15	62.9	65.7	57.7
27-Oct-11	23:20	72.3	77.9	53.8
27-Oct-11	23:25	57.4	60.0	53.2
27-Oct-11	23:30	72.5	77.8	59.1
27-Oct-11	23:35	67.3	70.2	58.4
27-Oct-11	23:40	67.5	72.4	56.2
27-Oct-11	23:45	58.1	59.6	55.1
27-Oct-11	23:50	58.6	61.1	55.8
27-Oct-11	23:55	72.7	74.2	59.0
	Mean	56.4	59.5	48.6
	Maximum	73.3	78.5	59.1
	Minimum	43.5	44.9	40.7

Appendix B4

Night Time Noise Level at Sha Lo Wan_NMS 1

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
28-Oct-11	00:00	72.5	77.3	63.4
28-Oct-11	00:05	77.3	82.4	61.5
28-Oct-11	00:10	74.4	78.8	60.8
28-Oct-11	00:15	75.8	80.4	52.1
28-Oct-11	00:20	69.0	66.7	49.2
28-Oct-11	00:25	70.9	74.9	51.3
28-Oct-11	00:30	72.7	75.7	54.3
28-Oct-11	00:35	70.2	74.1	53.8
28-Oct-11	00:40	68.9	69.8	53.0
28-Oct-11	00:45	77.3	81.4	62.4
28-Oct-11	00:50	74.5	78.2	52.9
28-Oct-11	00:55	68.3	65.6	52.1
28-Oct-11	01:00	64.9	69.4	50.0
28-Oct-11	01:05	60.5	63.9	48.9
28-Oct-11	01:10	63.2	66.0	51.0
28-Oct-11	01:15	66.2	71.7	47.3
28-Oct-11	01:20	70.2	73.5	53.2
28-Oct-11	01:25	50.7	53.0	45.2
28-Oct-11	01:30	65.6	67.4	49.6
28-Oct-11	01:35	56.5	59.9	45.5
28-Oct-11	01:40	57.9	59.7	42.9
28-Oct-11	01:45	46.4	48.0	44.7
28-Oct-11	01:50	48.4	51.0	45.2
28-Oct-11	01:55	55.0	56.0	48.7
28-Oct-11	02:00	63.5	67.0	50.1
28-Oct-11	02:05	65.8	68.9	49.6
28-Oct-11	02:10	59.1	62.9	47.1
28-Oct-11	02:15	63.2	64.9	46.3
28-Oct-11	02:20	49.7	54.0	41.9
28-Oct-11	02:25	47.2	50.5	41.4
28-Oct-11	02:30	58.5	58.3	46.1
28-Oct-11	02:35	53.1	55.2	49.6
28-Oct-11	02:40	53.6	57.0	46.1
28-Oct-11	02:45	64.2	66.0	53.5
28-Oct-11	02:50	57.5	58.1	43.9
28-Oct-11	02:55	57.5	55.0	40.1
28-Oct-11	03:00	47.0	50.6	41.8
28-Oct-11	03:05	65.1	65.6	51.0
28-Oct-11	03:10	64.2	65.1	46.5
28-Oct-11	03:15	54.2	57.6	46.6
28-Oct-11	03:20	48.4	51.4	42.2
28-Oct-11	03:25	46.1	48.4	42.9
28-Oct-11	03:30	61.2	64.2	43.0
28-Oct-11	03:35	66.9	67.2	49.5
28-Oct-11	03:40	52.0	55.4	45.0
28-Oct-11	03:45	51.3	54.1	46.0
28-Oct-11	03:50	51.5	54.0	46.4
28-Oct-11	03:55	49.7	52.9	44.8
28-Oct-11	04:00	49.0	52.2	43.7
28-Oct-11	04:05	56.2	59.3	42.7
28-Oct-11	04:10	64.7	67.0	45.1
28-Oct-11	04:15	51.1	54.5	44.0
28-Oct-11	04:20	64.6	66.4	47.8
28-Oct-11	04:25	52.3	54.3	44.5
28-Oct-11	04:30	52.3	55.0	47.9
28-Oct-11	04:35	56.3	59.4	46.2
28-Oct-11	04:40	59.3	60.9	47.6
28-Oct-11	04:45	61.0	61.3	43.6
28-Oct-11	04:50	54.5	56.2	42.8
28-Oct-11	04:55	55.0	56.7	44.5
28-Oct-11	05:00	53.5	57.6	42.7
28-Oct-11	05:05	62.8	65.2	45.1
28-Oct-11	05:10	62.1	54.5	43.6
28-Oct-11	05:15	51.4	53.9	41.8
28-Oct-11	05:20	48.0	50.0	45.0
28-Oct-11	05:25	51.9	55.0	43.8
28-Oct-11	05:30	55.1	58.3	44.2
28-Oct-11	05:35	53.7	54.6	44.0
28-Oct-11	05:40	48.2	50.8	43.1
28-Oct-11	05:45	58.5	61.5	47.4
28-Oct-11	05:50	55.6	58.4	44.0
28-Oct-11	05:55	49.7	54.1	42.2
28-Oct-11	06:00	45.5	47.8	41.8
28-Oct-11	06:05	59.7	58.8	42.5
28-Oct-11	06:10	46.0	49.0	42.1
28-Oct-11	06:15	52.8	55.3	40.6
28-Oct-11	06:20	48.7	51.1	44.6
28-Oct-11	06:25	53.9	57.4	44.1
28-Oct-11	06:30	53.2	53.5	43.2
28-Oct-11	06:35	60.3	61.9	49.4
28-Oct-11	06:40	65.4	66.9	44.3
28-Oct-11	06:45	57.9	61.6	46.5
28-Oct-11	06:50	55.3	59.9	46.0
28-Oct-11	06:55	55.4	59.1	44.5
28-Oct-11	23:00	67.5	67.2	54.5
28-Oct-11	23:05	69.8	69.1	54.7
28-Oct-11	23:10	72.3	76.7	52.9
28-Oct-11	23:15	64.2	67.5	49.4
28-Oct-11	23:20	70.4	70.2	57.2
28-Oct-11	23:25	71.5	74.3	53.4
28-Oct-11	23:30	61.4	63.7	50.6
28-Oct-11	23:35	72.4	76.7	57.0
28-Oct-11	23:40	74.2	78.8	54.6
28-Oct-11	23:45	71.2	76.0	59.6
28-Oct-11	23:50	73.4	77.1	55.8
28-Oct-11	23:55	73.7	78.9	55.9
	Mean	59.9	62.3	47.8
	Maximum	77.3	82.4	63.4
	Minimum	45.5	47.8	40.1

Appendix B4

Night Time Noise Level at Sha Lo Wan_NMS 1

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
29-Oct-11	00:00	72.3	76.8	57.5
29-Oct-11	00:05	71.7	75.6	60.9
29-Oct-11	00:10	72.8	77.3	62.3
29-Oct-11	00:15	72.9	78.6	62.1
29-Oct-11	00:20	71.3	76.4	55.9
29-Oct-11	00:25	72.0	75.5	56.9
29-Oct-11	00:30	71.6	76.5	54.8
29-Oct-11	00:35	67.6	70.3	54.6
29-Oct-11	00:40	71.5	76.0	60.8
29-Oct-11	00:45	69.0	73.5	56.9
29-Oct-11	00:50	65.6	68.1	54.2
29-Oct-11	00:55	65.9	68.7	52.6
29-Oct-11	01:00	69.9	74.5	54.7
29-Oct-11	01:05	69.8	72.7	57.9
29-Oct-11	01:10	73.9	78.6	59.6
29-Oct-11	01:15	72.6	78.0	59.2
29-Oct-11	01:20	64.3	68.8	50.3
29-Oct-11	01:25	56.4	59.8	48.1
29-Oct-11	01:30	47.9	50.1	45.1
29-Oct-11	01:35	57.0	59.7	47.9
29-Oct-11	01:40	54.0	55.4	50.1
29-Oct-11	01:45	54.0	57.7	47.5
29-Oct-11	01:50	50.4	52.7	46.6
29-Oct-11	01:55	51.6	54.1	50.1
29-Oct-11	02:00	52.0	54.7	49.2
29-Oct-11	02:05	54.8	56.5	51.5
29-Oct-11	02:10	55.8	60.3	50.0
29-Oct-11	02:15	55.2	57.5	51.5
29-Oct-11	02:20	61.0	65.2	51.2
29-Oct-11	02:25	58.5	60.7	52.7
29-Oct-11	02:30	55.1	57.7	50.7
29-Oct-11	02:35	55.7	57.7	51.0
29-Oct-11	02:40	54.2	58.4	47.3
29-Oct-11	02:45	57.8	61.0	47.2
29-Oct-11	02:50	49.4	52.0	45.0
29-Oct-11	02:55	52.0	53.0	48.9
29-Oct-11	03:00	52.6	56.2	48.0
29-Oct-11	03:05	53.8	56.5	47.3
29-Oct-11	03:10	50.4	53.1	46.1
29-Oct-11	03:15	55.2	60.4	46.4
29-Oct-11	03:20	49.7	52.3	46.9
29-Oct-11	03:25	52.1	54.7	48.1
29-Oct-11	03:30	49.8	51.7	46.8
29-Oct-11	03:35	53.2	57.0	47.8
29-Oct-11	03:40	55.6	58.3	50.4
29-Oct-11	03:45	57.2	60.3	52.8
29-Oct-11	03:50	55.4	58.1	51.2
29-Oct-11	03:55	58.9	60.7	52.9
29-Oct-11	04:00	55.1	57.7	51.1
29-Oct-11	04:05	58.7	61.5	52.4
29-Oct-11	04:10	61.4	65.1	55.0
29-Oct-11	04:15	63.0	67.0	55.1
29-Oct-11	04:20	55.9	58.6	51.0
29-Oct-11	04:25	54.3	57.8	48.0
29-Oct-11	04:30	55.3	58.4	48.2
29-Oct-11	04:35	55.0	57.8	47.5
29-Oct-11	04:40	52.7	56.4	46.0
29-Oct-11	04:45	50.1	51.4	47.5
29-Oct-11	04:50	53.9	56.3	48.5
29-Oct-11	04:55	54.5	58.8	48.7
29-Oct-11	05:00	49.4	53.9	44.9
29-Oct-11	05:05	55.7	58.2	44.5
29-Oct-11	05:10	52.0	53.3	43.7
29-Oct-11	05:15	50.8	52.9	46.6
29-Oct-11	05:20	46.0	46.9	44.2
29-Oct-11	05:25	47.6	48.8	45.3
29-Oct-11	05:30	52.0	54.5	47.5
29-Oct-11	05:35	50.3	52.2	46.2
29-Oct-11	05:40	53.1	57.4	46.4
29-Oct-11	05:45	53.2	54.9	49.0
29-Oct-11	05:50	47.6	50.3	43.0
29-Oct-11	05:55	50.9	53.3	46.0
29-Oct-11	06:00	48.8	51.8	44.9
29-Oct-11	06:05	49.4	51.4	46.4
29-Oct-11	06:10	55.0	58.8	47.3
29-Oct-11	06:15	53.9	56.5	49.3
29-Oct-11	06:20	56.7	60.1	51.5
29-Oct-11	06:25	59.8	63.2	49.5
29-Oct-11	06:30	58.4	61.8	51.5
29-Oct-11	06:35	53.1	54.6	48.8
29-Oct-11	06:40	53.2	54.0	46.5
29-Oct-11	06:45	49.8	52.3	45.9
29-Oct-11	06:50	51.8	54.4	48.3
29-Oct-11	06:55	55.1	56.6	44.9
29-Oct-11	23:00	65.7	68.1	53.8
29-Oct-11	23:05	63.8	67.9	52.0
29-Oct-11	23:10	65.3	69.3	52.0
29-Oct-11	23:15	66.4	70.7	52.7
29-Oct-11	23:20	63.7	62.9	53.1
29-Oct-11	23:25	68.2	71.0	54.1
29-Oct-11	23:30	70.2	74.9	59.4
29-Oct-11	23:35	71.2	75.5	60.4
29-Oct-11	23:40	70.8	75.7	56.3
29-Oct-11	23:45	69.8	68.4	47.5
29-Oct-11	23:50	63.3	65.3	50.5
29-Oct-11	23:55	71.4	75.8	58.1
	Mean	58.4	61.4	50.6
	Maximum	73.9	78.6	62.3
	Minimum	46.0	46.9	43.0

Appendix B4

Night Time Noise Level at Sha Lo Wan_NMS 1

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
30-Oct-11	00:00	70.7	75.7	57.5
30-Oct-11	00:05	73.7	78.7	61.4
30-Oct-11	00:10	73.5	78.4	62.1
30-Oct-11	00:15	69.3	74.4	54.0
30-Oct-11	00:20	71.0	73.8	62.4
30-Oct-11	00:25	70.6	75.2	59.6
30-Oct-11	00:30	67.5	68.6	60.9
30-Oct-11	00:35	70.0	74.4	60.8
30-Oct-11	00:40	69.2	74.0	57.7
30-Oct-11	00:45	69.0	72.4	57.2
30-Oct-11	00:50	69.7	74.3	56.2
30-Oct-11	00:55	71.3	76.5	56.8
30-Oct-11	01:00	69.6	74.6	55.6
30-Oct-11	01:05	69.5	73.8	56.4
30-Oct-11	01:10	66.1	71.1	54.9
30-Oct-11	01:15	67.1	68.1	54.8
30-Oct-11	01:20	68.3	71.3	58.7
30-Oct-11	01:25	72.6	77.4	59.8
30-Oct-11	01:30	67.4	71.4	52.6
30-Oct-11	01:35	73.3	78.4	57.4
30-Oct-11	01:40	63.5	66.0	52.7
30-Oct-11	01:45	70.2	74.7	62.6
30-Oct-11	01:50	71.9	77.6	56.5
30-Oct-11	01:55	70.1	71.0	49.1
30-Oct-11	02:00	61.8	60.7	48.8
30-Oct-11	02:05	56.2	56.4	49.3
30-Oct-11	02:10	64.9	66.2	48.1
30-Oct-11	02:15	56.7	60.9	47.2
30-Oct-11	02:20	68.2	69.0	51.2
30-Oct-11	02:25	69.6	69.6	53.0
30-Oct-11	02:30	64.5	65.0	45.7
30-Oct-11	02:35	47.2	48.6	45.6
30-Oct-11	02:40	60.3	62.8	47.2
30-Oct-11	02:45	69.2	72.8	48.1
30-Oct-11	02:50	43.9	45.0	42.4
30-Oct-11	02:55	55.4	60.4	44.8
30-Oct-11	03:00	65.6	66.7	47.0
30-Oct-11	03:05	69.1	68.1	48.9
30-Oct-11	03:10	49.8	53.6	44.6
30-Oct-11	03:15	55.5	59.3	50.0
30-Oct-11	03:20	68.2	68.9	54.7
30-Oct-11	03:25	65.7	67.0	48.0
30-Oct-11	03:30	66.6	62.5	48.1
30-Oct-11	03:35	73.6	73.3	57.0
30-Oct-11	03:40	76.6	81.0	52.8
30-Oct-11	03:45	56.6	60.4	49.6
30-Oct-11	03:50	70.4	75.1	50.3
30-Oct-11	03:55	68.9	70.5	57.7
30-Oct-11	04:00	69.4	71.9	63.1
30-Oct-11	04:05	78.4	83.2	61.8
30-Oct-11	04:10	72.2	77.2	60.5
30-Oct-11	04:15	67.1	70.5	53.1
30-Oct-11	04:20	64.4	66.5	46.9
30-Oct-11	04:25	56.1	55.4	47.6
30-Oct-11	04:30	54.3	53.7	48.2
30-Oct-11	04:35	60.6	61.7	49.7
30-Oct-11	04:40	68.8	69.3	48.3
30-Oct-11	04:45	49.2	50.7	47.4
30-Oct-11	04:50	54.7	58.7	46.6
30-Oct-11	04:55	59.3	62.3	54.6
30-Oct-11	05:00	54.0	52.7	47.2
30-Oct-11	05:05	52.2	55.6	47.7
30-Oct-11	05:10	60.2	64.0	51.0
30-Oct-11	05:15	60.4	60.6	52.0
30-Oct-11	05:20	60.7	60.9	51.5
30-Oct-11	05:25	69.1	70.2	58.3
30-Oct-11	05:30	61.6	62.8	53.5
30-Oct-11	05:35	61.4	64.2	52.6
30-Oct-11	05:40	57.5	59.8	51.7
30-Oct-11	05:45	52.0	52.9	51.0
30-Oct-11	05:50	54.4	56.5	51.3
30-Oct-11	05:55	56.3	59.7	51.0
30-Oct-11	06:00	59.6	62.0	56.5
30-Oct-11	06:05	69.0	69.7	55.0
30-Oct-11	06:10	61.7	62.1	52.6
30-Oct-11	06:15	56.0	58.1	51.2
30-Oct-11	06:20	59.7	58.6	53.0
30-Oct-11	06:25	57.0	59.2	55.0
30-Oct-11	06:30	63.4	61.0	52.6
30-Oct-11	06:35	64.9	68.6	54.3
30-Oct-11	06:40	67.2	71.1	61.0
30-Oct-11	06:45	71.0	74.4	53.5
30-Oct-11	06:50	59.9	63.2	50.5
30-Oct-11	06:55	68.9	72.8	56.4
30-Oct-11	23:00	68.5	74.0	55.3
30-Oct-11	23:05	58.0	60.1	54.9
30-Oct-11	23:10	57.6	60.2	53.9
30-Oct-11	23:15	62.3	65.8	57.5
30-Oct-11	23:20	72.3	77.3	53.4
30-Oct-11	23:25	56.8	59.3	53.1
30-Oct-11	23:30	72.0	77.0	59.2
30-Oct-11	23:35	66.8	69.9	58.2
30-Oct-11	23:40	67.4	71.7	55.6
30-Oct-11	23:45	57.9	59.8	55.3
30-Oct-11	23:50	58.6	60.8	55.1
30-Oct-11	23:55	72.0	74.1	58.6
	Mean	64.2	66.7	53.4
	Maximum	78.4	83.2	63.1
	Minimum	43.9	45.0	42.4

Appendix B4

Night Time Noise Level at Sha Lo Wan_NMS 1

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
31-Oct-11	00:00	72.0	76.5	57.5
31-Oct-11	00:05	71.4	75.1	60.2
31-Oct-11	00:10	72.1	76.5	62.3
31-Oct-11	00:15	72.9	78.0	61.4
31-Oct-11	00:20	71.4	76.0	55.2
31-Oct-11	00:25	71.2	75.5	56.9
31-Oct-11	00:30	71.2	76.5	54.6
31-Oct-11	00:35	67.6	69.8	54.8
31-Oct-11	00:40	71.0	75.7	60.5
31-Oct-11	00:45	68.4	72.7	56.6
31-Oct-11	00:50	64.9	67.7	54.0
31-Oct-11	00:55	65.4	67.9	52.8
31-Oct-11	01:00	69.8	73.8	54.7
31-Oct-11	01:05	69.7	71.9	57.7
31-Oct-11	01:10	73.5	78.5	59.7
31-Oct-11	01:15	72.7	77.4	58.9
31-Oct-11	01:20	63.8	68.8	50.3
31-Oct-11	01:25	56.1	59.9	47.6
31-Oct-11	01:30	48.1	50.0	45.3
31-Oct-11	01:35	56.7	59.6	47.2
31-Oct-11	01:40	53.5	54.7	49.5
31-Oct-11	01:45	54.0	57.2	47.3
31-Oct-11	01:50	49.9	52.0	46.4
31-Oct-11	01:55	51.8	53.6	49.6
31-Oct-11	02:00	51.5	54.0	48.8
31-Oct-11	02:05	55.0	56.7	51.0
31-Oct-11	02:10	55.9	60.1	49.6
31-Oct-11	02:15	54.9	56.8	51.4
31-Oct-11	02:20	60.9	64.9	51.2
31-Oct-11	02:25	58.1	60.7	52.0
31-Oct-11	02:30	54.8	57.1	50.4
31-Oct-11	02:35	55.0	57.6	50.8
31-Oct-11	02:40	54.2	58.6	47.5
31-Oct-11	02:45	57.2	61.1	46.5
31-Oct-11	02:50	49.1	51.5	44.8
31-Oct-11	02:55	51.9	52.7	48.4
31-Oct-11	03:00	52.5	55.5	47.4
31-Oct-11	03:05	53.9	56.7	47.3
31-Oct-11	03:10	49.7	52.4	45.7
31-Oct-11	03:15	55.4	59.8	46.5
31-Oct-11	03:20	49.3	51.6	46.3
31-Oct-11	03:25	52.3	54.8	48.0
31-Oct-11	03:30	49.6	51.6	46.2
31-Oct-11	03:35	53.0	56.6	47.3
31-Oct-11	03:40	55.1	57.8	50.6
31-Oct-11	03:45	56.6	59.9	52.1
31-Oct-11	03:50	54.9	57.4	50.9
31-Oct-11	03:55	58.3	60.6	53.1
31-Oct-11	04:00	54.6	57.2	51.2
31-Oct-11	04:05	58.2	61.6	52.4
31-Oct-11	04:10	60.8	65.0	54.6
31-Oct-11	04:15	63.0	67.0	55.1
31-Oct-11	04:20	56.0	58.1	51.1
31-Oct-11	04:25	54.5	58.0	47.7
31-Oct-11	04:30	54.6	57.7	48.0
31-Oct-11	04:35	54.6	57.7	47.4
31-Oct-11	04:40	52.5	56.2	46.0
31-Oct-11	04:45	49.9	51.6	47.1
31-Oct-11	04:50	53.4	56.4	48.0
31-Oct-11	04:55	54.7	58.3	48.2
31-Oct-11	05:00	49.5	53.3	44.4
31-Oct-11	05:05	55.5	57.6	44.6
31-Oct-11	05:10	51.6	53.2	43.6
31-Oct-11	05:15	50.3	52.8	46.0
31-Oct-11	05:20	45.6	46.9	44.1
31-Oct-11	05:25	47.4	48.9	45.5
31-Oct-11	05:30	52.0	54.3	47.1
31-Oct-11	05:35	50.4	51.5	46.2
31-Oct-11	05:40	52.6	56.7	46.1
31-Oct-11	05:45	52.5	55.0	48.8
31-Oct-11	05:50	47.8	50.5	43.0
31-Oct-11	05:55	50.8	53.4	45.4
31-Oct-11	06:00	48.6	51.5	44.7
31-Oct-11	06:05	49.0	51.5	46.1
31-Oct-11	06:10	54.8	58.7	46.7
31-Oct-11	06:15	53.6	56.0	49.1
31-Oct-11	06:20	56.5	59.9	50.8
31-Oct-11	06:25	59.1	62.7	48.9
31-Oct-11	06:30	57.8	61.3	50.9
31-Oct-11	06:35	52.4	54.3	48.7
31-Oct-11	06:40	52.8	54.0	46.3
31-Oct-11	06:45	49.6	52.4	46.0
31-Oct-11	06:50	51.3	53.9	47.6
31-Oct-11	06:55	54.5	56.3	44.6
31-Oct-11	23:00	65.1	65.6	54.2
31-Oct-11	23:05	63.6	67.2	52.0
31-Oct-11	23:10	63.8	65.8	51.7
31-Oct-11	23:15	64.7	67.0	52.6
31-Oct-11	23:20	64.8	62.9	54.7
31-Oct-11	23:25	66.4	67.9	53.7
31-Oct-11	23:30	68.4	71.9	59.4
31-Oct-11	23:35	69.8	74.7	59.1
31-Oct-11	23:40	70.6	75.2	55.5
31-Oct-11	23:45	70.7	71.7	47.7
31-Oct-11	23:50	65.1	66.9	51.1
31-Oct-11	23:55	71.9	76.1	58.7
	Mean	58.1	61.0	50.4
	Maximum	73.5	78.5	62.3
	Minimum	45.6	46.9	43.0

Appendix B4

Night Time Noise Level at Sha Lo Wan_NMS 1

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
1-Nov-11	00:00	75.5	81.4	65.5
1-Nov-11	00:05	74.7	79.7	60.0
1-Nov-11	00:10	77.7	82.6	69.4
1-Nov-11	00:15	76.1	81.2	55.2
1-Nov-11	00:20	67.8	63.3	49.6
1-Nov-11	00:25	68.5	72.9	49.4
1-Nov-11	00:30	75.7	76.8	67.4
1-Nov-11	00:35	75.7	80.7	58.1
1-Nov-11	00:40	67.4	70.8	51.1
1-Nov-11	00:45	80.0	83.7	68.3
1-Nov-11	00:50	79.2	82.3	57.0
1-Nov-11	00:55	54.7	57.8	50.2
1-Nov-11	01:00	54.3	57.5	48.6
1-Nov-11	01:05	58.5	62.4	50.8
1-Nov-11	01:10	61.7	66.8	54.0
1-Nov-11	01:15	65.8	72.5	56.5
1-Nov-11	01:20	61.1	66.4	53.2
1-Nov-11	01:25	59.2	63.3	53.8
1-Nov-11	01:30	65.8	69.6	58.1
1-Nov-11	01:35	60.1	64.6	52.9
1-Nov-11	01:40	55.9	60.4	50.1
1-Nov-11	01:45	51.6	54.1	48.8
1-Nov-11	01:50	55.0	59.0	50.1
1-Nov-11	01:55	51.4	52.8	50.2
1-Nov-11	02:00	56.7	60.8	49.5
1-Nov-11	02:05	57.3	59.8	49.2
1-Nov-11	02:10	61.2	64.7	54.0
1-Nov-11	02:15	63.7	67.4	51.9
1-Nov-11	02:20	61.2	65.7	49.9
1-Nov-11	02:25	50.2	53.9	45.7
1-Nov-11	02:30	53.0	58.0	45.5
1-Nov-11	02:35	56.6	57.8	55.3
1-Nov-11	02:40	62.4	65.2	58.1
1-Nov-11	02:45	61.3	63.7	57.1
1-Nov-11	02:50	48.9	49.5	43.0
1-Nov-11	02:55	50.3	54.5	44.5
1-Nov-11	03:00	56.6	62.4	48.9
1-Nov-11	03:05	58.7	61.4	56.2
1-Nov-11	03:10	66.4	72.4	55.3
1-Nov-11	03:15	66.3	70.5	56.2
1-Nov-11	03:20	55.9	60.6	46.0
1-Nov-11	03:25	49.1	51.1	46.4
1-Nov-11	03:30	70.3	75.7	48.0
1-Nov-11	03:35	68.1	71.9	60.9
1-Nov-11	03:40	69.1	74.7	55.7
1-Nov-11	03:45	66.4	70.9	59.3
1-Nov-11	03:50	66.7	70.9	58.5
1-Nov-11	03:55	60.7	66.2	51.4
1-Nov-11	04:00	55.2	60.8	47.4
1-Nov-11	04:05	63.4	67.3	47.9
1-Nov-11	04:10	57.0	61.3	50.2
1-Nov-11	04:15	64.5	68.6	49.2
1-Nov-11	04:20	62.7	67.3	50.7
1-Nov-11	04:25	50.5	52.5	49.1
1-Nov-11	04:30	55.9	60.3	50.9
1-Nov-11	04:35	54.0	57.4	49.6
1-Nov-11	04:40	55.8	59.9	51.9
1-Nov-11	04:45	57.7	60.4	50.6
1-Nov-11	04:50	51.4	54.1	48.8
1-Nov-11	04:55	56.3	58.7	52.7
1-Nov-11	05:00	50.2	53.2	45.6
1-Nov-11	05:05	57.7	60.0	47.5
1-Nov-11	05:10	62.2	62.3	54.6
1-Nov-11	05:15	53.9	57.7	49.9
1-Nov-11	05:20	57.2	59.2	55.6
1-Nov-11	05:25	55.3	56.6	52.6
1-Nov-11	05:30	54.6	56.0	53.5
1-Nov-11	05:35	55.0	57.4	51.5
1-Nov-11	05:40	51.9	52.2	49.6
1-Nov-11	05:45	59.8	63.1	50.2
1-Nov-11	05:50	49.4	53.5	44.0
1-Nov-11	05:55	53.4	56.9	45.3
1-Nov-11	06:00	51.3	53.2	48.0
1-Nov-11	06:05	54.1	57.9	46.6
1-Nov-11	06:10	48.2	50.2	48.1
1-Nov-11	06:15	45.9	48.0	42.4
1-Nov-11	06:20	53.4	56.3	49.9
1-Nov-11	06:25	52.5	55.1	46.7
1-Nov-11	06:30	50.8	53.1	45.0
1-Nov-11	06:35	55.6	59.0	46.7
1-Nov-11	06:40	55.8	57.6	49.0
1-Nov-11	06:45	57.3	60.4	49.1
1-Nov-11	06:50	59.1	62.4	49.7
1-Nov-11	06:55	52.7	56.3	45.7
	Mean	59.4	62.8	51.7
	Maximum	80.0	83.7	69.4
	Minimum	59.4	62.8	51.7

Summary of Night Time Noise Level at Sha Lo Wan_NMS 1			
	L_{eq}	**L_{10}**	**L_{90}**
Mean	59.3	62.2	49.3
Maximum	82.7	89.4	71.7
Minimum	40.5	42.4	37.0

Appendix B4

Night Time Noise Level at San Tau_NMS 4

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
18-Oct-11	23:00	55.0	55.7	54.1
18-Oct-11	23:05	56.5	57.1	54.3
18-Oct-11	23:10	56.1	57.4	54.1
18-Oct-11	23:15	54.9	55.7	54.0
18-Oct-11	23:20	56.8	58.6	54.3
18-Oct-11	23:25	54.9	55.7	54.0
18-Oct-11	23:30	54.9	55.7	54.0
18-Oct-11	23:35	55.1	55.8	54.0
18-Oct-11	23:40	56.9	59.2	54.0
18-Oct-11	23:45	57.0	59.2	54.1
18-Oct-11	23:50	56.8	57.8	54.0
18-Oct-11	23:55	55.5	56.8	53.9
	Mean	55.9	57.1	54.1
	Maximum	57.0	59.2	54.3
	Minimum	54.9	55.7	53.9

Appendix B4

Night Time Noise Level at San Tau_NMS 4

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
19-Oct-11	00:00	58.8	59.9	54.1
19-Oct-11	00:05	54.9	55.7	54.0
19-Oct-11	00:10	56.7	58.8	54.3
19-Oct-11	00:15	56.8	57.9	54.2
19-Oct-11	00:20	57.5	60.0	54.3
19-Oct-11	00:25	55.8	56.8	53.9
19-Oct-11	00:30	57.6	60.2	54.1
19-Oct-11	00:35	55.2	56.3	53.9
19-Oct-11	00:40	54.9	55.8	53.9
19-Oct-11	00:45	55.0	55.8	53.9
19-Oct-11	00:50	54.9	55.8	53.7
19-Oct-11	00:55	54.8	55.8	53.9
19-Oct-11	01:00	55.2	56.6	53.9
19-Oct-11	01:05	55.8	57.7	53.9
19-Oct-11	01:10	56.1	57.9	53.9
19-Oct-11	01:15	57.1	59.3	54.3
19-Oct-11	01:20	58.2	60.8	55.1
19-Oct-11	01:25	55.8	56.7	54.2
19-Oct-11	01:30	56.8	58.4	54.3
19-Oct-11	01:35	55.3	56.1	54.1
19-Oct-11	01:40	55.6	56.8	54.2
19-Oct-11	01:45	55.4	56.4	54.1
19-Oct-11	01:50	58.9	62.4	54.3
19-Oct-11	01:55	56.5	58.1	54.4
19-Oct-11	02:00	54.9	55.7	54.0
19-Oct-11	02:05	54.9	55.7	54.0
19-Oct-11	02:10	56.3	56.8	54.1
19-Oct-11	02:15	55.1	55.8	54.1
19-Oct-11	02:20	54.7	55.6	53.9
19-Oct-11	02:25	55.7	56.6	53.9
19-Oct-11	02:30	54.6	55.4	53.9
19-Oct-11	02:35	54.5	55.4	53.6
19-Oct-11	02:40	54.3	55.1	53.4
19-Oct-11	02:45	54.4	55.2	53.6
19-Oct-11	02:50	54.9	55.8	53.9
19-Oct-11	02:55	54.7	55.6	53.9
19-Oct-11	03:00	54.9	55.7	54.0
19-Oct-11	03:05	55.3	56.2	54.3
19-Oct-11	03:10	55.5	56.5	54.5
19-Oct-11	03:15	56.5	57.5	54.6
19-Oct-11	03:20	55.5	56.4	54.3
19-Oct-11	03:25	56.1	57.2	54.1
19-Oct-11	03:30	56.1	57.2	54.8
19-Oct-11	03:35	56.3	57.3	54.9
19-Oct-11	03:40	56.0	56.8	54.9
19-Oct-11	03:45	56.2	57.4	54.4
19-Oct-11	03:50	57.1	58.8	54.9
19-Oct-11	03:55	56.4	58.1	54.3
19-Oct-11	04:00	60.0	63.3	55.2
19-Oct-11	04:05	58.9	59.7	55.0
19-Oct-11	04:10	56.6	58.1	55.0

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
19-Oct-11	04:15	57.7	60.0	54.4
19-Oct-11	04:20	55.2	55.8	54.0
19-Oct-11	04:25	59.2	62.6	54.1
19-Oct-11	04:30	55.4	56.2	54.0
19-Oct-11	04:35	54.8	55.6	54.0
19-Oct-11	04:40	54.9	55.8	54.0
19-Oct-11	04:45	56.4	56.7	54.0
19-Oct-11	04:50	54.7	55.6	53.9
19-Oct-11	04:55	54.9	55.7	54.1
19-Oct-11	05:00	55.0	55.8	54.1
19-Oct-11	05:05	55.5	56.5	54.2
19-Oct-11	05:10	57.8	58.1	54.1
19-Oct-11	05:15	54.9	55.7	54.0
19-Oct-11	05:20	54.9	55.7	54.0
19-Oct-11	05:25	54.9	55.7	54.0
19-Oct-11	05:30	55.3	56.1	54.1
19-Oct-11	05:35	55.4	56.2	54.2
19-Oct-11	05:40	56.3	55.8	54.1
19-Oct-11	05:45	55.9	57.3	54.1
19-Oct-11	05:50	56.0	56.0	54.0
19-Oct-11	05:55	55.2	56.1	54.1
19-Oct-11	06:00	56.0	57.5	54.3
19-Oct-11	06:05	55.0	55.7	54.1
19-Oct-11	06:10	54.6	55.5	53.9
19-Oct-11	06:15	65.8	56.4	54.0
19-Oct-11	06:20	54.9	55.7	54.0
19-Oct-11	06:25	55.1	55.8	54.0
19-Oct-11	06:30	55.6	56.3	54.0
19-Oct-11	06:35	55.2	56.3	54.0
19-Oct-11	06:40	55.9	57.6	54.2
19-Oct-11	06:45	54.8	55.7	54.0
19-Oct-11	06:50	54.8	55.7	54.0
19-Oct-11	06:55	58.3	59.3	54.1
19-Oct-11	23:00	55.1	56.0	53.9
19-Oct-11	23:05	54.9	55.7	53.9
19-Oct-11	23:10	56.7	56.5	54.0
19-Oct-11	23:15	54.9	55.8	53.9
19-Oct-11	23:20	55.2	56.1	54.1
19-Oct-11	23:25	58.2	58.3	54.1
19-Oct-11	23:30	56.3	57.5	54.3
19-Oct-11	23:35	55.1	55.8	54.1
19-Oct-11	23:40	56.3	56.8	54.3
19-Oct-11	23:45	55.8	56.8	54.7
19-Oct-11	23:50	58.1	60.5	54.6
19-Oct-11	23:55	55.7	56.6	54.9
	Mean	56.0	57.0	54.2
	Maximum	65.8	63.3	55.2
	Minimum	54.3	55.1	53.4

Appendix B4

Night Time Noise Level at San Tau_NMS 4

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
20-Oct-11	00:00	58.4	59.5	55.1
20-Oct-11	00:05	57.9	59.9	55.4
20-Oct-11	00:10	59.3	61.1	55.5
20-Oct-11	00:15	57.7	59.6	55.2
20-Oct-11	00:20	59.9	63.1	55.2
20-Oct-11	00:25	56.1	57.3	54.5
20-Oct-11	00:30	56.5	58.2	54.9
20-Oct-11	00:35	57.7	60.1	54.9
20-Oct-11	00:40	56.3	57.4	55.0
20-Oct-11	00:45	55.5	56.5	54.5
20-Oct-11	00:50	55.5	56.6	54.2
20-Oct-11	00:55	56.7	57.7	54.7
20-Oct-11	01:00	55.9	56.8	54.6
20-Oct-11	01:05	56.3	57.6	54.5
20-Oct-11	01:10	55.6	56.5	54.9
20-Oct-11	01:15	55.9	56.9	54.9
20-Oct-11	01:20	55.5	56.4	54.9
20-Oct-11	01:25	55.4	56.4	54.3
20-Oct-11	01:30	55.1	55.8	54.2
20-Oct-11	01:35	55.9	57.3	54.4
20-Oct-11	01:40	55.5	56.5	54.6
20-Oct-11	01:45	55.3	56.0	54.4
20-Oct-11	01:50	55.8	56.6	54.8
20-Oct-11	01:55	55.5	56.2	54.5
20-Oct-11	02:00	55.6	56.6	54.9
20-Oct-11	02:05	55.6	56.6	54.7
20-Oct-11	02:10	55.6	56.6	54.8
20-Oct-11	02:15	55.4	56.3	54.5
20-Oct-11	02:20	55.5	56.3	54.7
20-Oct-11	02:25	55.6	56.6	54.9
20-Oct-11	02:30	55.8	56.7	54.9
20-Oct-11	02:35	55.5	56.4	54.9
20-Oct-11	02:40	55.2	55.9	54.3
20-Oct-11	02:45	55.0	55.8	54.1
20-Oct-11	02:50	55.0	55.7	54.1
20-Oct-11	02:55	55.1	55.7	54.1
20-Oct-11	03:00	55.3	55.8	54.3
20-Oct-11	03:05	55.1	55.8	54.2
20-Oct-11	03:10	55.5	56.5	54.5
20-Oct-11	03:15	55.6	56.5	54.9
20-Oct-11	03:20	55.8	56.7	54.9
20-Oct-11	03:25	56.0	56.8	55.0
20-Oct-11	03:30	55.8	56.7	54.9
20-Oct-11	03:35	55.8	56.6	55.0
20-Oct-11	03:40	56.9	57.8	55.9
20-Oct-11	03:45	60.2	59.3	55.4
20-Oct-11	03:50	57.3	58.9	55.9
20-Oct-11	03:55	58.4	59.4	55.9
20-Oct-11	04:00	56.7	57.8	55.0
20-Oct-11	04:05	55.8	56.8	54.9
20-Oct-11	04:10	56.3	57.9	54.9

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
20-Oct-11	04:15	56.0	57.5	54.1
20-Oct-11	04:20	55.2	56.0	54.1
20-Oct-11	04:25	56.9	58.4	54.3
20-Oct-11	04:30	56.3	58.1	54.2
20-Oct-11	04:35	57.4	61.2	54.1
20-Oct-11	04:40	54.9	55.7	54.0
20-Oct-11	04:45	54.8	55.6	54.0
20-Oct-11	04:50	54.8	55.6	54.0
20-Oct-11	04:55	55.1	55.8	54.1
20-Oct-11	05:00	54.9	55.7	54.0
20-Oct-11	05:05	55.2	56.2	54.1
20-Oct-11	05:10	55.1	56.0	54.1
20-Oct-11	05:15	54.8	55.6	54.0
20-Oct-11	05:20	55.4	56.5	54.1
20-Oct-11	05:25	56.7	59.5	54.3
20-Oct-11	05:30	55.4	55.9	54.2
20-Oct-11	05:35	55.4	56.4	54.3
20-Oct-11	05:40	55.0	55.7	54.1
20-Oct-11	05:45	54.9	55.7	54.1
20-Oct-11	05:50	55.5	56.6	54.3
20-Oct-11	05:55	55.0	55.7	54.1
20-Oct-11	06:00	55.4	55.8	54.1
20-Oct-11	06:05	55.5	56.7	54.1
20-Oct-11	06:10	66.8	57.1	54.1
20-Oct-11	06:15	58.6	55.8	54.1
20-Oct-11	06:20	55.1	55.8	54.1
20-Oct-11	06:25	54.9	55.7	54.0
20-Oct-11	06:30	56.1	57.7	54.1
20-Oct-11	06:35	56.0	57.7	54.2
20-Oct-11	06:40	55.2	55.8	54.2
20-Oct-11	06:45	55.5	56.5	54.3
20-Oct-11	06:50	55.8	56.8	54.4
20-Oct-11	06:55	55.3	55.9	54.3
20-Oct-11	23:00	57.4	59.9	53.4
20-Oct-11	23:05	55.0	58.1	53.2
20-Oct-11	23:10	59.1	61.6	53.8
20-Oct-11	23:15	58.7	60.9	53.6
20-Oct-11	23:20	57.2	60.2	53.6
20-Oct-11	23:25	55.8	58.7	53.3
20-Oct-11	23:30	57.3	59.1	53.3
20-Oct-11	23:35	56.9	59.0	53.3
20-Oct-11	23:40	57.1	59.4	53.2
20-Oct-11	23:45	57.0	59.0	53.5
20-Oct-11	23:50	57.5	59.6	53.4
20-Oct-11	23:55	56.3	57.9	53.3
	Mean	56.2	57.3	54.4
	Maximum	66.8	63.1	55.9
	Minimum	54.8	55.6	53.2

Appendix B4

Night Time Noise Level at San Tau_NMS 4

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
21-Oct-11	00:00	59.4	62.7	54.2
21-Oct-11	00:05	58.7	63.5	53.8
21-Oct-11	00:10	59.2	64.3	54.1
21-Oct-11	00:15	59.5	62.7	54.1
21-Oct-11	00:20	57.6	60.5	53.7
21-Oct-11	00:25	58.6	60.5	53.5
21-Oct-11	00:30	57.8	61.7	53.4
21-Oct-11	00:35	57.3	59.4	53.4
21-Oct-11	00:40	57.4	59.6	53.7
21-Oct-11	00:45	57.4	60.5	53.2
21-Oct-11	00:50	58.1	60.1	53.7
21-Oct-11	00:55	56.9	59.4	53.2
21-Oct-11	01:00	58.3	60.6	54.1
21-Oct-11	01:05	58.4	60.9	54.1
21-Oct-11	01:10	56.2	59.7	54.2
21-Oct-11	01:15	58.9	60.3	54.2
21-Oct-11	01:20	57.4	60.0	53.9
21-Oct-11	01:25	55.5	57.2	53.7
21-Oct-11	01:30	56.9	58.7	53.7
21-Oct-11	01:35	57.4	59.8	53.6
21-Oct-11	01:40	55.8	57.9	53.8
21-Oct-11	01:45	55.9	58.3	53.5
21-Oct-11	01:50	55.4	57.4	53.5
21-Oct-11	01:55	55.7	57.9	53.8
21-Oct-11	02:00	52.5	55.2	53.7
21-Oct-11	02:05	61.4	62.3	54.3
21-Oct-11	02:10	58.7	59.2	54.1
21-Oct-11	02:15	57.2	59.4	54.1
21-Oct-11	02:20	55.6	57.4	53.6
21-Oct-11	02:25	56.1	58.7	53.7
21-Oct-11	02:30	56.8	58.9	53.7
21-Oct-11	02:35	55.3	57.4	53.5
21-Oct-11	02:40	55.4	56.7	53.5
21-Oct-11	02:45	56.9	57.8	53.8
21-Oct-11	02:50	57.8	58.7	53.9
21-Oct-11	02:55	57.1	57.9	53.9
21-Oct-11	03:00	55.5	55.6	53.9
21-Oct-11	03:05	56.2	58.7	53.8
21-Oct-11	03:10	57.3	59.5	53.5
21-Oct-11	03:15	54.2	56.7	53.2
21-Oct-11	03:20	55.3	56.9	53.1
21-Oct-11	03:25	55.6	57.2	53.6
21-Oct-11	03:30	55.1	56.9	53.6
21-Oct-11	03:35	57.1	59.3	53.1
21-Oct-11	03:40	55.3	57.3	53.2
21-Oct-11	03:45	54.4	57.2	53.2
21-Oct-11	03:50	54.7	56.9	53.2
21-Oct-11	03:55	55.6	58.7	53.4
21-Oct-11	04:00	55.2	57.3	53.4
21-Oct-11	04:05	55.4	57.1	53.2
21-Oct-11	04:10	56.3	58.2	53.1
21-Oct-11	04:15	56.2	57.9	53.2
21-Oct-11	04:20	55.7	56.8	53.3
21-Oct-11	04:25	56.9	58.3	53.8
21-Oct-11	04:30	56.2	58.2	53.5
21-Oct-11	04:35	55.3	56.0	53.5
21-Oct-11	04:40	55.9	56.7	53.5
21-Oct-11	04:45	57.8	58.7	53.6
21-Oct-11	04:50	56.4	56.9	53.5
21-Oct-11	04:55	56.7	57.1	53.4
21-Oct-11	05:00	55.3	56.8	53.3
21-Oct-11	05:05	57.2	58.2	53.6
21-Oct-11	05:10	56.4	57.4	53.4
21-Oct-11	05:15	55.1	56.7	53.3
21-Oct-11	05:20	56.7	57.8	53.5
21-Oct-11	05:25	54.8	55.6	53.4
21-Oct-11	05:30	54.2	55.7	53.4
21-Oct-11	05:35	54.3	55.6	53.2
21-Oct-11	05:40	55.5	55.9	53.2
21-Oct-11	05:45	54.1	55.5	53.1
21-Oct-11	05:50	56.2	57.2	53.2
21-Oct-11	05:55	56.3	57.4	53.2
21-Oct-11	06:00	54.8	56.3	52.9
21-Oct-11	06:05	54.1	56.0	52.7
21-Oct-11	06:10	54.1	55.9	53.0
21-Oct-11	06:15	55.6	56.7	53.0
21-Oct-11	06:20	53.8	55.1	52.7
21-Oct-11	06:25	54.9	55.8	52.9
21-Oct-11	06:30	55.8	56.7	53.1
21-Oct-11	06:35	55.3	56.1	53.2
21-Oct-11	06:40	57.2	58.5	53.4
21-Oct-11	06:45	55.8	56.3	53.2
21-Oct-11	06:50	55.1	56.9	53.2
21-Oct-11	06:55	56.3	57.0	53.4
21-Oct-11	23:00	52.8	55.7	48.1
21-Oct-11	23:05	51.1	55.2	48.0
21-Oct-11	23:10	53.5	56.7	48.0
21-Oct-11	23:15	54.3	57.9	48.5
21-Oct-11	23:20	52.9	56.4	47.6
21-Oct-11	23:25	56.4	58.5	49.7
21-Oct-11	23:30	54.4	58.9	49.5
21-Oct-11	23:35	51.7	55.3	48.2
21-Oct-11	23:40	52.4	56.1	48.1
21-Oct-11	23:45	51.8	53.4	47.8
21-Oct-11	23:50	52.5	56.7	49.8
21-Oct-11	23:55	51.4	54.2	47.2
	Mean	55.9	57.9	52.9
	Maximum	61.4	64.3	54.3
	Minimum	51.1	53.4	47.2

Appendix B4

Night Time Noise Level at San Tau_NMS 4

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
22-Oct-11	00:00	52.6	56.3	46.2
22-Oct-11	00:05	52.6	55.4	48.2
22-Oct-11	00:10	56.8	60.6	50.0
22-Oct-11	00:15	53.6	57.8	48.1
22-Oct-11	00:20	54.5	57.3	46.2
22-Oct-11	00:25	48.4	51.5	45.2
22-Oct-11	00:30	51.7	52.8	46.3
22-Oct-11	00:35	52.8	54.6	47.0
22-Oct-11	00:40	51.8	54.6	48.0
22-Oct-11	00:45	56.8	58.6	48.0
22-Oct-11	00:50	54.8	57.6	48.0
22-Oct-11	00:55	55.8	57.7	49.3
22-Oct-11	01:00	50.6	52.1	46.2
22-Oct-11	01:05	50.9	52.7	46.0
22-Oct-11	01:10	53.2	55.8	48.1
22-Oct-11	01:15	51.9	53.7	45.0
22-Oct-11	01:20	51.6	52.6	44.1
22-Oct-11	01:25	50.0	53.7	47.1
22-Oct-11	01:30	53.6	57.5	47.0
22-Oct-11	01:35	52.1	55.8	45.0
22-Oct-11	01:40	48.0	49.7	44.1
22-Oct-11	01:45	50.3	52.7	46.0
22-Oct-11	01:50	48.9	49.7	45.0
22-Oct-11	01:55	49.1	50.8	45.1
22-Oct-11	02:00	45.9	46.7	44.0
22-Oct-11	02:05	45.8	46.6	44.0
22-Oct-11	02:10	48.9	50.7	46.0
22-Oct-11	02:15	48.7	50.6	45.0
22-Oct-11	02:20	48.8	52.7	45.0
22-Oct-11	02:25	47.6	49.5	47.0
22-Oct-11	02:30	48.7	49.6	46.0
22-Oct-11	02:35	51.9	54.7	48.0
22-Oct-11	02:40	50.6	53.3	47.9
22-Oct-11	02:45	49.8	51.6	48.0
22-Oct-11	02:50	50.9	52.7	48.1
22-Oct-11	02:55	50.6	52.4	46.9
22-Oct-11	03:00	47.8	48.6	47.0
22-Oct-11	03:05	48.8	50.6	47.0
22-Oct-11	03:10	48.9	50.7	47.0
22-Oct-11	03:15	50.7	53.5	45.0
22-Oct-11	03:20	45.9	46.7	44.1
22-Oct-11	03:25	47.7	49.6	46.0
22-Oct-11	03:30	49.9	51.7	47.0
22-Oct-11	03:35	51.2	52.0	48.1
22-Oct-11	03:40	53.0	55.7	50.1
22-Oct-11	03:45	56.8	61.4	48.8
22-Oct-11	03:50	46.9	50.4	43.9
22-Oct-11	03:55	46.5	48.0	44.5
22-Oct-11	04:00	49.2	51.4	45.0
22-Oct-11	04:05	47.3	48.8	45.5
22-Oct-11	04:10	49.7	50.7	45.9

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
22-Oct-11	04:15	52.1	54.5	47.9
22-Oct-11	04:20	49.8	51.4	47.0
22-Oct-11	04:25	54.4	59.1	47.1
22-Oct-11	04:30	51.6	55.0	46.7
22-Oct-11	04:35	49.6	52.8	46.1
22-Oct-11	04:40	48.0	50.0	44.4
22-Oct-11	04:45	48.0	50.8	44.0
22-Oct-11	04:50	45.5	47.2	43.9
22-Oct-11	04:55	52.5	47.2	42.9
22-Oct-11	05:00	45.8	47.7	44.0
22-Oct-11	05:05	45.8	47.3	42.9
22-Oct-11	05:10	52.6	56.5	44.0
22-Oct-11	05:15	46.8	48.6	45.0
22-Oct-11	05:20	49.2	50.8	45.2
22-Oct-11	05:25	53.1	57.8	46.1
22-Oct-11	05:30	48.6	52.4	44.9
22-Oct-11	05:35	46.6	48.4	42.9
22-Oct-11	05:40	48.5	52.2	42.9
22-Oct-11	05:45	45.8	47.0	42.9
22-Oct-11	05:50	50.6	53.0	44.7
22-Oct-11	05:55	51.1	52.9	47.9
22-Oct-11	06:00	53.8	56.4	48.3
22-Oct-11	06:05	51.4	53.8	49.0
22-Oct-11	06:10	55.4	58.8	47.8
22-Oct-11	06:15	55.8	52.5	46.1
22-Oct-11	06:20	49.3	51.7	46.3
22-Oct-11	06:25	50.8	52.9	48.5
22-Oct-11	06:30	49.7	50.3	47.6
22-Oct-11	06:35	48.7	50.7	47.7
22-Oct-11	06:40	48.4	50.1	46.9
22-Oct-11	06:45	49.3	50.7	46.9
22-Oct-11	06:50	51.8	54.7	49.4
22-Oct-11	06:55	53.7	57.8	50.2
22-Oct-11	23:00	56.3	58.0	54.2
22-Oct-11	23:05	55.8	56.8	54.2
22-Oct-11	23:10	57.2	59.4	54.3
22-Oct-11	23:15	56.1	57.8	54.2
22-Oct-11	23:20	57.4	58.7	54.5
22-Oct-11	23:25	57.1	59.2	54.1
22-Oct-11	23:30	57.0	57.7	54.1
22-Oct-11	23:35	55.1	55.9	54.0
22-Oct-11	23:40	54.8	55.6	54.0
22-Oct-11	23:45	55.1	55.6	53.9
22-Oct-11	23:50	56.5	58.8	54.1
22-Oct-11	23:55	56.0	57.6	54.1
	Mean	51.1	53.2	47.3
	Maximum	57.4	61.4	54.5
	Minimum	45.5	46.6	42.9

Appendix B4

Night Time Noise Level at San Tau_NMS 4

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
23-Oct-11	00:00	56.6	57.2	54.2
23-Oct-11	00:05	55.5	56.6	54.2
23-Oct-11	00:10	55.9	56.9	54.7
23-Oct-11	00:15	58.2	60.9	54.3
23-Oct-11	00:20	56.1	58.1	54.1
23-Oct-11	00:25	57.3	59.0	54.4
23-Oct-11	00:30	54.9	55.8	54.0
23-Oct-11	00:35	54.9	55.7	54.0
23-Oct-11	00:40	55.0	55.7	54.1
23-Oct-11	00:45	57.7	60.7	54.1
23-Oct-11	00:50	55.8	57.0	54.2
23-Oct-11	00:55	55.3	56.3	54.1
23-Oct-11	01:00	55.9	57.0	54.2
23-Oct-11	01:05	55.0	55.8	54.1
23-Oct-11	01:10	56.2	57.6	54.2
23-Oct-11	01:15	55.1	55.8	54.1
23-Oct-11	01:20	55.1	55.8	54.1
23-Oct-11	01:25	55.6	56.6	54.8
23-Oct-11	01:30	55.0	55.7	54.1
23-Oct-11	01:35	55.1	55.7	54.2
23-Oct-11	01:40	55.0	55.7	54.1
23-Oct-11	01:45	55.3	55.9	54.3
23-Oct-11	01:50	54.8	55.6	54.0
23-Oct-11	01:55	54.8	55.6	54.0
23-Oct-11	02:00	55.0	55.8	54.1
23-Oct-11	02:05	54.9	55.7	54.1
23-Oct-11	02:10	54.8	55.6	54.0
23-Oct-11	02:15	54.9	55.7	54.0
23-Oct-11	02:20	55.1	55.8	54.1
23-Oct-11	02:25	54.8	55.7	54.0
23-Oct-11	02:30	54.8	55.6	54.0
23-Oct-11	02:35	55.1	55.8	54.0
23-Oct-11	02:40	54.9	55.7	54.0
23-Oct-11	02:45	54.6	55.5	54.0
23-Oct-11	02:50	54.8	55.6	54.0
23-Oct-11	02:55	54.7	55.6	54.0
23-Oct-11	03:00	55.1	55.8	54.0
23-Oct-11	03:05	54.7	55.5	54.0
23-Oct-11	03:10	54.8	55.6	54.0
23-Oct-11	03:15	54.7	55.6	54.0
23-Oct-11	03:20	54.8	55.7	54.0
23-Oct-11	03:25	54.8	55.6	54.0
23-Oct-11	03:30	54.7	55.6	54.0
23-Oct-11	03:35	55.5	56.7	54.1
23-Oct-11	03:40	55.2	56.2	54.0
23-Oct-11	03:45	54.7	55.5	54.0
23-Oct-11	03:50	55.9	57.6	54.2
23-Oct-11	03:55	54.9	55.7	54.0
23-Oct-11	04:00	54.6	55.5	54.0
23-Oct-11	04:05	55.0	55.8	54.0
23-Oct-11	04:10	54.8	55.7	54.0

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
23-Oct-11	04:15	54.7	55.6	53.9
23-Oct-11	04:20	54.7	55.6	54.0
23-Oct-11	04:25	56.0	57.7	54.1
23-Oct-11	04:30	54.7	55.6	54.0
23-Oct-11	04:35	54.6	55.4	53.9
23-Oct-11	04:40	54.7	55.6	54.0
23-Oct-11	04:45	55.5	56.8	54.0
23-Oct-11	04:50	54.8	55.6	54.0
23-Oct-11	04:55	55.9	57.2	54.0
23-Oct-11	05:00	54.7	55.5	54.0
23-Oct-11	05:05	54.7	55.6	54.0
23-Oct-11	05:10	54.7	55.5	54.0
23-Oct-11	05:15	56.3	58.1	54.0
23-Oct-11	05:20	54.6	55.5	54.0
23-Oct-11	05:25	54.9	55.7	54.0
23-Oct-11	05:30	54.6	55.4	54.0
23-Oct-11	05:35	54.8	55.6	54.0
23-Oct-11	05:40	54.8	55.6	54.0
23-Oct-11	05:45	55.2	56.2	54.0
23-Oct-11	05:50	54.9	55.7	54.0
23-Oct-11	05:55	55.3	55.9	54.1
23-Oct-11	06:00	55.8	56.6	54.1
23-Oct-11	06:05	55.1	55.8	54.1
23-Oct-11	06:10	55.0	55.7	54.1
23-Oct-11	06:15	55.1	55.8	54.1
23-Oct-11	06:20	56.7	57.8	54.9
23-Oct-11	06:25	55.5	56.5	54.4
23-Oct-11	06:30	55.6	56.4	54.2
23-Oct-11	06:35	56.0	56.7	54.2
23-Oct-11	06:40	55.4	56.2	54.2
23-Oct-11	06:45	55.2	55.8	54.1
23-Oct-11	06:50	57.0	58.3	54.3
23-Oct-11	06:55	55.7	56.7	54.4
23-Oct-11	23:00	57.1	57.9	54.9
23-Oct-11	23:05	56.2	57.8	54.9
23-Oct-11	23:10	60.5	64.1	55.6
23-Oct-11	23:15	59.4	63.2	54.9
23-Oct-11	23:20	57.8	60.8	54.4
23-Oct-11	23:25	56.3	58.3	54.2
23-Oct-11	23:30	58.2	60.0	55.1
23-Oct-11	23:35	56.3	58.1	54.5
23-Oct-11	23:40	58.2	60.1	54.2
23-Oct-11	23:45	57.2	58.9	54.2
23-Oct-11	23:50	57.2	59.8	54.2
23-Oct-11	23:55	57.3	58.4	54.6
	Mean	55.6	56.7	54.2
	Maximum	60.5	64.1	55.6
	Minimum	54.6	55.4	53.9

Appendix B4

Night Time Noise Level at San Tau_NMS 4

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
24-Oct-11	00:00	60.6	63.4	55.1
24-Oct-11	00:05	59.1	62.6	54.9
24-Oct-11	00:10	61.4	63.6	55.5
24-Oct-11	00:15	60.8	62.9	54.6
24-Oct-11	00:20	58.3	57.5	54.3
24-Oct-11	00:25	59.3	59.3	54.9
24-Oct-11	00:30	59.2	61.0	55.1
24-Oct-11	00:35	56.6	57.4	55.0
24-Oct-11	00:40	56.0	56.9	54.8
24-Oct-11	00:45	58.5	60.3	54.3
24-Oct-11	00:50	58.3	60.3	54.4
24-Oct-11	00:55	56.8	58.7	54.1
24-Oct-11	01:00	57.6	59.3	54.9
24-Oct-11	01:05	57.2	59.7	54.2
24-Oct-11	01:10	55.7	56.6	54.0
24-Oct-11	01:15	60.8	62.8	54.3
24-Oct-11	01:20	54.7	55.6	54.0
24-Oct-11	01:25	54.6	55.5	53.9
24-Oct-11	01:30	57.5	56.2	53.9
24-Oct-11	01:35	57.1	59.7	53.9
24-Oct-11	01:40	55.1	55.7	53.9
24-Oct-11	01:45	56.7	59.7	53.9
24-Oct-11	01:50	54.4	55.3	53.5
24-Oct-11	01:55	55.0	55.8	54.0
24-Oct-11	02:00	57.1	57.5	54.2
24-Oct-11	02:05	59.5	62.1	54.1
24-Oct-11	02:10	57.5	57.6	53.9
24-Oct-11	02:15	58.0	56.8	53.3
24-Oct-11	02:20	54.1	54.8	53.2
24-Oct-11	02:25	54.3	55.1	53.4
24-Oct-11	02:30	55.7	56.7	53.8
24-Oct-11	02:35	54.2	54.8	53.2
24-Oct-11	02:40	54.9	56.5	53.2
24-Oct-11	02:45	54.4	55.4	53.5
24-Oct-11	02:50	58.5	57.6	54.1
24-Oct-11	02:55	56.6	56.7	53.3
24-Oct-11	03:00	54.1	54.7	53.1
24-Oct-11	03:05	54.9	56.2	53.4
24-Oct-11	03:10	58.0	59.2	53.8
24-Oct-11	03:15	54.2	54.8	53.2
24-Oct-11	03:20	54.2	54.8	53.2
24-Oct-11	03:25	54.8	55.7	53.9
24-Oct-11	03:30	55.3	56.5	53.9
24-Oct-11	03:35	58.2	57.5	53.9
24-Oct-11	03:40	54.4	55.2	53.4
24-Oct-11	03:45	54.1	54.8	53.2
24-Oct-11	03:50	54.2	54.8	53.3
24-Oct-11	03:55	54.3	54.8	53.2
24-Oct-11	04:00	54.2	54.8	53.2
24-Oct-11	04:05	54.7	55.7	53.4
24-Oct-11	04:10	54.3	55.1	53.3

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
24-Oct-11	04:15	56.0	57.5	53.2
24-Oct-11	04:20	54.6	55.6	53.5
24-Oct-11	04:25	57.9	59.0	54.4
24-Oct-11	04:30	56.1	58.1	53.7
24-Oct-11	04:35	54.8	55.9	53.3
24-Oct-11	04:40	54.4	55.3	53.4
24-Oct-11	04:45	59.5	59.4	53.6
24-Oct-11	04:50	54.9	55.1	53.2
24-Oct-11	04:55	54.8	55.7	53.9
24-Oct-11	05:00	54.9	55.8	53.7
24-Oct-11	05:05	58.4	58.7	53.4
24-Oct-11	05:10	55.5	55.3	53.2
24-Oct-11	05:15	54.0	54.7	53.1
24-Oct-11	05:20	54.3	55.1	53.3
24-Oct-11	05:25	54.1	54.8	53.1
24-Oct-11	05:30	54.4	55.5	53.2
24-Oct-11	05:35	54.6	55.5	53.3
24-Oct-11	05:40	54.2	54.8	53.2
24-Oct-11	05:45	54.2	54.8	53.2
24-Oct-11	05:50	54.8	55.8	53.3
24-Oct-11	05:55	54.3	54.8	53.1
24-Oct-11	06:00	54.0	54.7	53.1
24-Oct-11	06:05	54.4	54.8	53.1
24-Oct-11	06:10	54.2	54.8	53.1
24-Oct-11	06:15	54.5	55.1	53.2
24-Oct-11	06:20	54.4	55.3	53.6
24-Oct-11	06:25	55.2	56.8	53.9
24-Oct-11	06:30	57.0	57.6	54.4
24-Oct-11	06:35	54.9	55.8	53.9
24-Oct-11	06:40	59.5	59.8	54.0
24-Oct-11	06:45	54.5	55.4	53.4
24-Oct-11	06:50	54.5	55.4	53.4
24-Oct-11	06:55	55.2	56.6	53.9
24-Oct-11	23:00	51.4	53.6	48.2
24-Oct-11	23:05	57.0	59.7	47.9
24-Oct-11	23:10	56.3	57.2	47.9
24-Oct-11	23:15	52.7	55.0	48.3
24-Oct-11	23:20	58.6	62.1	48.4
24-Oct-11	23:25	58.2	61.3	50.6
24-Oct-11	23:30	56.3	57.5	51.2
24-Oct-11	23:35	49.4	51.3	47.3
24-Oct-11	23:40	58.8	61.3	47.7
24-Oct-11	23:45	59.1	64.0	47.5
24-Oct-11	23:50	56.8	60.5	50.0
24-Oct-11	23:55	55.0	57.7	47.9
	Mean	56.0	57.1	53.1
	Maximum	61.4	64.0	55.5
	Minimum	49.4	51.3	47.3

Appendix B4

Night Time Noise Level at San Tau_NMS 4

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
25-Oct-11	00:00	52.7	56.0	46.4
25-Oct-11	00:05	52.7	55.6	48.3
25-Oct-11	00:10	56.7	60.1	49.5
25-Oct-11	00:15	53.6	57.4	47.8
25-Oct-11	00:20	54.2	57.0	46.1
25-Oct-11	00:25	48.7	51.0	45.6
25-Oct-11	00:30	52.0	52.5	46.2
25-Oct-11	00:35	56.4	59.8	46.7
25-Oct-11	00:40	51.9	54.3	47.7
25-Oct-11	00:45	56.5	61.0	47.9
25-Oct-11	00:50	57.1	60.4	47.5
25-Oct-11	00:55	57.6	59.9	48.8
25-Oct-11	01:00	50.2	52.3	45.8
25-Oct-11	01:05	50.6	52.8	46.0
25-Oct-11	01:10	52.8	55.4	48.3
25-Oct-11	01:15	51.6	54.1	44.8
25-Oct-11	01:20	51.8	53.0	44.0
25-Oct-11	01:25	52.3	55.7	45.0
25-Oct-11	01:30	47.7	50.1	44.0
25-Oct-11	01:35	49.9	52.9	45.6
25-Oct-11	01:40	49.1	49.3	45.1
25-Oct-11	01:45	49.2	51.2	45.2
25-Oct-11	01:50	45.8	46.8	44.3
25-Oct-11	01:55	45.6	46.7	44.2
25-Oct-11	02:00	48.7	50.5	46.3
25-Oct-11	02:05	50.3	53.2	46.8
25-Oct-11	02:10	53.7	57.3	46.7
25-Oct-11	02:15	48.3	50.2	45.5
25-Oct-11	02:20	48.9	52.2	44.7
25-Oct-11	02:25	48.0	49.4	46.5
25-Oct-11	02:30	48.4	49.9	46.4
25-Oct-11	02:35	47.8	48.8	46.9
25-Oct-11	02:40	49.0	50.6	46.8
25-Oct-11	02:45	48.7	50.4	46.7
25-Oct-11	02:50	50.3	53.6	45.0
25-Oct-11	02:55	46.2	47.1	44.4
25-Oct-11	03:00	47.6	49.1	46.0
25-Oct-11	03:05	49.5	51.4	47.3
25-Oct-11	03:10	50.7	52.4	48.4
25-Oct-11	03:15	51.8	54.9	48.4
25-Oct-11	03:20	50.5	52.9	47.6
25-Oct-11	03:25	50.1	51.9	47.8
25-Oct-11	03:30	50.6	52.6	48.0
25-Oct-11	03:35	50.8	52.8	47.3
25-Oct-11	03:40	53.1	55.6	49.9
25-Oct-11	03:45	57.1	61.2	49.1
25-Oct-11	03:50	52.0	55.0	47.0
25-Oct-11	03:55	49.9	52.7	45.8
25-Oct-11	04:00	47.8	50.4	44.4
25-Oct-11	04:05	47.8	50.8	44.0
25-Oct-11	04:10	46.0	47.8	43.9

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
25-Oct-11	04:15	45.6	47.3	42.9
25-Oct-11	04:20	52.9	56.6	44.3
25-Oct-11	04:25	46.7	48.2	44.9
25-Oct-11	04:30	48.7	51.1	45.3
25-Oct-11	04:35	53.0	57.9	46.5
25-Oct-11	04:40	49.0	52.5	45.1
25-Oct-11	04:45	46.3	48.2	43.3
25-Oct-11	04:50	48.3	51.9	42.7
25-Oct-11	04:55	45.7	47.4	43.0
25-Oct-11	05:00	45.4	46.9	43.6
25-Oct-11	05:05	52.2	47.5	43.0
25-Oct-11	05:10	50.7	53.0	44.4
25-Oct-11	05:15	55.3	58.8	48.1
25-Oct-11	05:20	46.9	50.4	43.8
25-Oct-11	05:25	46.6	47.8	44.8
25-Oct-11	05:30	49.3	51.5	45.3
25-Oct-11	05:35	47.3	48.8	45.5
25-Oct-11	05:40	49.2	50.8	46.3
25-Oct-11	05:45	51.9	54.8	48.3
25-Oct-11	05:50	49.8	51.4	47.3
25-Oct-11	05:55	49.6	51.5	47.3
25-Oct-11	06:00	47.5	49.0	45.7
25-Oct-11	06:05	49.8	51.8	46.4
25-Oct-11	06:10	51.1	53.0	48.4
25-Oct-11	06:15	49.5	50.8	47.9
25-Oct-11	06:20	49.2	50.7	47.4
25-Oct-11	06:25	48.8	50.4	47.0
25-Oct-11	06:30	49.5	50.8	47.1
25-Oct-11	06:35	52.3	54.6	49.0
25-Oct-11	06:40	54.1	57.3	50.4
25-Oct-11	06:45	51.1	53.3	48.3
25-Oct-11	06:50	53.4	56.5	48.0
25-Oct-11	06:55	51.8	54.2	48.7
25-Oct-11	23:00	53.6	55.8	47.1
25-Oct-11	23:05	51.9	53.9	47.6
25-Oct-11	23:10	54.0	57.3	47.5
25-Oct-11	23:15	56.8	60.6	47.6
25-Oct-11	23:20	52.1	54.3	46.9
25-Oct-11	23:25	53.4	56.2	47.9
25-Oct-11	23:30	50.9	52.7	47.7
25-Oct-11	23:35	52.3	54.5	47.2
25-Oct-11	23:40	53.3	55.7	49.1
25-Oct-11	23:45	55.8	59.1	49.2
25-Oct-11	23:50	53.8	56.7	47.6
25-Oct-11	23:55	55.9	60.2	46.9
	Mean	50.8	53.1	46.5
	Maximum	57.6	61.2	50.4
	Minimum	45.4	46.7	42.7

Appendix B4

Night Time Noise Level at San Tau_NMS 4

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
26-Oct-11	00:00	50.9	54.1	44.5
26-Oct-11	00:05	54.2	58.3	45.1
26-Oct-11	00:10	51.2	54.4	45.5
26-Oct-11	00:15	50.2	52.8	45.2
26-Oct-11	00:20	56.0	59.8	45.4
26-Oct-11	00:25	48.1	50.4	44.9
26-Oct-11	00:30	46.3	48.8	44.0
26-Oct-11	00:35	51.3	53.4	45.4
26-Oct-11	00:40	55.0	58.0	49.5
26-Oct-11	00:45	51.7	54.3	47.3
26-Oct-11	00:50	52.4	55.4	48.0
26-Oct-11	00:55	49.7	51.7	47.0
26-Oct-11	01:00	51.7	54.4	48.0
26-Oct-11	01:05	49.6	52.0	46.2
26-Oct-11	01:10	49.9	51.8	46.2
26-Oct-11	01:15	47.7	49.6	45.5
26-Oct-11	01:20	47.4	48.6	46.0
26-Oct-11	01:25	50.6	53.2	47.1
26-Oct-11	01:30	48.8	50.6	46.5
26-Oct-11	01:35	48.2	50.3	45.3
26-Oct-11	01:40	47.8	49.8	45.2
26-Oct-11	01:45	46.8	48.3	45.0
26-Oct-11	01:50	47.3	50.1	44.3
26-Oct-11	01:55	47.6	50.6	44.3
26-Oct-11	02:00	49.2	51.4	46.3
26-Oct-11	02:05	49.5	51.5	47.0
26-Oct-11	02:10	51.5	53.2	49.7
26-Oct-11	02:15	51.5	53.6	49.0
26-Oct-11	02:20	52.0	54.2	49.1
26-Oct-11	02:25	51.3	53.4	48.9
26-Oct-11	02:30	49.8	51.8	47.3
26-Oct-11	02:35	48.8	50.0	47.2
26-Oct-11	02:40	49.8	52.3	46.9
26-Oct-11	02:45	48.2	49.7	46.5
26-Oct-11	02:50	48.1	49.4	46.5
26-Oct-11	02:55	47.3	48.4	46.1
26-Oct-11	03:00	47.8	49.7	45.9
26-Oct-11	03:05	48.5	50.0	46.9
26-Oct-11	03:10	50.1	51.8	48.2
26-Oct-11	03:15	51.3	54.2	47.2
26-Oct-11	03:20	50.5	52.1	48.2
26-Oct-11	03:25	51.5	54.2	48.2
26-Oct-11	03:30	49.6	51.3	47.4
26-Oct-11	03:35	50.5	53.2	47.2
26-Oct-11	03:40	51.6	54.1	48.2
26-Oct-11	03:45	50.0	51.8	46.9
26-Oct-11	03:50	47.6	49.4	45.0
26-Oct-11	03:55	51.7	54.6	45.2
26-Oct-11	04:00	44.8	46.3	43.0
26-Oct-11	04:05	46.3	48.1	43.4
26-Oct-11	04:10	44.2	45.8	41.5

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
26-Oct-11	04:15	42.7	44.3	41.0
26-Oct-11	04:20	47.0	49.3	43.6
26-Oct-11	04:25	47.9	50.2	45.0
26-Oct-11	04:30	51.3	54.3	45.4
26-Oct-11	04:35	45.2	47.0	43.0
26-Oct-11	04:40	43.6	44.8	42.1
26-Oct-11	04:45	47.9	49.7	44.0
26-Oct-11	04:50	47.6	50.0	43.1
26-Oct-11	04:55	45.5	47.5	43.4
26-Oct-11	05:00	46.8	48.8	43.9
26-Oct-11	05:05	45.5	46.8	43.9
26-Oct-11	05:10	45.9	47.9	43.3
26-Oct-11	05:15	47.5	46.8	43.1
26-Oct-11	05:20	50.3	52.8	45.9
26-Oct-11	05:25	48.4	50.8	44.0
26-Oct-11	05:30	44.3	45.7	42.9
26-Oct-11	05:35	46.1	48.5	42.6
26-Oct-11	05:40	44.6	45.8	43.0
26-Oct-11	05:45	43.9	45.3	42.5
26-Oct-11	05:50	43.4	44.4	42.2
26-Oct-11	05:55	43.3	44.4	42.1
26-Oct-11	06:00	45.8	47.8	43.1
26-Oct-11	06:05	44.5	45.9	42.5
26-Oct-11	06:10	44.3	45.7	42.8
26-Oct-11	06:15	45.9	47.5	44.0
26-Oct-11	06:20	47.1	50.3	42.8
26-Oct-11	06:25	44.1	45.4	42.8
26-Oct-11	06:30	45.9	47.9	43.3
26-Oct-11	06:35	45.6	47.6	42.7
26-Oct-11	06:40	44.4	45.7	42.9
26-Oct-11	06:45	44.3	46.3	42.0
26-Oct-11	06:50	46.9	49.5	43.0
26-Oct-11	06:55	46.4	48.1	42.8
26-Oct-11	23:00	56.7	59.4	54.0
26-Oct-11	23:05	54.9	55.8	54.0
26-Oct-11	23:10	55.3	56.8	53.9
26-Oct-11	23:15	56.6	57.1	53.9
26-Oct-11	23:20	54.8	55.8	53.9
26-Oct-11	23:25	55.3	56.8	54.0
26-Oct-11	23:30	56.9	58.7	53.9
26-Oct-11	23:35	57.1	57.6	53.9
26-Oct-11	23:40	56.2	57.5	53.6
26-Oct-11	23:45	54.3	55.1	53.3
26-Oct-11	23:50	55.4	55.8	53.4
26-Oct-11	23:55	55.6	57.5	53.6
	Mean	49.1	51.1	46.2
	Maximum	57.1	59.8	54.0
	Minimum	42.7	44.3	41.0

Appendix B4

Night Time Noise Level at San Tau_NMS 4

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
27-Oct-11	00:00	55.8	57.5	53.8
27-Oct-11	00:05	55.7	57.0	54.0
27-Oct-11	00:10	56.1	57.6	54.0
27-Oct-11	00:15	57.3	58.1	53.9
27-Oct-11	00:20	55.0	55.8	53.6
27-Oct-11	00:25	55.7	57.6	53.9
27-Oct-11	00:30	55.8	57.8	53.9
27-Oct-11	00:35	54.6	55.7	53.4
27-Oct-11	00:40	54.1	54.8	53.1
27-Oct-11	00:45	54.4	55.5	53.2
27-Oct-11	00:50	59.4	59.5	53.7
27-Oct-11	00:55	55.4	56.9	54.0
27-Oct-11	01:00	54.6	55.6	53.9
27-Oct-11	01:05	54.8	55.7	53.9
27-Oct-11	01:10	54.5	55.4	53.9
27-Oct-11	01:15	54.9	55.7	54.0
27-Oct-11	01:20	54.9	55.7	54.0
27-Oct-11	01:25	55.0	55.8	54.0
27-Oct-11	01:30	55.1	56.5	54.0
27-Oct-11	01:35	54.9	55.8	54.0
27-Oct-11	01:40	54.4	55.2	53.7
27-Oct-11	01:45	54.7	55.6	53.9
27-Oct-11	01:50	54.8	55.7	53.9
27-Oct-11	01:55	54.8	55.7	54.0
27-Oct-11	02:00	55.1	56.3	53.9
27-Oct-11	02:05	54.5	55.4	53.4
27-Oct-11	02:10	54.2	54.8	53.2
27-Oct-11	02:15	54.4	55.2	53.3
27-Oct-11	02:20	54.2	54.8	53.3
27-Oct-11	02:25	54.9	55.8	53.3
27-Oct-11	02:30	54.2	54.8	53.2
27-Oct-11	02:35	54.0	54.7	53.1
27-Oct-11	02:40	54.5	55.4	53.3
27-Oct-11	02:45	54.1	54.8	53.1
27-Oct-11	02:50	54.2	54.8	53.3
27-Oct-11	02:55	54.3	55.0	53.3
27-Oct-11	03:00	54.4	55.1	53.5
27-Oct-11	03:05	54.8	55.7	53.9
27-Oct-11	03:10	55.4	56.4	54.2
27-Oct-11	03:15	54.5	55.5	53.4
27-Oct-11	03:20	54.8	55.7	53.7
27-Oct-11	03:25	54.5	55.4	53.9
27-Oct-11	03:30	54.6	55.6	53.9
27-Oct-11	03:35	54.4	55.2	53.5
27-Oct-11	03:40	54.6	55.6	53.9
27-Oct-11	03:45	54.8	55.7	53.8
27-Oct-11	03:50	57.0	58.9	54.2
27-Oct-11	03:55	54.9	56.1	53.7
27-Oct-11	04:00	54.4	55.4	53.3
27-Oct-11	04:05	54.4	55.5	53.2
27-Oct-11	04:10	54.6	55.5	53.6
27-Oct-11	04:15	54.0	54.8	53.1
27-Oct-11	04:20	54.3	55.2	53.2
27-Oct-11	04:25	54.1	54.8	53.1
27-Oct-11	04:30	55.0	56.3	53.4
27-Oct-11	04:35	54.2	54.8	53.2
27-Oct-11	04:40	53.9	54.7	53.0
27-Oct-11	04:45	53.9	54.7	53.0
27-Oct-11	04:50	53.9	54.7	53.0
27-Oct-11	04:55	54.0	54.7	53.1
27-Oct-11	05:00	54.0	54.7	53.1
27-Oct-11	05:05	54.4	55.3	53.2
27-Oct-11	05:10	54.0	54.7	53.1
27-Oct-11	05:15	54.0	54.7	53.1
27-Oct-11	05:20	53.8	54.7	53.0
27-Oct-11	05:25	54.1	54.8	53.1
27-Oct-11	05:30	54.0	54.7	53.1
27-Oct-11	05:35	53.9	54.7	53.0
27-Oct-11	05:40	53.9	54.7	53.0
27-Oct-11	05:45	54.4	55.5	53.2
27-Oct-11	05:50	54.1	54.8	53.2
27-Oct-11	05:55	54.6	55.5	53.6
27-Oct-11	06:00	55.6	56.8	53.7
27-Oct-11	06:05	56.0	55.8	53.2
27-Oct-11	06:10	54.0	54.8	53.1
27-Oct-11	06:15	54.2	55.1	53.1
27-Oct-11	06:20	54.0	54.7	53.1
27-Oct-11	06:25	53.9	54.7	53.0
27-Oct-11	06:30	54.4	55.6	53.2
27-Oct-11	06:35	54.5	55.6	53.3
27-Oct-11	06:40	54.3	55.1	53.3
27-Oct-11	06:45	54.3	55.1	53.2
27-Oct-11	06:50	55.2	57.0	53.3
27-Oct-11	06:55	55.0	56.6	53.4
27-Oct-11	23:00	55.8	57.2	54.0
27-Oct-11	23:05	56.4	58.1	54.1
27-Oct-11	23:10	57.8	60.6	54.3
27-Oct-11	23:15	56.3	57.7	54.2
27-Oct-11	23:20	57.5	60.2	54.5
27-Oct-11	23:25	56.3	56.8	54.4
27-Oct-11	23:30	56.2	57.6	54.6
27-Oct-11	23:35	55.5	56.6	54.2
27-Oct-11	23:40	55.3	56.1	54.2
27-Oct-11	23:45	57.4	58.4	54.4
27-Oct-11	23:50	57.8	59.1	54.1
27-Oct-11	23:55	58.7	62.1	54.5
	Mean	54.9	56.0	53.6
	Maximum	59.4	62.1	54.6
	Minimum	53.8	54.7	53.0

Appendix B4

Night Time Noise Level at San Tau_NMS 4

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
28-Oct-11	00:00	56.3	57.6	54.3
28-Oct-11	00:05	56.1	57.3	54.3
28-Oct-11	00:10	58.0	60.0	54.4
28-Oct-11	00:15	57.4	59.7	54.3
28-Oct-11	00:20	57.1	59.4	54.2
28-Oct-11	00:25	55.8	57.5	54.2
28-Oct-11	00:30	55.6	56.8	54.1
28-Oct-11	00:35	56.1	57.7	54.3
28-Oct-11	00:40	57.4	59.7	55.0
28-Oct-11	00:45	57.1	58.3	54.3
28-Oct-11	00:50	55.9	57.2	54.4
28-Oct-11	00:55	56.7	58.3	55.0
28-Oct-11	01:00	58.3	60.5	55.3
28-Oct-11	01:05	58.4	60.9	55.0
28-Oct-11	01:10	56.0	57.4	54.7
28-Oct-11	01:15	56.0	56.8	54.4
28-Oct-11	01:20	55.4	56.3	54.4
28-Oct-11	01:25	55.5	56.4	54.9
28-Oct-11	01:30	55.6	56.5	54.9
28-Oct-11	01:35	55.6	56.6	54.8
28-Oct-11	01:40	55.5	56.4	54.9
28-Oct-11	01:45	55.6	56.5	54.7
28-Oct-11	01:50	59.2	61.7	55.7
28-Oct-11	01:55	55.5	56.3	54.9
28-Oct-11	02:00	55.8	56.7	55.0
28-Oct-11	02:05	56.4	57.3	55.0
28-Oct-11	02:10	57.3	59.5	55.0
28-Oct-11	02:15	56.3	57.9	54.9
28-Oct-11	02:20	56.7	58.1	54.9
28-Oct-11	02:25	56.0	56.8	54.9
28-Oct-11	02:30	55.7	56.6	55.0
28-Oct-11	02:35	55.9	56.7	55.0
28-Oct-11	02:40	56.2	56.9	55.2
28-Oct-11	02:45	55.9	56.7	55.0
28-Oct-11	02:50	56.0	56.8	55.1
28-Oct-11	02:55	56.7	57.7	55.8
28-Oct-11	03:00	57.0	58.2	55.5
28-Oct-11	03:05	57.3	58.6	55.4
28-Oct-11	03:10	58.1	59.2	56.3
28-Oct-11	03:15	59.6	61.5	56.8
28-Oct-11	03:20	56.8	57.7	55.4
28-Oct-11	03:25	57.4	59.3	55.0
28-Oct-11	03:30	56.4	57.6	54.9
28-Oct-11	03:35	57.3	59.5	54.9
28-Oct-11	03:40	56.5	57.6	55.2
28-Oct-11	03:45	57.5	59.6	55.3
28-Oct-11	03:50	58.2	59.8	55.3
28-Oct-11	03:55	56.7	58.7	54.5
28-Oct-11	04:00	61.0	65.3	54.9
28-Oct-11	04:05	56.8	58.5	54.7
28-Oct-11	04:10	55.3	56.2	54.1

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
28-Oct-11	04:15	56.7	59.3	54.3
28-Oct-11	04:20	55.0	55.8	54.1
28-Oct-11	04:25	55.0	55.7	54.1
28-Oct-11	04:30	56.0	57.4	54.8
28-Oct-11	04:35	55.2	55.8	54.3
28-Oct-11	04:40	56.2	55.8	54.1
28-Oct-11	04:45	56.8	57.1	54.4
28-Oct-11	04:50	55.7	56.6	54.4
28-Oct-11	04:55	56.6	57.7	54.9
28-Oct-11	05:00	56.9	56.4	54.3
28-Oct-11	05:05	55.0	55.7	54.1
28-Oct-11	05:10	54.9	55.7	54.0
28-Oct-11	05:15	55.1	55.7	54.1
28-Oct-11	05:20	56.3	55.9	54.2
28-Oct-11	05:25	55.1	55.7	54.1
28-Oct-11	05:30	54.8	55.6	54.0
28-Oct-11	05:35	55.2	55.8	54.1
28-Oct-11	05:40	55.5	56.8	54.2
28-Oct-11	05:45	55.6	56.9	54.2
28-Oct-11	05:50	55.4	56.5	54.1
28-Oct-11	05:55	54.7	55.6	54.0
28-Oct-11	06:00	56.4	57.4	54.0
28-Oct-11	06:05	55.9	56.2	54.0
28-Oct-11	06:10	55.1	55.8	54.1
28-Oct-11	06:15	59.1	59.0	54.1
28-Oct-11	06:20	55.2	56.0	54.2
28-Oct-11	06:25	56.8	58.2	54.2
28-Oct-11	06:30	56.7	58.3	54.9
28-Oct-11	06:35	55.9	57.0	54.6
28-Oct-11	06:40	57.6	58.9	54.5
28-Oct-11	06:45	56.5	58.6	54.7
28-Oct-11	06:50	56.0	57.2	54.4
28-Oct-11	06:55	57.5	58.2	54.5
28-Oct-11	23:00	59.8	62.7	55.9
28-Oct-11	23:05	58.9	59.7	56.2
28-Oct-11	23:10	57.6	59.3	55.6
28-Oct-11	23:15	58.7	59.9	55.3
28-Oct-11	23:20	57.8	59.9	55.1
28-Oct-11	23:25	56.5	57.7	54.5
28-Oct-11	23:30	57.4	59.3	54.9
28-Oct-11	23:35	56.3	57.7	54.4
28-Oct-11	23:40	57.9	60.7	54.9
28-Oct-11	23:45	56.3	57.5	55.0
28-Oct-11	23:50	58.8	61.8	55.0
28-Oct-11	23:55	59.4	61.7	55.2
	Mean	56.6	57.9	54.7
	Maximum	61.0	65.3	56.8
	Minimum	54.7	55.6	54.0

Appendix B4

Night Time Noise Level at San Tau_NMS 4

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
29-Oct-11	00:00	56.0	56.8	55.1
29-Oct-11	00:05	59.9	61.4	55.5
29-Oct-11	00:10	57.0	58.7	54.9
29-Oct-11	00:15	58.8	61.8	55.1
29-Oct-11	00:20	58.2	60.2	55.2
29-Oct-11	00:25	58.1	60.8	55.2
29-Oct-11	00:30	56.4	57.6	55.0
29-Oct-11	00:35	58.8	61.7	54.7
29-Oct-11	00:40	60.1	62.2	54.9
29-Oct-11	00:45	59.6	61.9	55.2
29-Oct-11	00:50	59.8	63.1	55.0
29-Oct-11	00:55	58.3	59.3	55.9
29-Oct-11	01:00	58.0	60.2	54.9
29-Oct-11	01:05	55.7	56.6	54.9
29-Oct-11	01:10	55.9	56.8	54.9
29-Oct-11	01:15	56.1	57.0	54.9
29-Oct-11	01:20	58.3	60.8	55.3
29-Oct-11	01:25	56.2	57.7	54.9
29-Oct-11	01:30	57.3	59.1	55.0
29-Oct-11	01:35	56.2	57.7	54.6
29-Oct-11	01:40	55.8	57.3	54.3
29-Oct-11	01:45	54.9	55.7	54.0
29-Oct-11	01:50	54.8	55.6	54.0
29-Oct-11	01:55	55.5	56.6	54.1
29-Oct-11	02:00	56.3	56.2	54.0
29-Oct-11	02:05	58.3	59.0	54.2
29-Oct-11	02:10	58.8	61.7	55.4
29-Oct-11	02:15	56.2	57.7	54.9
29-Oct-11	02:20	57.1	60.0	54.3
29-Oct-11	02:25	55.7	56.9	54.3
29-Oct-11	02:30	55.2	55.8	54.2
29-Oct-11	02:35	55.7	56.7	54.6
29-Oct-11	02:40	55.9	57.1	54.2
29-Oct-11	02:45	54.8	55.7	54.0
29-Oct-11	02:50	55.4	56.8	54.0
29-Oct-11	02:55	56.0	57.4	54.2
29-Oct-11	03:00	54.9	55.7	54.0
29-Oct-11	03:05	54.9	55.7	54.0
29-Oct-11	03:10	56.5	58.7	54.3
29-Oct-11	03:15	55.1	55.8	54.1
29-Oct-11	03:20	55.9	57.4	54.2
29-Oct-11	03:25	54.9	55.7	54.0
29-Oct-11	03:30	55.7	57.0	54.1
29-Oct-11	03:35	55.2	55.8	54.2
29-Oct-11	03:40	54.7	55.6	54.0
29-Oct-11	03:45	55.4	56.3	54.2
29-Oct-11	03:50	55.2	55.8	54.1
29-Oct-11	03:55	55.3	55.9	54.2
29-Oct-11	04:00	55.1	55.8	54.1
29-Oct-11	04:05	54.8	55.7	54.0
29-Oct-11	04:10	55.7	56.9	54.2

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
29-Oct-11	04:15	54.8	55.6	54.0
29-Oct-11	04:20	56.1	56.9	54.2
29-Oct-11	04:25	56.1	57.8	54.6
29-Oct-11	04:30	55.4	56.3	54.4
29-Oct-11	04:35	55.5	56.4	54.9
29-Oct-11	04:40	56.1	56.9	55.0
29-Oct-11	04:45	56.9	57.7	55.5
29-Oct-11	04:50	55.8	56.7	55.0
29-Oct-11	04:55	55.6	56.6	54.5
29-Oct-11	05:00	57.3	57.9	54.9
29-Oct-11	05:05	56.1	57.0	54.9
29-Oct-11	05:10	55.4	56.3	54.4
29-Oct-11	05:15	57.6	60.7	54.3
29-Oct-11	05:20	56.0	57.4	54.5
29-Oct-11	05:25	55.6	56.6	54.9
29-Oct-11	05:30	56.1	57.2	54.9
29-Oct-11	05:35	55.8	56.7	54.9
29-Oct-11	05:40	58.1	59.9	55.8
29-Oct-11	05:45	55.6	56.5	54.9
29-Oct-11	05:50	56.4	57.1	55.0
29-Oct-11	05:55	57.3	59.5	55.3
29-Oct-11	06:00	57.1	59.2	55.1
29-Oct-11	06:05	56.2	58.1	54.9
29-Oct-11	06:10	56.0	57.1	54.6
29-Oct-11	06:15	55.7	56.8	54.4
29-Oct-11	06:20	55.7	56.3	54.2
29-Oct-11	06:25	55.5	56.5	54.9
29-Oct-11	06:30	56.0	56.8	55.0
29-Oct-11	06:35	56.0	56.8	55.0
29-Oct-11	06:40	56.2	57.4	55.0
29-Oct-11	06:45	56.4	57.0	54.9
29-Oct-11	06:50	56.3	57.9	54.9
29-Oct-11	06:55	56.6	57.7	55.0
29-Oct-11	23:00	56.2	57.3	54.3
29-Oct-11	23:05	56.4	57.8	54.3
29-Oct-11	23:10	56.3	57.4	54.2
29-Oct-11	23:15	56.5	58.3	54.3
29-Oct-11	23:20	55.2	55.8	54.2
29-Oct-11	23:25	56.2	57.5	54.6
29-Oct-11	23:30	56.4	58.2	54.4
29-Oct-11	23:35	55.2	55.8	54.3
29-Oct-11	23:40	55.6	56.5	54.9
29-Oct-11	23:45	55.4	56.3	54.7
29-Oct-11	23:50	56.3	57.6	54.9
29-Oct-11	23:55	55.6	56.6	54.8
	Mean	56.3	57.6	54.6
	Maximum	60.1	63.1	55.9
	Minimum	54.7	55.6	54.0

Appendix B4

Night Time Noise Level at San Tau_NMS 4

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
30-Oct-11	00:00	56.3	57.5	54.9
30-Oct-11	00:05	58.7	61.1	55.3
30-Oct-11	00:10	57.8	59.7	55.1
30-Oct-11	00:15	57.2	59.2	55.2
30-Oct-11	00:20	60.1	62.3	56.1
30-Oct-11	00:25	59.8	61.4	56.4
30-Oct-11	00:30	58.6	60.8	55.9
30-Oct-11	00:35	59.0	59.6	55.5
30-Oct-11	00:40	56.3	57.3	55.1
30-Oct-11	00:45	57.4	59.2	55.2
30-Oct-11	00:50	56.6	58.5	54.9
30-Oct-11	00:55	57.0	58.9	55.2
30-Oct-11	01:00	57.4	59.2	55.2
30-Oct-11	01:05	58.8	61.8	55.3
30-Oct-11	01:10	56.7	57.8	54.9
30-Oct-11	01:15	57.0	57.7	55.3
30-Oct-11	01:20	57.0	58.4	55.5
30-Oct-11	01:25	58.3	59.9	56.2
30-Oct-11	01:30	57.1	59.1	55.0
30-Oct-11	01:35	58.8	61.7	55.5
30-Oct-11	01:40	56.5	56.8	55.0
30-Oct-11	01:45	56.5	57.7	55.0
30-Oct-11	01:50	56.1	56.7	54.7
30-Oct-11	01:55	55.6	56.5	54.9
30-Oct-11	02:00	55.6	56.4	54.9
30-Oct-11	02:05	55.4	56.2	54.7
30-Oct-11	02:10	55.5	56.4	54.6
30-Oct-11	02:15	58.2	56.6	54.4
30-Oct-11	02:20	58.7	60.9	55.0
30-Oct-11	02:25	56.5	56.7	54.9
30-Oct-11	02:30	55.5	56.4	54.8
30-Oct-11	02:35	55.7	56.6	54.9
30-Oct-11	02:40	55.5	56.5	54.6
30-Oct-11	02:45	56.2	57.3	55.0
30-Oct-11	02:50	55.3	56.0	54.5
30-Oct-11	02:55	55.3	55.8	54.4
30-Oct-11	03:00	56.0	57.2	54.9
30-Oct-11	03:05	56.4	57.8	55.0
30-Oct-11	03:10	55.4	56.4	54.5
30-Oct-11	03:15	55.4	56.4	54.3
30-Oct-11	03:20	56.0	57.1	54.5
30-Oct-11	03:25	56.2	57.1	55.0
30-Oct-11	03:30	56.0	56.8	55.0
30-Oct-11	03:35	55.5	56.3	54.9
30-Oct-11	03:40	57.1	59.1	54.9
30-Oct-11	03:45	57.0	58.4	55.3
30-Oct-11	03:50	55.7	56.7	54.6
30-Oct-11	03:55	57.3	59.2	54.9
30-Oct-11	04:00	55.3	55.9	54.5
30-Oct-11	04:05	56.5	57.6	55.0
30-Oct-11	04:10	56.6	57.6	55.5

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
30-Oct-11	04:15	56.1	56.8	55.0
30-Oct-11	04:20	57.8	60.2	55.1
30-Oct-11	04:25	57.0	58.6	55.2
30-Oct-11	04:30	57.0	58.5	55.1
30-Oct-11	04:35	56.3	57.7	55.0
30-Oct-11	04:40	55.3	55.9	54.4
30-Oct-11	04:45	56.5	58.2	54.9
30-Oct-11	04:50	55.3	55.8	54.6
30-Oct-11	04:55	55.4	56.3	54.6
30-Oct-11	05:00	55.3	55.8	54.4
30-Oct-11	05:05	56.1	57.5	54.9
30-Oct-11	05:10	55.3	55.8	54.4
30-Oct-11	05:15	55.9	57.3	54.7
30-Oct-11	05:20	55.7	56.6	54.9
30-Oct-11	05:25	55.2	55.8	54.4
30-Oct-11	05:30	55.2	55.8	54.4
30-Oct-11	05:35	55.3	55.8	54.5
30-Oct-11	05:40	57.2	59.7	54.9
30-Oct-11	05:45	55.4	56.0	54.7
30-Oct-11	05:50	56.8	57.9	55.2
30-Oct-11	05:55	55.8	56.7	55.0
30-Oct-11	06:00	57.1	58.7	55.2
30-Oct-11	06:05	56.5	57.5	55.3
30-Oct-11	06:10	56.5	57.3	55.0
30-Oct-11	06:15	55.7	56.5	55.0
30-Oct-11	06:20	56.1	56.8	55.0
30-Oct-11	06:25	55.5	56.4	54.9
30-Oct-11	06:30	56.1	56.9	55.0
30-Oct-11	06:35	56.8	58.4	55.1
30-Oct-11	06:40	56.2	56.9	55.1
30-Oct-11	06:45	56.7	57.8	55.5
30-Oct-11	06:50	56.5	57.5	55.3
30-Oct-11	06:55	57.1	58.6	55.1
30-Oct-11	23:00	56.0	56.6	53.2
30-Oct-11	23:05	54.1	54.7	53.1
30-Oct-11	23:10	54.3	54.9	53.3
30-Oct-11	23:15	55.8	57.6	53.9
30-Oct-11	23:20	55.2	56.4	53.9
30-Oct-11	23:25	56.6	58.0	53.8
30-Oct-11	23:30	54.9	55.7	53.5
30-Oct-11	23:35	54.8	55.8	53.4
30-Oct-11	23:40	56.2	56.7	54.0
30-Oct-11	23:45	57.9	60.0	54.1
30-Oct-11	23:50	56.2	57.1	54.0
30-Oct-11	23:55	54.5	55.4	53.9
	Mean	56.4	57.6	54.8
	Maximum	60.1	62.3	56.4
	Minimum	54.1	54.7	53.1

Appendix B4

Night Time Noise Level at San Tau_NMS 4

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
31-Oct-11	00:00	57.3	58.8	54.2
31-Oct-11	00:05	58.2	60.6	54.1
31-Oct-11	00:10	57.2	59.7	54.1
31-Oct-11	00:15	56.1	57.6	54.1
31-Oct-11	00:20	56.1	57.6	54.1
31-Oct-11	00:25	56.6	58.2	54.2
31-Oct-11	00:30	57.3	59.9	54.2
31-Oct-11	00:35	55.8	57.6	54.0
31-Oct-11	00:40	55.0	55.8	53.9
31-Oct-11	00:45	54.2	54.8	53.4
31-Oct-11	00:50	54.5	55.3	53.9
31-Oct-11	00:55	54.4	54.8	53.7
31-Oct-11	01:00	54.8	55.7	53.9
31-Oct-11	01:05	57.4	60.2	54.0
31-Oct-11	01:10	57.0	59.2	54.1
31-Oct-11	01:15	56.7	59.1	53.9
31-Oct-11	01:20	54.3	55.2	53.3
31-Oct-11	01:25	56.3	57.7	53.7
31-Oct-11	01:30	55.4	56.6	53.9
31-Oct-11	01:35	54.9	55.8	53.7
31-Oct-11	01:40	56.0	58.0	54.0
31-Oct-11	01:45	55.3	57.1	53.9
31-Oct-11	01:50	57.2	60.5	53.9
31-Oct-11	01:55	54.7	55.6	53.9
31-Oct-11	02:00	56.8	59.3	53.9
31-Oct-11	02:05	54.6	55.8	53.3
31-Oct-11	02:10	55.1	56.7	53.3
31-Oct-11	02:15	54.2	54.8	53.3
31-Oct-11	02:20	55.1	56.4	53.4
31-Oct-11	02:25	55.4	56.6	53.3
31-Oct-11	02:30	54.4	55.1	53.3
31-Oct-11	02:35	54.7	55.6	54.0
31-Oct-11	02:40	54.7	55.6	53.9
31-Oct-11	02:45	55.2	56.2	54.0
31-Oct-11	02:50	54.5	55.3	53.9
31-Oct-11	02:55	55.6	57.9	53.6
31-Oct-11	03:00	55.3	56.6	53.9
31-Oct-11	03:05	55.4	56.5	54.0
31-Oct-11	03:10	57.9	59.9	53.9
31-Oct-11	03:15	54.4	54.9	53.9
31-Oct-11	03:20	54.5	55.1	53.9
31-Oct-11	03:25	54.6	55.4	54.0
31-Oct-11	03:30	54.4	54.9	53.9
31-Oct-11	03:35	55.9	58.1	53.9
31-Oct-11	03:40	54.8	55.8	53.9
31-Oct-11	03:45	54.4	55.1	53.7
31-Oct-11	03:50	54.4	54.8	53.9
31-Oct-11	03:55	54.4	54.9	53.9
31-Oct-11	04:00	55.0	56.2	53.9
31-Oct-11	04:05	54.5	55.2	53.9
31-Oct-11	04:10	54.4	54.9	53.9

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
31-Oct-11	04:15	54.5	55.1	53.9
31-Oct-11	04:20	54.3	54.8	53.6
31-Oct-11	04:25	56.1	55.1	53.7
31-Oct-11	04:30	54.5	55.3	53.9
31-Oct-11	04:35	54.4	55.1	53.9
31-Oct-11	04:40	54.4	54.9	53.9
31-Oct-11	04:45	54.3	54.8	53.8
31-Oct-11	04:50	58.7	60.1	53.9
31-Oct-11	04:55	54.4	54.9	53.9
31-Oct-11	05:00	54.8	55.5	53.9
31-Oct-11	05:05	54.9	55.8	53.9
31-Oct-11	05:10	54.4	54.9	53.9
31-Oct-11	05:15	55.1	56.5	54.0
31-Oct-11	05:20	54.8	55.6	54.0
31-Oct-11	05:25	54.7	55.6	54.0
31-Oct-11	05:30	54.6	55.5	53.9
31-Oct-11	05:35	54.6	55.5	54.0
31-Oct-11	05:40	54.8	55.6	54.0
31-Oct-11	05:45	54.6	55.4	53.9
31-Oct-11	05:50	55.9	57.8	54.2
31-Oct-11	05:55	55.9	57.8	54.1
31-Oct-11	06:00	55.5	56.7	54.0
31-Oct-11	06:05	55.9	57.6	54.0
31-Oct-11	06:10	54.7	55.5	53.9
31-Oct-11	06:15	54.3	54.8	53.7
31-Oct-11	06:20	54.4	55.1	53.9
31-Oct-11	06:25	54.7	55.6	54.0
31-Oct-11	06:30	54.8	55.6	54.0
31-Oct-11	06:35	55.1	55.7	54.0
31-Oct-11	06:40	56.7	59.4	54.1
31-Oct-11	06:45	55.5	56.7	54.1
31-Oct-11	06:50	55.4	56.5	54.1
31-Oct-11	06:55	55.4	56.7	54.1
31-Oct-11	23:00	55.1	56.2	53.1
31-Oct-11	23:05	55.7	57.6	53.2
31-Oct-11	23:10	55.6	56.6	53.2
31-Oct-11	23:15	54.2	55.0	53.1
31-Oct-11	23:20	54.1	54.8	53.2
31-Oct-11	23:25	57.4	59.7	53.4
31-Oct-11	23:30	54.3	55.3	53.1
31-Oct-11	23:35	55.4	56.4	53.2
31-Oct-11	23:40	55.9	56.9	53.3
31-Oct-11	23:45	54.4	55.1	53.1
31-Oct-11	23:50	57.2	57.9	53.0
31-Oct-11	23:55	55.9	56.8	53.1
	Mean	55.3	56.5	53.8
	Maximum	58.7	60.6	54.2
	Minimum	54.1	54.8	53.0

Appendix B4

Night Time Noise Level at San Tau_NMS 4

Date	dB(A)			
	Time	L_{eq}	L_{10}	L_{90}
1-Nov-11	00:00	54.0	54.8	53.0
1-Nov-11	00:05	54.0	54.8	53.0
1-Nov-11	00:10	55.4	57.5	53.2
1-Nov-11	00:15	56.1	57.9	53.9
1-Nov-11	00:20	55.6	57.1	53.7
1-Nov-11	00:25	57.4	59.9	54.0
1-Nov-11	00:30	54.7	55.8	53.3
1-Nov-11	00:35	54.5	55.6	53.2
1-Nov-11	00:40	55.0	56.2	53.2
1-Nov-11	00:45	53.9	54.7	53.0
1-Nov-11	00:50	57.8	61.5	53.2
1-Nov-11	00:55	54.7	55.9	53.3
1-Nov-11	01:00	55.3	56.7	53.8
1-Nov-11	01:05	54.2	55.3	53.1
1-Nov-11	01:10	54.3	55.1	53.1
1-Nov-11	01:15	54.1	54.8	53.1
1-Nov-11	01:20	54.6	55.6	53.5
1-Nov-11	01:25	55.0	56.1	53.9
1-Nov-11	01:30	55.0	55.8	54.0
1-Nov-11	01:35	54.4	55.3	53.5
1-Nov-11	01:40	54.1	54.8	53.2
1-Nov-11	01:45	54.7	55.7	53.6
1-Nov-11	01:50	54.3	55.1	53.3
1-Nov-11	01:55	54.3	55.3	53.3
1-Nov-11	02:00	54.1	54.9	53.1
1-Nov-11	02:05	54.6	55.7	53.2
1-Nov-11	02:10	54.0	54.8	53.1
1-Nov-11	02:15	54.1	54.8	53.1
1-Nov-11	02:20	54.1	54.9	53.0
1-Nov-11	02:25	54.0	54.8	53.1
1-Nov-11	02:30	54.1	54.9	53.1
1-Nov-11	02:35	54.1	54.8	53.1
1-Nov-11	02:40	54.0	55.0	53.0
1-Nov-11	02:45	54.3	55.4	53.1
1-Nov-11	02:50	54.1	55.0	53.1
1-Nov-11	02:55	54.3	55.3	53.1
1-Nov-11	03:00	54.4	55.3	53.4
1-Nov-11	03:05	54.1	54.9	53.1
1-Nov-11	03:10	53.9	54.8	53.0
1-Nov-11	03:15	53.9	54.7	53.0
1-Nov-11	03:20	53.8	54.6	53.0
1-Nov-11	03:25	53.9	54.7	53.0
1-Nov-11	03:30	53.9	54.8	53.0
1-Nov-11	03:35	53.9	54.7	53.0
1-Nov-11	03:40	54.1	54.8	53.1
1-Nov-11	03:45	53.8	54.7	53.0
1-Nov-11	03:50	55.0	57.0	53.1
1-Nov-11	03:55	54.0	54.8	53.0
1-Nov-11	04:00	54.2	55.2	53.0
1-Nov-11	04:05	53.8	54.7	53.0
1-Nov-11	04:10	53.7	54.6	53.0
1-Nov-11	04:15	54.6	55.9	53.0
1-Nov-11	04:20	56.5	59.0	53.1
1-Nov-11	04:25	54.0	54.8	53.0
1-Nov-11	04:30	53.7	54.6	53.0
1-Nov-11	04:35	53.7	54.6	53.0
1-Nov-11	04:40	53.9	54.7	53.0
1-Nov-11	04:45	53.5	54.4	52.9
1-Nov-11	04:50	53.8	54.7	52.9
1-Nov-11	04:55	53.7	54.6	53.0
1-Nov-11	05:00	53.9	54.8	53.0
1-Nov-11	05:05	53.6	54.5	52.9
1-Nov-11	05:10	53.6	54.5	52.9
1-Nov-11	05:15	53.6	54.6	52.9
1-Nov-11	05:20	53.5	54.4	52.9
1-Nov-11	05:25	53.5	54.4	52.9
1-Nov-11	05:30	53.7	54.6	52.9
1-Nov-11	05:35	54.5	55.8	53.0
1-Nov-11	05:40	53.8	54.7	53.0
1-Nov-11	05:45	53.9	54.7	53.0
1-Nov-11	05:50	54.1	54.8	53.1
1-Nov-11	05:55	54.1	54.8	53.1
1-Nov-11	06:00	54.2	54.8	53.2
1-Nov-11	06:05	54.5	55.4	53.6
1-Nov-11	06:10	58.8	59.3	53.9
1-Nov-11	06:15	54.4	55.3	53.4
1-Nov-11	06:20	55.3	55.8	54.0
1-Nov-11	06:25	55.3	56.3	54.0
1-Nov-11	06:30	55.3	56.4	54.1
1-Nov-11	06:35	55.1	55.8	54.0
1-Nov-11	06:40	55.1	55.9	54.1
1-Nov-11	06:45	55.5	56.6	54.2
1-Nov-11	06:50	55.3	56.2	54.0
1-Nov-11	06:55	56.9	57.5	54.0
	Mean	54.5	55.5	53.3
	Maximum	58.8	61.5	54.2
	Minimum	54.5	55.5	53.3

Summary of Night Time Noise Level at San Tau_NMS 4			
	L_{eq}	L_{10}	L_{90}
Mean	54.6	56.0	52.4
Maximum	66.8	65.3	56.8
Minimum	42.7	44.3	41.0

Water Quality Monitoring Results at CS1 - Mid-Ebb Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
6-Oct-11	Fine	Moderate	09:50	12.1	Surface	1	26.1 26.1	26.1	8.1 8.1	8.1	32.4 32.4	32.4	83.5 80.7	82.1	5.7 5.4	5.6	5.5	12.0 14.4	13.2	22.7	14.0 14.0	14.0	14.5
					Middle	6	26.1 26.1	26.1	8.1 8.1	8.1	32.5 32.6	32.6	80.7 80.5	80.6	5.4 5.4	5.4		23.3 24.0	23.7		15.0 14.0	14.5	
					Bottom	11	26.1 26.1	26.1	8.1 8.1	8.1	32.1 32.1	32.1	80.5 80.5	80.5	5.4 5.4	5.4	5.4	30.5 31.8	31.2		15.0 15.0	15.0	
8-Oct-11	Sunny	Moderate	11:03	13.2	Surface	1	26.4 26.4	26.4	7.9 7.9	7.9	31.7 31.7	31.7	95.6 94.8	95.2	6.6 6.5	6.6	6.6	7.2 8.2	7.7	31.9	11.0 12.0	11.5	14.2
					Middle	6.5	26.0 26.0	26.0	7.9 7.9	7.9	31.7 31.7	31.7	92.9 92.2	92.6	6.5 6.4	6.5		25.4 23.3	24.4		11.0 11.0	11.0	
					Bottom	12	26.0 26.0	26.0	7.9 7.9	7.9	31.7 31.7	31.7	91.9 91.6	91.8	6.4 6.4	6.4	6.4	67.8 59.2	63.5		20.0 20.0	20.0	
10-Oct-11	Cloudy	Moderate	12:25	14	Surface	1	26.2 26.2	26.2	8.0 8.0	8.0	33.4 33.4	33.4	104.6 102.9	103.8	7.0 6.9	7.0	6.9	9.8 9.6	9.7	78.1	16.0 16.0	16.0	24.2
					Middle	7	26.1 26.1	26.1	8.0 8.0	8.0	33.7 33.7	33.7	99.9 99.6	99.8	6.7 6.7	6.7		16.0 16.2	16.1		11.0 11.0	11.0	
					Bottom	13	26.1 26.1	26.1	8.0 8.0	8.0	33.8 33.8	33.8	100.5 100.3	100.4	6.7 6.7	6.7	6.7	209.4 207.5	208.5		45.0 46.0	45.5	
12-Oct-11	Rainy	Moderate	13:30	13	Surface	1	26.1 26.1	26.1	7.9 7.9	7.9	33.4 33.4	33.4	76.7 81.6	79.2	6.4 6.6	6.5	6.7	14.4 15.0	14.7	33.7	14.0 15.0	14.5	16.2
					Middle	6.5	26.1 26.1	26.1	7.9 7.9	7.9	33.5 33.5	33.5	81.7 82.5	82.1	6.7 6.8	6.8		15.5 14.7	15.1		15.0 15.0	15.0	
					Bottom	12	26.0 26.0	26.0	7.9 7.9	7.9	33.7 33.7	33.7	83.9 82.8	83.4	6.7 6.8	6.8	6.8	70.2 72.6	71.4		19.0 19.0	19.0	
14-Oct-11	Cloudy	Moderate	13:06	12	Surface	1	26.3 26.3	26.3	7.7 7.7	7.7	23.3 23.3	23.3	96.3 96.5	96.4	6.8 6.8	6.8	6.6	5.5 5.3	5.4	9.9	8.1 7.9	8.0	8.1
					Middle	6	26.0 26.0	26.0	7.7 7.7	7.7	26.2 26.1	26.2	91.0 90.8	90.9	6.4 6.4	6.4		10.6 10.6	10.6		8.0 7.8	7.9	
					Bottom	11	26.0 26.0	26.0	7.7 7.8	7.8	26.8 26.8	26.8	89.9 89.8	89.9	6.3 6.3	6.3	6.3	13.5 13.7	13.6		8.4 8.5	8.5	
16-Oct-11	Sunny	Moderate	14:22	13	Surface	1	26.1 26.1	26.1	7.8 7.8	7.8	24.8 24.8	24.8	99.2 99.3	99.3	7.0 7.0	7.0	6.9	3.7 3.7	3.7	7.6	12.0 12.0	12.0	8.9
					Middle	6.5	25.7 25.7	25.7	7.8 7.8	7.8	25.7 25.7	25.7	94.5 94.4	94.5	6.7 6.7	6.7		5.1 5.1	5.1		5.7 5.6	5.7	
					Bottom	12	25.8 25.8	25.8	7.8 7.8	7.8	26.1 26.1	26.1	92.6 92.3	92.5	6.5 6.5	6.5	6.5	13.9 14.3	14.1		9.1 9.2	9.2	
18-Oct-11	Sunny	Moderate	14:34	12	Surface	1	27.2 27.6	27.4	7.4 7.3	7.4	27.1 27.1	27.1	95.8 96.4	96.1	7.3 7.3	7.3	7.1	3.3 3.6	3.5	4.7	14.0 13.0	13.5	7.8
					Middle	6	27.4 27.5	27.5	7.1 7.1	7.1	28.5 28.4	28.5	90.3 89.5	89.9	6.9 6.8	6.9		4.0 4.3	4.2		4.8 4.8	4.8	
					Bottom	11	27.4 27.3	27.4	7.3 7.3	7.3	29.7 29.5	29.6	83.7 82.9	83.3	6.4 6.3	6.4	6.4	6.0 6.5	6.3		5.2 5.2	5.2	
22-Oct-11	Sunny	Moderate	07:46	12.2	Surface	1	25.9 25.9	25.9	8.1 8.1	8.1	32.1 32.0	32.1	98.5 99.6	99.1	7.8 7.9	7.9	7.7	4.0 3.8	3.9	8.3	11.0 11.0	11.0	8.6
					Middle	6	26.0 26.0	26.0	8.0 8.0	8.0	32.8 32.8	32.8	93.7 92.9	93.3	7.4 7.3	7.4		4.9 5.0	5.0		7.3 7.4	7.4	
					Bottom	11	25.9 25.9	25.9	8.0 8.0	8.0	33.4 33.4	33.4	85.6 85.1	85.4	6.8 6.7	6.8	6.8	14.8 17.1	16.0		7.3 7.5	7.4	
25-Oct-11	Sunny	Moderate	11:33	11.1	Surface	1	26.1 26.1	26.1	8.1 8.1	8.1	28.6 28.6	28.6	91.9 94.1	93.0	7.4 7.5	7.5	7.4	5.6 5.7	5.7	11.3	8.8 8.8	8.8	7.4
					Middle	5.5	26.0 26.0	26.0	8.1 8.1	8.1	32.3 32.3	32.3	91.1 89.7	90.4	7.3 7.2	7.3		7.9 8.2	8.1		7.3 7.1	7.2	
					Bottom	10	26.0 26.0	26.0	8.1 8.1	8.1	32.8 32.8	32.8	88.7 88.2	88.5	7.1 7.1	7.1	7.1	19.3 20.8	20.1		6.3 6.3	6.3	

Remarks: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at CS1 - Mid-Ebb Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
27-Oct-11	Cloudy	Moderate	13:14	11	Surface	1	25.9 26.1	26.0	8.1 8.1	8.1	31.6 31.3	31.5	99.7 99.7	99.7	6.8 6.8	6.8	6.7	7.9 7.4	7.7	10.0	6.9 6.7	6.8	9.7
					Middle	5.5	25.7 25.7	25.7	8.1 8.1	8.1	32.1 32.1	32.1	97.6 97.3	97.5	6.6 6.6	6.6		8.5 8.6	8.6		14.0 14.0	14.0	
					Bottom	10	25.7 25.7	25.7	8.1 8.1	8.1	32.5 32.5	32.5	97.2 96.7	97.0	6.6 6.6	6.6	6.6	12.7 14.4	13.6		8.2 8.1	8.2	
29-Oct-11	Sunny	Moderate	14:43	9.1	Surface	1	25.7 25.7	25.7	8.0 8.0	8.0	31.2 31.2	31.2	143.8 143.8	143.8	9.8 9.8	9.8	9.6	6.8 6.8	6.8	14.2	7.9 8.0	8.0	13.8
					Middle	4.5	25.6 25.6	25.6	8.0 8.0	8.0	31.7 31.7	31.7	138.0 138.0	138.0	9.4 9.4	9.4		7.1 7.2	7.2		11.0 12.0	11.5	
					Bottom	8	25.6 25.6	25.6	8.0 8.0	8.0	25.8 31.8	28.8	133.3 133.3	133.3	9.4 9.1	9.3	9.3	29.2 28.1	28.7		22.0 22.0	22.0	
31-Oct-11	Sunny	Moderate	16:07	12	Surface	1	25.7 25.7	25.7	8.0 8.0	8.0	31.9 29.1	30.5	80.0 82.5	81.3	6.4 6.6	6.5	6.5	7.0 7.2	7.1	8.1	25.0 25.0	25.0	20.3
					Middle	6	25.6 25.5	25.6	8.0 8.0	8.0	32.4 32.4	32.4	81.2 81.1	81.2	6.5 6.5	6.5		7.3 7.8	7.6		23.0 23.0	23.0	
					Bottom	11	25.5 25.5	25.5	8.0 8.0	8.0	32.8 32.9	32.9	80.7 82.1	81.4	6.5 6.6	6.6	6.6	8.9 10.0	9.5		13.0 13.0	13.0	

Remarks: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at CS1 - Mid-Flood Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
6-Oct-11	Fine	Moderate	17:09	13	Surface	1	26.1 26.1	26.1	8.1 8.1	8.1	31.9 32.0	32.0	80.3 80.2	80.3	5.4 5.4	5.4	5.4	20.6 20.7	20.7	32.3	19.0 19.0	19.0	20.2
					Middle	6.5	26.1 26.1	26.1	8.1 8.1	8.1	32.4 32.5	32.5	79.9 79.8	79.9	5.4 5.4	5.4		36.5 36.8	36.7		18.0 18.0	18.0	
					Bottom	12	26.1 26.1	26.1	8.1 8.1	8.1	32.5 32.5	32.5	79.8 79.8	79.8	5.4 5.4	5.4	5.4	39.0 40.2	39.6		24.0 23.0	23.5	
8-Oct-11	Sunny	Moderate	17:06	13	Surface	1	26.2 26.2	26.2	7.9 7.8	7.9	32.4 32.3	32.4	90.1 90.1	90.1	6.4 6.4	6.4	6.5	10.5 10.5	10.5	52.2	14.0 14.0	14.0	40.5
					Middle	6.5	26.1 26.1	26.1	7.9 7.8	7.9	32.3 32.4	32.4	90.9 91.4	91.2	6.5 6.5	6.5		50.5 57.4	54.0		55.0 55.0	55.0	
					Bottom	12	26.1 26.1	26.1	7.9 7.8	7.9	32.2 32.4	32.3	90.5 90.3	90.4	6.5 6.5	6.5	6.5	91.7 92.4	92.1		53.0 52.0	52.5	
10-Oct-11	Cloudy	Moderate	17:31	12.9	Surface	1	26.2 26.2	26.2	8.0 8.0	8.0	33.6 33.6	33.6	99.7 98.0	98.9	6.7 6.6	6.7	6.8	14.3 16.3	15.3	27.5	16.0 16.0	16.0	15.3
					Middle	6.5	26.2 26.2	26.2	8.0 8.0	8.0	33.6 33.6	33.6	102.2 101.4	101.8	6.8 6.8	6.8		14.6 17.2	15.9		15.0 15.0	15.0	
					Bottom	12	26.2 26.2	26.2	8.0 8.0	8.0	33.6 33.6	33.6	100.7 97.1	98.9	6.7 6.5	6.6	6.6	52.0 50.8	51.4		15.0 15.0	15.0	
12-Oct-11	Rainy	Moderate	18:18	13	Surface	1	26.0 26.0	26.0	8.0 8.0	8.0	33.5 33.6	33.6	75.4 77.1	76.3	6.3 6.5	6.4	6.5	25.3 25.4	25.4	51.9	19.0 19.0	19.0	26.8
					Middle	6.5	26.0 26.0	26.0	8.0 8.0	8.0	33.6 33.6	33.6	75.5 78.1	76.8	6.4 6.5	6.5		22.0 24.0	23.0		20.0 20.0	20.0	
					Bottom	12	26.0 26.0	26.0	8.0 8.0	8.0	33.5 33.6	33.6	75.9 78.9	77.4	6.4 6.6	6.5	6.5	108.1 106.2	107.2		41.0 42.0	41.5	
14-Oct-11	Cloudy	Moderate	08:22	11	Surface	1	26.3 26.3	26.3	7.7 7.7	7.7	21.6 22.2	21.9	90.4 90.0	90.2	6.5 6.4	6.5	6.4	6.5 6.6	6.6	17.2	11.0 11.0	11.0	9.9
					Middle	5.5	26.2 26.2	26.2	7.7 7.7	7.7	24.2 24.2	24.2	89.8 89.8	89.8	6.3 6.3	6.3		10.9 11.0	11.0		9.6 9.7	9.7	
					Bottom	10	26.0 26.0	26.0	7.7 7.7	7.7	26.9 26.9	26.9	90.3 90.4	90.4	6.3 6.3	6.3	6.3	36.5 31.3	33.9		9.0 9.0	9.0	
16-Oct-11	Sunny	Moderate	10:34	13	Surface	1	25.8 25.8	25.8	7.8 7.8	7.8	25.2 25.2	25.2	92.8 92.8	92.8	6.6 6.6	6.6	6.6	6.4 6.2	6.3	25.5	15.0 15.0	15.0	13.5
					Middle	6.5	25.8 25.8	25.8	7.8 7.8	7.8	27.1 27.1	27.1	92.9 93.0	93.0	6.5 6.5	6.5		13.6 14.2	13.9		13.0 14.0	13.5	
					Bottom	12	25.8 25.8	25.8	7.8 7.8	7.8	27.3 27.3	27.3	92.4 92.3	92.4	6.5 6.4	6.5	6.5	56.3 56.5	56.4		12.0 12.0	12.0	
18-Oct-11	Sunny	Moderate	11:00	11.2	Surface	1	26.0 26.0	26.0	7.7 7.7	7.7	24.7 24.7	24.7	83.7 84.2	84.0	6.4 6.4	6.4	6.4	2.9 3.0	3.0	4.5	9.1 9.5	9.3	7.6
					Middle	5.5	25.9 25.9	25.9	7.7 7.7	7.7	25.9 25.9	25.9	84.1 82.1	83.1	6.4 6.2	6.3		3.5 3.7	3.6		6.5 6.6	6.6	
					Bottom	10	25.9 25.9	25.9	7.6 7.6	7.6	27.0 26.9	27.0	79.6 79.2	79.4	6.1 6.0	6.1	6.1	7.0 6.9	7.0		6.5 7.3	6.9	
22-Oct-11	Sunny	Moderate	14:31	12	Surface	1	26.4 26.5	26.5	8.1 8.1	8.1	28.5 28.3	28.4	89.0 92.8	90.9	7.0 7.3	7.2	7.4	6.4 6.1	6.3	24.8	17.0 17.0	17.0	12.7
					Middle	6	26.0 26.1	26.1	8.0 8.0	8.0	31.7 31.6	31.7	95.8 92.0	93.9	7.6 7.3	7.5		10.6 9.8	10.2		10.0 10.0	10.0	
					Bottom	11	26.0 26.0	26.0	7.9 7.9	7.9	32.2 32.2	32.2	88.9 88.6	88.8	7.0 7.0	7.0	7.0	59.5 56.0	57.8		11.0 11.0	11.0	
25-Oct-11	Sunny	Moderate	15:53	12	Surface	1	26.1 26.1	26.1	8.0 8.0	8.0	31.5 31.4	31.5	87.0 87.2	87.1	7.0 7.0	7.0	7.0	12.4 10.4	11.4	14.8	13.0 13.0	13.0	13.8
					Middle	6	26.1 26.1	26.1	8.0 8.0	8.0	31.8 31.8	31.8	87.4 87.2	87.3	7.0 7.0	7.0		10.5 10.6	10.6		15.0 14.0	14.5	
					Bottom	11	26.1 26.1	26.1	8.0 8.0	8.0	31.9 31.9	31.9	86.7 86.6	86.7	6.9 6.9	6.9	6.9	22.2 22.5	22.4		14.0 14.0	14.0	

Remarks: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at CS1 - Mid-Flood Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
27-Oct-11	Cloudy	Moderate	06:48	11.3	Surface	1	25.7 25.7	25.7	8.1 8.1	8.1	32.6 32.6	32.6	95.9 96.1	96.0	6.5 6.5	6.5	6.5	9.5 9.4	9.5	30.6	12.0 12.0	12.0	14.3
					Middle	5.5	25.7 25.7	25.7	8.1 8.1	8.1	32.8 32.7	32.8	96.3 96.2	96.3	6.5 6.5	6.5		35.3 35.7	35.5		17.0 17.0	17.0	
					Bottom	10	25.7 25.7	25.7	8.1 8.1	8.1	32.9 32.9	32.9	95.8 95.5	95.7	6.5 6.5	6.5	6.5	46.5 47.3	46.9		14.0 14.0	14.0	
29-Oct-11	Sunny	Moderate	10:10	10	Surface	1	25.7 25.7	25.7	8.1 8.1	8.1	32.7 32.7	32.7	92.1 92.1	92.1	6.3 6.3	6.3	6.2	9.3 9.1	9.2	18.9	26.0 25.0	25.5	25.3
					Middle	5	25.5 25.5	25.5	8.1 8.1	8.1	33.0 33.0	33.0	89.7 89.5	89.6	6.1 6.1	6.1		19.1 19.6	19.4		32.0 31.0	31.5	
					Bottom	9	25.5 25.5	25.5	8.1 8.1	8.1	33.0 33.0	33.0	88.5 88.4	88.5	6.0 6.0	6.0	6.0	28.0 27.9	28.0		19.0 19.0	19.0	
31-Oct-11	Sunny	Moderate	11:02	12	Surface	1	25.4 25.4	25.4	8.0 8.0	8.0	28.5 32.3	30.4	96.6 98.4	97.5	7.7 7.9	7.8	7.5	13.3 12.9	13.1	48.9	14.0 14.0	14.0	15.5
					Middle	6	25.4 25.4	25.4	8.0 8.0	8.0	32.6 32.6	32.6	87.5 89.1	88.3	7.0 7.1	7.1		41.1 41.2	41.2		12.0 12.0	12.0	
					Bottom	11	25.4 25.4	25.4	8.0 8.0	8.0	32.7 32.7	32.7	89.6 91.2	90.4	7.2 7.3	7.3	7.3	86.2 98.8	92.5		20.0 21.0	20.5	

Remarks: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at CS2 - Mid-Ebb Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
6-Oct-11	Fine	Moderate	09:25	7	Surface	1	26.0 26.0	26.0	7.9 7.9	7.9	31.7 31.7	31.7	100.4 99.2	99.8	6.8 6.7	6.8	6.6	6.4 6.0	6.2	8.9	5.3 5.3	5.3	7.0
					Middle	3.5	25.9 26.0	26.0	8.0 8.0	8.0	32.6 32.6	32.6	92.6 91.1	91.9	6.3 6.2	6.3		9.6 8.1	8.9		8.2 8.1	8.2	
					Bottom	6	25.9 25.9	25.9	8.0 8.0	8.0	32.7 32.7	32.7	91.6 91.0	91.3	6.2 6.2	6.2	6.2	12.5 10.5	11.5		7.8 7.5	7.7	
8-Oct-11	Sunny	Moderate	11:44	7	Surface	1	26.6 26.5	26.6	8.0 8.0	8.0	32.9 32.9	32.9	93.9 93.8	93.9	6.3 6.3	6.3	6.2	6.9 7.2	7.1	12.9	9.6 9.7	9.7	16.6
					Middle	3.5	26.2 26.2	26.2	8.0 8.0	8.0	33.0 33.0	33.0	91.1 90.9	91.0	6.1 6.1	6.1		11.3 11.1	11.2		13.0 13.0	13.0	
					Bottom	6	26.1 26.1	26.1	8.0 8.0	8.0	33.0 33.0	33.0	89.2 89.1	89.2	6.0 6.0	6.0	6.0	20.7 20.0	20.4		27.0 27.0	27.0	
10-Oct-11	Cloudy	Moderate	12:27	7	Surface	1	26.4 26.4	26.4	7.9 8.0	8.0	31.7 31.9	31.8	96.0 95.1	95.6	6.5 6.4	6.5	6.5	4.0 4.4	4.2	9.0	9.7 9.4	9.6	9.3
					Middle	3.5	26.4 26.3	26.4	8.0 8.0	8.0	32.5 32.6	32.6	96.5 95.0	95.8	6.5 6.4	6.5		6.2 6.5	6.4		3.4 3.4	3.4	
					Bottom	6	26.3 26.3	26.3	8.0 8.0	8.0	32.7 32.7	32.7	93.7 92.8	93.3	6.3 6.2	6.3	6.3	16.5 16.3	16.4		15.0 15.0	15.0	
12-Oct-11	Rainy	Moderate	13:27	7	Surface	1	26.2 26.2	26.2	7.9 8.0	8.0	32.0 32.0	32.0	95.5 95.2	95.4	6.5 6.4	6.5	6.5	8.7 8.4	8.6	13.0	12.0 12.0	12.0	11.0
					Middle	3.5	26.1 26.1	26.1	8.0 8.0	8.0	32.4 32.3	32.4	94.8 94.8	94.8	6.4 6.4	6.4		11.0 10.7	10.9		10.0 10.0	10.0	
					Bottom	6	26.1 26.1	26.1	8.0 8.0	8.0	32.7 32.8	32.8	93.0 92.8	92.9	6.3 6.3	6.3	6.3	19.2 19.7	19.5		11.0 11.0	11.0	
14-Oct-11	Cloudy	Moderate	13:05	7.8	Surface	1	26.5 26.5	26.5	7.9 7.9	7.9	29.8 29.8	29.8	93.3 92.4	92.9	6.4 6.3	6.4	6.3	5.2 5.7	5.5	13.2	11.0 12.0	11.5	18.3
					Middle	4	26.4 26.4	26.4	7.9 7.9	7.9	30.8 30.7	30.8	91.3 90.7	91.0	6.2 6.2	6.2		7.7 7.3	7.5		13.0 13.0	13.0	
					Bottom	7	26.2 26.2	26.2	8.0 8.0	8.0	31.8 31.8	31.8	90.3 90.1	90.2	6.1 6.1	6.1	6.1	26.0 27.1	26.6		30.0 31.0	30.5	
16-Oct-11	Sunny	Moderate	14:47	7.9	Surface	1	26.5 26.5	26.5	8.0 8.0	8.0	30.7 30.7	30.7	77.2 76.3	76.8	5.2 5.2	5.2	5.0	4.9 4.8	4.9	15.4	8.5 8.6	8.6	12.5
					Middle	4	26.1 26.1	26.1	8.0 8.0	8.0	31.5 31.5	31.5	68.8 67.2	68.0	4.7 4.6	4.7		7.1 7.2	7.2		19.0 19.0	19.0	
					Bottom	7	25.9 25.9	25.9	8.0 8.0	8.0	33.1 33.1	33.1	57.4 56.3	56.9	3.9 3.8	3.9	3.9	34.8 33.3	34.1		9.7 9.9	9.8	
18-Oct-11	Sunny	Moderate	15:23	8	Surface	1	26.9 26.9	26.9	8.0 8.0	8.0	29.2 29.3	29.3	105.5 105.7	105.6	7.2 7.2	7.2	7.0	3.6 3.6	3.6	12.8	7.1 7.0	7.1	8.4
					Middle	4	26.0 26.0	26.0	8.0 8.0	8.0	31.2 31.2	31.2	97.3 98.5	97.9	6.6 6.7	6.7		10.4 10.1	10.3		10.0 10.0	10.0	
					Bottom	7	26.0 26.0	26.0	8.0 8.0	8.0	31.9 31.9	31.9	92.2 92.4	92.3	6.3 6.3	6.3	6.3	25.6 23.3	24.5		8.0 8.0	8.0	
22-Oct-11	Sunny	Moderate	08:40	8	Surface	1	26.1 26.1	26.1	8.2 8.2	8.2	28.9 28.9	28.9	142.2 142.1	142.2	9.8 9.8	9.8	9.3	2.8 3.0	2.9	5.6	14.0 14.0	14.0	11.6
					Middle	4	25.9 25.9	25.9	8.1 8.1	8.1	29.5 29.5	29.5	127.2 126.8	127.0	8.8 8.7	8.8		3.3 3.3	3.3		12.0 12.0	12.0	
					Bottom	7	25.9 25.9	25.9	8.0 8.0	8.0	32.1 32.1	32.1	105.4 105.2	105.3	7.2 7.1	7.2	7.2	10.4 10.6	10.5		8.7 8.6	8.7	
25-Oct-11	Sunny	Moderate	11:38	7.9	Surface	1	26.4 26.4	26.4	8.0 8.0	8.0	29.8 29.8	29.8	78.9 78.8	78.9	5.4 5.4	5.4	5.4	6.6 6.3	6.5	22.5	11.0 11.0	11.0	8.5
					Middle	4	26.4 26.4	26.4	8.0 8.0	8.0	31.0 31.1	31.1	78.4 78.5	78.5	5.4 5.4	5.4		6.6 6.5	6.6		6.0 6.1	6.1	
					Bottom	7	26.4 26.4	26.4	7.9 7.9	7.9	32.7 32.7	32.7	71.6 72.8	72.2	4.9 4.9	4.9	4.9	53.9 54.8	54.4		8.5 8.4	8.5	

Remarks: * DA: Depth-Averaged

** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at CS2 - Mid-Ebb Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
27-Oct-11	Cloudy	Moderate	12:30	7.9	Surface	1	26.0 26.0	26.0	8.2 8.2	8.2	30.4 31.5	31.0	91.5 91.5	91.5	6.9 6.9	6.9	6.6	5.4 5.4	5.4	8.5	8.6 8.5	8.6	9.8
					Middle	4	25.8 25.8	25.8	8.2 8.2	8.2	32.4 32.5	32.5	82.0 80.6	81.3	6.2 6.1	6.2		8.4 8.4	8.4		13.0 12.0	12.5	
					Bottom	7	25.8 25.8	25.8	8.2 8.2	8.2	32.6 32.6	32.6	76.0 75.2	75.6	5.7 5.7	5.7	5.7	11.3 11.8	11.6		8.2 8.3	8.3	
29-Oct-11	Sunny	Moderate	09:18	8	Surface	1	26.0 26.0	26.0	8.1 8.1	8.1	29.6 30.0	29.8	112.6 112.7	112.7	7.9 7.9	7.9	7.6	4.0 4.1	4.1	9.2	12.0 12.0	12.0	12.3
					Middle	4	25.6 25.6	25.6	8.1 8.1	8.1	31.1 31.1	31.1	101.8 101.6	101.7	7.2 7.1	7.2		7.6 7.5	7.6		13.0 13.0	13.0	
					Bottom	7	25.5 25.5	25.5	8.1 8.1	8.1	32.2 32.2	32.2	90.8 90.6	90.7	6.4 6.3	6.4	6.4	16.2 15.6	15.9		12.0 12.0	12.0	
31-Oct-11	Sunny	Moderate	15:40	7	Surface	1	25.7 25.7	25.7	8.1 8.1	8.1	31.9 31.9	31.9	102.2 101.9	102.1	7.0 7.0	7.0	6.9	9.5 9.4	9.5	26.8	18.0 18.0	18.0	17.0
					Middle	3.5	25.5 25.5	25.5	8.1 8.1	8.1	32.0 32.0	32.0	99.6 99.4	99.5	6.8 6.8	6.8		20.9 20.8	20.9		17.0 18.0	17.5	
					Bottom	6	25.5 25.5	25.5	8.1 8.1	8.1	32.0 32.0	32.0	97.7 97.4	97.6	6.7 6.7	6.7	6.7	49.3 50.7	50.0		16.0 15.0	15.5	

Remarks: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at CS2 - Mid-Flood Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
6-Oct-11	Fine	Moderate	17:50	7	Surface	1	26.1 26.1	26.1	8.0 8.0	8.0	32.8 32.9	32.9	92.7 91.3	92.0	6.2 6.1	6.2	6.2	19.4 18.7	19.1	22.1	16.0 16.0	16.0	22.0
					Middle	3.5	26.1 26.1	26.1	8.0 8.0	8.0	32.9 32.9	32.9	92.0 91.3	91.7	6.2 6.1	6.2		21.7 20.0	20.9		23.0 23.0	23.0	
					Bottom	6	26.1 26.1	26.1	8.0 8.0	8.0	32.9 32.9	32.9	91.6 91.1	91.4	6.2 6.1	6.2	6.2	27.6 24.8	26.2		27.0 27.0	27.0	
8-Oct-11	Sunny	Moderate	17:58	7	Surface	1	26.4 26.4	26.4	7.9 8.0	8.0	31.9 31.8	31.9	92.0 90.8	91.4	6.2 6.1	6.2	6.2	4.1 4.0	4.1	17.0	5.2 5.1	5.2	10.6
					Middle	3.5	26.2 26.3	26.3	8.0 8.0	8.0	32.5 32.3	32.4	89.9 90.4	90.2	6.1 6.1	6.1		12.5 12.4	12.5		7.2 7.3	7.3	
					Bottom	6	26.2 26.2	26.2	8.0 8.0	8.0	32.6 32.6	32.6	88.9 88.8	88.9	6.0 6.0	6.0	6.0	36.4 32.5	34.5		20.0 19.0	19.5	
10-Oct-11	Cloudy	Moderate	19:18	7	Surface	1	26.4 26.4	26.4	7.9 8.0	8.0	31.6 31.6	31.6	94.0 94.0	94.0	6.3 6.3	6.3	6.3	6.1 5.9	6.0	21.0	13.0 13.0	13.0	13.0
					Middle	3.5	26.4 26.4	26.4	8.0 8.0	8.0	32.2 32.2	32.2	93.3 93.2	93.3	6.3 6.3	6.3		20.7 21.1	20.9		15.0 15.0	15.0	
					Bottom	6	26.4 26.4	26.4	8.0 8.0	8.0	32.3 32.4	32.4	92.8 92.8	92.8	6.2 6.2	6.2	6.2	37.4 34.9	36.2		11.0 11.0	11.0	
12-Oct-11	Rainy	Moderate	18:47	7.2	Surface	1	26.3 26.3	26.3	7.9 7.9	7.9	30.9 30.9	30.9	92.9 92.4	92.7	6.3 6.3	6.3	6.3	6.8 6.7	6.8	20.9	11.0 11.0	11.0	22.0
					Middle	3.5	26.3 26.3	26.3	7.9 8.0	8.0	31.0 31.1	31.1	92.2 92.0	92.1	6.2 6.2	6.2		7.5 8.0	7.8		8.1 8.1	8.1	
					Bottom	6	26.2 26.2	26.2	8.0 8.0	8.0	32.1 32.1	32.1	92.6 92.4	92.5	6.3 6.2	6.3	6.3	51.3 44.6	48.0		47.0 47.0	47.0	
14-Oct-11	Cloudy	Moderate	08:11	7.4	Surface	1	26.5 26.5	26.5	7.8 7.9	7.9	27.8 27.8	27.8	87.2 86.8	87.0	6.0 6.0	6.0	6.1	6.1 7.0	6.6	36.9	8.2 7.9	8.1	9.4
					Middle	4	26.4 26.4	26.4	7.9 7.9	7.9	30.6 30.1	30.4	89.4 89.1	89.3	6.1 6.1	6.1		20.3 17.3	18.8		10.0 10.0	10.0	
					Bottom	7	26.3 26.3	26.3	7.9 8.0	8.0	31.2 31.2	31.2	89.2 89.1	89.2	6.0 6.0	6.0	6.0	86.1 84.5	85.3		10.0 10.0	10.0	
16-Oct-11	Sunny	Moderate	11:03	7.2	Surface	1	26.0 26.0	26.0	7.9 8.0	8.0	29.2 29.2	29.2	67.1 67.0	67.1	4.6 4.6	4.6	4.6	9.1 8.8	9.0	25.0	14.0 14.0	14.0	14.7
					Middle	4	26.0 26.0	26.0	8.0 8.0	8.0	30.4 30.5	30.5	66.6 66.7	66.7	4.6 4.6	4.6		9.1 9.0	9.1		12.0 11.0	11.5	
					Bottom	7	26.0 26.0	26.0	7.9 7.9	7.9	32.0 32.0	32.0	60.9 61.9	61.4	4.1 4.2	4.2	4.2	56.4 57.3	56.9		19.0 18.0	18.5	
18-Oct-11	Sunny	Moderate	11:32	7.3	Surface	1	26.2 26.2	26.2	7.9 8.0	8.0	29.2 29.3	29.3	94.1 93.9	94.0	6.5 6.4	6.5	6.4	5.1 5.5	5.3	28.6	8.5 8.5	8.5	10.2
					Middle	4	26.0 26.0	26.0	8.0 8.0	8.0	31.5 31.5	31.5	91.6 91.3	91.5	6.2 6.2	6.2		29.5 30.9	30.2		13.0 13.0	13.0	
					Bottom	7	26.0 26.0	26.0	8.0 8.0	8.0	31.5 31.7	31.6	91.0 90.8	90.9	6.2 6.2	6.2	6.2	50.2 50.5	50.4		9.2 9.1	9.2	
22-Oct-11	Sunny	Moderate	15:11	7.2	Surface	1	26.7 26.7	26.7	8.2 8.2	8.2	27.1 27.3	27.2	150.3 150.2	150.3	10.3 10.3	10.3	9.7	3.8 4.1	4.0	6.9	20.0 20.0	20.0	17.3
					Middle	3.5	26.4 26.4	26.4	8.1 8.1	8.1	29.1 28.9	29.0	129.7 130.8	130.3	8.9 9.0	9.0		6.2 6.1	6.2		22.0 22.0	22.0	
					Bottom	6	26.1 26.1	26.1	8.1 8.1	8.1	30.0 30.0	30.0	120.3 120.0	120.2	8.2 8.2	8.2	8.2	10.3 10.4	10.4		10.0 10.0	10.0	
25-Oct-11	Sunny	Moderate	16:45	7.2	Surface	1	26.9 26.9	26.9	8.0 8.0	8.0	30.1 30.2	30.2	96.5 95.4	96.0	6.5 6.5	6.5	6.2	1.6 1.5	1.6	12.1	21.0 20.0	20.5	23.3
					Middle	3.5	26.6 26.6	26.6	8.0 8.0	8.0	31.0 31.0	31.0	86.0 84.0	85.0	5.8 5.7	5.8		3.8 3.9	3.9		21.0 22.0	21.5	
					Bottom	6	26.3 26.3	26.3	7.9 7.9	7.9	32.8 32.8	32.8	71.8 70.4	71.1	4.8 4.8	4.8	4.8	31.5 30.0	30.8		28.0 28.0	28.0	

Remarks: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at CS2 - Mid-Flood Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
27-Oct-11	Cloudy	Moderate	07:20	8	Surface	1	26.0 26.0	26.0	8.1 8.1	8.1	30.3 30.3	30.3	102.2 101.2	101.7	7.8 7.7	7.8	7.4	10.0 9.2	9.6	20.2	12.0 12.0	12.0	14.7
					Middle	4	26.0 26.0	26.0	8.1 8.1	8.1	30.3 29.4	29.9	96.5 86.1	91.3	7.3 6.6	7.0		23.5 22.7	23.1		16.0 16.0	16.0	
					Bottom	7	26.0 26.0	26.0	8.1 8.1	8.1	30.4 30.4	30.4	77.9 77.6	77.8	5.9 5.9	5.9	5.9	26.5 29.2	27.9		16.0 16.0	16.0	
29-Oct-11	Sunny	Moderate	14:07	8.1	Surface	1	25.8 25.7	25.8	8.1 8.1	8.1	31.3 31.3	31.3	104.0 97.9	101.0	7.1 6.7	6.9	6.9	8.8 9.1	9.0	28.8	12.0 12.0	12.0	16.8
					Middle	4	25.5 25.5	25.5	8.1 8.1	8.1	31.8 31.8	31.8	99.5 97.5	98.5	6.8 6.7	6.8		19.5 21.9	20.7		25.0 26.0	25.5	
					Bottom	7	25.5 25.5	25.5	8.1 8.1	8.1	31.9 31.8	31.9	96.4 97.1	96.8	6.6 6.6	6.6	6.6	57.5 55.9	56.7		13.0 13.0	13.0	
31-Oct-11	Sunny	Moderate	11:19	7.1	Surface	1	25.9 25.9	25.9	8.0 8.0	8.0	30.1 30.1	30.1	102.5 101.5	102.0	7.0 7.0	7.0	7.0	8.6 8.8	8.7	34.4	8.9 8.9	8.9	14.3
					Middle	3.5	25.6 25.6	25.6	8.0 8.0	8.0	30.7 30.7	30.7	101.1 100.5	100.8	6.9 6.9	6.9		35.8 34.7	35.3		18.0 18.0	18.0	
					Bottom	6	25.6 25.6	25.6	8.0 8.0	8.0	30.7 30.7	30.7	100.2 99.4	99.8	6.9 6.8	6.9	6.9	59.1 59.3	59.2		16.0 16.0	16.0	

Remarks: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at SR1 - Mid-Ebb Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
6-Oct-11	Fine	Moderate	09:26	2.6	Surface	-	-	-	-	-	-	-	-	-	-	-	5.4	-	-	12.4		-	11.0
					Middle	1.3	25.4	25.4	8.0	8.0	32.4	32.4	79.6	79.3	5.4	5.4		12.6	12.4		11.0	11.0	
							25.4		8.0		32.4		79.0		5.4			12.1			11.0		
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	
							-		-		-		-		-			-					
8-Oct-11	Sunny	Moderate	11:35	2.4	Surface	-	-	-	-	-	-	-	-	-	-	-	6.6	-	-	10.9		-	11.0
					Middle	1.2	26.1	26.1	7.9	7.9	31.6	31.6	94.5	94.3	6.6	6.6		10.8	10.9		11.0	11.0	
							26.1		7.9		31.6		94.0		6.5			11.0			11.0		
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	
							-		-		-		-		-			-					
10-Oct-11	Cloudy	Moderate	12:57	2.5	Surface	-	-	-	-	-	-	-	-	-	-	-	6.6	-	-	16.5		-	15.5
					Middle	1.3	26.3	26.3	8.0	8.0	33.7	33.7	97.7	98.0	6.5	6.6		16.6	16.5		15.0	15.5	
							26.3		8.0		33.7		98.3		6.6			16.3			16.0		
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	
							-		-		-		-		-			-					
12-Oct-11	Rainy	Moderate	14:03	2.6	Surface	-	-	-	-	-	-	-	-	-	-	-	6.6	-	-	38.6		-	39.5
					Middle	1.3	26.2	26.2	7.9	7.9	33.0	33.1	78.4	79.2	6.5	6.6		38.4	38.6		39.0	39.5	
							26.1		7.9		33.1		80.0		6.7			38.8			40.0		
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	
							-		-		-		-		-			-					
14-Oct-11	Cloudy	Moderate	12:47	2.4	Surface	-	-	-	-	-	-	-	-	-	-	-	6.5	-	-	5.7		-	11.0
					Middle	1.2	26.3	26.3	7.5	7.5	22.6	22.5	91.8	91.7	6.5	6.5		5.9	5.7		11.0	11.0	
							26.3		7.5		22.4		91.5		6.5			5.5			11.0		
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	
							-		-		-		-		-			-					
16-Oct-11	Sunny	Moderate	14:32	3	Surface	1	26.2	26.2	7.8	7.8	25.4	25.4	96.8	97.1	6.8	6.8	6.8	6.3	6.4	6.7	13.0	13.0	11.2
					Middle	-	-	-	-	-	-	-	-	-	-	-		-	-		-	-	
							-		-		-		-		-			-			-		
					Bottom	2	26.2	26.2	7.8	7.8	25.7	25.7	96.4	96.2	6.7	6.7	6.7	6.9	6.9		9.3	9.5	
							26.2		7.8		25.7		96.0		6.7			6.8			9.6		
18-Oct-11	Sunny	Moderate	14:16	2	Surface	-	-	-	-	-	-	-	-	-	-	-	7.0	-	-	4.6		-	11.0
					Middle	1	28.0	27.8	7.1	7.1	27.1	27.1	91.1	91.3	6.9	7.0		4.3	4.6		11.0	11.0	
							27.6		7.1		27.1		91.5		7.0			4.8			11.0		
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	
							-		-		-		-		-			-					
22-Oct-11	Sunny	Moderate	08:01	2	Surface	-	-	-	-	-	-	-	-	-	-	-	6.7	-	-	7.7		-	7.0
					Middle	0.9	26.1	26.1	8.0	8.0	32.7	32.7	84.2	84.4	6.7	6.7		7.5	7.7		7.1	7.0	
							26.1		8.0		32.7		84.6		6.7			7.8			6.8		
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	
							-		-		-		-		-			-					
25-Oct-11	Sunny	Moderate	11:55	1.7	Surface	-	-	-	-	-	-	-	-	-	-	-	7.3	-	-	8.2		-	6.5
					Middle	0.8	26.2	26.2	8.1	8.1	30.1	29.7	90.0	90.4	7.2	7.3		9.0	8.2		6.4	6.5	
							26.2		8.1		29.3		90.7		7.3			7.4			6.6		
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	
							-		-		-		-		-			-					

Remarks: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at SR1 - Mid-Ebb Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
27-Oct-11	Cloudy	Moderate	12:55	2	Surface	-	-	-	-	-	-	-	-	-	-	-	7.7	-	-	8.4	-	-	12.5
					Middle	1	25.8 25.8	25.8	8.0 8.0	8.0	32.0 32.2	32.1	113.5 113.4	113.5	7.7 7.7	7.7		8.1 8.7	8.4		13.0 12.0	12.5	
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
29-Oct-11	Sunny	Moderate	14:10	2.3	Surface	-	-	-	-	-	-	-	-	-	-	-	10.5	-	-	14.4	-	-	15.0
					Middle	1.2	25.8 25.8	25.8	7.4 7.4	7.4	31.9 31.4	31.7	150.9 149.8	150.4	10.3 10.6	10.5		14.5 14.3	14.4		15.0 15.0	15.0	
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
31-Oct-11	Sunny	Moderate	15:45	2	Surface	-	-	-	-	-	-	-	-	-	-	-	7.4	-	-	17.7	-	-	16.5
					Middle	1	25.7 25.7	25.7	7.8 7.8	7.8	31.7 31.7	31.7	92.4 91.4	91.9	7.4 7.3	7.4		17.7 17.7	17.7		16.0 17.0	16.5	
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	

Remarks: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at SR1 - Mid-Flood Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
6-Oct-11	Fine	Moderate	17:40	2.6	Surface	-	-	-	-	-	-	-	-	-	-	-	5.3	-	-	19.2	-	-	10.0
					Middle	1.3	25.8 25.9	25.9	8.1 8.1	8.1	30.7 30.9	30.8	77.8 77.8	77.8	5.3 5.3	5.3		18.2 20.2	19.2		10.0 10.0	10.0	
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
8-Oct-11	Sunny	Moderate	17:36	2.7	Surface	-	-	-	-	-	-	-	-	-	-	-	6.5	-	-	19.7	-	-	26.5
					Middle	1.4	26.5 26.4	26.5	7.8 7.8	7.8	32.7 32.7	32.7	72.5 85.1	78.8	6.5 6.5	6.5		19.4 19.9	19.7		27.0 26.0	26.5	
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
10-Oct-11	Cloudy	Moderate	18:00	3.1	Surface	1	26.4 26.4	26.4	8.0 8.0	8.0	33.6 33.6	33.6	52.3 52.5	52.4	3.5 3.5	3.5	3.5	31.5 31.9	31.7	31.5	30.0 29.0	29.5	27.8
					Middle	-	-	-	-	-	-	-	-	-	-	-		-	-		-	-	
					Bottom	2	26.4 26.4	26.4	8.0 8.0	8.0	33.6 33.6	33.6	53.2 53.0	53.1	3.6 3.5	3.6	3.6	32.2 30.1	31.2		26.0 26.0	26.0	
12-Oct-11	Rainy	Moderate	18:41	2.6	Surface	-	-	-	-	-	-	-	-	-	-	-	6.6	-	-	37.2	-	-	31.5
					Middle	1.3	26.0 26.0	26.0	8.0 8.0	8.0	33.5 33.5	33.5	75.5 77.0	76.3	6.5 6.6	6.6		37.8 36.6	37.2		31.0 32.0	31.5	
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
14-Oct-11	Cloudy	Moderate	08:50	2.7	Surface	-	-	-	-	-	-	-	-	-	-	-	6.4	-	-	8.0	-	-	8.6
					Middle	1.4	26.2 26.2	26.2	7.8 7.8	7.8	22.5 22.9	22.7	89.8 89.7	89.8	6.4 6.4	6.4		8.0 7.9	8.0		8.6 8.6	8.6	
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
16-Oct-11	Sunny	Moderate	10:16	2.6	Surface	-	-	-	-	-	-	-	-	-	-	-	6.4	-	-	17.3	-	-	22.0
					Middle	1.3	25.6 25.6	25.6	7.8 7.8	7.8	26.9 26.9	26.9	90.9 90.9	90.9	6.4 6.4	6.4		17.4 17.1	17.3		22.0 22.0	22.0	
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
18-Oct-11	Sunny	Moderate	11:22	2	Surface	-	-	-	-	-	-	-	-	-	-	-	6.3	-	-	5.7	-	-	16.0
					Middle	1	26.0 26.0	26.0	7.8 7.8	7.8	26.8 26.7	26.8	82.1 82.4	82.3	6.2 6.3	6.3		5.4 6.0	5.7		16.0 16.0	16.0	
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
22-Oct-11	Sunny	Moderate	14:39	2	Surface	-	-	-	-	-	-	-	-	-	-	-	7.9	-	-	14.5	-	-	8.4
					Middle	1	26.4 26.4	26.4	8.0 8.0	8.0	32.1 32.1	32.1	97.5 100.6	99.1	7.7 8.0	7.9		14.2 14.8	14.5		8.5 8.3	8.4	
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
25-Oct-11	Sunny	Moderate	15:48	1.7	Surface	-	-	-	-	-	-	-	-	-	-	-	6.8	-	-	21.8	-	-	13.5
					Middle	0.8	26.1 26.1	26.1	8.0 8.0	8.0	31.4 31.4	31.4	85.5 85.3	85.4	6.8 6.8	6.8		21.6 22.0	21.8		13.0 14.0	13.5	
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	

Remarks: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at SR1 - Mid-Flood Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
27-Oct-11	Cloudy	Moderate	07:08	2.1	Surface	-	-	-	-	-	-	-	-	-	-	-	6.3	-	-	17.0	-	-	22.0
					Middle	1.1	25.6 25.6	25.6	8.1 8.1	8.1	32.9 32.9	32.9	93.1 93.1	93.1	6.3 6.3	6.3		17.1 16.9	17.0		22.0 22.0	22.0	
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
29-Oct-11	Sunny	Moderate	10:38	2.8	Surface	-	-	-	-	-	-	-	-	-	-	-	7.8	-	-	16.2	-	-	14.0
					Middle	1.4	25.6 25.6	25.6	8.0 8.0	8.0	31.5 31.5	31.5	114.1 114.1	114.1	7.8 7.8	7.8		16.2 16.2	16.2		14.0 14.0	14.0	
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
31-Oct-11	Sunny	Moderate	11:22	2.2	Surface	-	-	-	-	-	-	-	-	-	-	-	7.4	-	-	28.9	-	-	20.0
					Middle	1.1	25.5 25.5	25.5	8.0 8.0	8.0	32.5 32.5	32.5	92.0 91.5	91.8	7.4 7.3	7.4		27.9 29.8	28.9		20.0 20.0	20.0	
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	

Remarks: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at SR2 - Mid-Ebb Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
6-Oct-11	Fine	Moderate	08:30	2	Surface	-	-	-	-	-	-	-	-	-	-	-	6.2	-	-	16.1	-	-	53.0
					Middle	1.1	25.9 25.9	25.9	8.0 8.0	8.0	32.8 32.8	32.8	92.0 91.2	91.6	6.2 6.2	6.2		16.6 15.6	16.1		53.0 53.0	53.0	
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
8-Oct-11	Sunny	Moderate	10:43	2.2	Surface	-	-	-	-	-	-	-	-	-	-	-	6.1	-	-	11.6	-	-	12.0
					Middle	1.1	26.2 26.3	26.3	8.0 8.0	8.0	33.0 33.0	33.0	90.2 89.9	90.1	6.1 6.0	6.1		12.1 11.0	11.6		12.0 12.0	12.0	
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
10-Oct-11	Cloudy	Moderate	11:36	2.2	Surface	-	-	-	-	-	-	-	-	-	-	-	6.3	-	-	10.0	-	-	11.0
					Middle	1.1	26.3 26.3	26.3	8.0 8.0	8.0	32.7 32.7	32.7	94.3 94.2	94.3	6.3 6.3	6.3		10.1 9.9	10.0		11.0 11.0	11.0	
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
12-Oct-11	Rainy	Moderate	13:41	1.6	Surface	-	-	-	-	-	-	-	-	-	-	-	6.6	-	-	11.6	-	-	15.0
					Middle	0.9	26.1 26.1	26.1	7.7 7.7	7.7	27.0 27.0	27.0	94.3 94.2	94.3	6.6 6.6	6.6		11.6 11.5	11.6		15.0 15.0	15.0	
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
14-Oct-11	Cloudy	Moderate	13:45	2.2	Surface	-	-	-	-	-	-	-	-	-	-	-	6.3	-	-	8.6	-	-	7.3
					Middle	1.1	26.4 26.3	26.4	7.7 7.7	7.7	25.1 25.1	25.1	89.3 89.2	89.3	6.3 6.3	6.3		8.4 8.7	8.6		7.3 7.3	7.3	
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
16-Oct-11	Sunny	Moderate	15:21	1.8	Surface	-	-	-	-	-	-	-	-	-	-	-	6.7	-	-	20.0	-	-	12.0
					Middle	0.9	26.1 26.1	26.1	7.7 7.7	7.7	24.5 24.5	24.5	95.2 94.8	95.0	6.7 6.7	6.7		19.4 20.6	20.0		12.0 12.0	12.0	
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
18-Oct-11	Sunny	Moderate	15:25	2.3	Surface	-	-	-	-	-	-	-	-	-	-	-	6.2	-	-	8.8	-	-	17.0
					Middle	1.2	29.4 29.3	29.4	7.4 7.4	7.4	29.9 29.9	29.9	79.9 81.6	80.8	6.1 6.2	6.2		8.6 9.0	8.8		17.0 17.0	17.0	
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
22-Oct-11	Sunny	Moderate	07:10	1.9	Surface	-	-	-	-	-	-	-	-	-	-	-	7.4	-	-	3.9	-	-	7.0
					Middle	0.9	25.5 25.8	25.7	8.0 8.0	8.0	29.4 29.8	29.6	92.9 94.1	93.5	7.3 7.4	7.4		3.8 4.0	3.9		6.9 7.0	7.0	
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
25-Oct-11	Sunny	Moderate	10:55	1.7	Surface	-	-	-	-	-	-	-	-	-	-	-	7.3	-	-	5.1	-	-	8.4
					Middle	0.8	26.2 26.2	26.2	8.1 8.1	8.1	29.1 29.1	29.1	89.7 91.0	90.4	7.2 7.3	7.3		5.2 4.9	5.1		8.4 8.4	8.4	
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	

Remarks: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at SR2 - Mid-Ebb Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
27-Oct-11	Cloudy	Moderate	13:59	1.3	Surface	-	-	-	-	-	-	-	-	-	-	-	8.2	-	-	18.2	-	-	19.0
					Middle	0.6	26.1	26.1	8.0	8.0	32.2	32.2	121.6	121.7	8.2	8.2		17.6	18.2		19.0	19.0	
							26.1		8.0		32.2		121.8		8.2			18.7				
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
29-Oct-11	Sunny	Moderate	16:07	1.4	Surface	-	-	-	-	-	-	-	-	-	-	-	9.1	-	-	23.5	-	-	32.5
					Middle	0.6	26.3	26.3	8.0	8.0	31.6	31.7	131.1	131.1	8.9	9.1		23.7	23.5		33.0	32.5	
							26.2		8.0		31.7		131.0		9.2			23.2			32.0		
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
31-Oct-11	Sunny	Moderate	16:43	2.1	Surface	-	-	-	-	-	-	-	-	-	-	-	7.7	-	-	17.1	-	-	23.0
					Middle	1.1	25.6	25.6	8.0	8.0	32.3	32.3	96.8	96.4	7.7	7.7		16.5	17.1		23.0	23.0	
							25.6		8.0		32.3		96.0		7.7			17.7			23.0		
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	

Remarks: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at SR2 - Mid-Flood Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
6-Oct-11	Fine	Moderate	16:46	2.2	Surface	-	-	-	-	-	-	-	-	-	-	-	6.1	-	-	11.1	-	14.0	14.0
					Middle	1.2	26.0	26.0	8.0	8.0	32.0	32.3	89.7	89.5	6.1	6.1		11.4	11.1		14.0		
							26.0		8.0		32.5		89.3		6.0			10.7			14.0		
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
							-		-		-		-		-			-			-		
8-Oct-11	Sunny	Moderate	17:09	2	Surface	-	-	-	-	-	-	-	-	-	-	-	6.1	-	-	12.7	-	17.0	17.0
					Middle	1	26.6	26.6	8.0	8.0	32.8	32.8	90.9	90.8	6.1	6.1		12.6	12.7		17.0		
							26.6		8.0		32.8		90.7		6.1			12.7			17.0		
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
							-		-		-		-		-			-			-		
10-Oct-11	Cloudy	Moderate	18:40	2.2	Surface	-	-	-	-	-	-	-	-	-	-	-	6.3	-	-	8.0	-	13.0	13.0
					Middle	1.1	26.5	26.5	7.9	7.9	32.5	32.5	93.3	93.2	6.3	6.3		7.8	8.0		13.0		
							26.5		7.9		32.5		93.1		6.2			8.1			13.0		
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
							-		-		-		-		-			-			-		
12-Oct-11	Rainy	Moderate	18:41	1.9	Surface	-	-	-	-	-	-	-	-	-	-	-	6.5	-	-	13.4	-	8.5	8.5
					Middle	0.9	26.0	26.0	7.7	7.7	25.6	25.6	92.0	92.0	6.5	6.5		13.4	13.4		8.3	8.5	
							25.9		7.7		25.6		91.9		6.5			13.4			8.6		
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
							-		-		-		-		-			-			-		
14-Oct-11	Cloudy	Moderate	07:39	2.2	Surface	-	-	-	-	-	-	-	-	-	-	-	6.2	-	-	13.4	-	9.3	9.3
					Middle	1.1	26.2	26.2	7.7	7.7	25.6	25.5	88.9	88.9	6.2	6.2		14.1	13.4		9.1	9.3	
							26.2		7.7		25.4		88.8		6.2			12.7			9.5		
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
							-		-		-		-		-			-			-		
16-Oct-11	Sunny	Moderate	09:15	1.5	Surface	-	-	-	-	-	-	-	-	-	-	-	6.5	-	-	8.8	-	12.0	12.0
					Middle	0.7	25.9	25.9	7.7	7.7	24.3	24.3	91.3	91.3	6.5	6.5		8.8	8.8		12.0	12.0	
							25.9		7.7		24.3		91.3		6.5			8.7			12.0		
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
							-		-		-		-		-			-			-		
18-Oct-11	Sunny	Moderate	10:17	1.5	Surface	-	-	-	-	-	-	-	-	-	-	-	6.3	-	-	8.6	-	14.5	14.5
					Middle	0.7	26.7	26.7	7.8	7.8	24.9	24.9	81.5	82.0	6.2	6.3		8.5	8.6		15.0	14.5	
							26.7		7.8		24.9		82.5		6.3			8.6			14.0		
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
							-		-		-		-		-			-			-		
22-Oct-11	Sunny	Moderate	15:09	1.6	Surface	-	-	-	-	-	-	-	-	-	-	-	7.6	-	-	13.1	-	16.0	16.0
					Middle	0.8	26.8	26.8	8.2	8.2	30.1	30.1	92.2	95.4	7.3	7.6		12.9	13.1		16.0	16.0	
							26.8		8.2		30.1		98.5		7.8			13.3			16.0		
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
							-		-		-		-		-			-			-		
25-Oct-11	Sunny	Moderate	16:41	1.6	Surface	-	-	-	-	-	-	-	-	-	-	-	7.1	-	-	22.9	-	25.0	25.0
					Middle	0.8	26.5	26.5	8.1	8.1	30.2	30.2	87.9	88.2	7.0	7.1		23.5	22.9		25.0	25.0	
							26.5		8.1		30.2		88.4		7.1			22.2			25.0		
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
							-		-		-		-		-			-			-		

Remarks: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at SR2 - Mid-Flood Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
27-Oct-11	Cloudy	Moderate	06:11	1.5	Surface	-	-	-	-	-	-	-	-	-	-	-	6.5	-	-	19.5	-	-	31.0
							-		-		-		-		-			-			-		
					Middle	0.7	25.7	25.7	8.0	8.0	31.3	31.3	95.1	95.1	6.5	6.5		19.8	19.5		31.0	31.0	
							25.7		8.0		31.3		95.1		6.5			19.1			31.0		
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
							-		-		-		-		-			-			-		
29-Oct-11	Sunny	Moderate	09:09	2	Surface	-	-	-	-	-	-	-	-	-	-	-	7.4	-	-	22.9	-	-	32.5
							-		-		-		-		-			-			-		
					Middle	1	25.7	25.7	7.9	7.9	31.4	31.4	108.6	108.6	7.4	7.4		23.1	22.9		33.0	32.5	
							25.7		7.9		31.4		108.3		7.4			22.7			32.0		
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
							-		-		-		-		-			-			-		
31-Oct-11	Sunny	Moderate	10:22	1.8	Surface	-	-	-	-	-	-	-	-	-	-	-	7.2	-	-	19.5	-	-	23.5
							-		-		-		-		-			-			-		
					Middle	0.9	25.5	25.5	7.9	7.9	31.4	31.4	90.3	90.3	7.2	7.2		18.9	19.5		24.0	23.5	
							25.5		7.9		31.4		90.0		7.2			20.0			23.0		
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
							-		-		-		-		-			-			-		

Remarks: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at SR3 - Mid-Ebb Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
6-Oct-11	Fine	Moderate	08:03	2	Surface	-	-	-	-	-	-	-	-	-	-	-	6.0	-	-	7.3	-	-	15.5
					Middle	1.2	25.9 25.9	25.9	7.9 7.9	7.9	32.3 32.3	32.3	87.8 87.4	87.6	6.0 5.9	6.0		7.4 7.2	7.3		15.0 16.0	15.5	
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
8-Oct-11	Sunny	Moderate	10:21	2	Surface	-	-	-	-	-	-	-	-	-	-	-	6.0	-	-	4.6	-	-	7.4
					Middle	1	26.3 26.3	26.3	8.0 8.0	8.0	32.4 32.6	32.5	89.3 89.0	89.2	6.0 6.0	6.0		4.5 4.6	4.6		7.6 7.2	7.4	
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
10-Oct-11	Cloudy	Moderate	11:13	2.2	Surface	-	-	-	-	-	-	-	-	-	-	-	6.2	-	-	6.3	-	-	11.0
					Middle	1.1	26.6 26.6	26.6	7.9 7.9	7.9	32.2 32.2	32.2	92.0 92.1	92.1	6.2 6.2	6.2		6.4 6.1	6.3		11.0 11.0	11.0	
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
12-Oct-11	Rainy	Moderate	14:27	0.9	Surface	-	-	-	-	-	-	-	-	-	-	-	7.2	-	-	5.6	-	-	6.7
					Middle	0.5	26.1 26.1	26.1	7.7 7.7	7.7	23.1 22.3	22.7	100.8 99.9	100.4	7.2 7.1	7.2		5.5 5.6	5.6		6.6 6.7	6.7	
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
14-Oct-11	Cloudy	Moderate	13:53	2.2	Surface	-	-	-	-	-	-	-	-	-	-	-	6.4	-	-	9.1	-	-	10.0
					Middle	1.1	26.6 26.6	26.6	7.7 7.7	7.7	24.9 24.9	24.9	91.6 91.1	91.4	6.4 6.4	6.4		8.7 9.4	9.1		10.0 10.0	10.0	
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
16-Oct-11	Sunny	Moderate	15:30	1.3	Surface	-	-	-	-	-	-	-	-	-	-	-	6.8	-	-	14.1	-	-	13.0
					Middle	0.6	26.6 26.6	26.6	7.8 7.8	7.8	23.6 23.6	23.6	97.2 96.5	96.9	6.8 6.8	6.8		14.1 14.1	14.1		13.0 13.0	13.0	
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
18-Oct-11	Sunny	Moderate	15:33	2	Surface	-	-	-	-	-	-	-	-	-	-	-	6.5	-	-	7.0	-	-	16.0
					Middle	1.1	28.4 28.3	28.4	7.4 7.4	7.4	29.8 29.8	29.8	85.5 85.7	85.6	6.5 6.5	6.5		6.8 7.1	7.0		16.0 16.0	16.0	
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
22-Oct-11	Sunny	Moderate	07:03	2	Surface	-	-	-	-	-	-	-	-	-	-	-	7.4	-	-	9.2	-	-	12.5
					Middle	1.1	26.0 26.0	26.0	8.1 8.1	8.1	29.3 29.3	29.3	92.5 93.9	93.2	7.3 7.4	7.4		8.9 9.4	9.2		13.0 12.0	12.5	
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
25-Oct-11	Sunny	Moderate	10:49	1.7	Surface	-	-	-	-	-	-	-	-	-	-	-	7.2	-	-	8.4	-	-	8.3
					Middle	0.8	26.6 26.6	26.6	8.0 8.0	8.0	30.1 30.1	30.1	89.9 89.6	89.8	7.2 7.2	7.2		8.4 8.3	8.4		8.2 8.4	8.3	
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	

Remarks: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at SR3 - Mid-Ebb Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
27-Oct-11	Cloudy	Moderate	14:07	1	Surface	-	-	-	-	-	-	-	-	-	-	-	6.4	-	-	65.7	-	-	31.0
					Middle	0.4	26.3 26.3	26.3	8.0 8.0	8.0	31.4 31.4	31.4	94.7 93.5	94.1	6.4 6.3	6.4		65.3 66.1	65.7		31.0 31.0	31.0	
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
29-Oct-11	Sunny	Moderate	16:18	1.2	Surface	-	-	-	-	-	-	-	-	-	-	-	8.1	-	-	23.9	-	-	15.0
					Middle	0.6	26.4 26.4	26.4	8.0 8.0	8.0	31.6 31.6	31.6	120.6 120.5	120.6	8.1 8.1	8.1		23.8 23.9	23.9		15.0 15.0	15.0	
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
31-Oct-11	Sunny	Moderate	16:52	1.6	Surface	-	-	-	-	-	-	-	-	-	-	-	6.8	-	-	12.2	-	-	21.0
					Middle	0.8	26.1 26.0	26.1	8.0 8.0	8.0	31.5 28.5	30.0	83.4 84.8	84.1	6.7 6.8	6.8		11.6 12.7	12.2		21.0 21.0	21.0	
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	

Remarks: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at SR3 - Mid-Flood Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
6-Oct-11	Fine	Moderate	16:15	3	Surface	1	26.1 26.1	26.1	7.9 8.0	8.0	32.3 32.4	32.4	91.8 90.8	91.3	6.2 6.1	6.2	6.2	8.1 8.8	8.5	9.4	7.9 7.9	7.9	7.6
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	2	26.1 26.1	26.1	7.9 8.0	8.0	32.4 32.4	32.4	91.2 90.5	90.9	6.2 6.1	6.2	6.2	10.1 10.4	10.3		7.3 7.1	7.2	
8-Oct-11	Sunny	Moderate	16:47	2.2	Surface	-	- -	-	- -	-	- -	-	- -	-	- -	-	6.4	- -	-	9.7	- -	-	12.0
					Middle	1.1	26.4 26.4	26.4	8.0 8.0	8.0	32.6 32.6	32.6	95.7 95.6	95.7	6.4 6.4	6.4		10.1 9.2	9.7		12.0 12.0	12.0	
					Bottom	-	- -	-	- -	-	- -	-	- -	-	- -	-	-	- -	-		- -	-	
10-Oct-11	Cloudy	Moderate	18:19	2.2	Surface	-	- -	-	- -	-	- -	-	- -	-	- -	-	6.3	- -	-	8.5	- -	-	14.0
					Middle	1.1	26.7 26.7	26.7	7.9 8.0	8.0	32.3 32.3	32.3	93.9 93.8	93.9	6.3 6.3	6.3		8.6 8.3	8.5		14.0 14.0	14.0	
					Bottom	-	- -	-	- -	-	- -	-	- -	-	- -	-	-	- -	-		- -	-	
12-Oct-11	Rainy	Moderate	18:27	1.2	Surface	-	- -	-	- -	-	- -	-	- -	-	- -	-	6.6	- -	-	7.7	- -	-	11.5
					Middle	0.6	25.9 25.9	25.9	7.7 7.7	7.7	24.8 25.0	24.9	92.8 92.8	92.8	6.6 6.6	6.6		7.9 7.4	7.7		12.0 11.0	11.5	
					Bottom	-	- -	-	- -	-	- -	-	- -	-	- -	-	-	- -	-		- -	-	
14-Oct-11	Cloudy	Moderate	07:29	2.2	Surface	-	- -	-	- -	-	- -	-	- -	-	- -	-	6.2	- -	-	10.5	- -	-	16.5
					Middle	1.1	26.2 26.2	26.2	7.6 7.6	7.6	25.5 25.5	25.5	88.2 88.2	88.2	6.2 6.2	6.2		9.6 11.3	10.5		16.0 17.0	16.5	
					Bottom	-	- -	-	- -	-	- -	-	- -	-	- -	-	-	- -	-		- -	-	
16-Oct-11	Sunny	Moderate	08:54	1.1	Surface	-	- -	-	- -	-	- -	-	- -	-	- -	-	6.5	- -	-	8.5	- -	-	9.7
					Middle	0.5	26.0 26.0	26.0	7.6 7.6	7.6	23.9 23.9	23.9	91.2 90.8	91.0	6.5 6.4	6.5		8.4 8.5	8.5		9.8 9.5	9.7	
					Bottom	-	- -	-	- -	-	- -	-	- -	-	- -	-	-	- -	-		- -	-	
18-Oct-11	Sunny	Moderate	10:12	2	Surface	-	- -	-	- -	-	- -	-	- -	-	- -	-	6.5	- -	-	9.4	- -	-	14.5
					Middle	1.1	26.3 26.3	26.3	7.8 7.8	7.8	24.8 24.8	24.8	85.1 85.5	85.3	6.5 6.5	6.5		9.4 9.4	9.4		14.0 15.0	14.5	
					Bottom	-	- -	-	- -	-	- -	-	- -	-	- -	-	-	- -	-		- -	-	
22-Oct-11	Sunny	Moderate	15:16	1.6	Surface	-	- -	-	- -	-	- -	-	- -	-	- -	-	7.3	- -	-	10.3	- -	-	18.0
					Middle	0.8	26.7 26.7	26.7	8.3 8.3	8.3	29.6 29.6	29.6	95.9 89.1	92.5	7.6 7.0	7.3		9.9 10.7	10.3		18.0 18.0	18.0	
					Bottom	-	- -	-	- -	-	- -	-	- -	-	- -	-	-	- -	-		- -	-	
25-Oct-11	Sunny	Moderate	16:47	1.5	Surface	-	- -	-	- -	-	- -	-	- -	-	- -	-	7.1	- -	-	17.8	- -	-	28.0
					Middle	0.7	26.4 26.5	26.5	8.1 8.1	8.1	30.3 30.3	30.3	87.4 89.3	88.4	7.0 7.1	7.1		17.8 17.8	17.8		28.0 28.0	28.0	
					Bottom	-	- -	-	- -	-	- -	-	- -	-	- -	-	-	- -	-		- -	-	

Remarks: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at SR3 - Mid-Flood Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
27-Oct-11	Cloudy	Moderate	06:03	1.6	Surface	-	-	-	-	-	-	-	-	-	-	-	6.9	-	-	19.7	-	-	20.5
							-		-		-		-		-			-			-		
					Middle	0.8	25.8	25.8	8.0	8.0	31.1	31.1	100.8	100.7	6.9	6.9		19.5	19.7		21.0	20.5	
							25.8		8.0		31.1		100.5		6.9			19.9			20.0		
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
							-		-		-		-		-			-			-		
29-Oct-11	Sunny	Moderate	09:00	1.6	Surface	-	-	-	-	-	-	-	-	-	-	-	7.3	-	-	14.1	-	-	22.0
							-		-		-		-		-			-			-		
					Middle	0.8	25.6	25.7	7.9	7.9	31.3	31.3	105.8	106.1	7.2	7.3		15.1	14.1		22.0	22.0	
							25.7		7.9		31.3		106.3		7.3			13.0			22.0		
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
							-		-		-		-		-			-			-		
31-Oct-11	Sunny	Moderate	10:15	1.5	Surface	-	-	-	-	-	-	-	-	-	-	-	7.1	-	-	19.0	-	-	21.0
							-		-		-		-		-			-			-		
					Middle	0.7	25.7	25.7	7.9	7.9	31.4	31.4	89.1	88.8	7.1	7.1		19.0	19.0		21.0	21.0	
							25.7		7.9		31.4		88.5		7.1			18.9			21.0		
					Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	
							-		-		-		-		-			-			-		

Remarks: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at SR6 - Mid-Ebb Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
6-Oct-11	Fine	Moderate	07:50	7	Surface	1	25.6 25.6	25.6	8.0 8.1	8.1	32.2 32.2	32.2	84.5 84.4	84.5	5.8 5.7	5.8	5.8	9.2 10.3	9.8	10.7	16.0 16.0	16.0	12.7
					Middle	3.5	25.6 25.6	25.6	8.1 8.1	8.1	32.1 32.1	32.1	84.1 84.2	84.2	5.7 5.7	5.7		9.9 10.5	10.2		12.0 12.0	12.0	
					Bottom	6	25.6 25.6	25.6	8.1 8.1	8.1	32.1 32.2	32.2	83.9 84.1	84.0	5.7 5.7	5.7	5.7	11.3 12.7	12.0		10.0 10.0	10.0	
8-Oct-11	Sunny	Moderate	09:47	5	Surface	1	26.0 26.0	26.0	7.3 7.7	7.5	30.6 30.8	30.7	95.4 94.0	94.7	6.7 6.6	6.7	6.7	4.7 5.8	5.3	8.2	5.8 6.0	5.9	8.5
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4	25.9 25.9	25.9	7.7 7.8	7.8	31.0 31.1	31.1	92.7 92.5	92.6	6.5 6.5	6.5	6.5	10.8 11.1	11.0		11.0 11.0	11.0	
10-Oct-11	Cloudy	Moderate	11:20	5.1	Surface	1	26.4 26.4	26.4	7.8 7.8	7.8	32.4 32.1	32.3	106.9 99.4	103.2	7.2 6.7	7.0	7.0	6.2 6.7	6.5	9.3	8.5 8.5	8.5	7.7
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4	26.3 26.3	26.3	7.8 7.9	7.9	33.0 33.0	33.0	103.8 103.5	103.7	7.0 6.9	7.0	7.0	13.0 11.2	12.1		7.0 6.9	7.0	
12-Oct-11	Rainy	Moderate	12:11	5.3	Surface	1	26.1 26.1	26.1	7.9 7.9	7.9	32.8 32.7	32.8	90.2 86.3	88.3	6.4 6.2	6.3	6.3	15.2 17.6	16.4	17.3	19.0 19.0	19.0	18.3
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4	26.1 26.1	26.1	7.9 7.9	7.9	32.8 32.8	32.8	85.8 89.6	87.7	6.2 6.5	6.4	6.4	18.6 17.8	18.2		17.0 18.0	17.5	
14-Oct-11	Cloudy	Moderate	12:17	5	Surface	1	26.5 26.5	26.5	7.8 7.8	7.8	27.2 27.4	27.3	87.6 87.7	87.7	6.0 6.0	6.0	6.0	4.9 4.6	4.8	17.2	16.0 16.0	16.0	16.8
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4	26.4 26.4	26.4	7.9 7.9	7.9	30.8 30.7	30.8	88.8 88.5	88.7	6.0 6.0	6.0	6.0	29.4 29.8	29.6		17.0 18.0	17.5	
16-Oct-11	Sunny	Moderate	14:02	5.2	Surface	1	26.6 26.6	26.6	7.9 7.9	7.9	26.2 26.2	26.2	56.7 55.4	56.1	3.9 3.8	3.9	3.9	4.0 4.1	4.1	37.0	6.6 6.9	6.8	7.9
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4	26.0 26.0	26.0	8.0 8.0	8.0	32.0 32.0	32.0	46.1 45.9	46.0	3.1 3.1	3.1	3.1	70.4 69.2	69.8		8.9 9.2	9.1	
18-Oct-11	Sunny	Moderate	14:36	5.3	Surface	1	26.5 26.5	26.5	8.0 8.0	8.0	27.6 27.4	27.5	98.1 98.2	98.2	6.8 6.8	6.8	6.8	4.7 4.6	4.7	23.8	8.2 8.2	8.2	17.1
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4	26.1 26.1	26.1	8.0 8.0	8.0	30.7 30.7	30.7	92.3 92.1	92.2	6.3 6.3	6.3	6.3	43.0 42.7	42.9		26.0 26.0	26.0	
22-Oct-11	Sunny	Moderate	09:41	5.2	Surface	1	26.2 26.2	26.2	8.1 8.1	8.1	28.9 28.9	28.9	119.1 118.9	119.0	8.2 8.2	8.2	8.2	5.1 4.9	5.0	6.1	6.7 6.8	6.8	7.4
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4	26.0 26.0	26.0	8.0 8.1	8.1	31.0 30.7	30.9	107.7 108.3	108.0	7.3 7.4	7.4	7.4	7.3 7.0	7.2		8.0 8.0	8.0	
25-Oct-11	Sunny	Moderate	12:29	5.1	Surface	1	26.5 26.5	26.5	7.9 7.9	7.9	26.3 27.4	26.9	77.3 76.6	77.0	5.4 5.3	5.4	5.4	4.5 4.6	4.6	24.2	10.0 11.0	10.5	14.8
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4	26.5 26.5	26.5	7.9 7.9	7.9	31.5 31.5	31.5	77.8 76.7	77.3	5.3 5.2	5.3	5.3	43.4 44.1	43.8		19.0 19.0	19.0	

Remarks: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at SR6 - Mid-Ebb Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
27-Oct-11	Cloudy	Moderate	11:36	5.2	Surface	1	25.8 25.8	25.8	8.2 8.2	8.2	32.5 32.5	32.5	110.0 109.8	109.9	8.3 8.3	8.3	8.3	12.4 13.0	12.7	17.8	20.0 19.0	19.5	14.3
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4	25.8 25.8	25.8	8.2 8.2	8.2	32.5 32.5	32.5	96.3 95.5	95.9	7.3 7.2	7.3	7.3	22.5 23.2	22.9		9.2 9.1	9.2	
29-Oct-11	Sunny	Moderate	10:09	5.3	Surface	1	25.8 25.8	25.8	8.1 8.1	8.1	29.7 29.7	29.7	108.6 108.6	108.6	7.7 7.7	7.7	7.7	7.6 7.7	7.7	16.3	11.0 11.0	11.0	9.3
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4	25.6 25.6	25.6	8.1 8.1	8.1	31.4 31.3	31.4	98.4 98.3	98.4	6.9 6.9	6.9	6.9	24.9 24.9	24.9		7.5 7.8	7.7	
31-Oct-11	Sunny	Moderate	14:51	5	Surface	1	26.2 26.2	26.2	8.0 8.0	8.0	30.0 30.0	30.0	105.2 104.9	105.1	7.2 7.2	7.2	7.2	7.2 7.1	7.2	11.4	8.2 8.3	8.3	8.5
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4	25.5 25.5	25.5	8.1 8.1	8.1	31.0 31.0	31.0	102.0 101.9	102.0	7.0 7.0	7.0	7.0	15.2 15.9	15.6		8.8 8.8	8.8	

Remarks: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at SR6 - Mid-Flood Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
6-Oct-11	Fine	Moderate	15:50	4.9	Surface	1	26.1 26.1	26.1	7.9 7.9	7.9	30.6 30.6	30.6	78.3 78.2	78.3	5.3 5.3	5.3	5.3	4.9 5.0	5.0	7.6	4.8 4.9	4.9	5.5
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4	26.2 26.2	26.2	7.9 8.0	8.0	30.3 30.2	30.3	77.2 77.6	77.4	5.2 5.2	5.2	5.2	10.0 10.2	10.1		6.0 6.3	6.2	
8-Oct-11	Sunny	Moderate	15:36	5	Surface	1	26.2 26.2	26.2	7.4 7.6	7.5	33.9 31.7	32.8	95.4 96.3	95.9	6.8 6.8	6.8	6.8	9.5 9.2	9.4	15.0	8.9 8.9	8.9	13.0
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4	26.1 26.1	26.1	7.5 7.6	7.6	34.3 32.1	33.2	97.3 95.7	96.5	6.9 6.8	6.9	6.9	20.4 20.7	20.6		17.0 17.0	17.0	
10-Oct-11	Cloudy	Moderate	16:26	5	Surface	1	26.7 26.7	26.7	7.8 7.8	7.8	30.9 30.9	30.9	94.9 96.6	95.8	6.4 6.5	6.5	6.5	21.1 17.5	19.3	41.2	18.0 18.0	18.0	24.0
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4	26.5 26.5	26.5	7.8 7.8	7.8	31.6 31.7	31.7	91.7 92.0	91.9	6.2 6.2	6.2	6.2	65.8 60.3	63.1		30.0 30.0	30.0	
12-Oct-11	Rainy	Moderate	17:07	5	Surface	1	26.5 26.5	26.5	7.9 7.9	7.9	30.0 29.9	30.0	91.4 92.4	91.9	7.0 7.1	7.1	7.1	10.2 9.6	9.9	17.9	7.6 7.5	7.6	10.8
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4	26.3 26.3	26.3	7.9 7.9	7.9	31.8 31.8	31.8	96.9 88.9	92.9	7.4 7.0	7.2	7.2	26.9 24.6	25.8		14.0 14.0	14.0	
14-Oct-11	Cloudy	Moderate	09:09	5.3	Surface	1	26.5 26.5	26.5	7.8 7.8	7.8	27.0 26.9	27.0	85.4 85.0	85.2	5.9 5.9	5.9	5.9	6.4 6.7	6.6	41.6	9.7 9.9	9.8	9.5
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4	26.4 26.4	26.4	7.9 7.9	7.9	30.1 30.2	30.2	87.4 87.3	87.4	5.9 5.9	5.9	5.9	77.7 75.4	76.6		9.1 9.3	9.2	
16-Oct-11	Sunny	Moderate	11:50	5	Surface	1	26.1 26.1	26.1	7.9 7.9	7.9	26.0 27.0	26.5	65.7 65.1	65.4	4.6 4.5	4.6	4.6	6.0 7.1	6.6	45.7	8.0 8.0	8.0	10.0
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4	26.1 26.1	26.1	7.9 8.0	8.0	30.9 30.9	30.9	66.1 65.2	65.7	4.5 4.4	4.5	4.5	82.9 86.6	84.8		12.0 12.0	12.0	
18-Oct-11	Sunny	Moderate	12:22	5.2	Surface	1	26.5 26.5	26.5	7.9 7.9	7.9	26.8 26.8	26.8	92.8 92.2	92.5	6.4 6.4	6.4	6.4	3.9 4.0	4.0	14.2	6.3 6.5	6.4	6.3
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4	26.0 26.0	26.0	8.0 8.0	8.0	30.1 30.1	30.1	90.7 90.5	90.6	6.2 6.2	6.2	6.2	23.3 25.4	24.4		6.1 6.1	6.1	
22-Oct-11	Sunny	Moderate	14:19	5.3	Surface	1	26.5 26.6	26.6	8.1 8.1	8.1	28.0 27.7	27.9	138.3 135.3	136.8	9.5 9.3	9.4	9.4	5.3 5.0	5.2	7.3	13.0 13.0	13.0	13.0
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4	26.1 26.1	26.1	8.0 8.0	8.0	30.5 30.3	30.4	104.5 104.6	104.6	7.1 7.1	7.1	7.1	9.5 9.1	9.3		13.0 13.0	13.0	
25-Oct-11	Sunny	Moderate	15:51	5.2	Surface	1	27.0 27.0	27.0	7.9 8.0	8.0	27.1 27.1	27.1	70.9 69.3	70.1	4.9 4.8	4.9	4.9	4.0 4.1	4.1	24.7	12.0 12.0	12.0	17.3
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4	26.4 26.4	26.4	7.8 7.8	7.8	31.5 31.5	31.5	57.6 57.4	57.5	3.9 3.9	3.9	3.9	45.4 45.2	45.3		22.0 23.0	22.5	

Remarks: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at SR6 - Mid-Flood Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
27-Oct-11	Cloudy	Moderate	08:00	5.3	Surface	1	26.1 26.1	26.1	8.1 8.1	8.1	29.5 29.5	29.5	104.0 102.9	103.5	7.9 7.8	7.9	7.9	8.1 8.3	8.2	24.8	11.0 11.0	11.0	11.0
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4	25.8 25.8	25.8	8.2 8.2	8.2	31.8 31.8	31.8	93.3 91.1	92.2	7.1 6.9	7.0	7.0	42.1 40.6	41.4		11.0 11.0	11.0	
29-Oct-11	Sunny	Moderate	13:13	5.2	Surface	1	26.0 26.0	26.0	8.1 8.1	8.1	31.0 30.9	31.0	98.5 96.3	97.4	6.7 6.6	6.7	6.7	9.8 9.9	9.9	17.2	10.0 10.0	10.0	10.0
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4	25.6 25.6	25.6	8.1 8.1	8.1	31.6 31.7	31.7	96.5 95.9	96.2	6.6 6.6	6.6	6.6	23.8 24.9	24.4		10.0 10.0	10.0	
31-Oct-11	Sunny	Moderate	12:04	5.3	Surface	1	26.0 26.0	26.0	8.0 8.0	8.0	29.4 29.4	29.4	100.8 100.5	100.7	6.9 6.9	6.9	6.9	7.9 8.0	8.0	13.5	13.0 13.0	13.0	12.8
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4	25.5 25.5	25.5	8.1 8.1	8.1	31.0 31.1	31.1	101.1 101.3	101.2	7.0 7.0	7.0	7.0	18.3 19.4	18.9		12.0 13.0	12.5	

Remarks: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at ST1 - Mid-Ebb Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
6-Oct-11	Fine	Moderate	08:59	9	Surface	1	26.1 26.1	26.1	8.1 8.1	8.1	32.5 32.5	32.5	81.4 80.4	80.9	5.5 5.4	5.5	5.5	19.3 19.1	19.2	22.9	25.0 25.0	25.0	25.5
					Middle	4.5	26.1 26.1	26.1	8.1 8.1	8.1	31.5 31.4	31.5	81.3 80.4	80.9	5.5 5.4	5.5		22.6 24.5	23.6		28.0 28.0	28.0	
					Bottom	8	26.1 26.1	26.1	8.1 8.1	8.1	32.2 32.2	32.2	80.6 80.2	80.4	5.4 5.4	5.4	5.4	23.9 28.1	26.0		24.0 23.0	23.5	
8-Oct-11	Sunny	Moderate	10:33	10	Surface	1	26.3 26.3	26.3	7.9 7.9	7.9	31.6 31.6	31.6	96.2 94.9	95.6	6.7 6.6	6.7	6.7	6.1 6.3	6.2	16.3	4.7 4.9	4.8	9.5
					Middle	5	26.0 26.0	26.0	7.9 7.9	7.9	31.6 31.6	31.6	94.5 92.7	93.6	6.6 6.5	6.6		17.6 17.7	17.7		9.6 9.9	9.8	
					Bottom	9	25.9 25.9	25.9	7.9 7.9	7.9	31.6 31.6	31.6	92.9 92.0	92.5	6.5 6.4	6.5	6.5	24.6 25.1	24.9		14.0 14.0	14.0	
10-Oct-11	Cloudy	Moderate	12:00	10.1	Surface	1	26.2 26.2	26.2	8.0 7.9	8.0	33.3 33.3	33.3	102.9 103.3	103.1	6.9 6.9	6.9	6.8	9.3 9.8	9.6	27.8	9.5 9.2	9.4	12.0
					Middle	5	26.1 26.1	26.1	7.9 7.9	7.9	33.5 33.6	33.6	100.4 100.3	100.4	6.7 6.7	6.7		19.1 21.1	20.1		16.0 16.0	16.0	
					Bottom	9	26.1 26.1	26.1	7.9 7.9	7.9	33.6 33.6	33.6	99.0 99.9	99.5	6.6 6.7	6.7	6.7	55.8 51.4	53.6		10.0 11.0	10.5	
12-Oct-11	Rainy	Moderate	13:03	9.8	Surface	1	26.1 26.1	26.1	7.9 7.9	7.9	33.3 33.3	33.3	79.6 81.1	80.4	6.5 6.6	6.6	6.7	16.3 16.7	16.5	23.8	13.0 13.0	13.0	16.2
					Middle	5	26.0 26.0	26.0	7.9 7.9	7.9	33.6 33.6	33.6	81.7 82.9	82.3	6.6 6.7	6.7		20.0 20.3	20.2		16.0 15.0	15.5	
					Bottom	9	26.0 26.0	26.0	7.9 7.9	7.9	33.6 33.6	33.6	81.7 83.1	82.4	6.6 6.7	6.7	6.7	35.1 34.1	34.6		20.0 20.0	20.0	
14-Oct-11	Cloudy	Moderate	13:24	9	Surface	1	26.3 26.3	26.3	7.8 7.8	7.8	24.3 24.2	24.3	93.4 93.4	93.4	6.6 6.6	6.6	6.6	5.1 4.8	5.0	11.5	12.0 12.0	12.0	9.6
					Middle	4.5	26.1 26.1	26.1	7.8 7.8	7.8	25.5 25.5	25.5	92.3 92.1	92.2	6.5 6.5	6.5		7.6 6.9	7.3		11.0 11.0	11.0	
					Bottom	8	26.0 26.0	26.0	7.8 7.8	7.8	26.7 26.7	26.7	89.8 89.7	89.8	6.3 6.3	6.3	6.3	22.4 22.1	22.3		5.8 5.8	5.8	
16-Oct-11	Sunny	Moderate	14:54	10	Surface	1	26.3 26.4	26.4	7.8 7.8	7.8	25.0 24.9	25.0	95.0 95.1	95.1	6.7 6.7	6.7	6.6	5.8 5.8	5.8	8.7	15.0 15.0	15.0	10.1
					Middle	5	25.8 25.8	25.8	7.8 7.8	7.8	26.1 26.2	26.2	91.6 91.7	91.7	6.4 6.4	6.4		8.6 8.6	8.6		7.2 7.2	7.2	
					Bottom	9	25.8 25.8	25.8	7.8 7.8	7.8	26.3 26.3	26.3	91.3 91.1	91.2	6.4 6.4	6.4	6.4	11.5 11.9	11.7		8.2 8.1	8.2	
18-Oct-11	Sunny	Moderate	15:04	9.4	Surface	1	27.1 27.1	27.1	7.2 7.2	7.2	28.3 28.4	28.4	88.6 89.2	88.9	6.7 6.8	6.8	6.8	4.3 4.2	4.3	6.3	8.4 8.4	8.4	9.2
					Middle	4.5	27.4 27.7	27.6	7.2 7.2	7.2	29.1 29.2	29.2	88.4 86.8	87.6	6.7 6.6	6.7		5.7 5.6	5.7		8.1 8.2	8.2	
					Bottom	8	27.7 27.6	27.7	7.2 7.4	7.3	30.0 32.8	31.4	82.4 82.6	82.5	6.3 6.3	6.3	6.3	8.8 9.1	9.0		11.0 11.0	11.0	
22-Oct-11	Sunny	Moderate	07:29	9.2	Surface	1	25.8 25.8	25.8	8.1 8.1	8.1	29.8 29.9	29.9	94.8 94.4	94.6	7.5 7.5	7.5	7.7	4.0 4.0	4.0	6.2	9.7 9.5	9.6	9.4
					Middle	4.5	26.0 26.0	26.0	8.0 8.0	8.0	32.0 32.0	32.0	99.5 98.6	99.1	7.9 7.8	7.9		4.1 4.0	4.1		8.9 9.0	9.0	
					Bottom	8	25.9 25.9	25.9	8.0 8.0	8.0	32.8 33.0	32.9	95.1 92.8	94.0	7.5 7.3	7.4	7.4	9.4 11.4	10.4		9.7 9.8	9.8	
25-Oct-11	Sunny	Moderate	11:14	9.3	Surface	1	26.2 26.2	26.2	8.1 8.1	8.1	29.5 29.5	29.5	82.1 83.6	82.9	6.6 6.7	6.7	6.7	5.4 4.9	5.2	16.4	7.1 7.3	7.2	7.0
					Middle	4.5	26.0 26.0	26.0	8.0 8.0	8.0	32.2 32.2	32.2	84.3 82.7	83.5	6.7 6.6	6.7		6.6 7.1	6.9		5.6 5.5	5.6	
					Bottom	8	26.0 26.0	26.0	8.0 8.0	8.0	32.6 32.7	32.7	80.6 80.0	80.3	6.4 6.4	6.4	6.4	33.8 40.3	37.1		8.0 8.3	8.2	

Remarks: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at ST1 - Mid-Ebb Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
27-Oct-11	Cloudy	Moderate	13:33	9.2	Surface	1	26.2 26.2	26.2	8.1 8.1	8.1	32.2 32.2	32.2	100.7 101.3	101.0	6.8 6.8	6.8	6.8	6.6 6.7	6.7	16.2	8.1 8.3	8.2	8.3
					Middle	4.5	25.7 25.7	25.7	8.1 8.0	8.1	32.7 32.7	32.7	98.5 97.7	98.1	6.7 6.6	6.7		15.3 14.2	14.8		6.8 7.0	6.9	
					Bottom	8	25.7 25.7	25.7	8.1 8.1	8.1	32.7 32.7	32.7	97.1 96.8	97.0	6.6 6.6	6.6	6.6	25.2 29.2	27.2		9.7 9.8	9.8	
29-Oct-11	Sunny	Moderate	15:24	10	Surface	1	25.5 25.5	25.5	8.1 8.1	8.1	32.7 32.4	32.6	137.5 137.5	137.5	9.7 9.4	9.6	9.1	11.9 11.9	11.9	19.4	10.0 10.0	10.0	18.7
					Middle	5	25.5 25.5	25.5	8.1 8.1	8.1	32.4 32.4	32.4	126.4 126.8	126.6	8.6 8.6	8.6		13.5 13.5	13.5		30.0 29.0	29.5	
					Bottom	9	25.5 25.5	25.5	8.1 8.1	8.1	32.6 32.6	32.6	126.9 126.1	126.5	8.6 8.6	8.6	8.6	32.6 32.7	32.7		17.0 16.0	16.5	
31-Oct-11	Sunny	Moderate	16:21	10	Surface	1	25.7 25.8	25.8	8.0 8.0	8.0	32.3 32.3	32.3	88.0 86.5	87.3	7.0 6.9	7.0	7.0	7.2 7.2	7.2	8.6	22.0 22.0	22.0	16.0
					Middle	5	25.6 25.6	25.6	8.0 8.0	8.0	32.5 32.5	32.5	85.8 85.6	85.7	6.9 6.9	6.9		7.1 7.1	7.1		12.0 12.0	12.0	
					Bottom	9	25.5 25.5	25.5	8.0 8.0	8.0	32.8 32.8	32.8	84.3 83.1	83.7	6.7 6.7	6.7	6.7	11.4 11.3	11.4		14.0 14.0	14.0	

Remarks: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at ST1 - Mid-Flood Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
6-Oct-11	Fine	Moderate	16:41	9	Surface	1	26.1 26.1	26.1	8.1 8.1	8.1	31.7 31.8	31.8	81.5 81.1	81.3	5.5 5.5	5.5	5.5	13.1 12.8	13.0	19.0	17.0 16.0	16.5	15.8
					Middle	4.5	26.1 26.1	26.1	8.1 8.1	8.1	32.0 31.9	32.0	81.1 81.0	81.1	5.5 5.5	5.5		16.7 18.3	17.5		15.0 15.0	15.0	
					Bottom	8	26.1 26.1	26.1	8.1 8.1	8.1	30.3 30.4	30.4	81.0 80.9	81.0	5.5 5.5	5.5	5.5	27.1 25.8	26.5		16.0 16.0	16.0	
8-Oct-11	Sunny	Moderate	16:31	9.2	Surface	1	26.4 26.3	26.4	7.8 7.8	7.8	31.8 32.2	32.0	98.9 94.4	96.7	7.0 6.7	6.9	6.9	5.4 5.4	5.4	8.8	7.2 7.1	7.2	7.6
					Middle	4.5	26.2 26.1	26.2	7.8 7.8	7.8	32.1 32.3	32.2	97.3 95.6	96.5	6.9 6.8	6.9		8.5 8.1	8.3		7.2 7.0	7.1	
					Bottom	8	26.1 26.1	26.1	7.8 7.8	7.8	32.3 32.4	32.4	95.2 92.7	94.0	6.8 6.6	6.7	6.7	12.6 12.9	12.8		8.4 8.4	8.4	
10-Oct-11	Cloudy	Moderate	17:03	10	Surface	1	26.4 26.4	26.4	7.9 7.9	7.9	32.4 32.4	32.4	99.1 99.6	99.4	6.7 6.7	6.7	6.5	9.0 9.9	9.5	15.9	14.0 15.0	14.5	13.8
					Middle	5	26.4 26.4	26.4	7.9 7.9	7.9	32.5 32.5	32.5	94.6 92.6	93.6	6.3 6.2	6.3		18.1 19.6	18.9		12.0 12.0	12.0	
					Bottom	9	26.3 26.3	26.3	7.9 7.9	7.9	33.0 33.0	33.0	95.1 93.4	94.3	6.4 6.3	6.4	6.4	19.6 19.2	19.4		15.0 15.0	15.0	
12-Oct-11	Rainy	Moderate	17:55	9.5	Surface	1	26.3 26.3	26.3	7.9 7.9	7.9	31.1 31.3	31.2	89.8 77.2	83.5	6.9 6.0	6.5	6.6	9.7 9.9	9.8	26.3	13.0 13.0	13.0	14.3
					Middle	5	26.2 26.2	26.2	7.9 8.0	8.0	32.4 32.6	32.5	88.8 82.1	85.5	6.8 6.5	6.7		11.6 13.8	12.7		11.0 11.0	11.0	
					Bottom	9	26.1 26.1	26.1	8.0 8.0	8.0	33.0 33.0	33.0	86.0 80.5	83.3	6.8 6.4	6.6	6.6	58.3 54.5	56.4		19.0 19.0	19.0	
14-Oct-11	Cloudy	Moderate	08:03	9	Surface	1	26.3 26.3	26.3	7.7 7.7	7.7	24.1 24.4	24.3	88.2 88.1	88.2	6.2 6.2	6.2	6.2	7.0 7.6	7.3	13.9	15.0 16.0	15.5	11.4
					Middle	4.5	26.3 26.3	26.3	7.7 7.7	7.7	25.5 25.5	25.5	88.8 88.9	88.9	6.2 6.2	6.2		9.8 12.2	11.0		7.7 7.5	7.6	
					Bottom	8	26.2 26.2	26.2	7.7 7.7	7.7	25.9 25.9	25.9	89.6 89.7	89.7	6.3 6.3	6.3	6.3	23.5 23.1	23.3		11.0 11.0	11.0	
16-Oct-11	Sunny	Moderate	09:49	9.2	Surface	1	25.8 25.8	25.8	7.8 7.8	7.8	24.6 24.5	24.6	91.0 90.5	90.8	6.5 6.4	6.5	6.5	6.5 6.5	6.5	26.1	11.0 11.0	11.0	10.7
					Middle	4.5	25.8 25.8	25.8	7.8 7.8	7.8	25.5 25.7	25.6	90.1 90.1	90.1	6.4 6.3	6.4		8.8 9.7	9.3		11.0 11.0	11.0	
					Bottom	8	25.8 25.8	25.8	7.8 7.8	7.8	26.7 26.7	26.7	90.1 90.2	90.2	6.3 6.3	6.3	6.3	60.0 65.2	62.6		10.0 9.9	10.0	
18-Oct-11	Sunny	Moderate	10:38	9.3	Surface	1	26.0 26.0	26.0	7.7 7.8	7.8	25.8 25.8	25.8	88.2 88.8	88.5	6.7 6.8	6.8	6.6	3.4 3.4	3.4	6.4	11.0 11.0	11.0	9.9
					Middle	4.5	25.9 25.9	25.9	7.7 7.7	7.7	26.5 26.6	26.6	83.9 82.7	83.3	6.4 6.3	6.4		4.2 5.0	4.6		9.1 9.1	9.1	
					Bottom	8	25.8 25.8	25.8	7.7 7.7	7.7	27.3 27.3	27.3	89.2 85.9	87.6	6.8 6.5	6.7	6.7	10.9 11.5	11.2		9.7 9.6	9.7	
22-Oct-11	Sunny	Moderate	14:50	10.1	Surface	1	26.4 26.4	26.4	8.1 8.1	8.1	27.3 27.2	27.3	90.6 94.8	92.7	7.2 7.5	7.4	7.5	18.7 19.6	19.2	20.4	13.0 12.0	12.5	11.0
					Middle	5	26.0 25.9	26.0	8.0 8.0	8.0	32.2 32.2	32.2	94.1 94.3	94.2	7.4 7.5	7.5		11.9 13.2	12.6		11.0 12.0	11.5	
					Bottom	9	25.9 25.9	25.9	8.0 8.0	8.0	32.4 32.4	32.4	94.6 94.3	94.5	7.5 7.5	7.5	7.5	30.5 28.3	29.4		8.9 8.9	8.9	
25-Oct-11	Sunny	Moderate	16:10	9.2	Surface	1	26.4 26.4	26.4	8.0 8.0	8.0	29.7 29.7	29.7	88.1 89.0	88.6	7.0 7.1	7.1	7.3	5.5 5.9	5.7	11.1	8.8 9.1	9.0	8.4
					Middle	4.5	26.3 26.2	26.3	8.0 8.0	8.0	30.6 30.9	30.8	92.3 92.0	92.2	7.4 7.4	7.4		7.5 8.3	7.9		8.9 8.9	8.9	
					Bottom	8	26.1 26.1	26.1	8.0 8.1	8.1	31.8 31.9	31.9	88.7 87.4	88.1	7.1 7.0	7.1	7.1	19.1 20.1	19.6		7.3 7.3	7.3	

Remarks: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at ST1 - Mid-Flood Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
27-Oct-11	Cloudy	Moderate	06:32	9.2	Surface	1	25.8 25.8	25.8	8.0 8.0	8.0	31.1 31.1	31.1	94.9 94.8	94.9	6.5 6.5	6.5	6.5	9.6 9.4	9.5	14.8	16.0 16.0	16.0	14.8
					Middle	4.5	25.8 25.8	25.8	8.0 8.0	8.0	31.1 31.2	31.2	95.7 95.6	95.7	6.5 6.5	6.5		9.3 9.5	9.4		16.0 16.0	16.0	
					Bottom	8	25.8 25.8	25.8	8.1 8.1	8.1	31.4 31.4	31.4	96.5 96.3	96.4	6.6 6.6	6.6	6.6	25.2 26.0	25.6		13.0 12.0	12.5	
29-Oct-11	Sunny	Moderate	09:41	10.2	Surface	1	25.5 25.5	25.5	8.0 8.0	8.0	31.3 31.3	31.3	109.1 109.1	109.1	7.5 7.5	7.5	7.5	25.2 23.1	24.2	34.7	12.0 12.0	12.0	15.0
					Middle	5	25.5 25.5	25.5	8.0 8.0	8.0	31.7 31.8	31.8	107.7 107.7	107.7	7.4 7.4	7.4		26.3 27.4	26.9		19.0 19.0	19.0	
					Bottom	9	25.5 25.5	25.5	8.1 8.1	8.1	32.4 32.4	32.4	106.1 105.9	106.0	7.2 7.2	7.2	7.2	50.7 55.2	53.0		14.0 14.0	14.0	
31-Oct-11	Sunny	Moderate	10:48	9.3	Surface	1	25.5 25.5	25.5	8.0 8.0	8.0	31.7 31.7	31.7	93.1 96.5	94.8	7.5 7.7	7.6	7.3	8.8 9.3	9.1	14.8	18.0 18.0	18.0	20.0
					Middle	4.5	25.3 25.3	25.3	8.0 8.0	8.0	31.8 31.8	31.8	82.9 89.9	86.4	6.6 7.2	6.9		12.9 14.9	13.9		25.0 25.0	25.0	
					Bottom	8	25.3 25.3	25.3	8.0 8.0	8.0	31.8 31.8	31.8	84.5 88.0	86.3	6.8 7.0	6.9	6.9	20.9 21.6	21.3		17.0 17.0	17.0	

Remarks: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at ST2 - Mid-Ebb Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
6-Oct-11	Fine	Moderate	08:15	9	Surface	1	26.0 26.0	26.0	8.1 8.1	8.1	32.2 32.2	32.2	83.0 81.5	82.3	5.6 5.5	5.6	5.6	15.2 14.9	15.1	15.4	14.0 14.0	14.0	14.2
					Middle	4.5	26.0 26.0	26.0	8.1 8.1	8.1	31.8 31.8	31.8	82.4 81.6	82.0	5.6 5.5	5.6		11.8 12.1	12.0		15.0 15.0	15.0	
					Bottom	8	26.0 26.0	26.0	8.1 8.1	8.1	32.2 32.2	32.2	81.0 81.5	81.3	5.5 5.5	5.5	5.5	19.3 18.8	19.1		14.0 13.0	13.5	
8-Oct-11	Sunny	Moderate	10:03	8.2	Surface	1	26.2 26.2	26.2	7.8 7.9	7.9	31.1 31.1	31.1	96.0 94.2	95.1	6.7 6.5	6.6	6.6	6.7 7.3	7.0	9.5	19.0 20.0	19.5	13.5
					Middle	4	25.9 25.9	25.9	7.8 7.9	7.9	31.1 31.1	31.1	93.9 94.0	94.0	6.6 6.6	6.6		7.9 7.9	7.9		11.0 11.0	11.0	
					Bottom	7	25.9 25.9	25.9	7.8 7.9	7.9	31.1 31.1	31.1	92.6 92.8	92.7	6.5 6.5	6.5	6.5	13.6 13.8	13.7		10.0 10.0	10.0	
10-Oct-11	Cloudy	Moderate	11:34	9	Surface	1	26.3 26.3	26.3	7.9 7.9	7.9	33.4 33.4	33.4	104.4 104.3	104.4	7.0 7.0	7.0	7.0	9.9 9.4	9.7	14.3	11.0 11.0	11.0	12.0
					Middle	4.5	26.2 26.2	26.2	7.9 7.9	7.9	33.5 33.5	33.5	102.0 102.7	102.4	6.8 6.9	6.9		14.1 12.3	13.2		13.0 13.0	13.0	
					Bottom	8	26.1 26.1	26.1	7.9 7.9	7.9	33.5 33.5	33.5	101.6 101.2	101.4	6.8 6.8	6.8	6.8	20.8 19.1	20.0		12.0 12.0	12.0	
12-Oct-11	Rainy	Moderate	12:30	8.3	Surface	1	26.1 26.1	26.1	7.9 7.9	7.9	33.0 33.0	33.0	80.7 81.3	81.0	6.2 6.3	6.3	6.3	13.9 13.4	13.7	18.2	17.0 17.0	17.0	16.8
					Middle	4	26.0 26.0	26.0	7.9 7.9	7.9	33.4 33.4	33.4	81.7 79.2	80.5	6.3 6.1	6.2		16.3 16.2	16.3		17.0 17.0	17.0	
					Bottom	7	26.0 26.0	26.0	7.9 7.9	7.9	33.6 33.6	33.6	76.8 78.9	77.9	6.0 6.1	6.1	6.1	24.9 24.5	24.7		16.0 17.0	16.5	
14-Oct-11	Cloudy	Moderate	12:45	8	Surface	1	26.5 26.5	26.5	7.9 7.9	7.9	29.3 29.4	29.4	93.0 92.3	92.7	6.3 6.3	6.3	6.2	5.0 5.3	5.2	14.2	8.9 8.7	8.8	8.1
					Middle	4	26.4 26.4	26.4	7.9 8.0	8.0	31.3 31.3	31.3	90.3 90.3	90.3	6.1 6.1	6.1		15.3 14.2	14.8		7.0 6.7	6.9	
					Bottom	7	26.3 26.3	26.3	8.0 8.0	8.0	31.6 31.6	31.6	90.0 89.8	89.9	6.1 6.1	6.1	6.1	22.9 22.2	22.6		8.7 8.6	8.7	
16-Oct-11	Sunny	Moderate	14:28	9.1	Surface	1	26.2 26.2	26.2	8.0 8.0	8.0	31.2 31.1	31.2	66.6 65.6	66.1	4.5 4.5	4.5	4.2	8.8 8.9	8.9	22.2	14.0 14.0	14.0	12.8
					Middle	4.5	25.8 25.8	25.8	8.0 8.0	8.0	32.7 32.7	32.7	58.0 54.2	56.1	3.9 3.7	3.8		20.8 20.7	20.8		7.4 7.5	7.5	
					Bottom	8	25.8 25.8	25.8	8.0 8.0	8.0	33.0 33.0	33.0	51.4 50.3	50.9	3.5 3.4	3.5	3.5	36.8 36.9	36.9		17.0 17.0	17.0	
18-Oct-11	Sunny	Moderate	15:06	8.2	Surface	1	26.4 26.6	26.5	8.0 8.0	8.0	29.5 29.2	29.4	103.5 103.4	103.5	7.1 7.1	7.1	6.8	4.5 4.0	4.3	13.2	3.3 3.4	3.4	4.3
					Middle	4	26.0 26.0	26.0	8.0 8.0	8.0	31.7 31.7	31.7	95.4 94.0	94.7	6.5 6.4	6.5		10.4 10.8	10.6		4.2 4.1	4.2	
					Bottom	7	26.0 26.0	26.0	8.0 8.0	8.0	31.8 31.8	31.8	92.8 92.6	92.7	6.3 6.3	6.3	6.3	24.6 24.8	24.7		5.5 5.5	5.5	
22-Oct-11	Sunny	Moderate	09:01	8.2	Surface	1	26.1 26.1	26.1	8.2 8.2	8.2	28.0 28.0	28.0	147.4 147.5	147.5	10.2 10.2	10.2	9.3	2.4 2.2	2.3	15.0	12.0 11.0	11.5	7.3
					Middle	4	26.0 26.0	26.0	8.1 8.1	8.1	29.2 29.3	29.3	118.5 120.6	119.6	8.2 8.3	8.3		3.3 3.4	3.4		5.3 5.2	5.3	
					Bottom	7	25.9 25.9	25.9	8.0 8.0	8.0	32.1 32.1	32.1	104.1 103.9	104.0	7.1 7.1	7.1	7.1	36.4 42.1	39.3		5.3 5.1	5.2	
25-Oct-11	Sunny	Moderate	11:58	8.3	Surface	1	26.4 26.4	26.4	8.0 8.0	8.0	29.3 29.4	29.4	77.9 72.4	75.2	5.4 5.0	5.2	5.1	4.7 4.8	4.8	21.1	5.6 5.5	5.6	7.8
					Middle	4	26.3 26.3	26.3	7.9 7.9	7.9	32.9 32.9	32.9	73.9 73.6	73.8	5.0 5.0	5.0		20.7 21.2	21.0		10.0 10.0	10.0	
					Bottom	7	26.3 26.3	26.3	7.9 7.9	7.9	33.0 33.0	33.0	66.0 65.4	65.7	4.5 4.4	4.5	4.5	37.1 38.0	37.6		7.7 7.8	7.8	

Remarks: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at ST2 - Mid-Ebb Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
27-Oct-11	Cloudy	Moderate	12:13	9	Surface	1	25.9 25.9	25.9	8.2 8.2	8.2	32.1 32.1	32.1	80.8 80.0	80.4	6.1 6.0	6.1	5.9	6.4 6.5	6.5	8.7	7.3 7.2	7.3	8.4
					Middle	4.5	25.8 25.8	25.8	8.2 8.2	8.2	32.4 31.1	31.8	73.7 73.0	73.4	5.6 5.5	5.6		9.2 9.2	9.2		9.1 8.9	9.0	
					Bottom	8	25.8 25.8	25.8	8.2 8.2	8.2	32.5 31.3	31.9	68.0 68.1	68.1	5.1 5.2	5.2	5.2	10.3 10.3	10.3		8.9 8.7	8.8	
29-Oct-11	Sunny	Moderate	09:38	9.1	Surface	1	25.8 25.9	25.9	8.1 8.1	8.1	30.0 29.9	30.0	110.2 109.9	110.1	7.8 7.7	7.8	7.3	4.6 4.3	4.5	12.6	8.5 8.2	8.4	8.7
					Middle	4.5	25.6 25.6	25.6	8.1 8.1	8.1	31.1 30.8	31.0	95.5 95.5	95.5	6.7 6.7	6.7		7.8 8.0	7.9		6.8 6.6	6.7	
					Bottom	8	25.5 25.5	25.5	8.1 8.1	8.1	32.1 31.8	32.0	88.0 87.9	88.0	6.1 6.1	6.1	6.1	24.4 26.4	25.4		11.0 11.0	11.0	
31-Oct-11	Sunny	Moderate	15:22	8.2	Surface	1	25.5 25.7	25.6	8.1 8.1	8.1	31.9 31.9	31.9	106.3 105.4	105.9	7.3 7.2	7.3	7.3	11.5 11.2	11.4	33.8	7.1 7.0	7.1	8.5
					Middle	4	25.5 25.5	25.5	8.1 8.1	8.1	31.9 31.9	31.9	105.5 105.5	105.5	7.2 7.2	7.2		40.8 39.0	39.9		10.0 11.0	10.5	
					Bottom	7	25.5 25.5	25.5	8.1 8.1	8.1	32.0 32.0	32.0	105.2 105.1	105.2	7.2 7.2	7.2	7.2	50.5 49.9	50.2		8.0 8.0	8.0	

Remarks: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at ST2 - Mid-Flood Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
6-Oct-11	Fine	Moderate	16:10	7.9	Surface	1	26.0 26.0	26.0	8.0 8.0	8.0	30.6 30.6	30.6	80.7 80.3	80.5	5.5 5.4	5.5	5.5	7.2 7.1	7.2	12.4	7.3 7.2	7.3	8.9
					Middle	4	25.9 25.9	25.9	8.0 8.0	8.0	31.0 30.9	31.0	80.9 80.7	80.8	5.5 5.5	5.5		7.5 7.6	7.6		9.3 9.4	9.4	
					Bottom	7	25.8 25.8	25.8	8.0 8.0	8.0	30.1 30.1	30.1	81.3 81.2	81.3	5.5 5.5	5.5	5.5	21.1 23.6	22.4		10.0 10.0	10.0	
8-Oct-11	Sunny	Moderate	15:55	7.7	Surface	1	26.4 26.5	26.5	7.7 7.7	7.7	31.4 31.2	31.3	90.3 90.0	90.2	6.5 6.5	6.5	6.6	8.1 8.4	8.3	8.8	5.7 5.6	5.7	8.8
					Middle	4	26.2 26.2	26.2	7.6 7.7	7.7	31.7 31.9	31.8	92.5 91.5	92.0	6.6 6.6	6.6		5.9 6.8	6.4		9.6 9.6	9.6	
					Bottom	7	26.1 26.1	26.1	7.6 7.7	7.7	32.1 32.2	32.2	91.5 90.9	91.2	6.6 6.5	6.6	6.6	11.1 12.2	11.7		11.0 11.0	11.0	
10-Oct-11	Cloudy	Moderate	16:39	8	Surface	1	26.5 26.5	26.5	7.9 7.9	7.9	31.5 31.6	31.6	99.1 95.5	97.3	6.7 6.4	6.6	6.5	10.0 9.7	9.9	12.4	8.3 8.0	8.2	9.7
					Middle	4	26.5 26.5	26.5	7.9 7.9	7.9	31.7 31.8	31.8	94.9 92.5	93.7	6.4 6.2	6.3		11.4 11.2	11.3		10.0 9.9	10.0	
					Bottom	7	26.5 26.5	26.5	7.9 7.9	7.9	32.1 32.1	32.1	93.5 95.4	94.5	6.3 6.4	6.4	6.4	15.7 16.3	16.0		11.0 11.0	11.0	
12-Oct-11	Rainy	Moderate	17:22	8	Surface	1	26.5 26.5	26.5	7.9 7.9	7.9	30.2 30.3	30.3	78.8 79.6	79.2	6.5 6.5	6.5	6.5	8.2 8.1	8.2	12.6	5.8 5.8	5.8	10.6
					Middle	4	26.3 26.3	26.3	7.9 7.9	7.9	31.3 31.2	31.3	78.6 79.2	78.9	6.5 6.5	6.5		10.8 11.4	11.1		8.7 8.5	8.6	
					Bottom	7	26.2 26.2	26.2	7.9 7.9	7.9	32.0 31.9	32.0	79.4 80.1	79.8	6.5 6.5	6.5	6.5	18.9 18.2	18.6		18.0 17.0	17.5	
14-Oct-11	Cloudy	Moderate	08:32	7.8	Surface	1	26.5 26.5	26.5	7.9 7.9	7.9	29.1 29.1	29.1	90.1 89.8	90.0	6.2 6.1	6.2	6.2	5.8 6.3	6.1	21.8	9.4 9.3	9.4	12.5
					Middle	4	26.4 26.4	26.4	7.9 7.9	7.9	30.7 30.4	30.6	89.3 89.2	89.3	6.1 6.1	6.1		12.0 9.9	11.0		13.0 13.0	13.0	
					Bottom	7	26.3 26.3	26.3	7.9 8.0	8.0	31.3 31.3	31.3	89.5 89.4	89.5	6.1 6.0	6.1	6.1	48.9 47.6	48.3		15.0 15.0	15.0	
16-Oct-11	Sunny	Moderate	11:22	8.9	Surface	1	26.0 26.0	26.0	8.0 8.0	8.0	28.8 28.9	28.9	66.2 61.5	63.9	4.6 4.2	4.4	4.4	7.2 7.3	7.3	33.6	10.0 9.9	10.0	9.7
					Middle	4.5	25.9 25.9	25.9	8.0 8.0	8.0	32.2 32.2	32.2	62.8 62.6	62.7	4.3 4.2	4.3		33.2 33.7	33.5		9.2 9.0	9.1	
					Bottom	8	25.9 25.9	25.9	7.9 8.0	8.0	32.3 32.3	32.3	56.1 55.6	55.9	3.8 3.8	3.8	3.8	59.6 60.5	60.1		10.0 10.0	10.0	
18-Oct-11	Sunny	Moderate	11:53	8.3	Surface	1	26.4 26.4	26.4	7.9 8.0	8.0	28.2 28.4	28.3	94.5 94.4	94.5	6.5 6.5	6.5	6.5	5.0 4.7	4.9	13.7	8.5 8.5	8.5	7.7
					Middle	4	26.1 26.1	26.1	8.0 8.0	8.0	29.7 30.8	30.3	93.8 92.8	93.3	6.4 6.3	6.4		9.6 9.2	9.4		7.0 7.0	7.0	
					Bottom	7	26.0 26.0	26.0	8.0 8.0	8.0	31.4 31.5	31.5	92.4 92.2	92.3	6.3 6.3	6.3	6.3	26.7 26.6	26.7		7.7 7.4	7.6	
22-Oct-11	Sunny	Moderate	14:51	8	Surface	1	26.7 26.6	26.7	8.2 8.2	8.2	27.4 27.9	27.7	147.1 148.7	147.9	10.1 10.2	10.2	9.2	4.1 4.0	4.1	7.7	12.0 12.0	12.0	9.8
					Middle	4	26.1 26.2	26.2	8.1 8.1	8.1	29.6 29.5	29.6	116.1 119.3	117.7	8.0 8.2	8.1		7.9 8.1	8.0		9.2 9.4	9.3	
					Bottom	7	26.0 26.0	26.0	8.0 8.0	8.0	31.1 31.1	31.1	107.6 108.6	108.1	7.3 7.4	7.4	7.4	11.0 11.0	11.0		8.2 8.1	8.2	
25-Oct-11	Sunny	Moderate	16:22	8.2	Surface	1	26.6 26.6	26.6	8.0 8.0	8.0	30.6 30.6	30.6	83.3 82.0	82.7	5.7 5.6	5.7	5.3	5.5 5.6	5.6	18.9	25.0 25.0	25.0	23.0
					Middle	4	26.3 26.3	26.3	7.9 7.9	7.9	32.3 32.3	32.3	72.5 67.8	70.2	4.9 4.6	4.8		17.5 17.4	17.5		20.0 20.0	20.0	
					Bottom	7	26.3 26.3	26.3	7.9 7.9	7.9	32.7 32.7	32.7	64.3 62.9	63.6	4.3 4.3	4.3	4.3	33.5 33.6	33.6		24.0 24.0	24.0	

Remarks: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at ST2 - Mid-Flood Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
27-Oct-11	Cloudy	Moderate	07:35	8.8	Surface	1	25.9 25.9	25.9	8.2 8.2	8.2	30.5 30.5	30.5	105.9 105.8	105.9	8.1 8.0	8.1	7.9	8.1 7.8	8.0	16.6	13.0 13.0	13.0	12.0
					Middle	4.5	25.9 25.9	25.9	8.2 8.2	8.2	30.6 30.6	30.6	100.4 98.6	99.5	7.6 7.5	7.6		11.3 10.7	11.0		11.0 11.0	11.0	
					Bottom	8	26.0 26.0	26.0	8.2 8.2	8.2	29.7 30.6	30.2	77.7 77.5	77.6	5.9 5.9	5.9	5.9	30.6 30.8	30.7		12.0 12.0	12.0	
29-Oct-11	Sunny	Moderate	13:44	8.7	Surface	1	25.8 25.8	25.8	8.0 8.1	8.1	30.3 30.7	30.5	95.3 96.1	95.7	6.5 6.6	6.6	6.7	7.6 7.5	7.6	17.2	13.0 13.0	13.0	11.7
					Middle	4.5	25.5 25.5	25.5	8.1 8.1	8.1	31.7 31.8	31.8	94.8 101.2	98.0	6.5 6.9	6.7		18.4 18.5	18.5		14.0 14.0	14.0	
					Bottom	8	25.5 25.5	25.5	8.1 8.1	8.1	32.0 32.0	32.0	95.6 98.2	96.9	6.6 6.7	6.7	6.7	25.8 25.1	25.5		8.2 8.1	8.2	
31-Oct-11	Sunny	Moderate	11:41	8.2	Surface	1	25.9 25.9	25.9	8.0 8.0	8.0	30.2 30.2	30.2	100.9 100.7	100.8	6.9 6.9	6.9	6.9	8.0 7.9	8.0	26.7	12.0 11.0	11.5	11.8
					Middle	4	25.6 25.6	25.6	8.0 8.0	8.0	30.8 30.8	30.8	99.7 99.8	99.8	6.8 6.8	6.8		22.5 22.8	22.7		11.0 11.0	11.0	
					Bottom	7	25.6 25.6	25.6	8.0 8.0	8.0	30.8 30.8	30.8	98.1 98.0	98.1	6.7 6.7	6.7	6.7	49.7 49.3	49.5		13.0 13.0	13.0	

Remarks: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at ST3 - Mid-Ebb Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
6-Oct-11	Fine	Moderate	10:00	13.1	Surface	1	26.1 26.1	26.1	8.1 8.1	8.1	31.6 31.6	31.6	80.1 80.0	80.1	5.4 5.4	5.4	5.4	26.8 29.7	28.3	34.3	33.0 32.0	32.5	31.0
					Middle	6.5	26.1 26.1	26.1	8.1 8.1	8.1	31.7 31.7	31.7	79.8 79.8	79.8	5.4 5.4	5.4		34.9 42.0	38.5		27.0 27.0	27.0	
					Bottom	12	26.1 26.1	26.1	8.1 8.1	8.1	31.8 32.0	31.9	79.7 79.8	79.8	5.4 5.4	5.4	5.4	35.8 36.4	36.1		33.0 34.0	33.5	
8-Oct-11	Sunny	Moderate	11:18	14	Surface	1	26.5 26.4	26.5	7.9 7.9	7.9	31.7 31.7	31.7	94.7 93.9	94.3	6.5 6.5	6.5	6.5	7.5 8.8	8.2	43.7	9.5 9.4	9.5	20.0
					Middle	7	26.0 26.0	26.0	7.9 7.9	7.9	31.7 31.7	31.7	92.1 92.2	92.2	6.4 6.4	6.4		31.4 28.2	29.8		29.0 28.0	28.5	
					Bottom	13	26.0 26.0	26.0	7.9 7.9	7.9	31.7 31.7	31.7	91.7 91.6	91.7	6.4 6.4	6.4	6.4	87.5 98.5	93.0		22.0 22.0	22.0	
10-Oct-11	Cloudy	Moderate	12:40	14.5	Surface	1	26.2 26.3	26.3	8.0 8.0	8.0	33.3 33.3	33.3	101.5 103.0	102.3	6.8 6.9	6.9	6.9	5.3 5.7	5.5	157.6	5.0 5.0	5.0	7.3
					Middle	7.5	26.2 26.2	26.2	8.0 8.0	8.0	33.6 33.4	33.5	101.0 103.1	102.1	6.8 6.9	6.9		13.6 15.1	14.4		6.9 7.1	7.0	
					Bottom	14	26.1 26.1	26.1	7.9 8.0	8.0	33.7 33.7	33.7	99.1 99.0	99.1	6.6 6.6	6.6	6.6	496.8 409.2	453.0		9.6 9.9	9.8	
12-Oct-11	Rainy	Moderate	13:45	14	Surface	1	26.1 26.1	26.1	7.9 8.0	8.0	33.6 33.6	33.6	75.8 77.9	76.9	6.3 6.5	6.4	6.6	29.3 28.3	28.8	41.5	21.0 21.0	21.0	28.8
					Middle	7	26.1 26.1	26.1	7.9 8.0	8.0	33.7 33.6	33.7	81.0 83.1	82.1	6.7 6.8	6.8		39.5 34.9	37.2		33.0 32.0	32.5	
					Bottom	13	26.1 26.1	26.1	7.9 7.9	7.9	33.7 33.7	33.7	82.9 84.2	83.6	6.8 6.9	6.9	6.9	59.7 57.2	58.5		33.0 33.0	33.0	
14-Oct-11	Cloudy	Moderate	12:55	12	Surface	1	26.2 26.2	26.2	7.7 7.7	7.7	23.7 23.7	23.7	91.0 91.0	91.0	6.4 6.4	6.4	6.4	6.0 5.8	5.9	12.6	7.7 7.6	7.7	9.2
					Middle	6	26.1 26.1	26.1	7.7 7.7	7.7	25.6 25.5	25.6	90.6 90.7	90.7	6.4 6.4	6.4		7.5 7.6	7.6		10.0 10.0	10.0	
					Bottom	11	26.0 26.0	26.0	7.7 7.7	7.7	27.0 27.0	27.0	89.8 89.6	89.7	6.3 6.3	6.3	6.3	23.5 24.9	24.2		9.9 9.9	9.9	
16-Oct-11	Sunny	Moderate	14:01	15	Surface	1	26.1 26.1	26.1	7.6 7.6	7.6	24.7 24.7	24.7	98.5 98.2	98.4	6.9 6.9	6.9	6.9	3.6 3.5	3.6	6.7	7.5 7.8	7.7	6.8
					Middle	7.5	25.8 25.8	25.8	7.6 7.6	7.6	25.5 25.5	25.5	95.8 95.3	95.6	6.8 6.7	6.8		4.0 4.2	4.1		6.0 5.9	6.0	
					Bottom	14	25.8 25.8	25.8	7.6 7.6	7.6	26.2 26.2	26.2	92.4 92.3	92.4	6.5 6.5	6.5	6.5	12.2 12.4	12.3		6.6 6.8	6.7	
18-Oct-11	Sunny	Moderate	14:22	12.9	Surface	1	27.0 27.1	27.1	7.0 7.1	7.1	27.1 26.9	27.0	85.7 86.8	86.3	6.5 6.6	6.6	6.9	3.1 3.2	3.2	5.1	9.2 9.1	9.2	6.7
					Middle	6.5	27.5 27.5	27.5	7.2 7.2	7.2	28.6 28.6	28.6	92.8 91.6	92.2	7.1 7.0	7.1		4.0 4.0	4.0		5.9 5.7	5.8	
					Bottom	12	27.7 27.6	27.7	7.3 7.3	7.3	29.7 29.7	29.7	86.2 85.3	85.8	6.6 6.5	6.6	6.6	8.0 8.3	8.2		5.3 5.2	5.3	
22-Oct-11	Sunny	Moderate	07:54	11.3	Surface	1	25.7 25.8	25.8	8.1 8.1	8.1	32.0 32.1	32.1	91.3 93.8	92.6	7.2 7.4	7.3	7.2	4.2 4.3	4.3	21.0	10.0 11.0	10.5	9.8
					Middle	5.5	26.0 26.0	26.0	8.0 8.0	8.0	33.0 33.1	33.1	89.7 89.4	89.6	7.1 7.1	7.1		23.0 23.6	23.3		9.0 9.2	9.1	
					Bottom	10	26.0 26.0	26.0	8.0 8.0	8.0	33.3 33.3	33.3	86.1 85.9	86.0	6.8 6.8	6.8	6.8	35.2 35.7	35.5		9.8 10.0	9.9	
25-Oct-11	Sunny	Moderate	11:42	12.8	Surface	1	26.0 26.0	26.0	8.1 8.1	8.1	29.1 28.8	29.0	92.9 94.1	93.5	7.4 7.5	7.5	7.3	4.4 4.2	4.3	11.4	5.2 5.1	5.2	6.0
					Middle	6.5	26.0 26.0	26.0	8.1 8.1	8.1	32.8 32.8	32.8	88.8 88.5	88.7	7.1 7.1	7.1		7.4 7.4	7.4		6.4 6.4	6.4	
					Bottom	12	25.9 25.9	25.9	8.1 8.1	8.1	33.0 33.0	33.0	87.4 86.6	87.0	7.0 6.9	7.0	7.0	22.4 22.8	22.6		6.5 6.6	6.6	

Remarks: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at ST3 - Mid-Ebb Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
27-Oct-11	Cloudy	Moderate	13:04	13	Surface	1	26.0 26.0	26.0	8.1 8.1	8.1	31.7 31.7	31.7	103.6 104.2	103.9	7.0 7.1	7.1	7.0	5.8 5.7	5.8	18.5	15.0 14.0	14.5	10.1
					Middle	6.5	25.7 25.7	25.7	8.1 8.1	8.1	32.3 32.3	32.3	100.9 100.4	100.7	6.9 6.8	6.9		7.9 8.1	8.0		9.0 8.8	8.9	
					Bottom	12	25.7 25.7	25.7	8.1 8.1	8.1	32.8 32.8	32.8	96.5 96.2	96.4	6.5 6.5	6.5	6.5	43.7 39.4	41.6		7.0 6.8	6.9	
29-Oct-11	Sunny	Moderate	14:23	12.9	Surface	1	25.6 25.6	25.6	7.8 7.8	7.8	31.8 31.8	31.8	153.1 153.1	153.1	10.5 10.5	10.5	10.1	6.5 6.4	6.5	31.5	10.0 9.9	10.0	11.9
					Middle	6.5	25.6 25.6	25.6	7.8 7.8	7.8	32.0 32.0	32.0	141.0 143.6	142.3	9.6 9.8	9.7		12.3 12.4	12.4		18.0 17.0	17.5	
					Bottom	12	25.7 25.7	25.7	7.8 7.9	7.9	32.2 32.2	32.2	134.2 134.2	134.2	9.1 9.1	9.1	9.1	74.3 77.1	75.7		8.3 8.1	8.2	
31-Oct-11	Sunny	Moderate	15:53	13.2	Surface	1	25.8 25.8	25.8	7.9 7.9	7.9	28.8 31.6	30.2	85.0 85.5	85.3	6.8 6.8	6.8	6.8	6.4 6.5	6.5	10.8	19.0 19.0	19.0	18.2
					Middle	6.5	25.5 25.6	25.6	7.9 7.9	7.9	32.6 32.6	32.6	83.6 84.4	84.0	6.7 6.8	6.8		10.1 10.7	10.4		22.0 22.0	22.0	
					Bottom	12	25.5 25.5	25.5	7.9 7.9	7.9	32.8 32.8	32.8	82.8 82.5	82.7	6.6 6.6	6.6	6.6	15.9 15.0	15.5		13.0 14.0	13.5	

Remarks: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at ST3 - Mid-Flood Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
6-Oct-11	Fine	Moderate	17:26	13	Surface	1	26.2 26.2	26.2	8.1 8.1	8.1	32.5 32.7	32.6	80.0 79.9	80.0	5.4 5.4	5.4	5.4	19.3 18.1	18.7	33.6	28.0 27.0	27.5	26.5
					Middle	6.5	26.2 26.2	26.2	8.1 8.1	8.1	28.0 32.7	30.4	79.9 79.8	79.9	5.4 5.4	5.4		32.7 33.2	33.0		25.0 25.0	25.0	
					Bottom	12	26.2 26.2	26.2	8.1 8.1	8.1	31.8 31.6	31.7	79.8 79.7	79.8	5.4 5.4	5.4	5.4	46.3 51.8	49.1		27.0 27.0	27.0	
8-Oct-11	Sunny	Moderate	17:21	15	Surface	1	26.0 26.1	26.1	7.8 7.8	7.8	32.4 32.4	32.4	84.4 85.3	84.9	6.4 6.4	6.4	6.4	22.5 24.0	23.3	35.6	35.0 35.0	35.0	35.5
					Middle	7.5	26.1 26.1	26.1	7.8 7.8	7.8	32.6 32.5	32.6	85.1 85.2	85.2	6.4 6.4	6.4		35.5 31.7	33.6		22.0 22.0	22.0	
					Bottom	14	26.1 26.1	26.1	7.8 7.8	7.8	32.5 32.5	32.5	83.4 85.0	84.2	6.3 6.4	6.4	6.4	48.7 51.3	50.0		50.0 49.0	49.5	
10-Oct-11	Cloudy	Moderate	17:46	15	Surface	1	26.2 26.1	26.2	8.0 8.0	8.0	33.7 33.7	33.7	72.6 71.9	72.3	4.9 4.8	4.9	4.9	82.0 85.2	83.6	135.9	40.0 40.0	40.0	43.3
					Middle	7.5	26.2 26.2	26.2	8.0 8.0	8.0	33.7 33.7	33.7	72.0 70.4	71.2	4.8 4.7	4.8		98.9 97.5	98.2		41.0 42.0	41.5	
					Bottom	14	26.2 26.2	26.2	8.0 8.0	8.0	33.7 33.7	33.7	66.6 69.0	67.8	4.5 4.6	4.6	4.6	227.9 223.8	225.9		48.0 49.0	48.5	
12-Oct-11	Rainy	Moderate	18:30	14	Surface	1	26.0 26.0	26.0	8.0 8.0	8.0	33.6 33.6	33.6	76.5 77.0	76.8	6.5 6.5	6.5	6.5	56.4 56.2	56.3	146.3	33.0 35.0	34.0	41.0
					Middle	7	26.1 26.1	26.1	8.0 8.0	8.0	33.6 33.6	33.6	76.4 78.5	77.5	6.4 6.6	6.5		121.7 109.6	115.7		41.0 42.0	41.5	
					Bottom	13	26.1 26.1	26.1	8.0 8.0	8.0	33.6 33.6	33.6	76.7 79.3	78.0	6.4 6.6	6.5	6.5	296.2 237.4	266.8		47.0 48.0	47.5	
14-Oct-11	Cloudy	Moderate	08:33	12	Surface	1	26.2 26.2	26.2	7.7 7.7	7.7	22.8 22.8	22.8	91.2 91.2	91.2	6.5 6.5	6.5	6.5	6.8 6.7	6.8	12.1	14.0 14.0	14.0	10.5
					Middle	6	26.1 26.1	26.1	7.7 7.7	7.7	24.3 24.3	24.3	91.6 91.4	91.5	6.5 6.5	6.5		7.6 7.6	7.6		6.5 6.5	6.5	
					Bottom	11	26.1 26.1	26.1	7.7 7.7	7.7	25.4 25.4	25.4	91.5 91.5	91.5	6.4 6.4	6.4	6.4	21.0 22.6	21.8		11.0 11.0	11.0	
16-Oct-11	Sunny	Moderate	10:49	14.7	Surface	1	25.7 25.7	25.7	7.8 7.8	7.8	25.9 25.9	25.9	94.9 94.8	94.9	6.7 6.7	6.7	6.7	4.8 4.8	4.8	34.8	8.3 8.2	8.3	10.1
					Middle	7.5	25.7 25.7	25.7	7.8 7.8	7.8	26.3 26.3	26.3	94.2 94.3	94.3	6.6 6.6	6.6		6.6 6.8	6.7		10.0 9.8	9.9	
					Bottom	14	25.8 25.8	25.8	7.8 7.8	7.8	27.2 27.3	27.3	93.0 92.8	92.9	6.5 6.5	6.5	6.5	92.6 93.3	93.0		12.0 12.0	12.0	
18-Oct-11	Sunny	Moderate	11:12	12.2	Surface	1	26.2 26.2	26.2	7.3 7.4	7.4	24.6 24.5	24.6	72.4 76.8	74.6	5.5 5.8	5.7	5.7	2.4 2.5	2.5	4.4	8.1 8.1	8.1	8.2
					Middle	6	25.9 25.9	25.9	7.5 7.5	7.5	26.0 26.0	26.0	74.0 72.5	73.3	5.6 5.5	5.6		3.1 3.0	3.1		7.4 7.4	7.4	
					Bottom	11	26.0 25.9	26.0	7.5 7.5	7.5	27.0 27.0	27.0	76.7 78.3	77.5	5.8 6.0	5.9	5.9	7.3 8.0	7.7		9.1 9.1	9.1	
22-Oct-11	Sunny	Moderate	14:22	12.2	Surface	1	26.5 26.6	26.6	8.1 8.1	8.1	27.8 27.8	27.8	92.9 94.1	93.5	7.3 7.4	7.4	7.6	3.8 3.8	3.8	12.8	9.1 9.2	9.2	12.4
					Middle	6	26.2 26.3	26.3	8.0 7.9	8.0	31.9 32.0	32.0	98.1 94.5	96.3	7.8 7.5	7.7		12.1 13.6	12.9		18.0 18.0	18.0	
					Bottom	11	26.1 26.1	26.1	7.9 7.9	7.9	32.8 32.6	32.7	94.2 90.3	92.3	7.4 7.1	7.3	7.3	21.6 22.0	21.8		10.0 10.0	10.0	
25-Oct-11	Sunny	Moderate	15:38	12.9	Surface	1	26.1 26.1	26.1	8.0 8.0	8.0	31.8 31.9	31.9	87.4 88.3	87.9	7.0 7.1	7.1	7.1	20.5 19.4	20.0	34.1	12.0 12.0	12.0	12.5
					Middle	6.5	26.0 26.0	26.0	8.0 8.0	8.0	32.2 32.2	32.2	88.0 87.9	88.0	7.0 7.0	7.0		15.5 15.6	15.6		12.0 12.0	12.0	
					Bottom	12	26.0 26.0	26.0	8.0 8.0	8.0	32.2 32.2	32.2	87.4 87.8	87.6	7.0 7.0	7.0	7.0	66.4 67.1	66.8		14.0 13.0	13.5	

Remarks: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at ST3 - Mid-Flood Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
27-Oct-11	Cloudy	Moderate	06:57	13	Surface	1	25.6 25.6	25.6	8.1 8.1	8.1	30.8 30.8	30.8	94.2 94.4	94.3	6.5 6.5	6.5	6.5	10.2 10.3	10.3	20.3	14.0 13.0	13.5	14.2
					Middle	6.5	25.7 25.7	25.7	8.1 8.1	8.1	32.0 32.0	32.0	95.4 95.2	95.3	6.5 6.5	6.5		14.2 14.1	14.2		15.0 16.0	15.5	
					Bottom	12	25.7 25.7	25.7	8.1 8.1	8.1	33.0 33.0	33.0	95.3 95.1	95.2	6.5 6.4	6.5	6.5	37.4 35.2	36.3		14.0 13.0	13.5	
29-Oct-11	Sunny	Moderate	10:23	13.7	Surface	1	25.6 25.6	25.6	8.0 8.0	8.0	31.2 31.2	31.2	88.4 88.4	88.4	6.1 6.1	6.1	6.1	7.7 7.6	7.7	11.3	13.0 13.0	13.0	13.7
					Middle	7	25.6 25.6	25.6	8.1 8.1	8.1	31.9 31.9	31.9	87.9 87.9	87.9	6.0 6.0	6.0		8.1 8.1	8.1		12.0 12.0	12.0	
					Bottom	13	25.6 25.6	25.6	8.1 8.1	8.1	33.1 33.1	33.1	87.1 87.1	87.1	5.9 5.9	5.9	5.9	18.1 18.2	18.2		16.0 16.0	16.0	
31-Oct-11	Sunny	Moderate	11:12	13.1	Surface	1	25.5 25.5	25.5	8.0 8.0	8.0	33.2 33.2	33.2	92.1 91.8	92.0	7.4 7.3	7.4	7.3	18.1 17.3	17.7	43.4	20.0 20.0	20.0	20.3
					Middle	6.5	25.5 25.5	25.5	8.0 8.0	8.0	33.2 27.0	30.1	88.0 92.1	90.1	7.0 7.4	7.2		43.6 43.0	43.3		17.0 17.0	17.0	
					Bottom	12	25.5 25.5	25.5	8.0 8.0	8.0	27.3 33.2	30.3	89.1 99.5	94.3	7.1 8.0	7.6	7.6	67.7 70.7	69.2		24.0 24.0	24.0	

Remarks: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at IS1 - Mid-Ebb Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
6-Oct-11	Fine	Moderate	08:50	9	Surface	1	26.1 26.1	26.1	8.1 8.1	8.1	32.7 32.7	32.7	80.8 80.1	80.5	5.4 5.4	5.4	5.4	15.7 14.9	15.3	17.0	20.0 19.0	19.5	19.5
					Middle	4.5	26.1 26.1	26.1	8.1 8.1	8.1	31.5 31.4	31.5	80.3 80.1	80.2	5.4 5.4	5.4		15.8 15.7	15.8		17.0 17.0	17.0	
					Bottom	8	26.1 26.1	26.1	8.1 8.1	8.1	32.4 32.4	32.4	80.2 80.0	80.1	5.4 5.4	5.4	5.4	19.7 20.2	20.0		22.0 22.0	22.0	
8-Oct-11	Sunny	Moderate	10:45	10.1	Surface	1	26.3 26.3	26.3	7.9 7.9	7.9	31.7 31.6	31.7	95.9 94.9	95.4	6.6 6.6	6.6	6.6	8.0 8.1	8.1	12.6	13.0 12.0	12.5	12.0
					Middle	5	26.0 26.0	26.0	7.9 7.9	7.9	31.7 31.6	31.7	93.7 92.8	93.3	6.5 6.4	6.5		10.1 9.5	9.8		11.0 11.0	11.0	
					Bottom	9	26.0 26.0	26.0	7.9 7.9	7.9	31.7 31.6	31.7	93.2 91.8	92.5	6.5 6.4	6.5	6.5	19.1 20.8	20.0		12.0 13.0	12.5	
10-Oct-11	Cloudy	Moderate	12:11	11	Surface	1	26.2 26.2	26.2	7.9 7.9	7.9	33.4 33.3	33.4	101.9 101.3	101.6	6.8 6.8	6.8	6.8	10.1 9.8	10.0	27.9	11.0 11.0	11.0	11.7
					Middle	5.5	26.1 26.1	26.1	7.9 7.9	7.9	33.7 33.7	33.7	98.4 99.7	99.1	6.6 6.7	6.7		17.6 18.5	18.1		11.0 11.0	11.0	
					Bottom	10	26.1 26.1	26.1	7.9 7.9	7.9	33.7 33.7	33.7	99.1 97.5	98.3	6.6 6.5	6.6	6.6	53.1 57.9	55.5		13.0 13.0	13.0	
12-Oct-11	Rainy	Moderate	13:19	11	Surface	1	26.1 26.1	26.1	7.9 8.0	8.0	33.3 33.3	33.3	77.8 80.2	79.0	6.4 6.6	6.5	6.5	19.2 19.9	19.6	41.7	15.0 15.0	15.0	15.5
					Middle	5.5	26.1 26.0	26.1	7.9 7.9	7.9	33.5 33.5	33.5	79.1 80.0	79.6	6.5 6.5	6.5		14.5 15.3	14.9		17.0 16.0	16.5	
					Bottom	10	26.0 26.0	26.0	7.9 7.9	7.9	33.7 33.7	33.7	78.2 81.0	79.6	6.4 6.6	6.5	6.5	95.3 85.7	90.5		15.0 15.0	15.0	
14-Oct-11	Cloudy	Moderate	13:17	10	Surface	1	26.4 26.4	26.4	7.8 7.7	7.8	23.7 23.7	23.7	93.9 93.9	93.9	6.6 6.6	6.6	6.5	4.4 4.5	4.5	13.8	5.7 5.8	5.8	6.3
					Middle	5	26.0 26.0	26.0	7.7 7.8	7.8	26.2 26.2	26.2	91.6 91.3	91.5	6.4 6.4	6.4		9.5 9.7	9.6		6.4 6.4	6.4	
					Bottom	9	26.0 26.0	26.0	7.8 7.8	7.8	26.6 26.6	26.6	89.8 89.6	89.7	6.3 6.3	6.3	6.3	28.0 26.4	27.2		6.7 6.5	6.6	
16-Oct-11	Sunny	Moderate	14:44	10	Surface	1	26.2 26.2	26.2	7.8 7.8	7.8	25.0 25.0	25.0	98.4 98.6	98.5	6.9 6.9	6.9	6.9	3.8 3.7	3.8	7.6	6.0 5.8	5.9	7.3
					Middle	5	25.8 25.8	25.8	7.8 7.8	7.8	25.4 25.6	25.5	96.2 95.7	96.0	6.8 6.7	6.8		4.4 4.5	4.5		7.4 7.3	7.4	
					Bottom	9	25.8 25.8	25.8	7.8 7.8	7.8	26.3 26.4	26.4	91.7 91.4	91.6	6.4 6.4	6.4	6.4	13.8 15.0	14.4		8.5 8.8	8.7	
18-Oct-11	Sunny	Moderate	14:56	8	Surface	1	28.5 28.4	28.5	7.3 7.4	7.4	26.8 26.8	26.8	94.9 95.5	95.2	7.2 7.3	7.3	7.1	3.3 3.6	3.5	5.1	9.2 9.5	9.4	7.2
					Middle	4	27.0 27.2	27.1	7.2 7.2	7.2	28.1 28.2	28.2	90.3 88.9	89.6	6.9 6.8	6.9		4.5 4.8	4.7		5.5 5.6	5.6	
					Bottom	7	27.5 27.5	27.5	7.2 7.2	7.2	30.1 30.1	30.1	95.9 92.4	94.2	7.3 7.0	7.2	7.2	6.7 7.2	7.0		6.7 6.6	6.7	
22-Oct-11	Sunny	Moderate	07:35	9	Surface	1	25.5 25.4	25.5	8.1 8.1	8.1	30.7 30.7	30.7	100.1 101.1	100.6	7.9 8.0	8.0	7.8	3.9 4.0	4.0	5.9	7.8 7.9	7.9	8.7
					Middle	4.5	26.1 26.1	26.1	8.0 8.0	8.0	32.5 32.6	32.6	94.9 96.5	95.7	7.5 7.6	7.6		3.8 3.9	3.9		7.4 7.2	7.3	
					Bottom	8	26.0 26.0	26.0	8.0 8.0	8.0	33.0 33.0	33.0	85.6 85.3	85.5	6.8 6.7	6.8	6.8	10.0 9.8	9.9		11.0 11.0	11.0	
25-Oct-11	Sunny	Moderate	11:23	9	Surface	1	26.1 26.1	26.1	8.1 8.1	8.1	29.0 29.0	29.0	85.1 86.1	85.6	6.8 6.9	6.9	7.1	3.6 3.4	3.5	6.8	7.1 7.1	7.1	7.1
					Middle	4.5	26.1 26.0	26.1	8.1 8.1	8.1	31.8 31.8	31.8	89.8 90.0	89.9	7.2 7.2	7.2		6.1 6.3	6.2		7.5 7.7	7.6	
					Bottom	8	26.0 26.0	26.0	8.1 8.1	8.1	32.5 32.5	32.5	94.9 95.5	95.2	7.6 7.6	7.6	7.6	10.5 10.9	10.7		6.4 6.6	6.5	

Remarks: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at IS1 - Mid-Ebb Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
27-Oct-11	Cloudy	Moderate	13:27	9	Surface	1	26.2 26.2	26.2	8.1 8.1	8.1	31.3 31.3	31.3	106.4 106.4	106.4	7.2 7.2	7.2	7.2	6.7 6.6	6.7	10.2	12.0 12.0	12.0	13.0
					Middle	4.5	25.7 25.7	25.7	8.0 8.0	8.0	32.0 32.0	32.0	103.8 102.5	103.2	7.1 7.0	7.1		10.0 10.5	10.3		13.0 13.0	13.0	
					Bottom	8	25.7 25.7	25.7	8.0 8.0	8.0	32.5 32.4	32.5	100.9 100.0	100.5	6.9 6.8	6.9	6.9	13.8 13.3	13.6		14.0 14.0	14.0	
29-Oct-11	Sunny	Moderate	15:04	8	Surface	1	25.8 25.8	25.8	8.0 8.0	8.0	31.4 31.4	31.4	141.5 141.5	141.5	9.7 9.7	9.7	9.4	9.1 9.0	9.1	14.3	16.0 17.0	16.5	16.8
					Middle	4	25.8 25.8	25.8	8.0 8.0	8.0	31.5 31.5	31.5	134.0 134.0	134.0	9.1 9.1	9.1		8.8 8.8	8.8		20.0 20.0	20.0	
					Bottom	7	25.7 25.6	25.7	8.0 8.0	8.0	25.8 32.0	28.9	128.8 128.8	128.8	9.1 8.8	9.0	9.0	24.4 25.7	25.1		14.0 14.0	14.0	
31-Oct-11	Sunny	Moderate	16:15	9	Surface	1	25.6 25.6	25.6	8.0 8.0	8.0	32.2 32.2	32.2	85.0 85.1	85.1	6.8 6.8	6.8	6.9	10.0 9.9	10.0	10.8	18.0 18.0	18.0	16.0
					Middle	4.5	25.5 25.5	25.5	8.0 8.0	8.0	32.4 32.4	32.4	85.3 86.0	85.7	6.8 6.9	6.9		10.3 10.2	10.3		13.0 12.0	12.5	
					Bottom	8	25.5 25.5	25.5	8.0 8.0	8.0	32.9 32.9	32.9	85.0 87.7	86.4	6.8 7.0	6.9	6.9	11.9 12.4	12.2		18.0 17.0	17.5	

Remarks: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at IS1 - Mid-Flood Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
6-Oct-11	Fine	Moderate	16:53	10	Surface	1	26.1 26.1	26.1	8.1 8.1	8.1	31.2 31.3	31.3	80.6 80.7	80.7	5.4 5.4	5.4	5.4	14.1 15.5	14.8	20.9	15.0 15.0	15.0	16.2
					Middle	5	26.1 26.1	26.1	8.1 8.1	8.1	32.2 32.2	32.2	80.6 80.5	80.6	5.4 5.4	5.4		15.9 16.1	16.0		19.0 18.0	18.5	
					Bottom	9	26.1 26.1	26.1	8.1 8.1	8.1	30.6 30.7	30.7	80.5 80.4	80.5	5.4 5.4	5.4	5.4	31.7 32.2	32.0		15.0 15.0	15.0	
8-Oct-11	Sunny	Moderate	16:43	9.5	Surface	1	26.4 26.4	26.4	7.8 7.8	7.8	32.2 32.1	32.2	75.3 76.4	75.9	6.7 6.7	6.7	6.6	7.4 6.3	6.9	16.2	20.0 20.0	20.0	25.3
					Middle	5	26.4 26.4	26.4	7.8 7.8	7.8	32.2 32.3	32.3	91.1 91.2	91.2	6.5 6.5	6.5		12.2 15.1	13.7		27.0 27.0	27.0	
					Bottom	9	26.2 26.1	26.2	7.8 7.8	7.8	32.5 32.3	32.4	91.7 92.3	92.0	6.6 6.6	6.6	6.6	29.7 26.1	27.9		29.0 29.0	29.0	
10-Oct-11	Cloudy	Moderate	17:17	11	Surface	1	26.4 26.4	26.4	7.9 7.9	7.9	32.7 32.7	32.7	99.4 96.7	98.1	6.7 6.5	6.6	6.7	9.2 10.8	10.0	60.3	9.8 9.8	9.8	9.8
					Middle	5.5	26.3 26.4	26.4	7.9 7.9	7.9	33.2 33.0	33.1	100.3 99.4	99.9	6.7 6.7	6.7		14.6 15.8	15.2		11.0 10.0	10.5	
					Bottom	10	26.3 26.3	26.3	8.0 8.0	8.0	33.5 33.5	33.5	96.5 95.9	96.2	6.5 6.4	6.5	6.5	153.0 158.2	155.6		9.0 9.0	9.0	
12-Oct-11	Rainy	Moderate	18:06	10	Surface	1	26.1 26.1	26.1	8.0 8.0	8.0	33.0 33.0	33.0	77.2 80.5	78.9	6.5 6.7	6.6	6.7	10.4 11.4	10.9	26.4	11.0 11.0	11.0	15.5
					Middle	5	26.0 26.0	26.0	8.0 8.0	8.0	33.4 33.4	33.4	78.4 81.4	79.9	6.6 6.8	6.7		14.4 14.6	14.5		16.0 15.0	15.5	
					Bottom	9	26.0 26.0	26.0	8.0 8.0	8.0	33.5 33.5	33.5	79.4 82.1	80.8	6.6 6.8	6.7	6.7	51.7 55.7	53.7		20.0 20.0	20.0	
14-Oct-11	Cloudy	Moderate	08:12	9	Surface	1	26.3 26.3	26.3	7.7 7.7	7.7	24.2 24.3	24.3	89.6 89.6	89.6	6.3 6.3	6.3	6.3	7.7 7.6	7.7	13.5	9.3 9.4	9.4	11.1
					Middle	4.5	26.2 26.2	26.2	7.7 7.7	7.7	25.7 25.7	25.7	90.1 90.0	90.1	6.3 6.3	6.3		10.4 10.7	10.6		10.0 10.0	10.0	
					Bottom	8	26.1 26.1	26.1	7.7 7.7	7.7	26.5 26.5	26.5	89.1 89.1	89.1	6.2 6.2	6.2	6.2	21.8 22.4	22.1		14.0 14.0	14.0	
16-Oct-11	Sunny	Moderate	09:59	11	Surface	1	25.8 25.8	25.8	7.8 7.8	7.8	25.7 25.7	25.7	91.5 91.7	91.6	6.5 6.5	6.5	6.5	7.9 8.0	8.0	99.3	18.0 18.0	18.0	22.7
					Middle	5.5	25.8 25.8	25.8	7.8 7.8	7.8	27.1 27.1	27.1	91.4 91.4	91.4	6.4 6.4	6.4		35.9 40.1	38.0		16.0 17.0	16.5	
					Bottom	10	25.8 25.7	25.8	7.8 7.8	7.8	27.1 27.1	27.1	90.7 90.6	90.7	6.3 6.3	6.3	6.3	243.3 260.3	251.8		33.0 34.0	33.5	
18-Oct-11	Sunny	Moderate	10:45	10	Surface	1	26.6 26.5	26.6	7.8 7.8	7.8	24.3 24.4	24.4	82.4 83.0	82.7	6.3 6.3	6.3	6.3	3.0 2.9	3.0	5.8	10.0 10.0	10.0	11.3
					Middle	5	25.9 25.9	25.9	7.7 7.7	7.7	25.6 25.6	25.6	82.2 80.8	81.5	6.3 6.1	6.2		3.4 3.4	3.4		9.8 9.8	9.8	
					Bottom	9	25.8 25.8	25.8	7.7 7.7	7.7	27.3 27.3	27.3	76.6 76.8	76.7	5.8 5.8	5.8	5.8	10.8 11.2	11.0		14.0 14.0	14.0	
22-Oct-11	Sunny	Moderate	14:42	9	Surface	1	26.7 26.7	26.7	8.1 8.1	8.1	26.3 26.3	26.3	92.5 90.9	91.7	7.3 7.2	7.3	7.6	4.0 4.2	4.1	9.1	13.0 12.0	12.5	10.6
					Middle	4.5	26.4 26.4	26.4	8.1 8.1	8.1	28.7 28.7	28.7	101.1 97.8	99.5	8.0 7.7	7.9		7.0 7.2	7.1		9.5 9.5	9.5	
					Bottom	8	26.2 26.2	26.2	8.0 8.0	8.0	31.2 31.3	31.3	93.3 92.0	92.7	7.4 7.3	7.4	7.4	15.9 16.0	16.0		10.0 9.8	9.9	
25-Oct-11	Sunny	Moderate	16:04	9	Surface	1	26.2 26.2	26.2	8.1 8.1	8.1	30.4 30.4	30.4	92.8 94.3	93.6	7.4 7.5	7.5	7.7	5.7 5.4	5.6	9.1	9.3 9.3	9.3	8.9
					Middle	4.5	26.2 26.2	26.2	8.1 8.1	8.1	31.0 31.0	31.0	98.8 98.4	98.6	7.9 7.9	7.9		6.5 6.9	6.7		9.3 9.3	9.3	
					Bottom	8	26.1 26.1	26.1	8.0 8.0	8.0	31.6 31.6	31.6	94.2 92.9	93.6	7.5 7.4	7.5	7.5	14.6 15.5	15.1		8.1 7.9	8.0	

Remarks: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at IS1 - Mid-Flood Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
27-Oct-11	Cloudy	Moderate	06:39	8	Surface	1	25.7 25.7	25.7	8.1 8.1	8.1	31.8 31.9	31.9	94.7 95.0	94.9	6.5 6.5	6.5	6.5	10.5 10.7	10.6	23.1	17.0 17.0	17.0	16.8
					Middle	4	25.7 25.7	25.7	8.1 8.1	8.1	32.1 32.0	32.1	95.6 95.5	95.6	6.5 6.5	6.5		11.1 11.0	11.1		15.0 16.0	15.5	
					Bottom	7	25.7 25.7	25.7	8.1 8.1	8.1	32.6 32.6	32.6	95.7 95.5	95.6	6.5 6.5	6.5	6.5	48.6 46.6	47.6		18.0 18.0	18.0	
29-Oct-11	Sunny	Moderate	09:52	10	Surface	1	25.6 25.6	25.6	8.0 8.0	8.0	31.0 31.0	31.0	110.0 110.0	110.0	7.5 7.5	7.5	7.5	9.4 9.3	9.4	23.1	14.0 14.0	14.0	25.7
					Middle	5	25.5 25.5	25.5	8.0 8.0	8.0	31.2 31.2	31.2	107.8 107.8	107.8	7.4 7.4	7.4		10.9 10.9	10.9		22.0 22.0	22.0	
					Bottom	9	25.5 25.5	25.5	8.1 8.1	8.1	32.7 32.7	32.7	106.9 106.8	106.9	7.3 7.3	7.3	7.3	49.9 47.8	48.9		41.0 41.0	41.0	
31-Oct-11	Sunny	Moderate	10:54	10	Surface	1	25.5 25.5	25.5	8.0 8.0	8.0	32.2 32.2	32.2	98.3 97.5	97.9	7.9 7.8	7.9	7.5	9.5 8.6	9.1	25.2	14.0 14.0	14.0	17.0
					Middle	5	25.4 25.3	25.4	8.0 8.0	8.0	32.2 32.2	32.2	87.8 88.1	88.0	7.0 7.1	7.1		19.1 23.3	21.2		21.0 21.0	21.0	
					Bottom	9	25.3 25.3	25.3	8.0 8.0	8.0	32.2 32.2	32.2	88.5 87.8	88.2	7.1 7.0	7.1	7.1	41.7 49.1	45.4		16.0 16.0	16.0	

Remarks: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at IS2 - Mid-Ebb Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
6-Oct-11	Fine	Moderate	08:35	7.1	Surface	1	26.1 26.1	26.1	8.1 8.1	8.1	31.9 31.9	31.9	80.2 79.9	80.1	5.4 5.4	5.4	5.4	13.2 10.8	12.0	11.6	15.0 14.0	14.5	18.2
					Middle	3.5	26.1 26.1	26.1	8.1 8.1	8.1	32.0 31.9	32.0	80.1 79.8	80.0	5.4 5.4	5.4		11.3 10.5	10.9		17.0 18.0	17.5	
					Bottom	6	26.1 26.1	26.1	8.1 8.1	8.1	32.2 32.2	32.2	79.8 79.7	79.8	5.4 5.4	5.4	5.4	11.5 12.4	12.0		22.0 23.0	22.5	
8-Oct-11	Sunny	Moderate	10:19	8	Surface	1	26.3 26.3	26.3	7.9 7.9	7.9	31.2 31.2	31.2	96.2 94.9	95.6	6.7 6.6	6.7	6.6	6.9 7.6	7.3	10.8	9.1 9.1	9.1	13.0
					Middle	4	25.9 25.9	25.9	7.9 7.9	7.9	31.2 31.2	31.2	93.8 93.2	93.5	6.5 6.5	6.5		9.6 10.4	10.0		11.0 11.0	11.0	
					Bottom	7	25.9 25.9	25.9	7.9 7.9	7.9	31.2 31.2	31.2	93.1 92.2	92.7	6.5 6.4	6.5	6.5	13.5 16.6	15.1		19.0 19.0	19.0	
10-Oct-11	Cloudy	Moderate	11:48	8.2	Surface	1	26.2 26.2	26.2	7.9 7.9	7.9	33.1 33.1	33.1	105.2 105.1	105.2	7.1 7.1	7.1	7.0	9.9 9.6	9.8	14.9	15.0 15.0	15.0	13.0
					Middle	4	26.1 26.1	26.1	7.9 7.9	7.9	33.7 33.7	33.7	102.3 100.7	101.5	6.9 6.7	6.8		12.9 13.7	13.3		12.0 12.0	12.0	
					Bottom	7	26.1 26.1	26.1	7.9 7.9	7.9	33.7 33.7	33.7	101.2 101.1	101.2	6.8 6.8	6.8	6.8	20.8 22.2	21.5		12.0 12.0	12.0	
12-Oct-11	Rainy	Moderate	12:52	7.8	Surface	1	26.1 26.1	26.1	7.9 7.9	7.9	33.3 33.4	33.4	84.9 83.2	84.1	6.4 6.4	6.4	6.5	20.2 18.0	19.1	20.8	16.0 17.0	16.5	17.8
					Middle	4	26.1 26.1	26.1	7.9 7.9	7.9	33.6 33.5	33.6	86.5 83.4	85.0	6.6 6.4	6.5		17.9 18.0	18.0		18.0 17.0	17.5	
					Bottom	7	26.0 26.0	26.0	7.9 7.9	7.9	33.7 33.7	33.7	81.9 80.4	81.2	6.3 6.2	6.3	6.3	27.6 23.2	25.4		19.0 20.0	19.5	
14-Oct-11	Cloudy	Moderate	13:32	7	Surface	1	26.4 26.4	26.4	7.8 7.8	7.8	24.0 24.0	24.0	94.6 94.5	94.6	6.7 6.7	6.7	6.5	4.7 4.5	4.6	11.5	5.4 5.6	5.5	5.3
					Middle	3.5	26.1 26.1	26.1	7.8 7.8	7.8	26.2 26.2	26.2	90.6 90.1	90.4	6.3 6.3	6.3		8.5 9.4	9.0		5.3 5.2	5.3	
					Bottom	6	26.1 26.1	26.1	7.8 7.8	7.8	26.2 26.2	26.2	89.1 89.1	89.1	6.2 6.2	6.2	6.2	19.0 22.9	21.0		5.0 5.1	5.1	
16-Oct-11	Sunny	Moderate	15:07	7	Surface	1	26.4 26.4	26.4	7.8 7.8	7.8	24.8 24.8	24.8	98.0 98.0	98.0	6.9 6.9	6.9	6.9	3.7 3.7	3.7	7.1	7.1 7.0	7.1	8.8
					Middle	3.5	26.3 26.3	26.3	7.8 7.8	7.8	25.0 25.0	25.0	97.1 96.9	97.0	6.8 6.8	6.8		3.8 3.8	3.8		11.0 11.0	11.0	
					Bottom	6	25.8 25.8	25.8	7.8 7.8	7.8	26.2 26.2	26.2	91.1 90.8	91.0	6.4 6.4	6.4	6.4	13.4 13.9	13.7		8.2 8.2	8.2	
18-Oct-11	Sunny	Moderate	15:12	7.2	Surface	1	28.0 28.5	28.3	7.3 7.3	7.3	29.5 29.4	29.5	90.0 90.5	90.3	6.8 6.9	6.9	6.9	4.0 3.8	3.9	6.9	14.0 14.0	14.0	10.0
					Middle	3.5	28.1 28.0	28.1	7.4 7.4	7.4	32.0 32.1	32.1	90.4 88.3	89.4	6.9 6.7	6.8		5.6 6.0	5.8		8.1 7.8	8.0	
					Bottom	6	28.4 28.4	28.4	7.4 7.4	7.4	32.3 32.3	32.3	82.9 82.5	82.7	6.3 6.3	6.3	6.3	10.8 11.2	11.0		8.2 8.0	8.1	
22-Oct-11	Sunny	Moderate	07:22	7.1	Surface	1	25.3 25.4	25.4	8.1 8.1	8.1	30.5 30.5	30.5	97.3 101.0	99.2	7.7 8.0	7.9	7.4	4.4 3.7	4.1	6.7	11.0 11.0	11.0	9.8
					Middle	3.5	25.9 25.9	25.9	8.0 8.0	8.0	32.4 32.4	32.4	86.3 85.4	85.9	6.8 6.8	6.8		5.9 6.0	6.0		7.3 7.3	7.3	
					Bottom	6	25.9 25.9	25.9	8.0 8.0	8.0	32.9 32.9	32.9	82.9 82.5	82.7	6.6 6.5	6.6	6.6	9.9 10.0	10.0		11.0 11.0	11.0	
25-Oct-11	Sunny	Moderate	11:06	7.2	Surface	1	26.1 26.1	26.1	8.1 8.1	8.1	29.1 29.1	29.1	83.0 84.1	83.6	6.6 6.7	6.7	6.7	8.1 6.5	7.3	9.6	5.5 5.5	5.5	6.5
					Middle	3.5	26.1 26.1	26.1	8.0 8.0	8.0	31.5 31.5	31.5	84.0 82.5	83.3	6.7 6.6	6.7		7.2 7.2	7.2		4.9 4.9	4.9	
					Bottom	6	26.1 26.1	26.1	8.0 8.0	8.0	31.9 32.1	32.0	82.4 80.9	81.7	6.6 6.5	6.6	6.6	14.3 14.2	14.3		9.1 9.3	9.2	

Remarks: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at IS2 - Mid-Ebb Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
27-Oct-11	Cloudy	Moderate	13:42	7.2	Surface	1	26.0 26.0	26.0	8.1 8.1	8.1	31.8 31.8	31.8	98.5 98.7	98.6	6.7 6.7	6.7	6.7	7.2 7.2	7.2	24.0	12.0 12.0	12.0	10.2
					Middle	3.5	25.7 25.7	25.7	8.1 8.1	8.1	32.3 32.4	32.4	97.5 96.3	96.9	6.6 6.5	6.6		19.2 19.4	19.3		8.6 8.5	8.6	
					Bottom	6	25.7 25.7	25.7	8.1 8.1	8.1	32.3 32.3	32.3	94.2 94.2	94.2	6.4 6.4	6.4	6.4	45.1 45.6	45.4		10.0 10.0	10.0	
29-Oct-11	Sunny	Moderate	15:42	6.2	Surface	1	25.7 25.7	25.7	8.1 8.1	8.1	31.6 31.7	31.7	134.1 134.1	134.1	9.5 9.2	9.4	9.2	7.9 7.9	7.9	10.6	9.5 9.8	9.7	20.1
					Middle	3	25.7 25.7	25.7	8.1 8.1	8.1	31.7 31.7	31.7	130.2 130.1	130.2	8.9 8.9	8.9		8.4 8.3	8.4		16.0 15.0	15.5	
					Bottom	5	25.6 25.6	25.6	8.1 8.1	8.1	31.8 31.3	31.6	128.4 126.4	127.4	8.8 9.0	8.9	8.9	15.4 15.6	15.5		35.0 35.0	35.0	
31-Oct-11	Sunny	Moderate	16:26	8.1	Surface	1	25.9 25.9	25.9	8.0 8.0	8.0	31.9 31.9	31.9	90.4 90.1	90.3	7.2 7.2	7.2	7.3	6.9 6.6	6.8	9.6	15.0 14.0	14.5	16.5
					Middle	4	25.6 25.4	25.5	8.0 8.0	8.0	32.2 32.3	32.3	88.1 93.5	90.8	7.1 7.5	7.3		9.7 9.7	9.7		16.0 16.0	16.0	
					Bottom	7	25.4 25.4	25.4	8.0 8.0	8.0	32.5 32.5	32.5	95.2 99.0	97.1	7.6 7.9	7.8	7.8	11.7 12.6	12.2		19.0 19.0	19.0	

Remarks: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at IS2 - Mid-Flood Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
6-Oct-11	Fine	Moderate	16:27	7	Surface	1	26.1 26.1	26.1	8.1 8.1	8.1	31.8 31.7	31.8	81.3 80.5	80.9	5.5 5.4	5.5	5.5	14.4 12.6	13.5	18.0	17.0 17.0	17.0	17.8
					Middle	3.5	26.1 26.1	26.1	8.1 8.1	8.1	31.9 32.0	32.0	82.1 80.4	81.3	5.5 5.4	5.5		18.8 17.3	18.1		21.0 20.0	20.5	
					Bottom	6	26.1 26.1	26.1	8.1 8.1	8.1	30.1 30.2	30.2	84.4 80.5	82.5	5.7 5.4	5.6	5.6	21.9 22.6	22.3		16.0 16.0	16.0	
8-Oct-11	Sunny	Moderate	16:19	6.7	Surface	1	26.3 26.3	26.3	7.6 7.8	7.7	32.3 32.3	32.3	98.9 96.0	97.5	7.0 6.9	7.0	7.0	6.3 6.5	6.4	11.5	17.0 17.0	17.0	12.3
					Middle	3.5	26.1 26.2	26.2	7.8 7.8	7.8	32.7 32.2	32.5	97.9 96.9	97.4	6.9 6.9	6.9		10.4 8.5	9.5		7.9 7.9	7.9	
					Bottom	6	26.1 26.1	26.1	7.8 7.8	7.8	32.6 32.8	32.7	96.6 95.3	96.0	6.8 6.8	6.8	6.8	18.3 18.6	18.5		12.0 12.0	12.0	
10-Oct-11	Cloudy	Moderate	16:52	7	Surface	1	26.4 26.4	26.4	7.9 7.9	7.9	32.5 32.5	32.5	100.7 101.7	101.2	6.8 6.8	6.8	6.7	10.0 9.1	9.6	19.3	12.0 12.0	12.0	13.2
					Middle	3.5	26.4 26.4	26.4	7.9 7.9	7.9	32.7 32.7	32.7	97.0 98.8	97.9	6.5 6.6	6.6		11.2 10.8	11.0		16.0 15.0	15.5	
					Bottom	6	26.3 26.3	26.3	7.9 7.9	7.9	33.2 33.2	33.2	92.3 91.0	91.7	6.2 6.1	6.2	6.2	37.5 37.2	37.4		12.0 12.0	12.0	
12-Oct-11	Rainy	Moderate	17:35	7	Surface	1	26.3 26.2	26.3	7.9 7.9	7.9	31.6 32.0	31.8	92.3 85.2	88.8	6.9 6.6	6.8	6.7	13.2 14.3	13.8	18.9	11.0 11.0	11.0	13.3
					Middle	3.5	26.1 26.1	26.1	8.0 8.0	8.0	33.0 33.2	33.1	87.9 79.7	83.8	6.7 6.2	6.5		13.9 13.9	13.9		12.0 12.0	12.0	
					Bottom	6	26.0 26.0	26.0	8.0 8.0	8.0	33.4 33.4	33.4	85.5 82.7	84.1	6.6 6.5	6.6	6.6	29.9 28.3	29.1		17.0 17.0	17.0	
14-Oct-11	Cloudy	Moderate	07:53	7.1	Surface	1	26.3 26.3	26.3	7.7 7.7	7.7	24.6 24.6	24.6	88.7 88.7	88.7	6.2 6.2	6.2	6.3	8.2 8.3	8.3	18.3	16.0 16.0	16.0	16.0
					Middle	3.5	26.2 26.2	26.2	7.7 7.7	7.7	25.7 25.7	25.7	89.4 89.5	89.5	6.3 6.3	6.3		22.7 22.3	22.5		14.0 14.0	14.0	
					Bottom	6	26.2 26.2	26.2	7.7 7.7	7.7	26.1 26.1	26.1	89.7 89.6	89.7	6.3 6.3	6.3	6.3	24.7 23.2	24.0		18.0 18.0	18.0	
16-Oct-11	Sunny	Moderate	09:33	7.2	Surface	1	25.8 25.8	25.8	7.8 7.8	7.8	25.5 25.5	25.5	91.1 91.1	91.1	6.4 6.4	6.4	6.4	6.3 6.2	6.3	38.6	13.0 13.0	13.0	14.5
					Middle	3.5	25.8 25.8	25.8	7.8 7.8	7.8	25.8 25.9	25.9	90.3 90.2	90.3	6.4 6.4	6.4		7.7 9.3	8.5		16.0 17.0	16.5	
					Bottom	6	25.7 25.7	25.7	7.8 7.8	7.8	26.4 26.4	26.4	89.7 89.7	89.7	6.3 6.3	6.3	6.3	99.9 102.1	101.0		14.0 14.0	14.0	
18-Oct-11	Sunny	Moderate	10:31	7	Surface	1	26.2 26.2	26.2	7.8 7.8	7.8	24.6 24.6	24.6	91.0 91.6	91.3	6.9 7.0	7.0	6.8	3.2 3.2	3.2	7.0	7.9 7.8	7.9	10.0
					Middle	3.5	25.8 25.8	25.8	7.8 7.8	7.8	26.6 26.8	26.7	85.8 85.0	85.4	6.5 6.5	6.5		6.0 7.1	6.6		11.0 11.0	11.0	
					Bottom	6	25.8 25.8	25.8	7.7 7.7	7.7	26.9 26.9	26.9	79.5 78.8	79.2	6.0 6.0	6.0	6.0	11.1 11.3	11.2		11.0 11.0	11.0	
22-Oct-11	Sunny	Moderate	14:57	7	Surface	1	26.4 26.5	26.5	8.2 8.2	8.2	28.8 28.7	28.8	97.7 92.8	95.3	7.7 7.3	7.5	7.6	5.3 5.5	5.4	21.8	7.5 7.7	7.6	9.3
					Middle	3.5	26.0 26.1	26.1	8.0 8.0	8.0	31.6 31.5	31.6	95.1 98.6	96.9	7.5 7.8	7.7		13.3 11.9	12.6		9.8 9.8	9.8	
					Bottom	6	26.0 26.0	26.0	8.0 8.0	8.0	32.0 32.0	32.0	98.9 98.6	98.8	7.8 7.8	7.8	7.8	47.3 47.5	47.4		10.0 11.0	10.5	
25-Oct-11	Sunny	Moderate	16:20	7.3	Surface	1	26.2 26.2	26.2	8.1 8.1	8.1	30.3 30.3	30.3	87.0 88.9	88.0	7.0 7.1	7.1	7.2	6.9 7.1	7.0	18.3	6.1 6.1	6.1	9.4
					Middle	3.5	26.2 26.2	26.2	8.1 8.1	8.1	30.9 30.9	30.9	89.9 89.8	89.9	7.2 7.2	7.2		9.2 9.6	9.4		12.0 12.0	12.0	
					Bottom	6	26.2 26.2	26.2	8.1 8.1	8.1	31.4 31.4	31.4	89.3 88.3	88.8	7.1 7.1	7.1	7.1	39.3 37.8	38.6		10.0 10.0	10.0	

Remarks: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at IS2 - Mid-Flood Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
27-Oct-11	Cloudy	Moderate	06:24	7	Surface	1	25.8 25.8	25.8	8.0 8.0	8.0	31.5 31.5	31.5	98.1 98.0	98.1	6.7 6.7	6.7	6.7	11.3 11.4	11.4	15.3	19.0 19.0	19.0	19.3
					Middle	3.5	25.8 25.8	25.8	8.1 8.1	8.1	31.9 31.9	31.9	97.6 97.8	97.7	6.6 6.7	6.7		11.6 11.4	11.5		20.0 20.0	20.0	
					Bottom	6	25.8 25.8	25.8	8.1 8.1	8.1	32.5 32.5	32.5	97.4 97.4	97.4	6.6 6.6	6.6	6.6	22.8 23.4	23.1		19.0 19.0	19.0	
29-Oct-11	Sunny	Moderate	09:25	7	Surface	1	25.5 25.5	25.5	8.0 8.0	8.0	31.3 31.3	31.3	109.7 109.6	109.7	7.5 7.5	7.5	7.5	12.7 12.6	12.7	13.6	24.0 24.0	24.0	21.3
					Middle	3.5	25.5 25.5	25.5	8.0 8.0	8.0	31.5 31.5	31.5	109.0 108.9	109.0	7.5 7.5	7.5		14.7 14.6	14.7		17.0 17.0	17.0	
					Bottom	6	25.5 25.5	25.5	8.0 8.0	8.0	31.7 31.7	31.7	108.4 108.4	108.4	7.4 7.4	7.4	7.4	13.2 13.3	13.3		23.0 23.0	23.0	
31-Oct-11	Sunny	Moderate	10:33	7.2	Surface	1	25.5 25.5	25.5	8.0 8.0	8.0	31.7 31.8	31.8	92.1 90.5	91.3	7.4 7.2	7.3	7.3	10.8 10.7	10.8	39.4	19.0 19.0	19.0	19.3
					Middle	3	25.4 25.4	25.4	8.0 8.0	8.0	32.1 27.1	29.6	88.6 92.9	90.8	7.1 7.4	7.3		39.7 42.2	41.0		17.0 18.0	17.5	
					Bottom	5	25.4 25.4	25.4	8.0 8.0	8.0	32.1 32.1	32.1	90.4 90.9	90.7	7.2 7.3	7.3	7.3	64.8 67.7	66.3		22.0 21.0	21.5	

Remarks: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at IS3 - Mid-Ebb Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
6-Oct-11	Fine	Moderate	08:58	5	Surface	1	26.0 26.0	26.0	8.0 8.0	8.0	32.7 32.7	32.7	93.1 92.2	92.7	6.3 6.2	6.3	6.3	10.1 10.4	10.3	11.1	14.0 14.0	14.0	17.0
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4	26.0 26.0	26.0	8.0 8.0	8.0	32.8 32.8	32.8	91.1 90.9	91.0	6.2 6.1	6.2	6.2	11.7 11.9	11.8		20.0 20.0	20.0	
8-Oct-11	Sunny	Moderate	11:17	5	Surface	1	26.3 26.3	26.3	8.0 8.0	8.0	32.9 32.9	32.9	91.1 90.9	91.0	6.1 6.1	6.1	6.1	11.1 11.1	11.1	13.2	15.0 15.0	15.0	13.5
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4	26.2 26.2	26.2	8.0 8.0	8.0	32.9 32.9	32.9	90.0 89.9	90.0	6.0 6.0	6.0	6.0	15.7 14.8	15.3		12.0 12.0	12.0	
10-Oct-11	Cloudy	Moderate	12:03	5.2	Surface	1	26.2 26.3	26.3	8.0 8.0	8.0	32.9 32.9	32.9	95.1 94.6	94.9	6.4 6.4	6.4	6.4	9.7 9.8	9.8	11.6	15.0 15.0	15.0	14.5
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4	26.2 26.2	26.2	8.0 8.0	8.0	32.9 32.9	32.9	93.1 93.3	93.2	6.3 6.3	6.3	6.3	13.2 13.4	13.3		14.0 14.0	14.0	
12-Oct-11	Rainy	Moderate	12:58	5.2	Surface	1	26.3 26.3	26.3	8.0 8.0	8.0	32.7 32.7	32.7	96.2 95.6	95.9	6.5 6.4	6.5	6.5	10.5 11.0	10.8	14.3	14.0 14.0	14.0	14.0
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4	26.1 26.1	26.1	8.0 8.0	8.0	33.0 33.0	33.0	92.2 92.6	92.4	6.2 6.2	6.2	6.2	19.0 16.6	17.8		14.0 14.0	14.0	
14-Oct-11	Cloudy	Moderate	13:38	4.8	Surface	1	26.4 26.4	26.4	7.7 7.7	7.7	25.1 25.0	25.1	90.9 91.2	91.1	6.4 6.4	6.4	6.4	9.0 8.4	8.7	11.7	11.0 10.0	10.5	10.0
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4	26.4 26.4	26.4	7.7 7.7	7.7	25.2 25.2	25.2	90.6 89.9	90.3	6.3 6.3	6.3	6.3	13.9 15.4	14.7		9.7 9.4	9.6	
16-Oct-11	Sunny	Moderate	15:14	4.1	Surface	1	26.5 26.5	26.5	7.8 7.8	7.8	24.6 24.6	24.6	98.1 97.8	98.0	6.9 6.9	6.9	6.9	5.8 5.6	5.7	10.5	13.0 13.0	13.0	11.2
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3	25.8 25.8	25.8	7.7 7.7	7.7	25.0 25.1	25.1	90.4 89.6	90.0	6.4 6.3	6.4	6.4	14.9 15.4	15.2		9.2 9.5	9.4	
18-Oct-11	Sunny	Moderate	15:19	5.2	Surface	1	28.1 28.7	28.4	7.4 7.3	7.4	30.5 30.5	30.5	75.4 80.0	77.7	5.7 6.1	5.9	5.9	8.6 8.2	8.4	9.6	15.0 14.0	14.5	15.3
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4	28.0 28.1	28.1	7.4 7.4	7.4	31.7 31.8	31.8	77.1 75.5	76.3	5.9 5.7	5.8	5.8	10.6 10.9	10.8		16.0 16.0	16.0	
22-Oct-11	Sunny	Moderate	07:16	5	Surface	1	25.8 25.8	25.8	8.0 8.0	8.0	31.8 31.8	31.8	93.4 93.8	93.6	7.4 7.4	7.4	7.4	6.9 7.0	7.0	10.4	15.0 15.0	15.0	13.0
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4	25.9 26.0	26.0	8.0 8.0	8.0	32.1 32.2	32.2	92.7 91.5	92.1	7.3 7.2	7.3	7.3	14.5 12.8	13.7		11.0 11.0	11.0	
25-Oct-11	Sunny	Moderate	11:00	5.1	Surface	1	26.4 26.4	26.4	8.1 8.1	8.1	29.4 29.5	29.5	86.6 88.0	87.3	6.9 7.0	7.0	7.0	9.4 9.4	9.4	24.4	13.0 13.0	13.0	11.0
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4	26.1 26.1	26.1	8.0 8.0	8.0	31.0 30.9	31.0	82.6 81.1	81.9	6.6 6.5	6.6	6.6	39.5 39.2	39.4		9.1 9.0	9.1	

Remarks: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at IS3 - Mid-Ebb Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
27-Oct-11	Cloudy	Moderate	13:50	4.2	Surface	1	26.0 26.0	26.0	8.1 8.1	8.1	32.2 31.3	31.8	122.0 122.2	122.1	8.3 8.3	8.3	8.3	15.7 15.4	15.6	24.2	16.0 17.0	16.5	18.3
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3	26.0 26.0	26.0	8.1 8.1	8.1	32.2 32.2	32.2	122.2 122.0	122.1	8.3 8.3	8.3	8.3	31.4 34.0	32.7		20.0 20.0	20.0	
29-Oct-11	Sunny	Moderate	15:53	5	Surface	1	25.8 25.8	25.8	8.0 8.0	8.0	31.6 25.4	28.5	132.7 132.3	132.5	9.0 9.3	9.2	9.2	16.6 16.9	16.8	29.1	25.0 25.0	25.0	28.3
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4	25.9 25.9	25.9	8.0 8.0	8.0	31.6 31.6	31.6	127.3 127.7	127.5	8.7 8.7	8.7	8.7	41.1 41.5	41.3		32.0 31.0	31.5	
31-Oct-11	Sunny	Moderate	16:38	4.8	Surface	1	26.0 26.0	26.0	8.0 8.0	8.0	32.1 32.1	32.1	97.4 97.8	97.6	7.8 7.8	7.8	7.8	8.6 8.4	8.5	10.8	16.0 16.0	16.0	27.8
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4	25.6 25.6	25.6	8.0 8.0	8.0	32.3 32.3	32.3	95.8 94.9	95.4	7.7 7.6	7.7	7.7	12.0 13.9	13.0		40.0 39.0	39.5	

Remarks: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at IS3 - Mid-Flood Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
6-Oct-11	Fine	Moderate	17:20	5	Surface	1	26.0 26.0	26.0	8.0 8.0	8.0	32.5 32.7	32.6	92.6 92.4	92.5	6.3 6.2	6.3	6.3	16.8 16.0	16.4	16.8	24.0 23.0	23.5	20.8
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4	26.0 26.0	26.0	8.0 8.0	8.0	32.8 32.8	32.8	90.8 90.7	90.8	6.1 6.1	6.1	6.1	17.5 16.9	17.2		18.0 18.0	18.0	
8-Oct-11	Sunny	Moderate	17:36	5.2	Surface	1	26.7 26.7	26.7	8.0 8.0	8.0	32.9 32.9	32.9	92.6 91.5	92.1	6.2 6.1	6.2	6.2	16.6 17.2	16.9	29.4	24.0 24.0	24.0	26.5
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4	26.5 26.5	26.5	8.0 8.0	8.0	33.0 33.0	33.0	90.5 90.2	90.4	6.0 6.0	6.0	6.0	39.9 43.8	41.9		29.0 29.0	29.0	
10-Oct-11	Cloudy	Moderate	19:01	4.9	Surface	1	26.4 26.4	26.4	8.0 8.0	8.0	32.4 32.2	32.3	95.4 95.7	95.6	6.4 6.4	6.4	6.4	8.4 8.7	8.6	18.9	16.0 16.0	16.0	14.0
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4	26.4 26.4	26.4	8.0 8.0	8.0	32.7 32.7	32.7	94.1 94.3	94.2	6.3 6.3	6.3	6.3	30.2 28.0	29.1		12.0 12.0	12.0	
12-Oct-11	Rainy	Moderate	18:27	5	Surface	1	26.1 26.1	26.1	8.0 8.0	8.0	32.1 32.1	32.1	94.5 94.3	94.4	6.4 6.4	6.4	6.4	8.2 8.6	8.4	15.7	20.0 19.0	19.5	21.0
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4	26.1 26.1	26.1	8.0 8.0	8.0	32.7 32.8	32.8	93.6 93.5	93.6	6.3 6.3	6.3	6.3	23.0 23.0	23.0		22.0 23.0	22.5	
14-Oct-11	Cloudy	Moderate	07:45	5	Surface	1	26.4 26.4	26.4	7.6 7.6	7.6	23.4 23.4	23.4	89.2 87.9	88.6	6.3 6.2	6.3	6.3	11.7 11.6	11.7	12.8	11.0 11.0	11.0	12.0
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4	26.4 26.4	26.4	7.7 7.7	7.7	24.4 24.4	24.4	87.1 87.1	87.1	6.1 6.1	6.1	6.1	14.0 13.5	13.8		13.0 13.0	13.0	
16-Oct-11	Sunny	Moderate	09:24	4.3	Surface	1	25.8 25.8	25.8	7.8 7.8	7.8	24.6 24.7	24.7	91.0 90.8	90.9	6.5 6.4	6.5	6.5	7.3 7.2	7.3	7.8	11.0 11.0	11.0	11.5
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3	25.7 25.7	25.7	7.8 7.8	7.8	25.2 25.2	25.2	90.8 90.8	90.8	6.4 6.4	6.4	6.4	8.1 8.3	8.2		12.0 12.0	12.0	
18-Oct-11	Sunny	Moderate	10:24	5	Surface	1	26.2 26.1	26.2	7.8 7.8	7.8	25.4 25.5	25.5	88.1 87.0	87.6	6.7 6.6	6.7	6.7	9.6 8.3	9.0	10.3	7.7 7.5	7.6	7.8
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4	25.8 25.8	25.8	7.7 7.7	7.7	26.5 26.5	26.5	81.9 81.0	81.5	6.2 6.2	6.2	6.2	11.3 11.7	11.5		8.0 8.1	8.1	
22-Oct-11	Sunny	Moderate	15:04	5	Surface	1	26.4 26.4	26.4	8.2 8.2	8.2	29.5 29.5	29.5	90.6 90.5	90.6	7.2 7.2	7.2	7.2	13.2 13.3	13.3	18.0	11.0 12.0	11.5	13.0
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4	26.3 26.3	26.3	8.2 8.2	8.2	29.7 29.8	29.8	93.9 93.4	93.7	7.4 7.4	7.4	7.4	22.9 22.3	22.6		14.0 15.0	14.5	
25-Oct-11	Sunny	Moderate	16:35	5	Surface	1	26.2 26.3	26.3	8.1 8.1	8.1	29.8 30.8	30.3	90.6 90.7	90.7	7.2 7.3	7.3	7.3	9.2 10.4	9.8	19.2	13.0 13.0	13.0	15.0
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4	26.2 26.2	26.2	8.1 8.1	8.1	31.0 30.0	30.5	89.4 89.0	89.2	7.2 7.1	7.2	7.2	27.7 29.4	28.6		17.0 17.0	17.0	

Remarks: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at IS3 - Mid-Flood Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
27-Oct-11	Cloudy	Moderate	06:18	4.2	Surface	1	25.7 25.7	25.7	8.0 8.0	8.0	31.7 31.7	31.7	98.1 98.0	98.1	6.7 6.7	6.7	6.7	16.5 16.9	16.7	23.1	22.0 21.0	21.5	22.0
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3	25.7 25.7	25.7	8.1 8.1	8.1	31.7 31.7	31.7	97.8 97.8	97.8	6.7 6.7	6.7	6.7	31.5 27.4	29.5		22.0 23.0	22.5	
29-Oct-11	Sunny	Moderate	09:16	4.3	Surface	1	25.7 25.7	25.7	8.0 8.0	8.0	31.4 31.4	31.4	109.1 109.1	109.1	7.5 7.5	7.5	7.5	21.4 20.8	21.1	22.8	25.0 25.0	25.0	28.5
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	3	25.7 25.7	25.7	8.0 8.0	8.0	31.4 31.4	31.4	108.6 108.6	108.6	7.4 7.4	7.4	7.4	24.3 24.6	24.5		32.0 32.0	32.0	
31-Oct-11	Sunny	Moderate	10:28	5	Surface	1	25.4 25.4	25.4	8.0 8.0	8.0	31.7 27.0	29.4	90.9 92.9	91.9	7.3 7.4	7.4	7.4	13.5 13.2	13.4	24.4	21.0 21.0	21.0	18.0
					Middle	-	- -	-	- -	-	- -	-	- -	-	- -	-		- -	-		- -	-	
					Bottom	4	25.4 25.3	25.4	8.0 8.0	8.0	31.8 31.8	31.8	99.5 99.1	99.3	8.0 7.9	8.0	8.0	35.5 35.0	35.3		15.0 15.0	15.0	

Remarks: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at IS4 - Mid-Ebb Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
6-Oct-11	Fine	Moderate	08:42	6.5	Surface	1	25.9 25.9	25.9	8.0 8.0	8.0	31.9 31.9	31.9	92.5 91.8	92.2	6.3 6.2	6.3	6.2	8.4 8.3	8.4	11.1	29.0 29.0	29.0	24.3
					Middle	3.5	25.9 25.9	25.9	8.0 8.0	8.0	32.5 32.5	32.5	90.7 90.5	90.6	6.1 6.1	6.1		10.8 10.2	10.5		33.0 33.0	33.0	
					Bottom	6	25.9 25.9	25.9	8.0 8.0	8.0	32.7 32.7	32.7	89.9 89.7	89.8	6.1 6.1	6.1	6.1	14.7 13.8	14.3		11.0 11.0	11.0	
8-Oct-11	Sunny	Moderate	11:02	7.3	Surface	1	26.3 26.3	26.3	8.0 8.0	8.0	32.9 32.9	32.9	90.0 89.9	90.0	6.0 6.0	6.0	6.0	9.1 9.2	9.2	18.5	21.0 20.0	20.5	16.5
					Middle	3.5	26.1 26.1	26.1	8.0 8.0	8.0	33.0 33.0	33.0	88.7 88.6	88.7	6.0 6.0	6.0		11.0 11.2	11.1		16.0 16.0	16.0	
					Bottom	6	26.1 26.0	26.1	8.0 8.0	8.0	33.0 33.0	33.0	87.9 87.8	87.9	5.9 5.9	5.9	5.9	35.0 35.4	35.2		13.0 13.0	13.0	
10-Oct-11	Cloudy	Moderate	11:45	7	Surface	1	26.3 26.3	26.3	8.0 8.0	8.0	32.8 32.8	32.8	94.1 94.6	94.4	6.3 6.4	6.4	6.4	9.7 9.6	9.7	13.2	20.0 19.0	19.5	16.7
					Middle	3.5	26.3 26.3	26.3	8.0 8.0	8.0	32.8 32.8	32.8	93.4 95.0	94.2	6.3 6.4	6.4		10.1 9.9	10.0		17.0 18.0	17.5	
					Bottom	6	26.2 26.2	26.2	8.0 8.0	8.0	32.9 32.9	32.9	92.4 93.5	93.0	6.2 6.3	6.3	6.3	19.9 19.8	19.9		13.0 13.0	13.0	
12-Oct-11	Rainy	Moderate	12:43	6.6	Surface	1	26.2 26.2	26.2	8.0 8.0	8.0	32.6 32.6	32.6	95.2 94.8	95.0	6.4 6.4	6.4	6.4	11.1 10.6	10.9	13.8	18.0 18.0	18.0	15.8
					Middle	3.5	26.1 26.1	26.1	8.0 8.0	8.0	32.7 32.7	32.7	93.9 94.1	94.0	6.3 6.3	6.3		12.3 11.4	11.9		16.0 17.0	16.5	
					Bottom	6	26.1 26.1	26.1	8.0 8.0	8.0	32.9 32.9	32.9	92.8 92.5	92.7	6.2 6.2	6.2	6.2	17.8 19.2	18.5		13.0 13.0	13.0	
14-Oct-11	Cloudy	Moderate	13:31	7	Surface	1	26.5 26.5	26.5	7.9 7.9	7.9	30.0 30.0	30.0	92.4 91.6	92.0	6.3 6.2	6.3	6.2	6.2 6.1	6.2	12.6	20.0 19.0	19.5	15.8
					Middle	3.5	26.3 26.3	26.3	7.9 7.9	7.9	31.2 31.2	31.2	90.5 90.3	90.4	6.1 6.1	6.1		13.6 12.8	13.2		14.0 14.0	14.0	
					Bottom	6	26.3 26.3	26.3	7.9 7.9	7.9	31.3 31.3	31.3	89.9 90.1	90.0	6.1 6.1	6.1	6.1	19.0 17.8	18.4		14.0 14.0	14.0	
16-Oct-11	Sunny	Moderate	15:09	7.1	Surface	1	26.2 26.2	26.2	8.0 8.0	8.0	31.3 31.3	31.3	73.0 73.3	73.2	5.0 5.0	5.0	4.6	10.7 10.5	10.6	18.4	13.0 13.0	13.0	11.2
					Middle	3.5	25.9 25.9	25.9	8.0 8.0	8.0	32.0 32.0	32.0	61.1 61.0	61.1	4.2 4.1	4.2		16.7 17.1	16.9		8.6 8.5	8.6	
					Bottom	6	25.8 25.8	25.8	8.0 8.0	8.0	32.2 32.2	32.2	54.5 53.8	54.2	3.7 3.7	3.7	3.7	27.5 28.0	27.8		12.0 12.0	12.0	
18-Oct-11	Sunny	Moderate	15:45	7.2	Surface	1	26.7 26.7	26.7	8.0 8.0	8.0	30.0 30.0	30.0	108.2 108.6	108.4	7.3 7.4	7.4	7.4	3.9 3.6	3.8	7.1	18.0 18.0	18.0	9.7
					Middle	3.5	26.6 26.6	26.6	8.0 8.0	8.0	30.2 30.2	30.2	109.1 109.2	109.2	7.4 7.4	7.4		3.8 3.7	3.8		6.3 6.4	6.4	
					Bottom	6	26.0 26.0	26.0	8.0 8.0	8.0	30.9 30.9	30.9	92.0 91.9	92.0	6.3 6.3	6.3	6.3	13.7 13.5	13.6		4.7 4.7	4.7	
22-Oct-11	Sunny	Moderate	08:19	7	Surface	1	26.0 26.0	26.0	8.1 8.1	8.1	30.1 30.1	30.1	130.7 131.7	131.2	9.0 9.0	9.0	8.2	3.5 3.4	3.5	7.8	15.0 15.0	15.0	11.8
					Middle	3.5	26.0 26.0	26.0	8.0 8.0	8.0	31.8 31.8	31.8	107.4 107.2	107.3	7.3 7.3	7.3		8.5 8.8	8.7		10.0 11.0	10.5	
					Bottom	6	26.0 26.0	26.0	8.0 8.0	8.0	32.0 32.0	32.0	106.7 106.5	106.6	7.2 7.2	7.2	7.2	11.2 11.0	11.1		9.9 9.8	9.9	
25-Oct-11	Sunny	Moderate	11:16	7	Surface	1	26.3 26.3	26.3	8.0 8.0	8.0	30.3 30.3	30.3	80.8 73.5	77.2	5.6 5.5	5.6	5.1	5.6 5.3	5.5	26.7	24.0 23.0	23.5	19.2
					Middle	3.5	26.2 26.2	26.2	7.9 7.9	7.9	32.0 32.0	32.0	69.5 79.6	74.6	4.7 4.2	4.5		20.2 21.0	20.6		18.0 18.0	18.0	
					Bottom	6	26.2 26.2	26.2	7.9 7.9	7.9	32.0 32.0	32.0	73.5 72.0	72.8	5.0 4.9	5.0	5.0	52.3 55.4	53.9		16.0 16.0	16.0	

Remarks: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at IS4 - Mid-Ebb Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
27-Oct-11	Cloudy	Moderate	12:50	7	Surface	1	25.9 25.9	25.9	8.2 8.2	8.2	30.9 31.9	31.4	91.8 91.8	91.8	7.0 6.9	7.0	6.7	6.7 6.7	6.7	8.9	20.0 19.0	19.5	14.7
					Middle	3.5	25.9 25.9	25.9	8.2 8.2	8.2	30.9 32.0	31.5	82.4 82.4	82.4	6.3 6.2	6.3		7.5 7.4	7.5		16.0 16.0	16.0	
					Bottom	6	25.8 25.8	25.8	8.2 8.2	8.2	32.3 32.3	32.3	74.0 72.5	73.3	5.6 5.5	5.6	5.6	12.4 12.8	12.6		8.6 8.6	8.6	
29-Oct-11	Sunny	Moderate	08:56	7	Surface	1	25.9 25.9	25.9	8.1 8.1	8.1	30.4 30.7	30.6	109.8 110.3	110.1	7.7 7.7	7.7	7.4	4.8 4.7	4.8	8.1	19.0 19.0	19.0	18.8
					Middle	3.5	25.8 25.8	25.8	8.1 8.1	8.1	31.0 31.4	31.2	99.3 99.2	99.3	7.0 6.9	7.0		6.8 6.8	6.8		16.0 15.0	15.5	
					Bottom	6	25.6 25.6	25.6	8.1 8.1	8.1	31.8 31.8	31.8	90.5 89.9	90.2	6.3 6.3	6.3	6.3	12.8 12.8	12.8		22.0 22.0	22.0	
31-Oct-11	Sunny	Moderate	15:58	7	Surface	1	25.9 25.9	25.9	8.1 8.1	8.1	31.6 31.6	31.6	108.7 107.3	108.0	7.4 7.3	7.4	7.3	9.0 8.8	8.9	14.3	10.0 10.0	10.0	12.0
					Middle	3.5	25.5 25.5	25.5	8.1 8.1	8.1	31.9 31.8	31.9	105.3 103.8	104.6	7.2 7.1	7.2		14.2 13.9	14.1		15.0 15.0	15.0	
					Bottom	6	25.5 25.5	25.5	8.1 8.1	8.1	31.8 31.8	31.8	104.2 101.7	103.0	7.1 7.0	7.1	7.1	19.6 19.9	19.8		11.0 11.0	11.0	

Remarks: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at IS4 - Mid-Flood Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
6-Oct-11	Fine	Moderate	16:57	6.5	Surface	1	26.1 26.1	26.1	8.0 8.0	8.0	32.6 32.7	32.7	93.9 91.0	92.5	6.3 6.1	6.2	6.2	12.2 12.7	12.5	15.1	15.0 15.0	15.0	13.0
					Middle	3.5	26.1 26.0	26.1	8.0 8.0	8.0	32.7 32.7	32.7	91.1 91.0	91.1	6.1 6.1	6.1		14.5 16.1	15.3		11.0 11.0	11.0	
					Bottom	6	26.0 26.0	26.0	8.0 8.0	8.0	32.8 32.7	32.8	90.5 90.8	90.7	6.1 6.1	6.1	6.1	18.6 16.5	17.6		13.0 13.0	13.0	
8-Oct-11	Sunny	Moderate	17:19	7	Surface	1	26.5 26.5	26.5	8.0 8.0	8.0	32.5 32.5	32.5	95.2 95.1	95.2	6.4 6.4	6.4	6.4	4.7 4.8	4.8	17.2	6.4 6.4	6.4	12.0
					Middle	3.5	26.4 26.5	26.5	8.0 8.0	8.0	32.7 32.7	32.7	93.8 93.6	93.7	6.3 6.3	6.3		8.0 7.6	7.8		9.7 9.7	9.7	
					Bottom	6	26.4 26.4	26.4	8.0 8.0	8.0	32.9 32.9	32.9	90.4 90.3	90.4	6.1 6.1	6.1	6.1	38.9 38.8	38.9		20.0 20.0	20.0	
10-Oct-11	Cloudy	Moderate	18:51	7	Surface	1	26.4 26.4	26.4	7.9 8.0	8.0	31.7 31.9	31.8	95.1 94.6	94.9	6.4 6.4	6.4	6.4	6.7 6.8	6.8	11.2	9.6 9.4	9.5	12.5
					Middle	3.5	26.4 26.4	26.4	7.9 8.0	8.0	31.8 31.9	31.9	94.4 94.2	94.3	6.4 6.3	6.4		7.3 7.1	7.2		15.0 15.0	15.0	
					Bottom	6	26.4 26.4	26.4	8.0 8.0	8.0	32.5 32.6	32.6	94.2 93.8	94.0	6.3 6.3	6.3	6.3	19.3 20.1	19.7		13.0 13.0	13.0	
12-Oct-11	Rainy	Moderate	18:13	6.9	Surface	1	26.1 26.1	26.1	8.0 8.0	8.0	32.7 32.7	32.7	94.2 94.0	94.1	6.4 6.3	6.4	6.4	9.1 9.1	9.1	13.8	11.0 11.0	11.0	13.2
					Middle	3.5	26.1 26.1	26.1	8.0 8.0	8.0	32.7 32.5	32.6	93.5 93.4	93.5	6.3 6.3	6.3		10.2 9.3	9.8		11.0 11.0	11.0	
					Bottom	6	26.1 26.1	26.1	8.0 8.0	8.0	32.9 32.8	32.9	92.2 92.0	92.1	6.2 6.2	6.2	6.2	24.7 20.2	22.5		18.0 17.0	17.5	
14-Oct-11	Cloudy	Moderate	07:50	6.8	Surface	1	26.5 26.5	26.5	7.8 7.9	7.9	28.4 28.5	28.5	88.4 88.2	88.3	6.1 6.0	6.1	6.1	6.5 6.6	6.6	13.3	15.0 15.0	15.0	15.2
					Middle	3.5	26.5 26.5	26.5	7.8 7.9	7.9	29.1 29.1	29.1	87.5 87.6	87.6	6.0 6.0	6.0		9.0 8.9	9.0		15.0 14.0	14.5	
					Bottom	6	26.4 26.4	26.4	7.9 7.9	7.9	30.0 30.0	30.0	87.5 87.3	87.4	6.0 5.9	6.0	6.0	22.9 25.4	24.2		16.0 16.0	16.0	
16-Oct-11	Sunny	Moderate	10:44	7	Surface	1	25.9 25.9	25.9	7.9 7.9	7.9	29.7 29.7	29.7	68.7 67.7	68.2	4.7 4.7	4.7	4.3	8.1 7.8	8.0	29.2	9.4 9.3	9.4	12.3
					Middle	3.5	25.8 25.8	25.8	7.9 7.9	7.9	31.3 31.3	31.3	59.1 52.7	55.9	4.0 3.6	3.8		22.7 23.5	23.1		9.4 9.7	9.6	
					Bottom	6	25.8 25.8	25.8	7.9 7.9	7.9	31.4 31.4	31.4	62.5 61.2	61.9	4.3 4.2	4.3	4.3	54.8 57.9	56.4		18.0 18.0	18.0	
18-Oct-11	Sunny	Moderate	11:12	8	Surface	1	26.3 26.3	26.3	7.9 8.0	8.0	29.8 29.7	29.8	97.8 97.3	97.6	6.7 6.7	6.7	6.7	5.0 4.7	4.9	10.6	8.9 8.6	8.8	8.6
					Middle	4	26.0 26.0	26.0	8.0 8.0	8.0	30.4 30.5	30.5	98.2 98.1	98.2	6.7 6.7	6.7		4.8 4.6	4.7		8.5 8.5	8.5	
					Bottom	7	25.9 25.9	25.9	8.0 8.0	8.0	31.5 31.4	31.5	92.0 92.2	92.1	6.3 6.3	6.3	6.3	21.7 22.9	22.3		8.5 8.6	8.6	
22-Oct-11	Sunny	Moderate	15:33	7.2	Surface	1	26.5 26.5	26.5	8.3 8.3	8.3	29.8 29.8	29.8	164.0 163.9	164.0	11.2 11.2	11.2	11.2	7.2 7.5	7.4	9.1	13.0 13.0	13.0	13.3
					Middle	3.5	26.5 26.5	26.5	8.3 8.3	8.3	29.9 29.9	29.9	164.5 164.6	164.6	11.2 11.2	11.2		6.5 6.8	6.7		13.0 13.0	13.0	
					Bottom	6	26.2 26.2	26.2	8.2 8.2	8.2	30.7 30.7	30.7	139.4 139.5	139.5	9.5 9.5	9.5	9.5	13.8 12.5	13.2		14.0 14.0	14.0	
25-Oct-11	Sunny	Moderate	17:04	7.3	Surface	1	26.6 26.6	26.6	8.1 8.1	8.1	30.8 30.8	30.8	91.3 91.6	91.5	6.2 6.2	6.2	5.7	7.4 7.2	7.3	15.1	24.0 24.0	24.0	20.3
					Middle	3.5	26.3 26.3	26.3	8.1 8.1	8.1	31.6 31.5	31.6	76.4 76.3	76.4	5.2 5.2	5.2		13.4 13.8	13.6		17.0 17.0	17.0	
					Bottom	6	26.3 26.3	26.3	8.0 8.0	8.0	31.8 31.8	31.8	68.1 67.3	67.7	4.6 4.6	4.6	4.6	24.2 24.7	24.5		20.0 20.0	20.0	

Remarks: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Water Quality Monitoring Results at IS4 - Mid-Flood Tide

Date	Weather Condition	Sea Condition**	Sampling Time	Water Depth (m)	Sampling Depth (m)		Water Temperature (°C)		pH		Salinity ppt		DO Saturation (%)		Dissolved Oxygen (mg/L)			Turbidity(NTU)			Suspended Solids (mg/L)		
							Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	DA*	Value	Average	DA*	Value	Average	DA*
27-Oct-11	Cloudy	Moderate	07:01	7.3	Surface	1	25.9 25.9	25.9	8.2 8.2	8.2	30.9 30.9	30.9	103.8 103.3	103.6	7.9 7.8	7.9	7.7	9.7 9.5	9.6	14.3	16.0 15.0	15.5	14.8
					Middle	3.5	25.9 25.9	25.9	8.2 8.2	8.2	31.1 31.1	31.1	100.2 98.2	99.2	7.6 7.4	7.5		11.5 11.5	11.5		19.0 20.0	19.5	
					Bottom	6	25.8 25.8	25.8	8.2 8.2	8.2	31.6 30.8	31.2	78.5 77.1	77.8	5.9 5.9	5.9	5.9	22.2 21.6	21.9		9.2 9.3	9.3	
29-Oct-11	Sunny	Moderate	14:26	7.9	Surface	1	25.8 25.8	25.8	8.1 8.1	8.1	31.3 31.3	31.3	102.3 96.7	99.5	7.0 6.6	6.8	6.8	13.1 13.0	13.1	15.0	16.0 15.0	15.5	16.2
					Middle	4	25.6 25.7	25.7	8.1 8.1	8.1	31.5 30.8	31.2	100.0 97.1	98.6	6.8 6.7	6.8		14.3 14.2	14.3		19.0 19.0	19.0	
					Bottom	7	25.5 25.6	25.6	8.1 8.1	8.1	31.6 31.6	31.6	98.1 95.8	97.0	6.7 6.6	6.7	6.7	18.3 16.7	17.5		14.0 14.0	14.0	
31-Oct-11	Sunny	Moderate	11:02	7.2	Surface	1	25.6 25.6	25.6	8.1 8.1	8.1	31.2 31.2	31.2	108.0 110.2	109.1	7.4 7.6	7.5	7.4	8.6 8.9	8.8	17.1	14.0 15.0	14.5	14.7
					Middle	3.5	25.6 25.3	25.5	8.1 8.1	8.1	31.2 31.5	31.4	107.0 105.0	106.0	7.3 7.2	7.3		14.5 14.8	14.7		13.0 14.0	13.5	
					Bottom	6	25.3 25.3	25.3	8.1 8.1	8.1	31.6 31.6	31.6	104.2 102.9	103.6	7.2 7.1	7.2	7.2	28.0 27.7	27.9		16.0 16.0	16.0	

Remarks: * DA: Depth-Averaged
** Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

Contract No. HY/2011/02
Baseline Chinese White Dolphin Monitoring for Hong Kong-Zhuhai-Macao Bridge Hong Kong Projects

Draft Final Report on Baseline Monitoring (September - November 2011)
submitted to the
Hong Kong-Zhuhai-Macao Bridge Hong Kong Project Management Office,
Highways Department

NL24 with newborn calf © HKCRP

Submitted by
Samuel K.Y. Hung, Ph.D.
Hong Kong Cetacean Research Project

15 November 2011

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1. INTRODUCTION

In 2009, the Hong Kong-Zhuhai-Macao Bridge (HZMB) received official approval to be built by the Governments of the Hong Kong Special Administrative Region, Guangdong Province and the Macao Special Administrative Region. The Main Bridge will be jointly funded by all three Governments. Each Government will be responsible for constructing its own boundary crossing facility and link road to connect to the Main Bridge. In Hong Kong, there are three projects associated with the HZMB construction, namely the Hong Kong Link Road (HKLR) Project, the Hong Kong Boundary Crossing Facilities (HKBCF) Project, and the Tuen Mun-Chek Lap Kok Link (TM-CLKL) Project. According to the EM&A Manuals and EPs of the HZMB Projects in Hong Kong (i.e. HKBCF, HKLR and TM-CLKL), baseline dolphin monitoring is required to be carried out three months prior to the commencement of the HKBCF reclamation contract.

To comply with the requirements of the EM&A Manuals and EPS of the HZMB Projects in Hong Kong, the present monitoring study aims to collect data on Chinese White Dolphins (a.k.a. Indo-Pacific humpback dolphin, *Sousa chinensis*) during the pre-construction phase (i.e. baseline dolphin monitoring) in Northeast Lantau (NEL), Northwest Lantau (NWL) and West Lantau (WL) survey areas. This report is the draft final report submitted to the Highways Department, summarizing the results of the survey findings during the entire baseline monitoring period (i.e. September to November 2011).

2. OBJECTIVES AND METHODOLOGY

2.1. Objectives of the Present Study

Several objectives were set for this baseline monitoring study of Chinese White Dolphins for the study area in North and West Lantau waters, in association with the construction works of HZMB Projects. The first objective was to assess the spatial and temporal patterns of distribution and habitat use of Chinese White Dolphins during the pre-construction phase of HZMB Projects in great details. This objective was achieved through collection of research data on dolphins by conducting line-transect vessel surveys in NWL, NEL and WL survey areas.

The second objective was to identify individual Chinese White Dolphins by their natural marks, which was achieved by taking high-quality photographs of dolphins for photo-identification analysis. Photographs of identified individuals were compiled and added to the photo-identification catalogue.

The third objective was to analyze the monitoring data from the present baseline study for better understanding of the various aspects of local dolphin population in relation to the construction works of HZMB Projects. This objective was achieved by conducting various data analyses, including distribution analysis, encounter rate analysis, behavioural analysis and quantitative grid analysis to assess the spatial and temporal patterns of distribution and habitat use of local dolphins based on systematic line-transect survey data, and ranging pattern analysis to study individual movement based on photo-identification data.

2.2. Line-transect Vessel Surveys

The survey team used standard line-transect methods (Buckland et al. 2001) to conduct regular vessel surveys, and followed the same technique of data collection that has been adopted in the last 16 years of marine mammal monitoring surveys in Hong Kong (Hung 2010, 2011; Jefferson 2000). The territorial water of Hong Kong Special Administrative Region was divided into twelve survey areas, and line-transect surveys were conducted in NWL, NEL and WL areas (see transect line layout in Figure 1).

During each vessel survey, a 15-m inboard vessel (*Standard* 31516) with an open upper deck (about 4.5 m above water surface) was used to make observations from the flying bridge area. Two experienced observers (a data recorder and a primary observer) made up the on-effort survey team, and the survey vessel transited different transect lines at a constant speed of 13-15 km per hour. The data recorder searched with unaided eyes and filled out the datasheets, while the primary observer searched for dolphins continuously through 7 x 35 *Brunton* marine binoculars. Both observers searched the sea ahead of the vessel, between 270° and 90° (in relation to the bow, which is defined as 0°). Two to three additional experienced observers were available on the boat to work in shift (i.e. rotate every 30 minutes) in order to minimize fatigue of the survey team members. All observers were experienced in small cetacean survey techniques and identifying local cetacean species. Beforehand they had participated in rigorous at-sea training program provided by the PI.

During on-effort survey periods, the survey team recorded effort data including time, position (latitude and longitude), weather conditions (Beaufort sea state and visibility), and distance traveled in each series (a continuous period of search effort) with the assistance of a handheld GPS (*Garmin eTrex Legend H*). When dolphins were sighted, the survey team would end the survey effort, and immediately recorded the initial sighting distance and angle of the dolphin group from the survey vessel, as well as the sighting time and position. Then the research vessel was diverted from its course to approach the animals for species identification, group size estimation, assessment of group composition, and behavioural observations. The perpendicular distance (PSD) of the dolphin group to the transect line was later calculated from the initial sighting distance and angle. The line-transect data collected during the present study were compatible with the long-term databases maintained by Hong Kong Cetacean Research Project (HKCRP) in a way that it can be analyzed by established computer programmes (e.g. all recent versions of DISTANCE programme including version 6.0, ArcView© GIS programme) for examination of population status including trends in abundance, distribution and habitat use of Chinese White Dolphins.

2.3. Photo-identification

When a group of Chinese White Dolphins were sighted during the line-transect survey, the survey team would end effort and approach the group slowly from the side and behind to take photographs of them. Every attempt was made to photograph every dolphin in the group, and even photograph both sides of the dolphins, since the colouration and markings on both sides may not be symmetrical (Jefferson 2000). Two professional digital cameras (*Canon* EOS 7-D, 60-D models), each equipped with long telephoto lenses (100-400 mm zoom), were available on board for researchers to take sharp, close-up photographs of dolphins as they surfaced. The images were shot at the highest available resolution and stored on Compact Flash memory cards for downloading onto a computer.

All digital images taken in the field were first examined, and those containing potentially identifiable individuals were sorted out. These photographs would then be examined in greater details, and were carefully compared to over 700 identified dolphins in the PRE Chinese White Dolphin photo-identification catalogue managed by the HKCRP researchers. Chinese White Dolphins can be identified by their natural markings, such as nicks, cuts, scars and deformities on their dorsal fin and body, and their unique spotting patterns were also used as secondary identifying

features (Jefferson 2000). All photographs of each individual were then compiled and arranged in chronological order, with data including the date and location first identified (initial sighting), re-sightings, associated dolphins, distinctive features, and age classes entered into a computer database. Any new individuals were given a new identification number, and their data were also added to the catalogue, along with text descriptions including age class, gender, any nickname or unique markings.

2.4. Data Analyses

2.4.1. Distribution pattern analysis

The line-transect survey data was integrated with the Geographic Information System (GIS) in order to visualize and interpret different spatial and temporal patterns of dolphin distribution using sighting positions. Location data of dolphin groups were plotted on map layers of Hong Kong using a desktop GIS (ArcView© 3.1) to examine their distribution patterns in details. The dataset was also stratified into different subsets to examine distribution patterns of dolphin groups with different categories of group sizes, young calves and activities.

2.4.2. Encounter rate analysis

Since the line-transect survey effort was uneven among different survey areas and across different years, the encounter rates of Chinese White Dolphins (number of on-effort sightings per 100 km of survey effort) were calculated in each survey area in relation to the amount of survey effort conducted during the baseline monitoring period, which was also compared to the ones calculated from previous years of monitoring data to examine temporal trend. The encounter rate could be used as an indicator to determine areas of importance to dolphins within the study area.

2.4.3. Quantitative grid analysis on habitat use

To conduct quantitative grid analysis of habitat use, positions of on-effort sightings of Chinese White Dolphins collected during the 3-month baseline monitoring period were plotted onto 1-km^2 grids among NWL, NEL and WL survey areas on GIS. Sighting densities (number of on-effort sightings per km^2) and dolphin densities (total number of dolphins from on-effort sightings per km^2) were then calculated for each 1 km by 1 km grid with the aid of GIS. Sighting density grids and dolphin density grids were then further normalized with the amount of survey effort conducted within each grid. The total amount of survey effort spent on each grid was calculated by examining the survey coverage on each line-transect survey to determine how many times the grid was surveyed during the study period.

For example, when the survey boat traversed through a specific grid 50 times, 50 units of survey effort were counted for that grid. With the amount of survey effort calculated for each grid, the sighting density and dolphin density of each grid were then normalized (i.e. divided by the unit of survey effort).

The newly-derived unit for sighting density was termed SPSE, representing the number of on-effort **s**ightings **p**er 100 units of **s**urvey **e**ffort. In addition, the derived unit for actual dolphin density was termed DPSE, representing the number of **d**olphins **p**er 100 units of **s**urvey **e**ffort. Among the 1-km^2 grids that were partially covered by land, the percentage of sea area was calculated using GIS tools, and their SPSE and DPSE values were adjusted accordingly. The following formulae were used to estimate SPSE and DPSE in each 1-km^2 grid within the study area:

$$SPSE = ((S / E) \times 100) / SA\%$$

$$DPSE = ((D / E) \times 100) / SA\%$$

where S = total number of on-effort sightings

D = total number of dolphins from on-effort sightings

E = total number of units of survey effort

SA% = percentage of sea area

2.4.4. Behavioural analysis

When dolphins were sighted during vessel surveys, their behaviour was observed. Different activities were categorized (i.e. feeding, milling/resting, traveling, socializing) and recorded on sighting datasheets. This data was then input into a separate database with sighting information, which can be used to determine the distribution of behavioural data with a desktop GIS. Distribution of sightings of dolphins engaged in different activities and behaviours would then be plotted on GIS and carefully examined to identify important areas for different activities of the dolphins.

2.4.5. Ranging pattern analysis

Location data of individual dolphins that occurred during the 3-month baseline monitoring period were obtained from the dolphin sighting database and photo-identification catalogue. To deduce home ranges for individual dolphins using the fixed kernel methods, the program Animal Movement Analyst Extension, created by the Alaska Biological Science Centre, USGS (Hooge and Eichenlaub 1997), was loaded as an extension with ArcView© 3.1 along with another extension Spatial Analyst 2.0. Using the fixed kernel method, the program calculated kernel density estimates based on all sighting positions, and provided an active interface to display

kernel density plots. The kernel estimator then calculated and displayed the overall ranging area at 95% UD level.

3. RESULTS AND DISCUSSIONS

3.1. Summary of survey effort and dolphin sightings

From September to November 2011, a total of 14 line-transect vessel surveys were conducted in NWL, NEL and WL survey areas (Appendix I). Among these surveys, 966 km of survey effort was collected, with 95% of these effort conducted under favourable sea conditions (Beaufort 3 or below with good visibility). The high percentage of survey effort conducted under favourable sea conditions is critical to the success of the dolphin data collection programme in Hong Kong, as only such data can be used in various analyses such as the examination of encounter rates, habitat use and estimation of density and abundance. The details of the survey effort data collected during the baseline monitoring are shown in Appendix II.

During the 3-month study period, 112 groups of Chinese White Dolphins, numbering 413 individuals, were sighted from the vessel surveys (Appendix III). Among them, 91 groups were sighted during on-effort line-transect vessel surveys, while the others were sighted during off-effort search. Most sightings were made in WL (46 groups) and NWL (49 groups), comprising 84.8% of the total (Figure 1). In addition, 17 dolphin groups were also sighted in NEL throughout the 3-month study period (Figure 1).

3.2. Distribution

Dolphin sightings were unevenly distributed throughout the three survey areas of NWL, NEL and WL during the study period. In North Lantau region, concentration of these sightings were found around Lung Kwu Chau, near Black Point, Pillar Point and Shum Shui Kok, but the dolphins generally avoided the waters to the north of the Chek Lap Kok airport as well as the northern and eastern portions of NEL survey area (Figure 2). On the contrary, dolphins occurred evenly throughout the WL survey area, but slightly more sightings were made near Kai Kung Shan, Fan Lau and the offshore waters between Tai O Peninsula and Kai Kung Shan (Figure 3).

Throughout the baseline monitoring period, dolphins occurred regularly in the

vicinity of the future alignments of HKLR and TM-CLKL as well as the reclamation site of HKBCF, but not in high concentration (Figures 2-3). Their occurrence around these future construction sites in association with HZMB Projects should be continuously monitored to determine whether there will be any change in dolphin distribution and habitat use around these work areas during the construction period.

3.3. Encounter rate

To calculate encounter rates of Chinese White Dolphins, only data collected in Beaufort 0-3 conditions was included in the analysis (see Hung 2011). During the baseline monitoring period, the combined dolphin encounter rate of NWL, NEL and WL was 10.8 sightings per 100 km. This was much higher than the ones in previous years from 2008-2010, but was slightly lower than the one in 2007 recorded during AFCD marine mammal monitoring programme (Figure 4a).

Among the three survey areas, the dolphin encounter rate was the highest in WL (20.4 sightings per 100 km), which was much higher than the ones in NWL (9.3) and NEL (5.4) (Figure 4b). The prominent usage of WL during the same three-month period (September to November) was also consistent throughout the past five years (Figure 4b), providing solid evidence that this stretch of coastal waters presents the most important habitat for Chinese White Dolphins in Hong Kong. Moreover, dolphin usage among all three survey areas during this three-month period also followed similar temporal trends, with encounter rates dropping from the highest in 2007 to the lowest in 2010, but increasing to a higher level in 2011 (Figure 4b). In fact, dolphin encounter rate in NEL reached the highest in 2011 during the five-year period.

3.4. Group size

Group sizes of dolphins during the baseline monitoring period ranged from singles to 18 animals, with an overall mean of 3.7 ± 3.1 (SD) animals per group. Among the three survey areas, their mean group sizes were similar across NEL, NWL and WL survey areas (3.2-3.9 dolphins per group). Moreover, the mean dolphin group size during the 3-month study period was very similar to the one recorded during the 2010-11 AFCD monitoring period (Hung 2011).

Most dolphin groups sighted during the 3-month period tended to be small, with 48.2% of the groups composed of 1-2 animals, and 72.3% of the groups with fewer

than five animals. On the other hand, 31 groups had 5 or more animals, and only five groups had 10 or more animals. These larger aggregations of dolphins were mostly found near Sha Chau and between Lung Kwu Chau and Black Point in NWL; around the Brothers Islands in NEL; and between Tai O Peninsula and Peaked Hill in WL (Figure 5). Notably, several large dolphin groups could be found near the alignments of HKLR and TM-CLKL as well as the reclamation site of HKBCF (Figure 5). Since large dolphin aggregations in certain locations may imply rich fishery resources and good feeding opportunities for dolphins, dolphin occurrence in these important feeding habitats should be closely monitored throughout the construction period to determine whether the construction works in association with the HZMB Projects would affect the feeding opportunities of the dolphins.

3.5. Habitat use

From September to November 2011, the most heavily utilized habitats by Chinese White Dolphins included the waters around Lung Kwu Chau and Shau Chau, near Pillar Point and Black Point, and along the Urmston Road in NWL; around the Brothers Islands and near Shum Shui Kok in NEL; and around Tai O Peninsula, near Kai Kung Shan, Peaked Hill and Fan Lau in WL (Figures 6-7). These important dolphin habitats during the baseline monitoring period coincided well with the results from the previous AFCD monitoring periods (e.g. Hung 2010, 2011), further confirming the importance of these habitats to Chinese White Dolphins in Hong Kong.

Notably, several grids along the alignments of HKLR (Grids E21, F21 & G20) and TM-CLKL (Grids O14-15) as well as near the reclamation site of HKBCF (Grid P17) recorded moderate to high dolphin densities (Figures 6-7). Although the impending construction works in association with HZMB Projects are not situated at the most important dolphin habitats in Hong Kong (e.g. Lung Kwu Chau, Tai O Peninsula to Fan Lau, the Brothers Islands), these works will still be in the vicinity of these sensitive habitats, and dolphin usage should therefore be carefully monitored during the entire construction period to observe any significant changes incurred.

3.6. Mother-calf pairs

During the 3-month baseline monitoring period, a total of 14 unspotted calves (UC) and 14 unspotted juveniles (UJ) were sighted among the three survey areas. These young calves comprised 6.8% of all animals sighted. The young calves were

regularly sighted in the WL and NWL survey areas, but only twice in the NEL survey area. Concentration of these sightings with mother-calf pairs could be found near Tai O Peninsula and Black Point (Figure 8). Several sightings with mother-calf pairs were also located near the alignments of HKLR and TM-CLKL. As the young calves need to maintain close acoustic contact with their mothers in order to survive (Van Parijs and Corkeron 2001), they are more susceptible to acoustic disturbances from underwater construction activities, and their activities around the works area should be carefully monitored throughout the entire construction period.

3.7. Activities and associations with fishing boats

During the baseline monitoring period, 13 and 6 dolphin sightings were associated with feeding and socializing activities respectively, comprising of 11.6% and 5.4% of the total dolphin sightings. Only two dolphin groups were engaged in traveling activities near Pillar Point and to the west of the airport (Figure 9). Dolphin sightings associated with feeding activities were mostly found near Kai Kung Shan and Tai O in WL, and near Lung Kwu Chau in NWL (Figure 9). On the other hand, sightings associated with socializing activities were more scattered around the marine park area in NWL and the central portion of WL (Figure 9). Notably, several sightings associated with feeding activities were observed along and near the alignments of HKLR and TM-CLKL, and around the reclamation site of HKBCF (Figure 9).

Only six dolphin groups were found to be associated with operating fishing boats, comprising of 5.4% of all dolphin groups. These sightings included three dolphin groups associated with pair trawlers, two with hang trawlers and one with shrimp trawler. The location of these fishing boat-associated sightings were scattered throughout the three survey areas, with no apparent concentration (Figure 10). Only two of these sightings were found in the vicinity of the future work sites of HZMB Projects (Figure 10).

3.8. Photo-identification work and individual range use

From September to November 2011, over 5,000 digital photographs of Chinese White Dolphins were taken during the baseline monitoring surveys for the photo-identification work. In total, 96 individuals sighted 182 times altogether were identified (Table 1). The majority of these re-sightings were made in NWL and WL, comprising 53.2% and 31.9% of the total respectively. In addition, 27 re-sightings

were also made in NEL, or about half of the total number of dolphins sighted there during the 3-month study period. Most of the identified individuals were sighted only once or twice, with some notable exceptions though. For example, two individuals (CH34 and NL104) were sighted seven times, and WL04 were sighted five times during the study period. In addition, six individuals were sighted four times, while 15 other individuals were also sighted three times during the baseline monitoring period. Repeated sightings of these individuals during the relatively short study period indicated their frequent use of Hong Kong waters during the baseline monitoring study period.

Ranging patterns of the 96 individuals identified during the baseline monitoring surveys were determined by fixed kernel method, and are shown in Appendix IV. Notably, the majority of these individuals ranged extensively across NEL, NWL and WL survey areas, and many of their ranges overlapped with the alignments of HKLR and TM-CLKL as well as the reclamation site of HKBCF during the baseline monitoring period (Appendix IV). In particular, some individuals (e.g. NL136, NL246, NL264, WL05) were sighted in both NEL and NWL survey areas, while others (e.g. NL258, WL04, WL116, WL137) were sighted in both NWL and WL survey areas during the three-month period (Appendix IV). Several individuals were even sighted across all three areas within the relatively short study period (e.g. NL33, NL123, NL226) (Appendix IV). Their frequent movements across these three survey areas will make them more susceptible to the potential disturbance arisen from the construction activities in association with the HZMB Projects, as the HKLR will be constructed at the boundary of NWL and WL survey areas, while the HKBCF and TM-CLKL will be constructed at the boundary of NWL and NEL survey areas. Recent research on social structure analysis also indicated that there are two social clusters in Hong Kong, with their overall 95% UD ranges overlapped at the waters where the HKLR will be constructed (Dungan 2011; Hung 2011). Consequently, individual movement patterns and habitat use should be closely monitored in the vicinity of the work sites of HKLR, TM-CLKL and HKBCF during and after the construction period, to determine whether individual dolphins will be affected by these construction works.

More importantly, many individuals that were sighted during the baseline monitoring period were year-round residents (e.g. EL01, NL98, NL139, WL25), and some were even accompanied by young calves (e.g. NL24, NL33, NL104, NL123). In fact, these were also the individuals being sighted multiple times during the 3-month baseline monitoring period, showing their strong reliance of Hong Kong

waters. Special attention should be paid to the range use of these year-round residents, as their continuous reliance of these three survey areas during and after the HZMB construction period can become an important indicator to determine whether the local dolphins will be affected by various construction works of HZMB Projects.

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Table 1. Individual dolphins identified during HYD-HZMB baseline dolphin monitoring surveys in September-November 2011

ID#	DATE	STG#	AREA
CH34	06/10/11	6	NW LANTAU
	28/10/11	5	NW LANTAU
	01/11/11	6	NE LANTAU
	01/11/11	8	NE LANTAU
	02/11/11	14	NW LANTAU
	05/11/11	6	NW LANTAU
	07/11/11	2	NW LANTAU
CH40	17/10/11	2	W LANTAU
	17/10/11	8	W LANTAU
CH98	02/11/11	13	NW LANTAU
CH108	02/11/11	3	W LANTAU
	02/11/11	8	W LANTAU
CH153	28/10/11	3	NW LANTAU
CH157	02/11/11	3	W LANTAU
EL01	01/11/11	9	NE LANTAU
	02/11/11	14	NW LANTAU
NL11	02/11/11	12	NW LANTAU
	07/11/11	2	NW LANTAU
NL12	02/11/11	12	NW LANTAU
NL24	10/10/11	2	NW LANTAU
	05/11/11	5	NW LANTAU
	05/11/11	8	NW LANTAU
	06/11/11	2	NE LANTAU
NL33	23/09/11	10	NW LANTAU
	01/11/11	8	NE LANTAU
	05/11/11	2	NW LANTAU
	07/11/11	5	NW LANTAU
NL37	16/09/11	4	NW LANTAU
NL46	28/10/11	4	NW LANTAU
NL48	16/09/11	5	NW LANTAU
	02/11/11	14	NW LANTAU
	07/11/11	2	NW LANTAU
NL75	16/09/11	3	NW LANTAU
	16/09/11	7	NW LANTAU
	01/11/11	9	NE LANTAU
NL80	02/11/11	12	NW LANTAU
NL93	05/11/11	6	NW LANTAU
	07/11/11	4	NW LANTAU
NL98	06/10/11	2	NE LANTAU
	01/11/11	8	NE LANTAU
	06/11/11	2	NE LANTAU
	07/11/11	2	NW LANTAU

ID#	DATE	STG#	AREA
NL104	16/09/11	7	NW LANTAU
	23/09/11	10	NW LANTAU
	28/10/11	5	NW LANTAU
	02/11/11	14	NW LANTAU
	05/11/11	6	NW LANTAU
	05/11/11	8	NW LANTAU
	07/11/11	2	NW LANTAU
NL118	16/09/11	7	NW LANTAU
NL120	10/10/11	2	NW LANTAU
	06/11/11	4	NE LANTAU
NL123	06/10/11	4	NW LANTAU
	10/10/11	2	NW LANTAU
	06/11/11	2	NE LANTAU
NL136	16/09/11	7	NW LANTAU
	10/10/11	3	NE LANTAU
	28/10/11	1	NW LANTAU
	28/10/11	3	NW LANTAU
NL139	16/09/11	7	NW LANTAU
	10/10/11	3	NE LANTAU
	01/11/11	9	NE LANTAU
NL165	02/11/11	14	NW LANTAU
	05/11/11	8	NW LANTAU
NL170	06/10/11	1	NE LANTAU
NL176	01/11/11	6	NE LANTAU
	01/11/11	8	NE LANTAU
	06/11/11	4	NE LANTAU
NL179	16/09/11	7	NW LANTAU
	06/11/11	2	NE LANTAU
NL188	28/10/11	3	NW LANTAU
	01/11/11	2	NW LANTAU
	07/11/11	5	NW LANTAU
NL191	07/09/11	1	NW LANTAU
NL202	28/10/11	3	NW LANTAU
	07/11/11	4	NW LANTAU
NL206	17/10/11	6	W LANTAU
NL210	07/09/11	1	NW LANTAU
	02/11/11	14	NW LANTAU
	05/11/11	7	NW LANTAU
	07/11/11	5	NW LANTAU
NL214	28/10/11	5	NW LANTAU
	02/11/11	14	NW LANTAU
	05/11/11	6	NW LANTAU
NL220	10/10/11	3	NE LANTAU
NL224	28/10/11	4	NW LANTAU
NL226	17/10/11	2	W LANTAU
	05/11/11	2	NW LANTAU

Table 1. (cont'd)

ID#	DATE	STG#	AREA
NL230	17/10/11	4	W LANTAU
	02/11/11	12	NW LANTAU
NL233	16/09/11	3	NW LANTAU
	06/10/11	4	NW LANTAU
	28/10/11	4	NW LANTAU
NL241	16/09/11	7	NW LANTAU
	02/11/11	12	NW LANTAU
	07/11/11	2	NW LANTAU
NL242	10/10/11	2	NW LANTAU
NL244	05/09/11	3	W LANTAU
	01/11/11	5	NW LANTAU
	01/11/11	8	NE LANTAU
NL246	16/09/11	7	NW LANTAU
	06/11/11	2	NE LANTAU
NL256	02/11/11	12	NW LANTAU
NL258	05/09/11	3	W LANTAU
	16/09/11	5	NW LANTAU
NL259	07/11/11	5	NW LANTAU
NL260	07/11/11	5	NW LANTAU
NL261	01/11/11	9	NE LANTAU
NL264	23/09/11	11	NW LANTAU
	06/10/11	2	NE LANTAU
	06/11/11	3	NE LANTAU
NL269	02/11/11	12	NW LANTAU
NL272	16/09/11	7	NW LANTAU
	28/10/11	4	NW LANTAU
	02/11/11	14	NW LANTAU
	05/11/11	8	NW LANTAU
NL275	23/09/11	9	W LANTAU
NL278	02/11/11	12	NW LANTAU
NL279	02/11/11	12	NW LANTAU
SL40	23/09/11	4	W LANTAU
SL42	02/11/11	13	NW LANTAU
SL43	28/10/11	4	NW LANTAU
SL48	23/09/11	7	W LANTAU
	17/10/11	3	W LANTAU
	02/11/11	8	W LANTAU
WL04	16/09/11	6	NW LANTAU
	10/10/11	2	NW LANTAU
	17/10/11	1	W LANTAU
	02/11/11	14	NW LANTAU
	05/11/11	5	NW LANTAU
WL05	01/11/11	6	NE LANTAU
	01/11/11	8	NE LANTAU
WL11	07/11/11	5	NW LANTAU
WL25	16/09/11	1	NW LANTAU
	23/09/11	9	W LANTAU
	17/10/11	4	W LANTAU

ID#	DATE	STG#	AREA
WL28	23/09/11	9	W LANTAU
WL42	05/09/11	1	W LANTAU
	02/11/11	6	W LANTAU
WL47	17/10/11	2	W LANTAU
WL48	23/09/11	9	W LANTAU
WL61	17/10/11	4	W LANTAU
WL62	23/09/11	6	W LANTAU
	17/10/11	2	W LANTAU
WL66	07/11/11	8	W LANTAU
WL68	05/09/11	1	W LANTAU
	05/09/11	2	W LANTAU
WL72	23/09/11	4	W LANTAU
	02/11/11	3	W LANTAU
	02/11/11	8	W LANTAU
WL87	23/09/11	6	W LANTAU
WL88	16/09/11	1	NW LANTAU
	02/11/11	6	W LANTAU
WL111	02/11/11	14	NW LANTAU
WL116	16/09/11	4	NW LANTAU
WL118	02/11/11	3	W LANTAU
	02/11/11	8	W LANTAU
WL123	02/11/11	8	W LANTAU
WL124	02/11/11	12	NW LANTAU
WL128	02/11/11	10	W LANTAU
	07/11/11	9	W LANTAU
WL131	23/09/11	6	W LANTAU
	02/11/11	3	W LANTAU
	02/11/11	8	W LANTAU
WL132	23/09/11	6	W LANTAU
WL137	02/11/11	8	W LANTAU
WL138	02/11/11	8	W LANTAU
WL144	02/11/11	4	W LANTAU
WL145	05/09/11	5	W LANTAU
WL146	17/10/11	2	W LANTAU
WL153	07/11/11	8	W LANTAU
WL156	23/09/11	9	W LANTAU
	28/10/11	3	NW LANTAU
WL157	23/09/11	9	W LANTAU
WL158	23/09/11	9	W LANTAU
WL162	16/09/11	3	NW LANTAU
WL163	02/11/11	4	W LANTAU
	07/11/11	9	W LANTAU
WL165	17/10/11	6	W LANTAU
WL167	17/10/11	2	W LANTAU
WL170	07/11/11	11	W LANTAU
WL171	28/10/11	8	W LANTAU

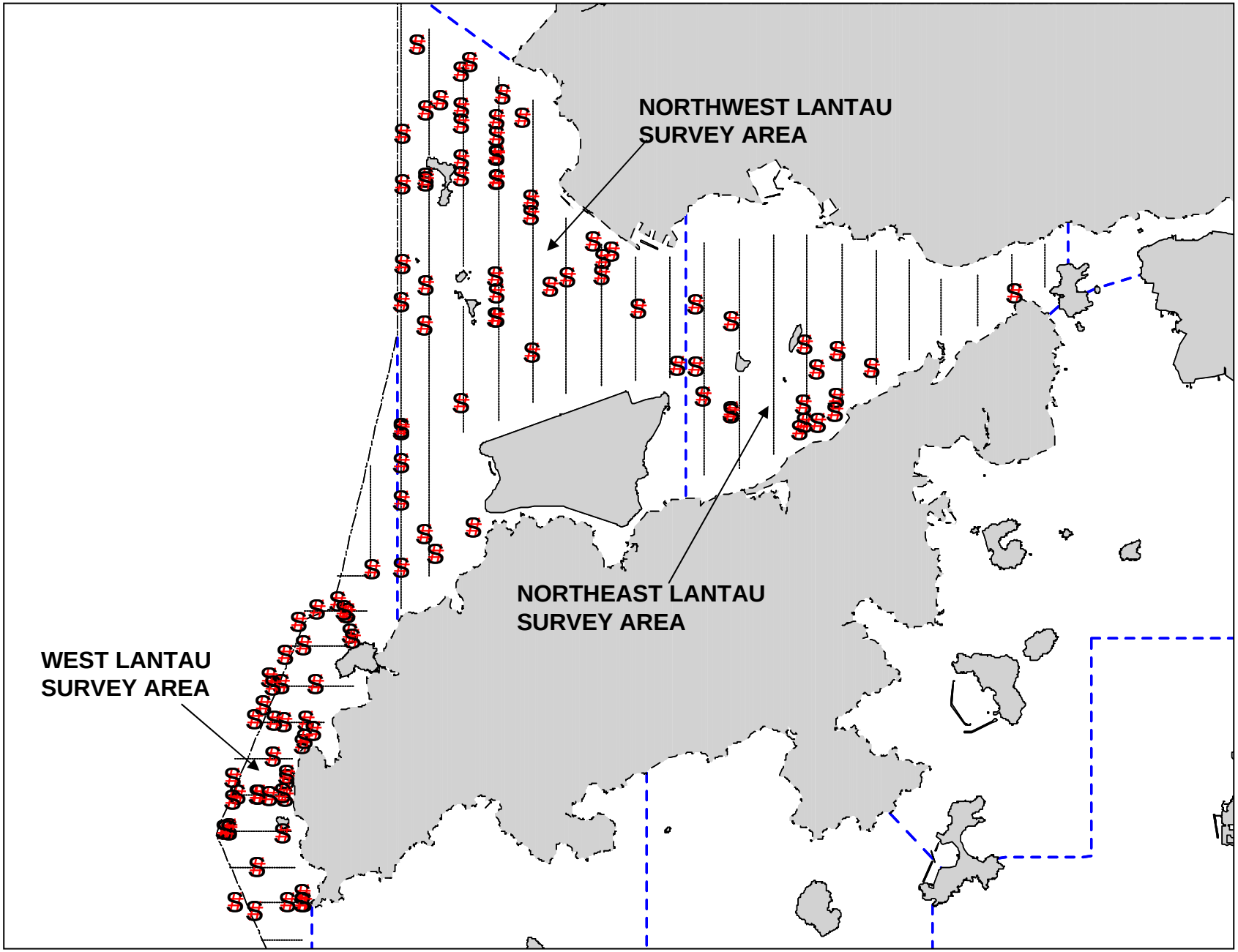


Figure 1. Distribution of Chinese white dolphin sighting during HYD-HZMB baseline monitoring surveys (September – November 2011)

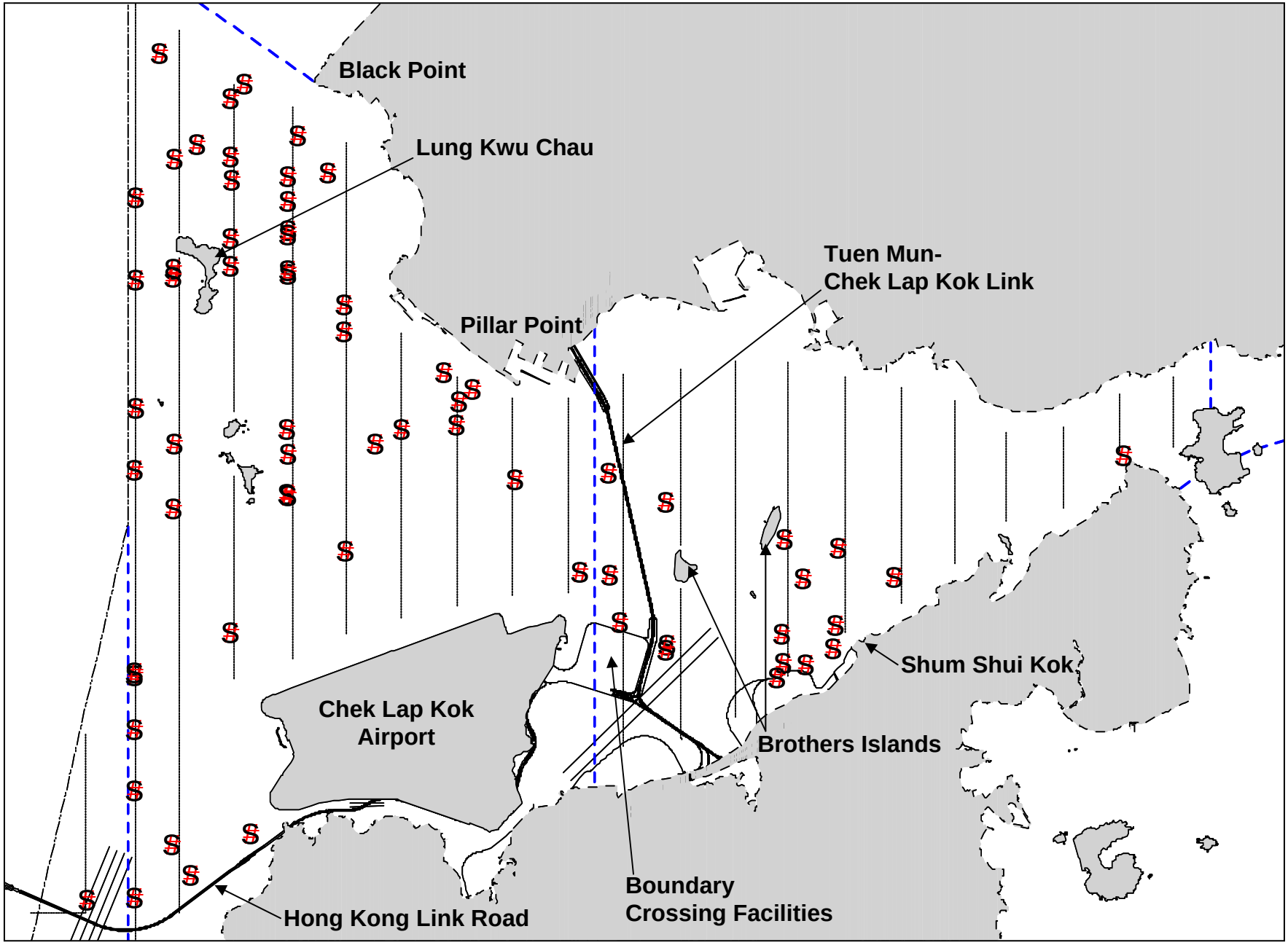


Figure 2. Distribution of Chinese white dolphin sighting in Northwest and Northeast Lantau during HYD-HZMB baseline monitoring surveys (September – November 2011)

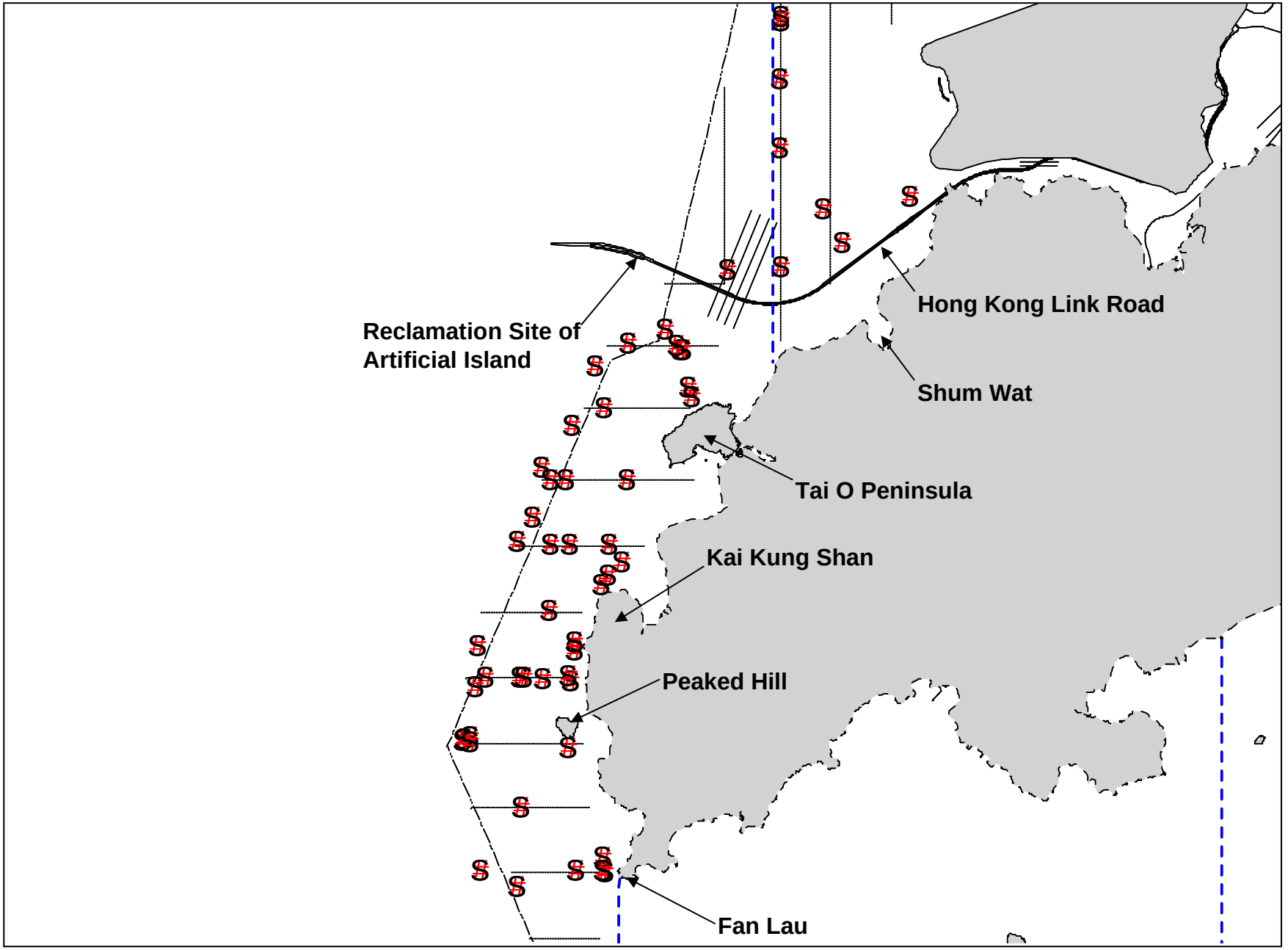


Figure 3. Distribution of Chinese white dolphin sighting in West Lantau during HYD-HZMB baseline monitoring surveys (September – November 2011)

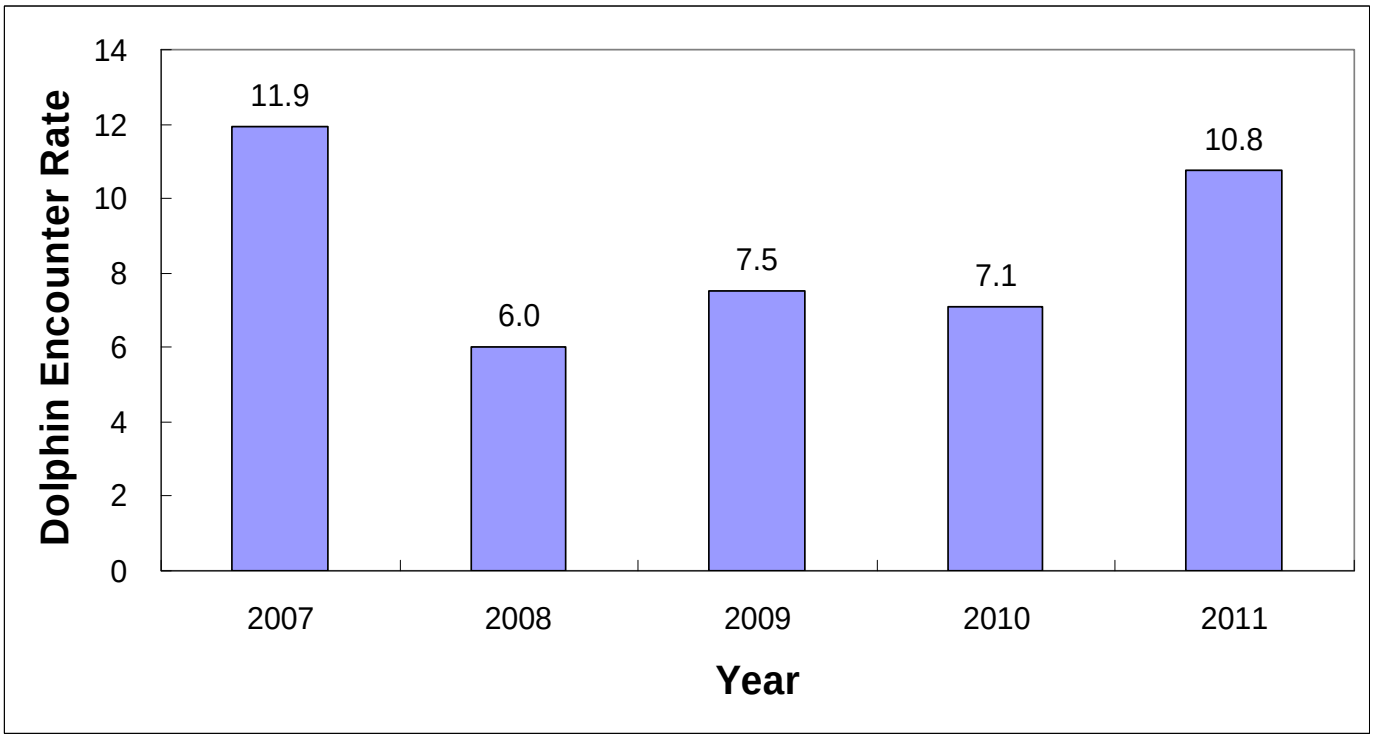


Figure 4a. Temporal trend of encounter rate of Chinese white dolphins (combined from Northwest, Northeast and West Lantau survey areas) during the same 3-month period of September to November from 2007-2011

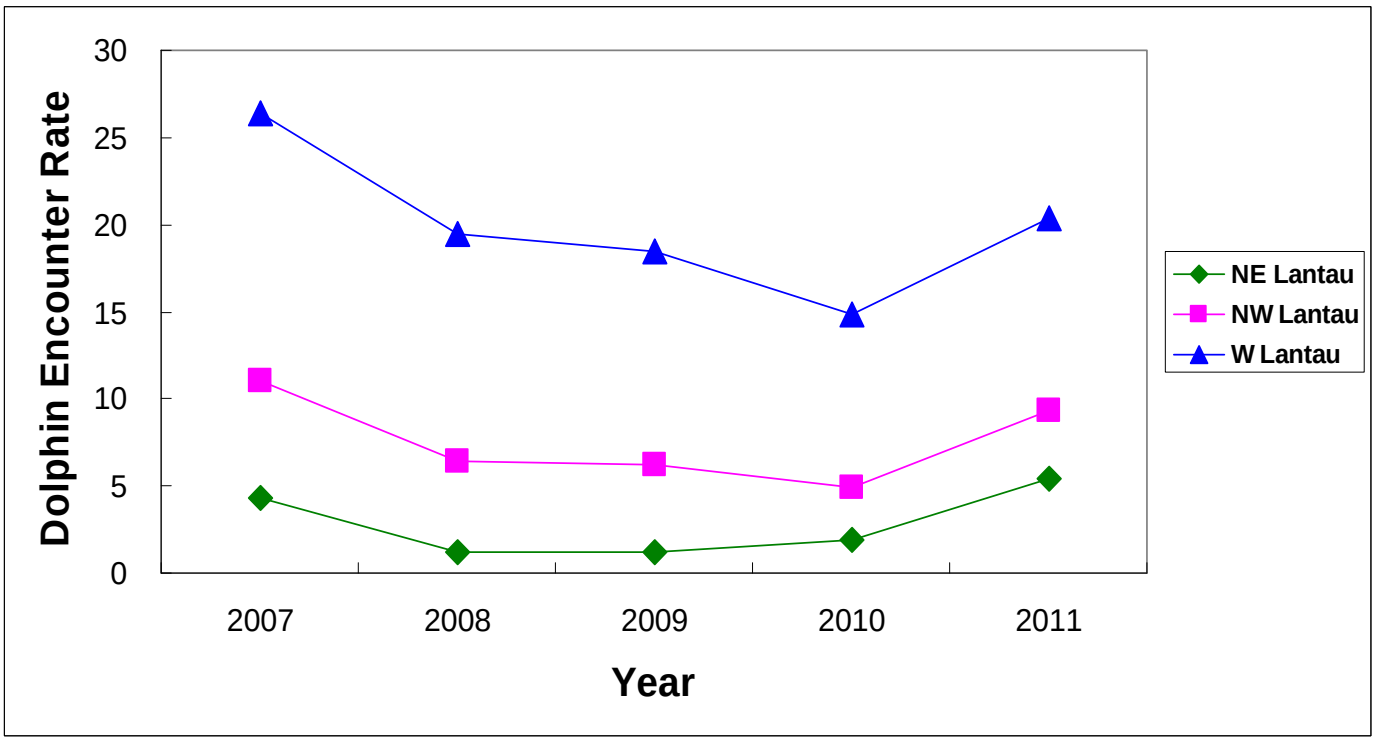


Figure 4b. Temporal trend of encounter rate of Chinese white dolphins in each of the three survey areas during the same 3-month period of September to November from 2007-2011

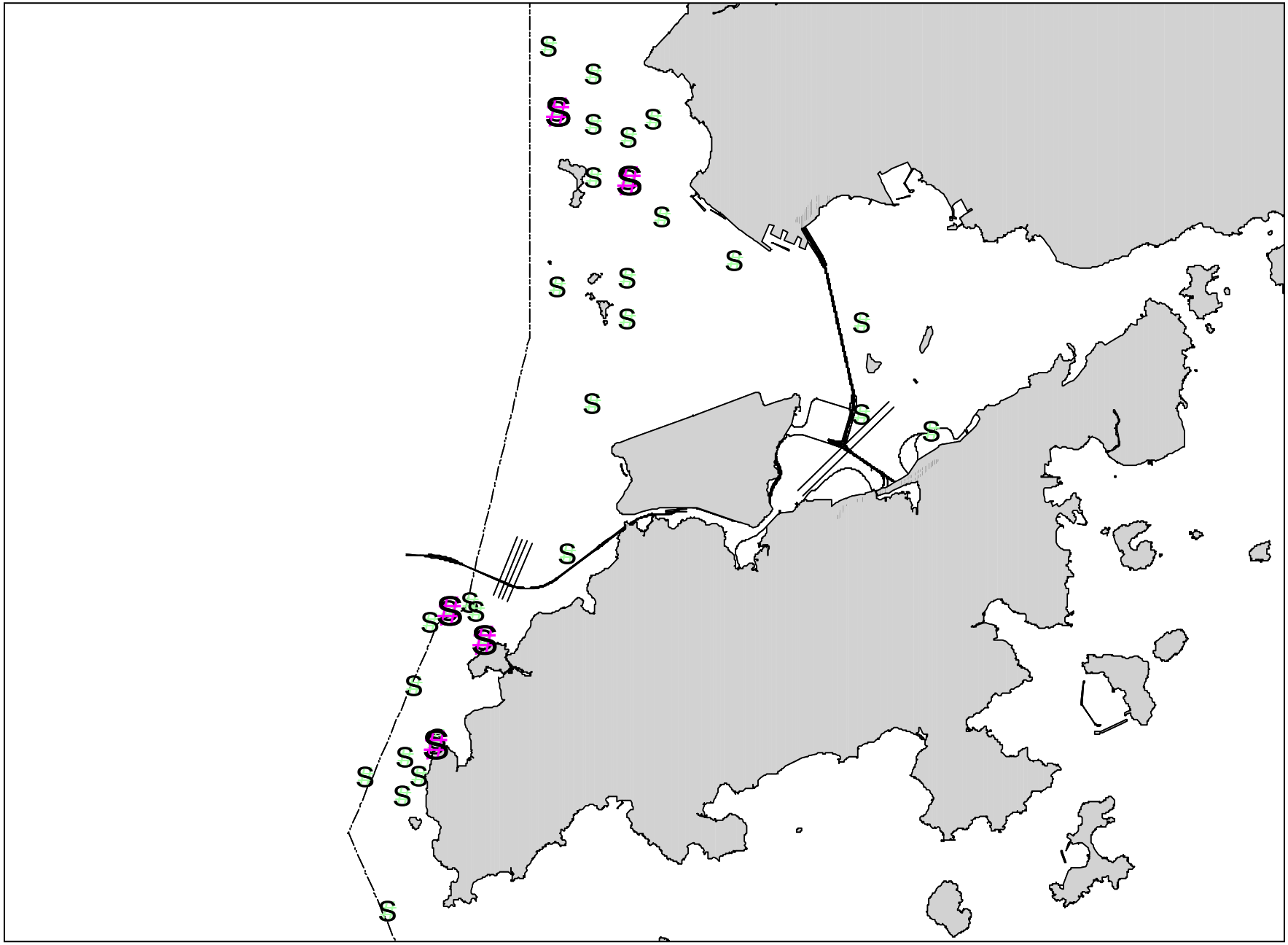


Figure 5. Distribution of Chinese white dolphins with larger group sizes during HZMB baseline monitoring surveys (green dots: group sizes of 5 or more; purple dots: group sizes of 10 or more)

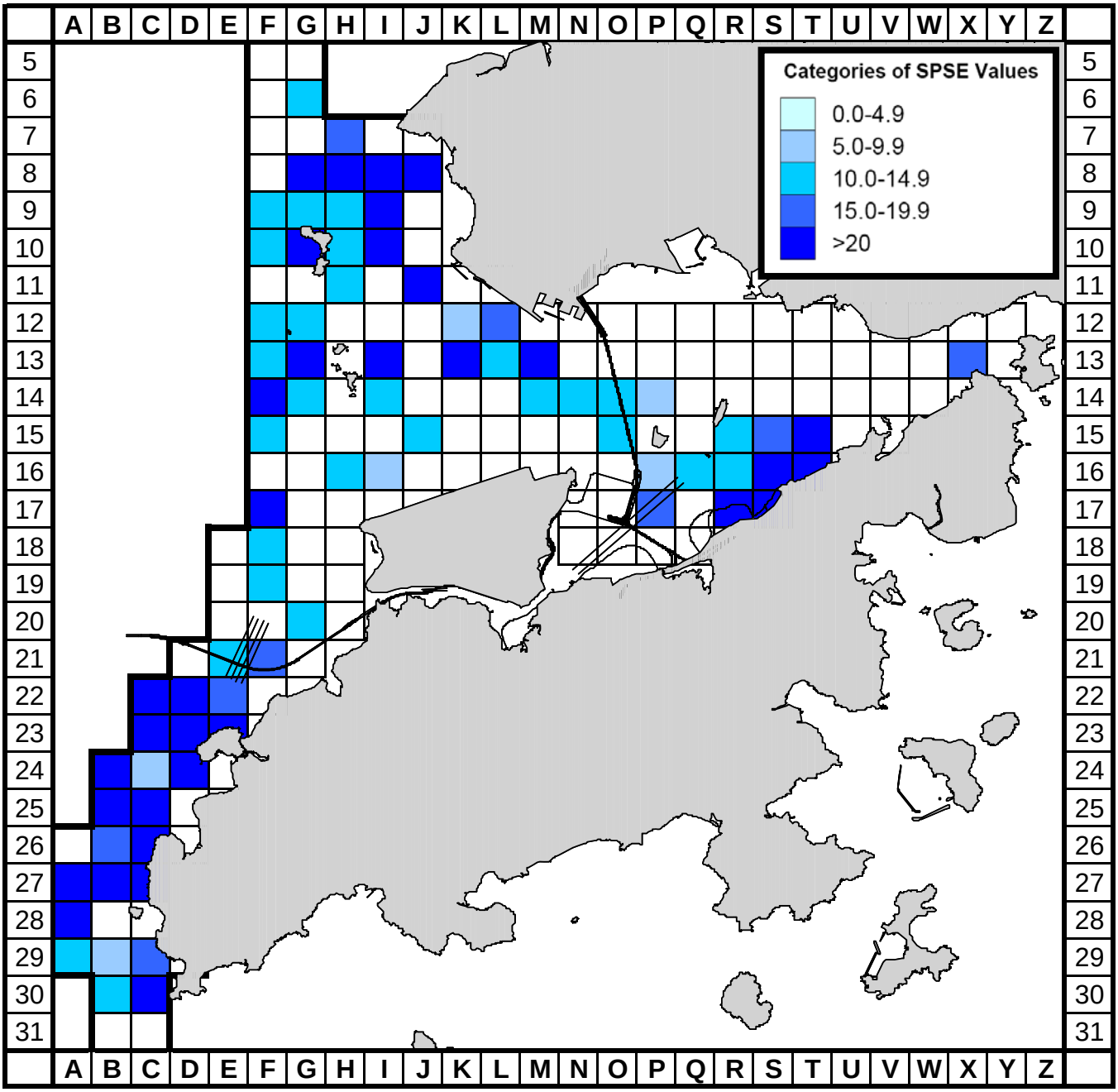


Figure 6. Sighting density of Chinese white dolphins with corrected survey effort per km^2 in Northwest, Northeast and West Lantau survey areas, using data collected during HZMB baseline monitoring period (September to November 2011) (SPSE = no. of on-effort sightings per 100 units of survey effort)

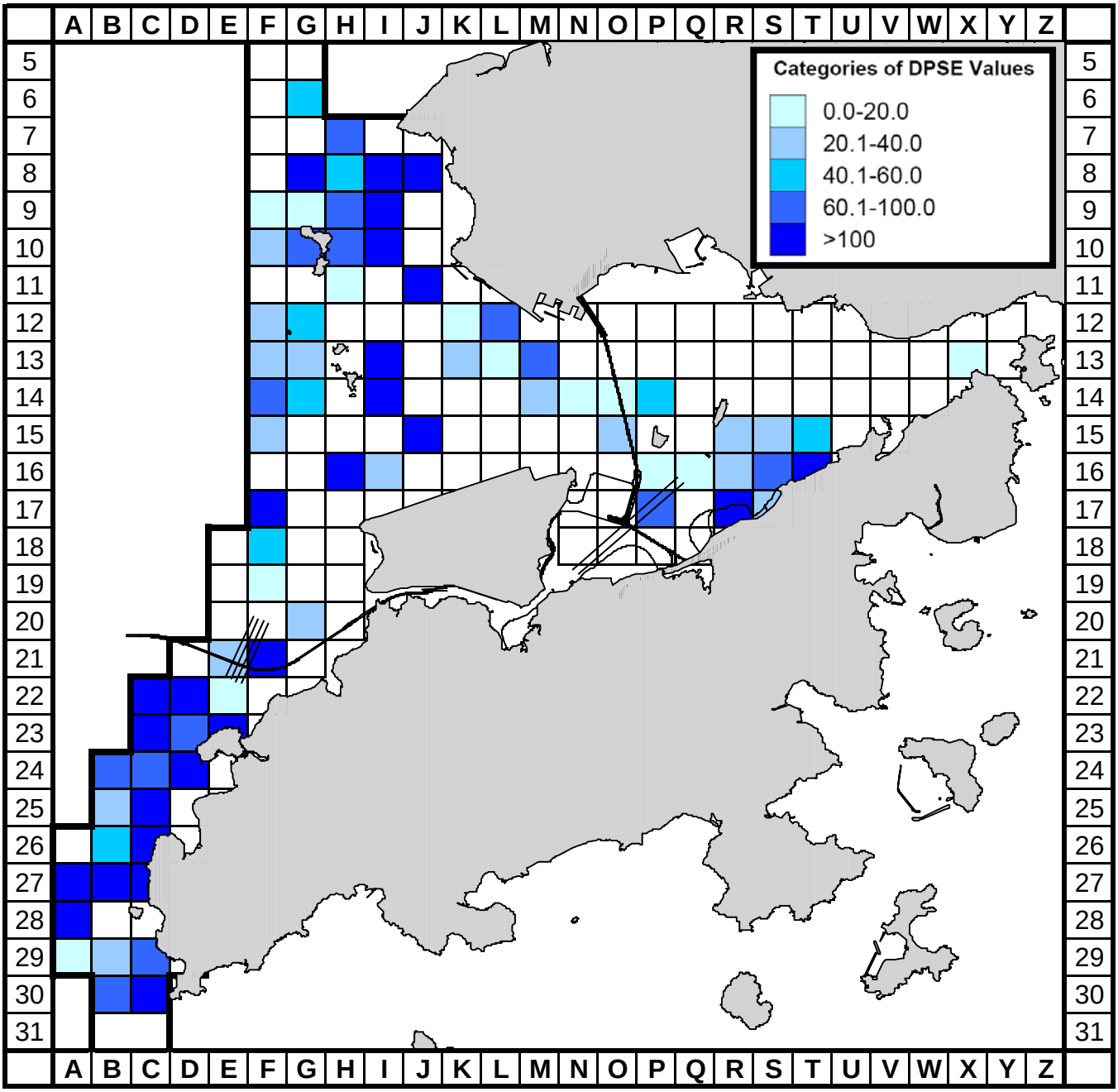


Figure 7. Density of Chinese white dolphins with corrected survey effort per km^2 in Northwest, Northeast and West Lantau survey areas, using data collected during HZMB baseline monitoring period (September to November 2011) (DPSE = no. of dolphins per 100 units of survey effort)

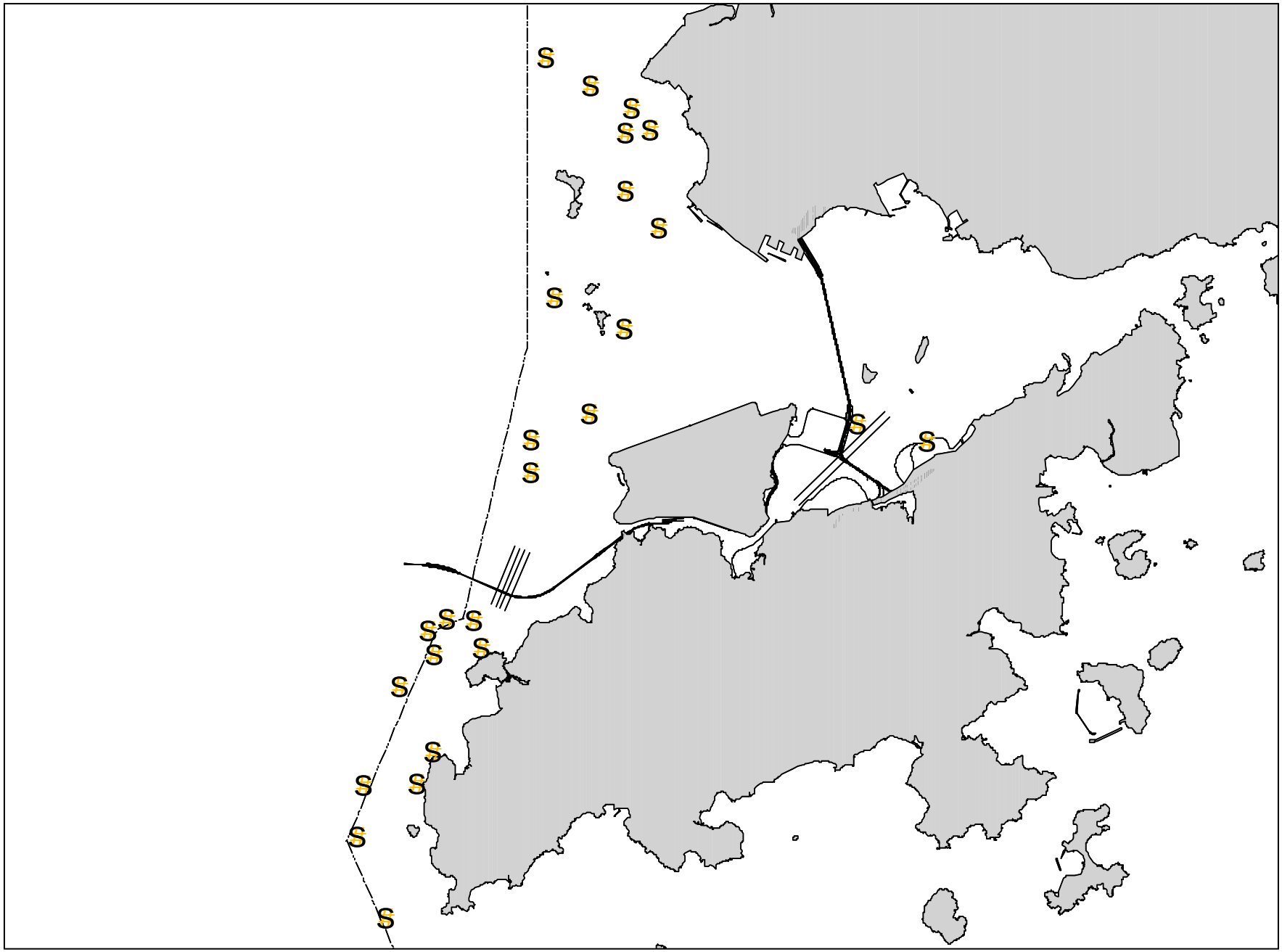


Figure 8. Distribution of young calves of Chinese white dolphins during HZMB baseline monitoring surveys

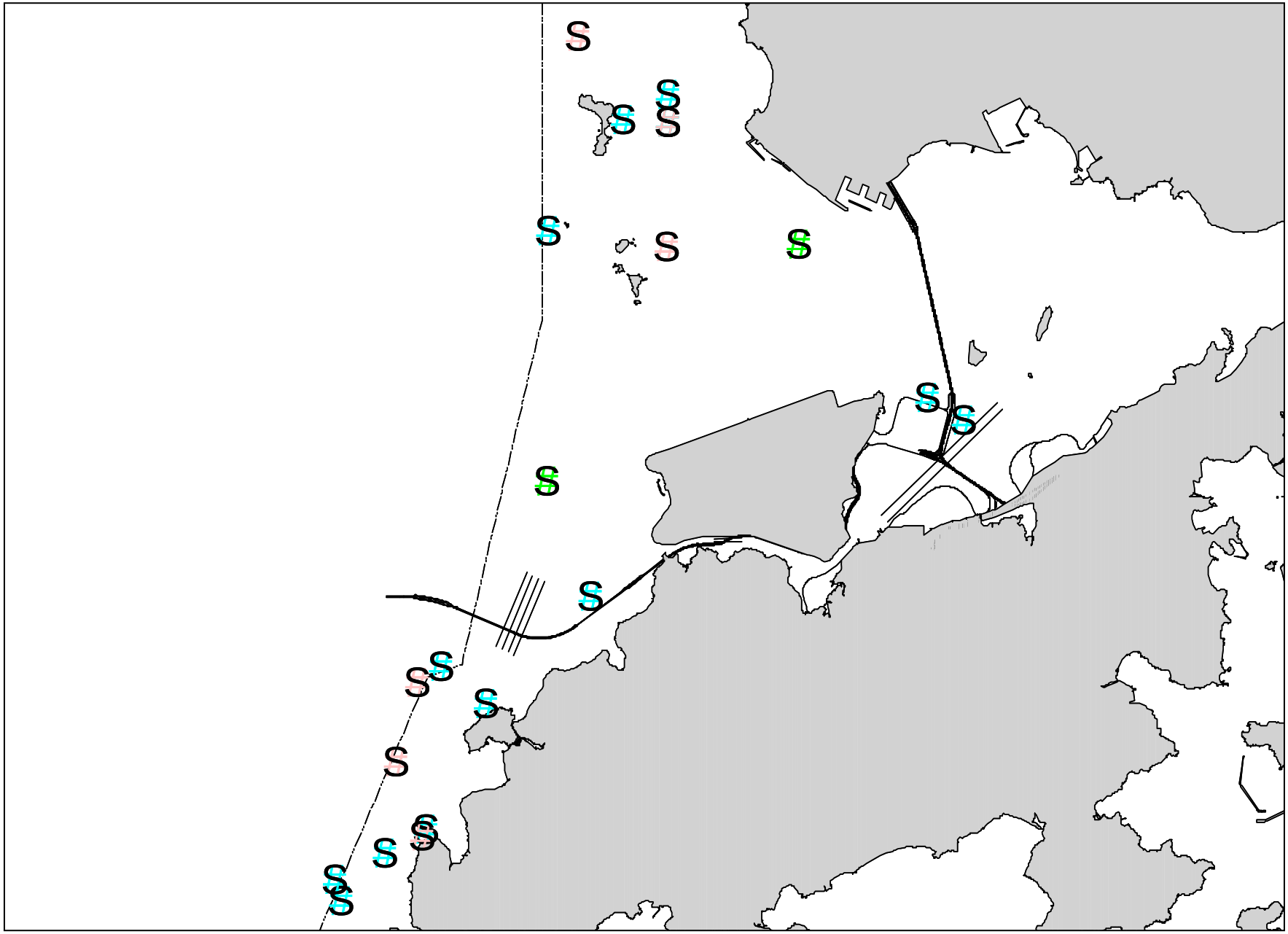


Figure 9. Distribution of Chinese white dolphins engaged in feeding (blue dots), socializing (pink dots) and traveling (green dots) activities during HZMB baseline monitoring surveys

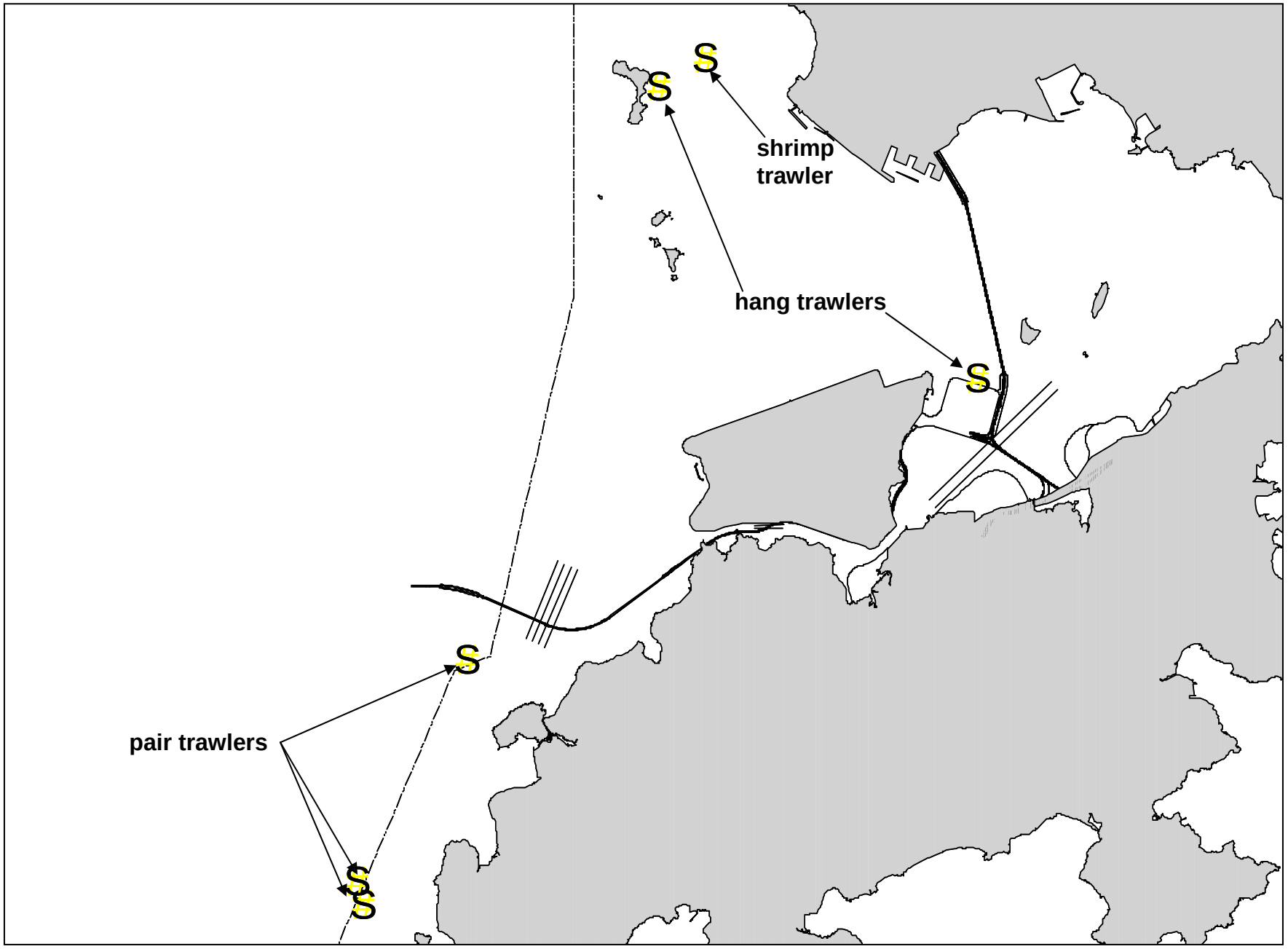


Figure 10. Distribution of dolphin sightings associated with fishing boats during HZMB baseline monitoring surveys

Appendix I. HYD-HZMB Survey Schedule and Details (September-November 2011)

DATE	AREA	SURVEY TIME	# SURVEY HOURS	SEASON	TYPE
5-Sep-11	W LANTAU + NW LANTAU	09:30 - 18:30	9.0	AUTUMN	HYD-HZMB
7-Sep-11	NW LANTAU + NE LANTAU	09:30 - 18:30	9.0	AUTUMN	HYD-HZMB
16-Sep-11	NW LANTAU + NE LANTAU	09:30 - 18:30	9.0	AUTUMN	HYD-HZMB
23-Sep-11	W LANTAU + NW LANTAU	09:30 - 18:30	9.0	AUTUMN	HYD-HZMB
6-Oct-11	NE LANTAU + NW LANTAU	09:00 - 18:00	9.0	AUTUMN	HYD-HZMB
10-Oct-11	NW LANTAU + NE LANTAU	09:30 - 17:00	7.5	AUTUMN	HYD-HZMB
13-Oct-11	NE LANTAU	14:00 - 17:00	3.0	AUTUMN	HYD-HZMB
17-Oct-11	W LANTAU + NW LANTAU	09:30 - 18:30	9.0	AUTUMN	HYD-HZMB
28-Oct-11	NW LANTAU + W LANTAU	09:30 - 17:30	8.0	AUTUMN	HYD-HZMB
1-Nov-11	NW LANTAU + NE LANTAU	09:30 - 18:00	8.5	AUTUMN	HYD-HZMB
2-Nov-11	W LANTAU + NW LANTAU	09:00 - 17:30	8.5	AUTUMN	HYD-HZMB
5-Nov-11	NW LANTAU + NE LANTAU	09:30 - 18:30	9.0	AUTUMN	HYD-HZMB
6-Nov-11	NE LANTAU	14:00 - 17:30	3.5	AUTUMN	HYD-HZMB
7-Nov-11	NW LANTAU + W LANTAU	09:00 - 17:30	8.5	AUTUMN	HYD-HZMB

Appendix II. HYD-HZMB Survey Effort Database (September-November 2011)

(Abbreviations: BEAU = Beaufort Sea State; P = Primary Line Effort; S = Secondary Line Effort)

DATE	AREA	BEAU	EFFORT	SEASON	VESSEL	TYPE	P/S
5-Sep-11	W LANTAU	2	8.3	AUTUMN	STANDARD31516	HYD-HZMB	P
5-Sep-11	W LANTAU	3	12.0	AUTUMN	STANDARD31516	HYD-HZMB	P
5-Sep-11	W LANTAU	2	11.1	AUTUMN	STANDARD31516	HYD-HZMB	S
5-Sep-11	W LANTAU	3	7.6	AUTUMN	STANDARD31516	HYD-HZMB	S
5-Sep-11	NW LANTAU	2	10.7	AUTUMN	STANDARD31516	HYD-HZMB	P
5-Sep-11	NW LANTAU	3	28.0	AUTUMN	STANDARD31516	HYD-HZMB	P
5-Sep-11	NW LANTAU	2	4.4	AUTUMN	STANDARD31516	HYD-HZMB	S
5-Sep-11	NW LANTAU	3	2.1	AUTUMN	STANDARD31516	HYD-HZMB	S
7-Sep-11	NW LANTAU	2	14.1	AUTUMN	STANDARD31516	HYD-HZMB	P
7-Sep-11	NW LANTAU	3	19.4	AUTUMN	STANDARD31516	HYD-HZMB	P
7-Sep-11	NW LANTAU	4	3.6	AUTUMN	STANDARD31516	HYD-HZMB	P
7-Sep-11	NW LANTAU	2	1.9	AUTUMN	STANDARD31516	HYD-HZMB	S
7-Sep-11	NW LANTAU	3	10.3	AUTUMN	STANDARD31516	HYD-HZMB	S
7-Sep-11	NW LANTAU	4	0.7	AUTUMN	STANDARD31516	HYD-HZMB	S
7-Sep-11	NE LANTAU	2	8.2	AUTUMN	STANDARD31516	HYD-HZMB	P
7-Sep-11	NE LANTAU	3	21.7	AUTUMN	STANDARD31516	HYD-HZMB	P
7-Sep-11	NE LANTAU	2	7.9	AUTUMN	STANDARD31516	HYD-HZMB	S
7-Sep-11	NE LANTAU	3	3.1	AUTUMN	STANDARD31516	HYD-HZMB	S
16-Sep-11	NW LANTAU	1	2.9	AUTUMN	STANDARD31516	HYD-HZMB	P
16-Sep-11	NW LANTAU	2	27.5	AUTUMN	STANDARD31516	HYD-HZMB	P
16-Sep-11	NW LANTAU	3	6.3	AUTUMN	STANDARD31516	HYD-HZMB	P
16-Sep-11	NW LANTAU	1	0.8	AUTUMN	STANDARD31516	HYD-HZMB	S
16-Sep-11	NW LANTAU	2	5.1	AUTUMN	STANDARD31516	HYD-HZMB	S
16-Sep-11	NW LANTAU	3	0.9	AUTUMN	STANDARD31516	HYD-HZMB	S
16-Sep-11	NE LANTAU	2	4.1	AUTUMN	STANDARD31516	HYD-HZMB	P
16-Sep-11	NE LANTAU	3	22.8	AUTUMN	STANDARD31516	HYD-HZMB	P
16-Sep-11	NE LANTAU	4	2.4	AUTUMN	STANDARD31516	HYD-HZMB	P
16-Sep-11	NE LANTAU	2	6.7	AUTUMN	STANDARD31516	HYD-HZMB	S
16-Sep-11	NE LANTAU	3	3.9	AUTUMN	STANDARD31516	HYD-HZMB	S
23-Sep-11	W LANTAU	2	9.0	AUTUMN	STANDARD31516	HYD-HZMB	P
23-Sep-11	W LANTAU	3	12.0	AUTUMN	STANDARD31516	HYD-HZMB	P
23-Sep-11	W LANTAU	2	11.7	AUTUMN	STANDARD31516	HYD-HZMB	S
23-Sep-11	W LANTAU	3	7.2	AUTUMN	STANDARD31516	HYD-HZMB	S
23-Sep-11	NW LANTAU	2	9.7	AUTUMN	STANDARD31516	HYD-HZMB	P
23-Sep-11	NW LANTAU	3	7.9	AUTUMN	STANDARD31516	HYD-HZMB	P
23-Sep-11	NW LANTAU	2	5.2	AUTUMN	STANDARD31516	HYD-HZMB	S
23-Sep-11	NW LANTAU	3	4.0	AUTUMN	STANDARD31516	HYD-HZMB	S
6-Oct-11	NE LANTAU	0	1.6	AUTUMN	STANDARD31516	HYD-HZMB	P
6-Oct-11	NE LANTAU	1	13.5	AUTUMN	STANDARD31516	HYD-HZMB	P
6-Oct-11	NE LANTAU	2	18.0	AUTUMN	STANDARD31516	HYD-HZMB	P
6-Oct-11	NE LANTAU	1	5.3	AUTUMN	STANDARD31516	HYD-HZMB	S
6-Oct-11	NE LANTAU	2	4.9	AUTUMN	STANDARD31516	HYD-HZMB	S
6-Oct-11	NW LANTAU	1	0.9	AUTUMN	STANDARD31516	HYD-HZMB	P
6-Oct-11	NW LANTAU	2	21.7	AUTUMN	STANDARD31516	HYD-HZMB	P
6-Oct-11	NW LANTAU	1	12.7	AUTUMN	STANDARD31516	HYD-HZMB	S
10-Oct-11	NW LANTAU	2	16.7	AUTUMN	STANDARD31516	HYD-HZMB	P
10-Oct-11	NW LANTAU	3	17.9	AUTUMN	STANDARD31516	HYD-HZMB	P
10-Oct-11	NW LANTAU	2	11.8	AUTUMN	STANDARD31516	HYD-HZMB	S
10-Oct-11	NW LANTAU	3	2.2	AUTUMN	STANDARD31516	HYD-HZMB	S
10-Oct-11	NE LANTAU	2	6.8	AUTUMN	STANDARD31516	HYD-HZMB	P
10-Oct-11	NE LANTAU	3	10.2	AUTUMN	STANDARD31516	HYD-HZMB	P
10-Oct-11	NE LANTAU	4	1.3	AUTUMN	STANDARD31516	HYD-HZMB	P
10-Oct-11	NE LANTAU	2	2.1	AUTUMN	STANDARD31516	HYD-HZMB	S
10-Oct-11	NE LANTAU	3	2.1	AUTUMN	STANDARD31516	HYD-HZMB	S
13-Oct-11	NE LANTAU	2	15.0	AUTUMN	STANDARD31516	HYD-HZMB	P
13-Oct-11	NE LANTAU	3	1.8	AUTUMN	STANDARD31516	HYD-HZMB	P
13-Oct-11	NE LANTAU	2	10.3	AUTUMN	STANDARD31516	HYD-HZMB	S
13-Oct-11	NE LANTAU	3	1.0	AUTUMN	STANDARD31516	HYD-HZMB	S
17-Oct-11	W LANTAU	2	5.2	AUTUMN	STANDARD31516	HYD-HZMB	P
17-Oct-11	W LANTAU	3	10.3	AUTUMN	STANDARD31516	HYD-HZMB	P
17-Oct-11	W LANTAU	4	3.6	AUTUMN	STANDARD31516	HYD-HZMB	P

Appendix II. (cont'd)

(Abbreviations: BEAU = Beaufort Sea State; P = Primary Line Effort; S = Secondary Line Effort)

DATE	AREA	BEAU	EFFORT	SEASON	VESSEL	TYPE	P/S
17-Oct-11	W LANTAU	2	3.5	AUTUMN	STANDARD31516	HYD-HZMB	S
17-Oct-11	W LANTAU	3	10.1	AUTUMN	STANDARD31516	HYD-HZMB	S
17-Oct-11	W LANTAU	4	5.2	AUTUMN	STANDARD31516	HYD-HZMB	S
17-Oct-11	NW LANTAU	2	24.9	AUTUMN	STANDARD31516	HYD-HZMB	P
17-Oct-11	NW LANTAU	3	2.6	AUTUMN	STANDARD31516	HYD-HZMB	P
17-Oct-11	NW LANTAU	2	4.5	AUTUMN	STANDARD31516	HYD-HZMB	S
17-Oct-11	NW LANTAU	3	2.1	AUTUMN	STANDARD31516	HYD-HZMB	S
28-Oct-11	NW LANTAU	1	1.5	AUTUMN	STANDARD31516	HYD-HZMB	P
28-Oct-11	NW LANTAU	2	9.3	AUTUMN	STANDARD31516	HYD-HZMB	P
28-Oct-11	NW LANTAU	3	20.9	AUTUMN	STANDARD31516	HYD-HZMB	P
28-Oct-11	NW LANTAU	1	3.9	AUTUMN	STANDARD31516	HYD-HZMB	S
28-Oct-11	NW LANTAU	2	2.5	AUTUMN	STANDARD31516	HYD-HZMB	S
28-Oct-11	NW LANTAU	3	0.9	AUTUMN	STANDARD31516	HYD-HZMB	S
28-Oct-11	W LANTAU	2	1.3	AUTUMN	STANDARD31516	HYD-HZMB	P
28-Oct-11	W LANTAU	3	14.9	AUTUMN	STANDARD31516	HYD-HZMB	P
28-Oct-11	W LANTAU	4	0.9	AUTUMN	STANDARD31516	HYD-HZMB	P
28-Oct-11	W LANTAU	2	1.1	AUTUMN	STANDARD31516	HYD-HZMB	S
28-Oct-11	W LANTAU	3	12.1	AUTUMN	STANDARD31516	HYD-HZMB	S
28-Oct-11	W LANTAU	4	3.6	AUTUMN	STANDARD31516	HYD-HZMB	S
1-Nov-11	NW LANTAU	1	2.4	AUTUMN	STANDARD31516	HYD-HZMB	P
1-Nov-11	NW LANTAU	2	21.1	AUTUMN	STANDARD31516	HYD-HZMB	P
1-Nov-11	NW LANTAU	3	7.9	AUTUMN	STANDARD31516	HYD-HZMB	P
1-Nov-11	NW LANTAU	1	1.8	AUTUMN	STANDARD31516	HYD-HZMB	S
1-Nov-11	NW LANTAU	2	6.1	AUTUMN	STANDARD31516	HYD-HZMB	S
1-Nov-11	NW LANTAU	3	2.1	AUTUMN	STANDARD31516	HYD-HZMB	S
1-Nov-11	NE LANTAU	2	21.8	AUTUMN	STANDARD31516	HYD-HZMB	P
1-Nov-11	NE LANTAU	2	9.9	AUTUMN	STANDARD31516	HYD-HZMB	S
2-Nov-11	W LANTAU	2	9.0	AUTUMN	STANDARD31516	HYD-HZMB	P
2-Nov-11	W LANTAU	3	6.6	AUTUMN	STANDARD31516	HYD-HZMB	P
2-Nov-11	W LANTAU	4	3.2	AUTUMN	STANDARD31516	HYD-HZMB	P
2-Nov-11	W LANTAU	2	12.1	AUTUMN	STANDARD31516	HYD-HZMB	S
2-Nov-11	W LANTAU	3	7.8	AUTUMN	STANDARD31516	HYD-HZMB	S
2-Nov-11	NW LANTAU	2	17.9	AUTUMN	STANDARD31516	HYD-HZMB	P
2-Nov-11	NW LANTAU	3	4.0	AUTUMN	STANDARD31516	HYD-HZMB	P
2-Nov-11	NW LANTAU	2	7.2	AUTUMN	STANDARD31516	HYD-HZMB	S
5-Nov-11	NW LANTAU	0	2.2	AUTUMN	STANDARD31516	HYD-HZMB	P
5-Nov-11	NW LANTAU	1	10.6	AUTUMN	STANDARD31516	HYD-HZMB	P
5-Nov-11	NW LANTAU	2	19.4	AUTUMN	STANDARD31516	HYD-HZMB	P
5-Nov-11	NW LANTAU	1	3.0	AUTUMN	STANDARD31516	HYD-HZMB	S
5-Nov-11	NW LANTAU	2	4.5	AUTUMN	STANDARD31516	HYD-HZMB	S
5-Nov-11	NE LANTAU	1	1.2	AUTUMN	STANDARD31516	HYD-HZMB	P
5-Nov-11	NE LANTAU	2	15.2	AUTUMN	STANDARD31516	HYD-HZMB	P
5-Nov-11	NE LANTAU	1	1.2	AUTUMN	STANDARD31516	HYD-HZMB	S
5-Nov-11	NE LANTAU	2	8.2	AUTUMN	STANDARD31516	HYD-HZMB	S
6-Nov-11	NE LANTAU	3	10.2	AUTUMN	STANDARD31516	HYD-HZMB	P
6-Nov-11	NE LANTAU	4	3.5	AUTUMN	STANDARD31516	HYD-HZMB	P
6-Nov-11	NE LANTAU	2	4.3	AUTUMN	STANDARD31516	HYD-HZMB	S
6-Nov-11	NE LANTAU	3	7.2	AUTUMN	STANDARD31516	HYD-HZMB	S
6-Nov-11	NE LANTAU	4	1.2	AUTUMN	STANDARD31516	HYD-HZMB	S
7-Nov-11	NW LANTAU	2	14.6	AUTUMN	STANDARD31516	HYD-HZMB	P
7-Nov-11	NW LANTAU	3	16.0	AUTUMN	STANDARD31516	HYD-HZMB	P
7-Nov-11	NW LANTAU	4	7.6	AUTUMN	STANDARD31516	HYD-HZMB	P
7-Nov-11	NW LANTAU	2	3.6	AUTUMN	STANDARD31516	HYD-HZMB	S
7-Nov-11	NW LANTAU	3	3.3	AUTUMN	STANDARD31516	HYD-HZMB	S
7-Nov-11	NW LANTAU	4	0.8	AUTUMN	STANDARD31516	HYD-HZMB	S
7-Nov-11	NE LANTAU	2	0.6	AUTUMN	STANDARD31516	HYD-HZMB	P
7-Nov-11	NE LANTAU	3	13.9	AUTUMN	STANDARD31516	HYD-HZMB	P
7-Nov-11	NE LANTAU	4	5.1	AUTUMN	STANDARD31516	HYD-HZMB	P
7-Nov-11	NE LANTAU	5	0.2	AUTUMN	STANDARD31516	HYD-HZMB	P
7-Nov-11	NE LANTAU	2	4.3	AUTUMN	STANDARD31516	HYD-HZMB	S
7-Nov-11	NE LANTAU	3	9.0	AUTUMN	STANDARD31516	HYD-HZMB	S
7-Nov-11	NE LANTAU	4	6.1	AUTUMN	STANDARD31516	HYD-HZMB	S

Appendix III. HYD-HZMB Chinese White Dolphin Sighting Database (September-November 2011)

(Abberviations: STG# = Sighting Number; HRD SZ = Dolphin Herd Size; BEAU = Beaufort Sea State; PSD = Perpendicular Distance; BOAT ASSOC. = Fishing Boat Associa

DATE	STG #	TIME	HRD SZ	AREA	BEAU	PSD	EFFORT	TYPE	NORTHING	EASTING	SEASON	BOAT ASSOC.
05-Sep-11	1	1111	2	W LANTAU	3	ND	OFF	HYD-HZMB	811890	800623	AUTUMN	NONE
05-Sep-11	2	1143	2	W LANTAU	2	230	ON	HYD-HZMB	809851	801299	AUTUMN	NONE
05-Sep-11	3	1155	4	W LANTAU	2	44	ON	HYD-HZMB	809434	799865	AUTUMN	PAIR
05-Sep-11	4	1244	6	W LANTAU	2	179	ON	HYD-HZMB	806232	800373	AUTUMN	NONE
05-Sep-11	5	1324	8	W LANTAU	2	883	ON	HYD-HZMB	809910	799722	AUTUMN	PAIR
07-Sep-11	1	1055	2	NW LANTAU	2	349	ON	HYD-HZMB	824052	804669	AUTUMN	NONE
07-Sep-11	2	1657	1	NE LANTAU	2	179	ON	HYD-HZMB	821661	817387	AUTUMN	NONE
16-Sep-11	1	1001	6	NW LANTAU	2	ND	OFF	HYD-HZMB	816088	805652	AUTUMN	NONE
16-Sep-11	2	1013	2	NW LANTAU	2	330	ON	HYD-HZMB	816609	805334	AUTUMN	NONE
16-Sep-11	3	1038	4	NW LANTAU	2	87	ON	HYD-HZMB	822356	805335	AUTUMN	NONE
16-Sep-11	4	1102	2	NW LANTAU	1	59	ON	HYD-HZMB	826431	805354	AUTUMN	NONE
16-Sep-11	5	1144	3	NW LANTAU	2	157	ON	HYD-HZMB	826350	807424	AUTUMN	NONE
16-Sep-11	6	1204	1	NW LANTAU	2	4	ON	HYD-HZMB	823271	807428	AUTUMN	NONE
16-Sep-11	7	1210	9	NW LANTAU	2	73	ON	HYD-HZMB	822585	807406	AUTUMN	NONE
16-Sep-11	8	1350	1	NW LANTAU	2	ND	OFF	HYD-HZMB	824384	810767	AUTUMN	NONE
16-Sep-11	9	1406	3	NW LANTAU	2	295	ON	HYD-HZMB	822843	811548	AUTUMN	NONE
23-Sep-11	1	1104	1	W LANTAU	3	ND	OFF	HYD-HZMB	813867	803153	AUTUMN	NONE
23-Sep-11	2	1115	2	W LANTAU	3	130	ON	HYD-HZMB	813284	801266	AUTUMN	NONE
23-Sep-11	3	1126	2	W LANTAU	2	7	ON	HYD-HZMB	811503	800365	AUTUMN	NONE
23-Sep-11	4	1149	5	W LANTAU	2	176	ON	HYD-HZMB	809973	801299	AUTUMN	NONE
23-Sep-11	5	1211	1	W LANTAU	2	ND	OFF	HYD-HZMB	809444	800411	AUTUMN	NONE
23-Sep-11	6	1222	4	W LANTAU	2	21	ON	HYD-HZMB	808526	799605	AUTUMN	NONE
23-Sep-11	7	1247	2	W LANTAU	2	351	ON	HYD-HZMB	806462	801797	AUTUMN	NONE
23-Sep-11	8	1315	1	W LANTAU	3	433	ON	HYD-HZMB	806474	801322	AUTUMN	NONE
23-Sep-11	9	1417	9	W LANTAU	2	125	ON	HYD-HZMB	812465	801150	AUTUMN	NONE
23-Sep-11	10	1517	4	NW LANTAU	3	26	ON	HYD-HZMB	819489	804649	AUTUMN	NONE
23-Sep-11	11	1538	2	NW LANTAU	3	137	ON	HYD-HZMB	823011	804646	AUTUMN	NONE
23-Sep-11	12	1608	1	NW LANTAU	2	776	ON	HYD-HZMB	828568	805770	AUTUMN	NONE
6-Oct-11	1	1040	1	NE LANTAU	2	633	ON	HYD-HZMB	823250	822571	AUTUMN	NONE
6-Oct-11	2	1306	5	NE LANTAU	2	57	ON	HYD-HZMB	822462	814277	AUTUMN	NONE
6-Oct-11	3	1455	2	NW LANTAU	1	236	ON	HYD-HZMB	823764	810478	AUTUMN	NONE

Appendix III. (cont'd)

(Abberviations: STG# = Sighting Number; HRD SZ = Dolphin Herd Size; BEAU = Beaufort Sea State; PSD = Perpendicular Distance; BOAT ASSOC. = Fishing Boat Associa

DATE	STG #	TIME	HRD SZ	AREA	BEAU	PSD	EFFORT	TYPE	NORTHING	EASTING	SEASON	BOAT ASSOC.
6-Oct-11	4	1500	6	NW LANTAU	2	151	ON	HYD-HZMB	824185	810520	AUTUMN	NONE
6-Oct-11	5	1517	2	NW LANTAU	2	96	ON	HYD-HZMB	824672	810243	AUTUMN	NONE
6-Oct-11	6	1552	1	NW LANTAU	2	ND	OFF	HYD-HZMB	825827	808442	AUTUMN	NONE
6-Oct-11	7	1615	1	NW LANTAU	2	ND	OFF	HYD-HZMB	821630	808455	AUTUMN	NONE
10-Oct-11	1	1009	3	NW LANTAU	3	183	ON	HYD-HZMB	815702	804652	AUTUMN	NONE
10-Oct-11	2	1207	9	NW LANTAU	3	382	ON	HYD-HZMB	820228	806382	AUTUMN	NONE
10-Oct-11	3	1629	3	NE LANTAU	2	167	ON	HYD-HZMB	820354	817344	AUTUMN	NONE
13-Oct-11	3	1459	2	NE LANTAU	2	42	ON	HYD-HZMB	820015	814284	AUTUMN	NONE
17-Oct-11	1	1014	6	W LANTAU	3	275	ON	HYD-HZMB	814765	802774	AUTUMN	NONE
17-Oct-11	2	1023	10	W LANTAU	3	216	ON	HYD-HZMB	814545	802165	AUTUMN	PAIR
17-Oct-11	3	1045	3	W LANTAU	3	505	ON	HYD-HZMB	812654	800769	AUTUMN	NONE
17-Oct-11	4	1116	5	W LANTAU	3	606	ON	HYD-HZMB	810461	800888	AUTUMN	NONE
17-Oct-11	5	1131	2	W LANTAU	4	ND	OFF	HYD-HZMB	809301	799700	AUTUMN	NONE
17-Oct-11	6	1136	3	W LANTAU	3	ND	OFF	HYD-HZMB	808460	799481	AUTUMN	NONE
17-Oct-11	7	1243	1	W LANTAU	3	104	ON	HYD-HZMB	809432	800473	AUTUMN	NONE
17-Oct-11	8	1324	5	W LANTAU	2	142	ON	HYD-HZMB	814203	801628	AUTUMN	NONE
17-Oct-11	9	1402	1	W LANTAU	2	328	ON	HYD-HZMB	814443	803020	AUTUMN	NONE
17-Oct-11	10	1548	1	NW LANTAU	2	583	ON	HYD-HZMB	827080	807435	AUTUMN	SHRIMP
17-Oct-11	11	1609	1	NW LANTAU	2	ND	OFF	HYD-HZMB	822562	807416	AUTUMN	NONE
28-Oct-11	1	0953	1	NW LANTAU	2	662	ON	HYD-HZMB	823699	809479	AUTUMN	NONE
28-Oct-11	2	1004	1	NW LANTAU	2	ND	OFF	HYD-HZMB	823445	809004	AUTUMN	NONE
28-Oct-11	3	1044	8	NW LANTAU	3	0	ON	HYD-HZMB	823703	807398	AUTUMN	NONE
28-Oct-11	4	1117	7	NW LANTAU	3	160	ON	HYD-HZMB	827579	807426	AUTUMN	NONE
28-Oct-11	5	1129	4	NW LANTAU	3	93	ON	HYD-HZMB	828022	807416	AUTUMN	NONE
28-Oct-11	6	1412	2	W LANTAU	3	27	ON	HYD-HZMB	811457	801220	AUTUMN	NONE
28-Oct-11	7	1418	3	W LANTAU	3	235	ON	HYD-HZMB	811467	801859	AUTUMN	NONE
28-Oct-11	8	1518	4	W LANTAU	3	64	ON	HYD-HZMB	808482	799512	AUTUMN	NONE
1-Nov-11	1	0952	2	NW LANTAU	2	ND	OFF	HYD-HZMB	816794	806746	AUTUMN	NONE
1-Nov-11	2	1021	4	NW LANTAU	2	161	ON	HYD-HZMB	819534	804649	AUTUMN	NONE
1-Nov-11	3	1135	2	NW LANTAU	1	524	ON	HYD-HZMB	828356	806387	AUTUMN	NONE
1-Nov-11	4	1153	1	NW LANTAU	2	ND	OFF	HYD-HZMB	826950	806395	AUTUMN	NONE

Appendix III. (cont'd)

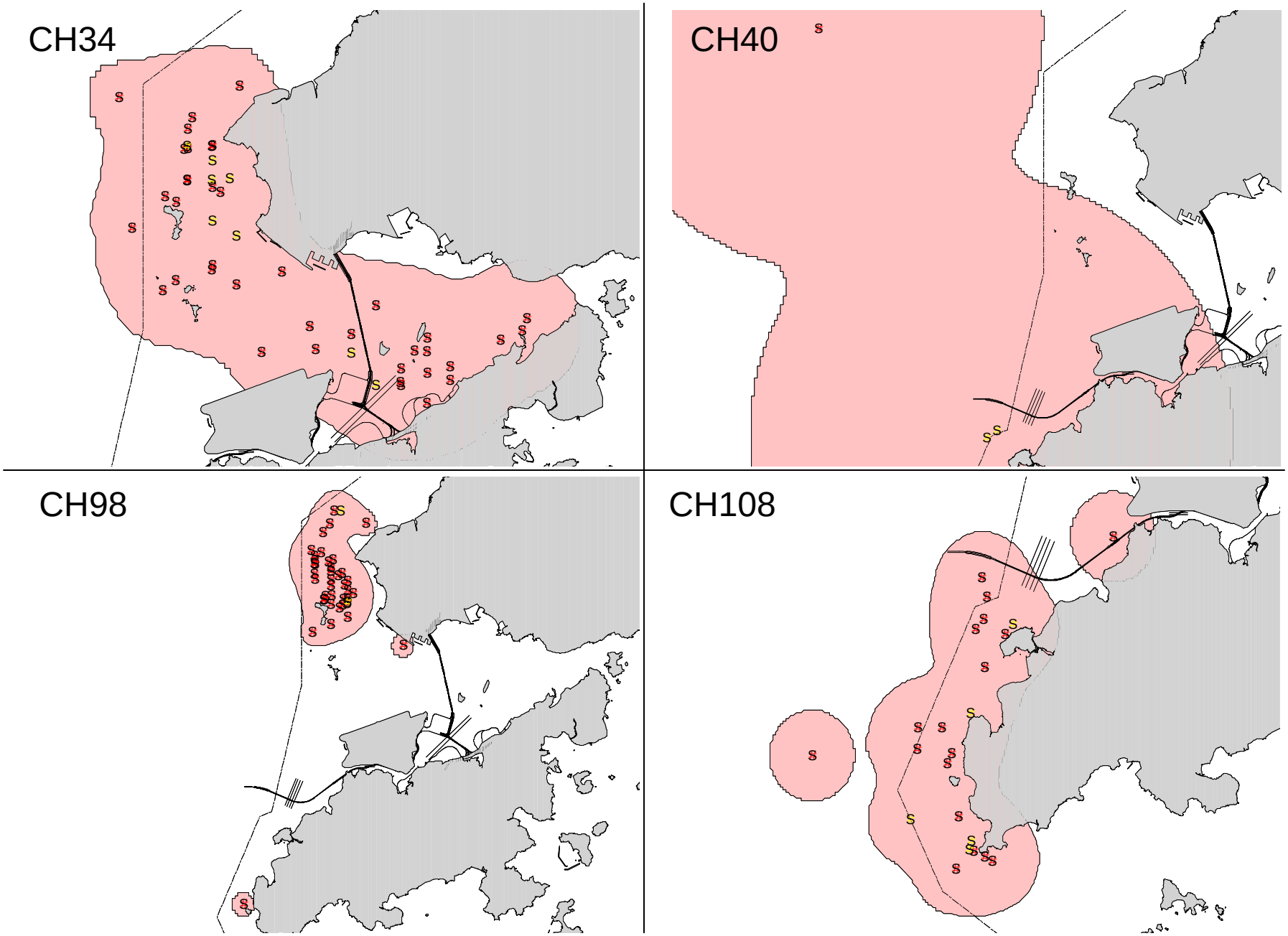
(Abberviations: STG# = Sighting Number; HRD SZ = Dolphin Herd Size; BEAU = Beaufort Sea State; PSD = Perpendicular Distance; BOAT ASSOC. = Fishing Boat Associa

DATE	STG #	TIME	HRD SZ	AREA	BEAU	PSD	EFFORT	TYPE	NORTHING	EASTING	SEASON	BOAT ASSOC.
1-Nov-11	5	1156	5	NW LANTAU	2	161	ON	HYD-HZMB	826473	806394	AUTUMN	HANG
1-Nov-11	6	1405	4	NE LANTAU	2	350	ON	HYD-HZMB	821213	813245	AUTUMN	NONE
1-Nov-11	7	1416	1	NE LANTAU	2	ND	OFF	HYD-HZMB	820404	813440	AUTUMN	HANG
1-Nov-11	8	1505	8	NE LANTAU	2	277	ON	HYD-HZMB	819926	814273	AUTUMN	NONE
1-Nov-11	9	1612	4	NE LANTAU	2	159	ON	HYD-HZMB	819702	816406	AUTUMN	NONE
2-Nov-11	1	0957	2	W LANTAU	2	564	ON	HYD-HZMB	815660	803796	AUTUMN	NONE
2-Nov-11	2	1021	1	W LANTAU	2	29	ON	HYD-HZMB	814454	803072	AUTUMN	NONE
2-Nov-11	3	1026	10	W LANTAU	2	561	ON	HYD-HZMB	813723	803204	AUTUMN	NONE
2-Nov-11	4	1044	4	W LANTAU	2	316	ON	HYD-HZMB	813560	801782	AUTUMN	NONE
2-Nov-11	5	1114	1	W LANTAU	3	746	ON	HYD-HZMB	809386	801246	AUTUMN	NONE
2-Nov-11	6	1120	8	W LANTAU	3	112	ON	HYD-HZMB	809409	800793	AUTUMN	NONE
2-Nov-11	7	1144	1	W LANTAU	2	92	ON	HYD-HZMB	808449	799615	AUTUMN	NONE
2-Nov-11	8	1301	14	W LANTAU	2	303	ON	HYD-HZMB	810847	801745	AUTUMN	NONE
2-Nov-11	9	1343	4	W LANTAU	2	259	ON	HYD-HZMB	812455	800903	AUTUMN	NONE
2-Nov-11	10	1403	6	W LANTAU	2	243	ON	HYD-HZMB	814510	802959	AUTUMN	NONE
2-Nov-11	11	1501	2	NW LANTAU	2	30	ON	HYD-HZMB	826309	805353	AUTUMN	NONE
2-Nov-11	12	1513	18	NW LANTAU	2	282	ON	HYD-HZMB	828303	805357	AUTUMN	NONE
2-Nov-11	13	1555	3	NW LANTAU	2	262	ON	HYD-HZMB	827025	807425	AUTUMN	NONE
2-Nov-11	14	1601	12	NW LANTAU	2	263	ON	HYD-HZMB	826405	807424	AUTUMN	NONE
5-Nov-11	1	1018	1	NW LANTAU	2	204	ON	HYD-HZMB	817540	804645	AUTUMN	NONE
5-Nov-11	2	1025	4	NW LANTAU	2	220	ON	HYD-HZMB	818581	804647	AUTUMN	NONE
5-Nov-11	3	1110	2	NW LANTAU	2	220	ON	HYD-HZMB	826255	804663	AUTUMN	NONE
5-Nov-11	4	1121	1	NW LANTAU	2	534	ON	HYD-HZMB	827651	804666	AUTUMN	NONE
5-Nov-11	5	1138	6	NW LANTAU	1	453	ON	HYD-HZMB	830119	805104	AUTUMN	NONE
5-Nov-11	6	1153	7	NW LANTAU	1	248	ON	HYD-HZMB	829353	806389	AUTUMN	NONE
5-Nov-11	7	1208	5	NW LANTAU	1	21	ON	HYD-HZMB	827946	806397	AUTUMN	NONE
5-Nov-11	8	1321	8	NW LANTAU	2	312	ON	HYD-HZMB	825384	808431	AUTUMN	NONE
5-Nov-11	9	1516	4	NE LANTAU	1	195	ON	HYD-HZMB	820189	816376	AUTUMN	NONE
5-Nov-11	10	1524	3	NE LANTAU	2	ND	OFF	HYD-HZMB	821141	816768	AUTUMN	NONE
5-Nov-11	11	1537	2	NE LANTAU	1	136	ON	HYD-HZMB	821828	816409	AUTUMN	NONE
5-Nov-11	12	1614	2	NE LANTAU	2	193	ON	HYD-HZMB	821172	818396	AUTUMN	NONE

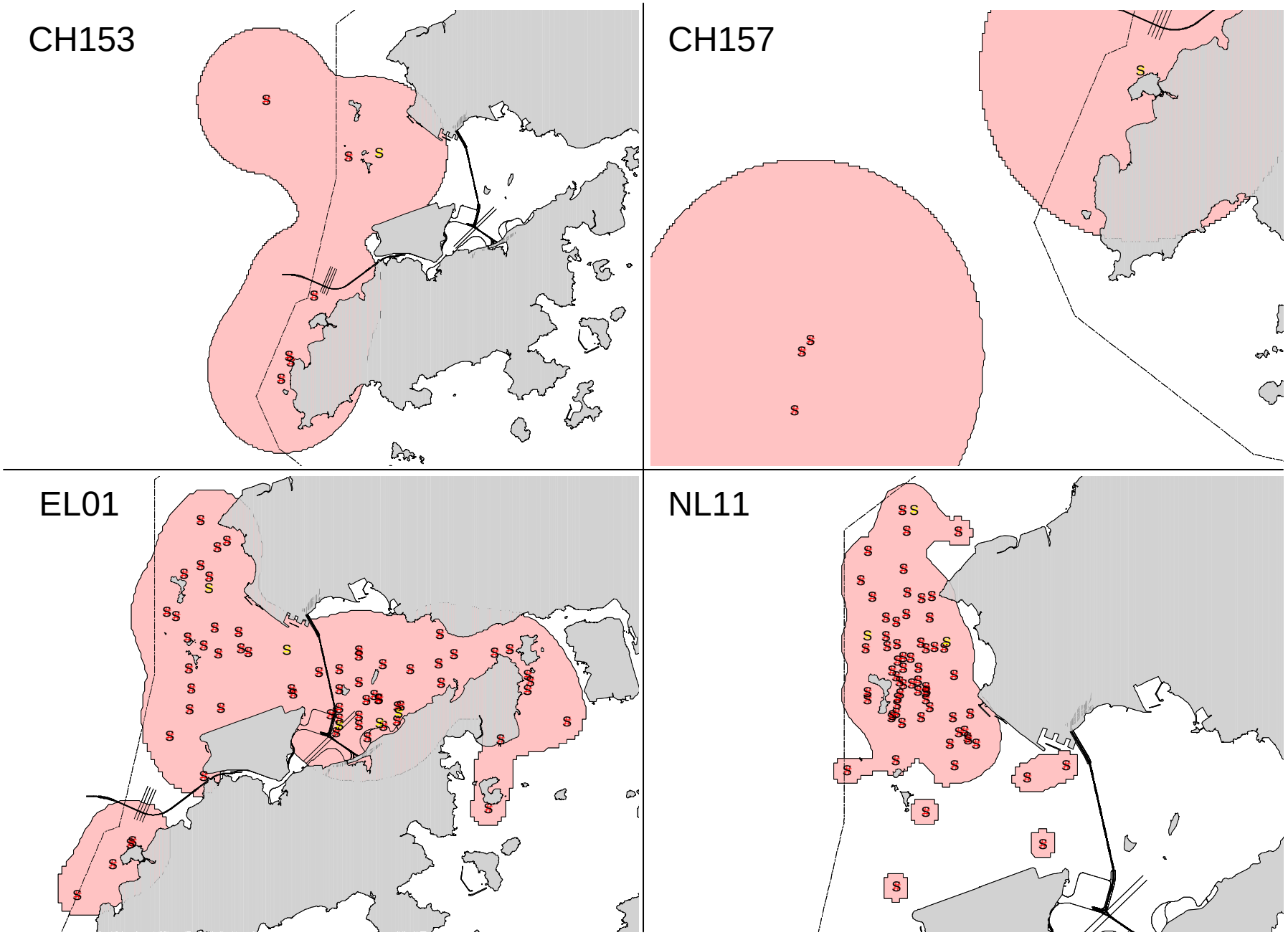
Appendix III. (cont'd)

(Abberviations: STG# = Sighting Number; HRD SZ = Dolphin Herd Size; BEAU = Beaufort Sea State; PSD = Perpendicular Distance; BOAT ASSOC. = Fishing Boat Associa

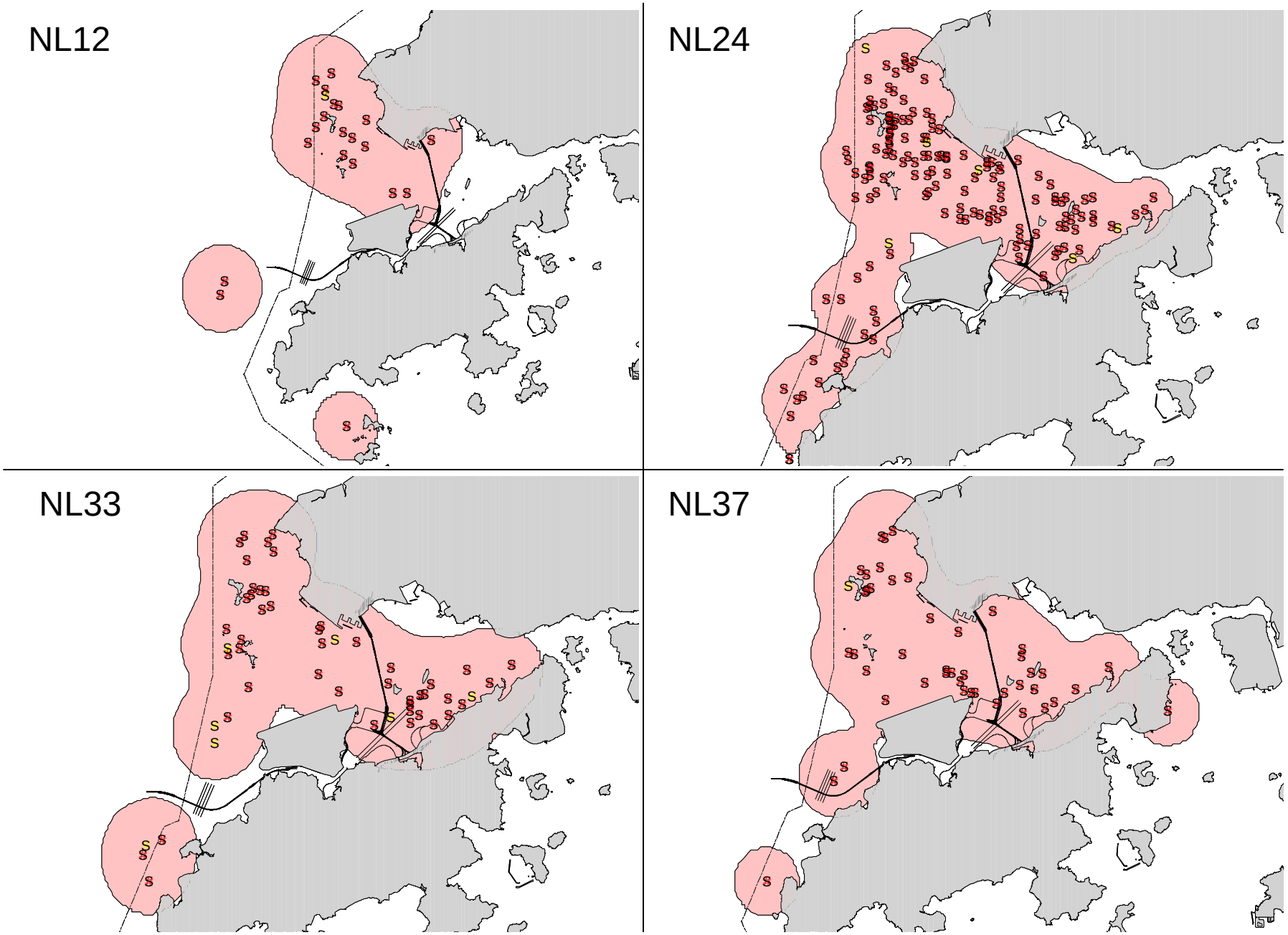
DATE	STG #	TIME	HRD SZ	AREA	BEAU	PSD	EFFORT	TYPE	NORTHING	EASTING	SEASON	BOAT ASSOC.
6-Nov-11	1	1447	2	NE LANTAU	4	92	ON	HYD-HZMB	822951	813237	AUTUMN	NONE
6-Nov-11	2	1543	8	NE LANTAU	3	44	ON	HYD-HZMB	819459	816292	AUTUMN	NONE
6-Nov-11	3	1605	2	NE LANTAU	2	163	ON	HYD-HZMB	819668	816808	AUTUMN	NONE
6-Nov-11	4	1611	2	NE LANTAU	2	18	ON	HYD-HZMB	819956	817303	AUTUMN	NONE
7-Nov-11	1	0922	1	NW LANTAU	2	ND	OFF	HYD-HZMB	821258	812720	AUTUMN	NONE
7-Nov-11	2	1116	8	NW LANTAU	2	790	ON	HYD-HZMB	828087	808158	AUTUMN	NONE
7-Nov-11	3	1136	4	NW LANTAU	2	59	ON	HYD-HZMB	828708	807603	AUTUMN	NONE
7-Nov-11	4	1146	3	NW LANTAU	2	160	ON	HYD-HZMB	829607	806637	AUTUMN	NONE
7-Nov-11	5	1226	6	NW LANTAU	3	ND	OFF	HYD-HZMB	823463	805358	AUTUMN	NONE
7-Nov-11	6	1411	1	W LANTAU	3	245	ON	HYD-HZMB	811458	800921	AUTUMN	NONE
7-Nov-11	7	1421	1	W LANTAU	2	ND	OFF	HYD-HZMB	811189	802075	AUTUMN	NONE
7-Nov-11	8	1424	5	W LANTAU	2	52	ON	HYD-HZMB	810991	801838	AUTUMN	NONE
7-Nov-11	9	1436	4	W LANTAU	3	68	ON	HYD-HZMB	809464	801195	AUTUMN	NONE
7-Nov-11	10	1507	3	W LANTAU	2	48	ON	HYD-HZMB	807450	800438	AUTUMN	NONE
7-Nov-11	11	1518	3	W LANTAU	2	105	ON	HYD-HZMB	806694	801756	AUTUMN	NONE
7-Nov-11	12	1537	2	W LANTAU	3	ND	OFF	HYD-HZMB	806488	799775	AUTUMN	NONE
7-Nov-11	13	1545	1	W LANTAU	3	49	ON	HYD-HZMB	806484	801755	AUTUMN	NONE
7-Nov-11	14	1554	1	W LANTAU	2	ND	OFF	HYD-HZMB	808368	801193	AUTUMN	NONE
7-Nov-11	15	1625	1	W LANTAU	3	ND	OFF	HYD-HZMB	812463	802150	AUTUMN	NONE



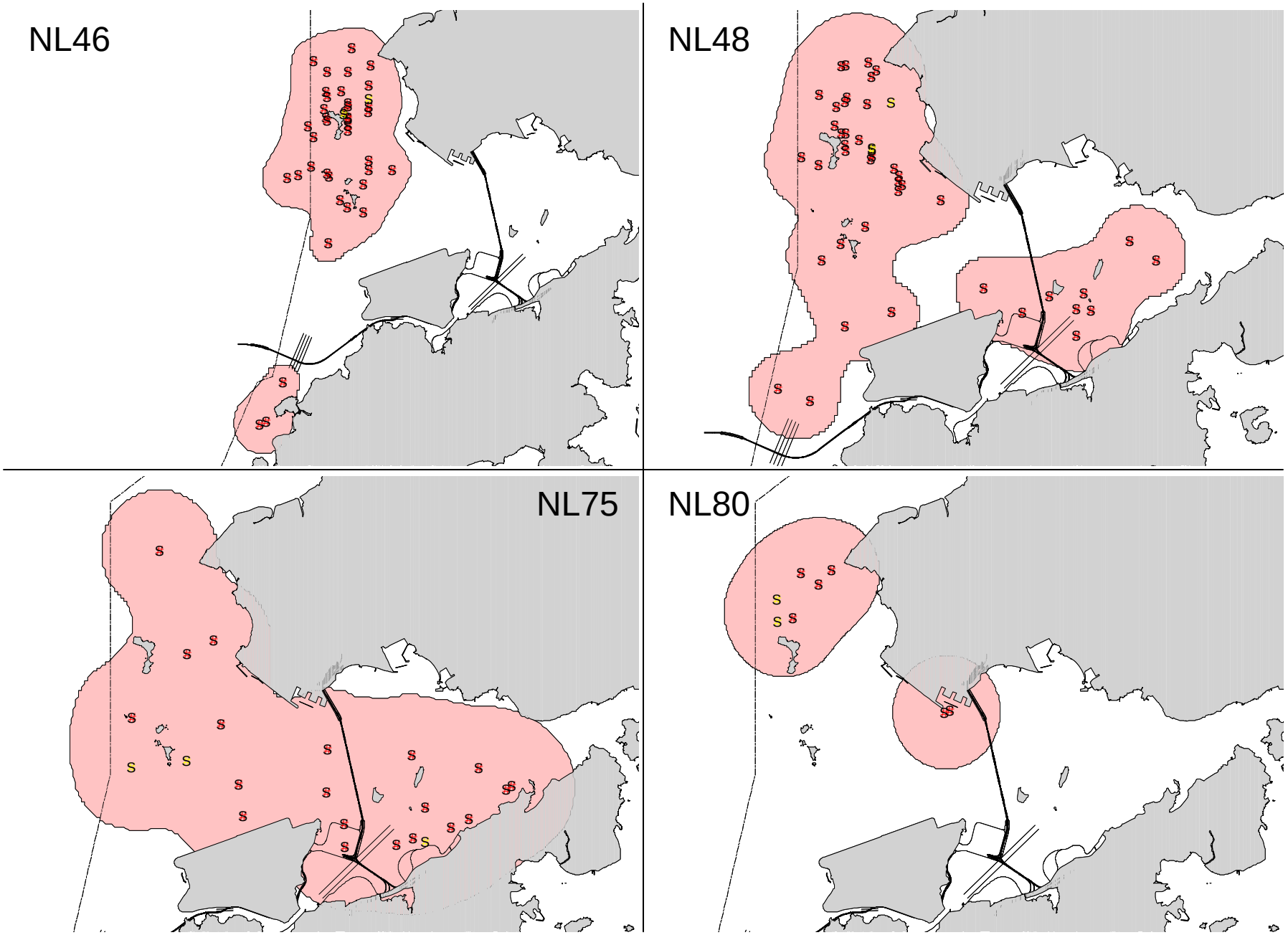
Appendix IV. Ranging patterns (95% kernel ranges) of 96 individual dolphins that were identified during HYD-HZMB baseline monitoring surveys (yellow dots: sightings made during September to November 2011)



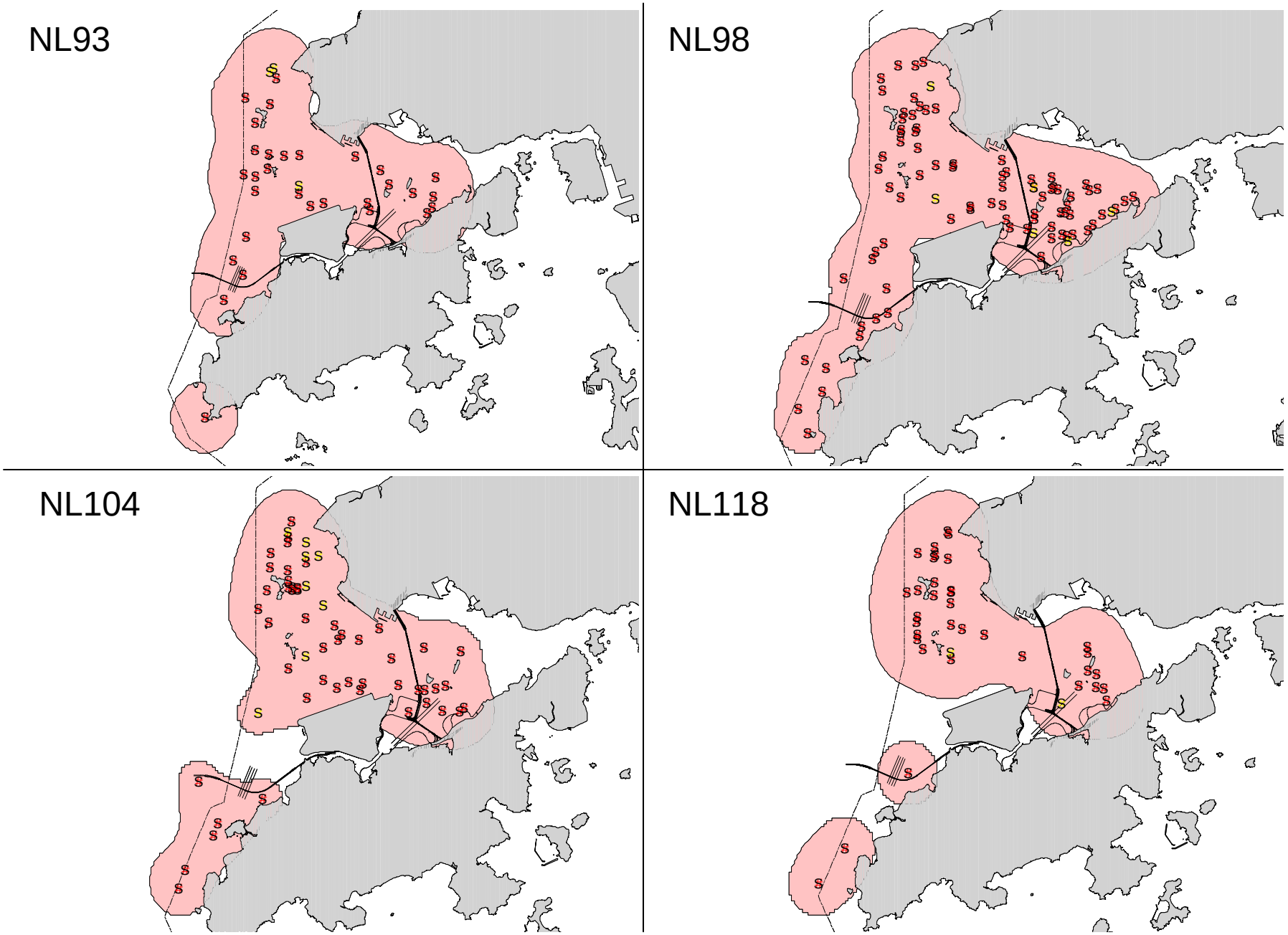
Appendix IV. (cont'd)



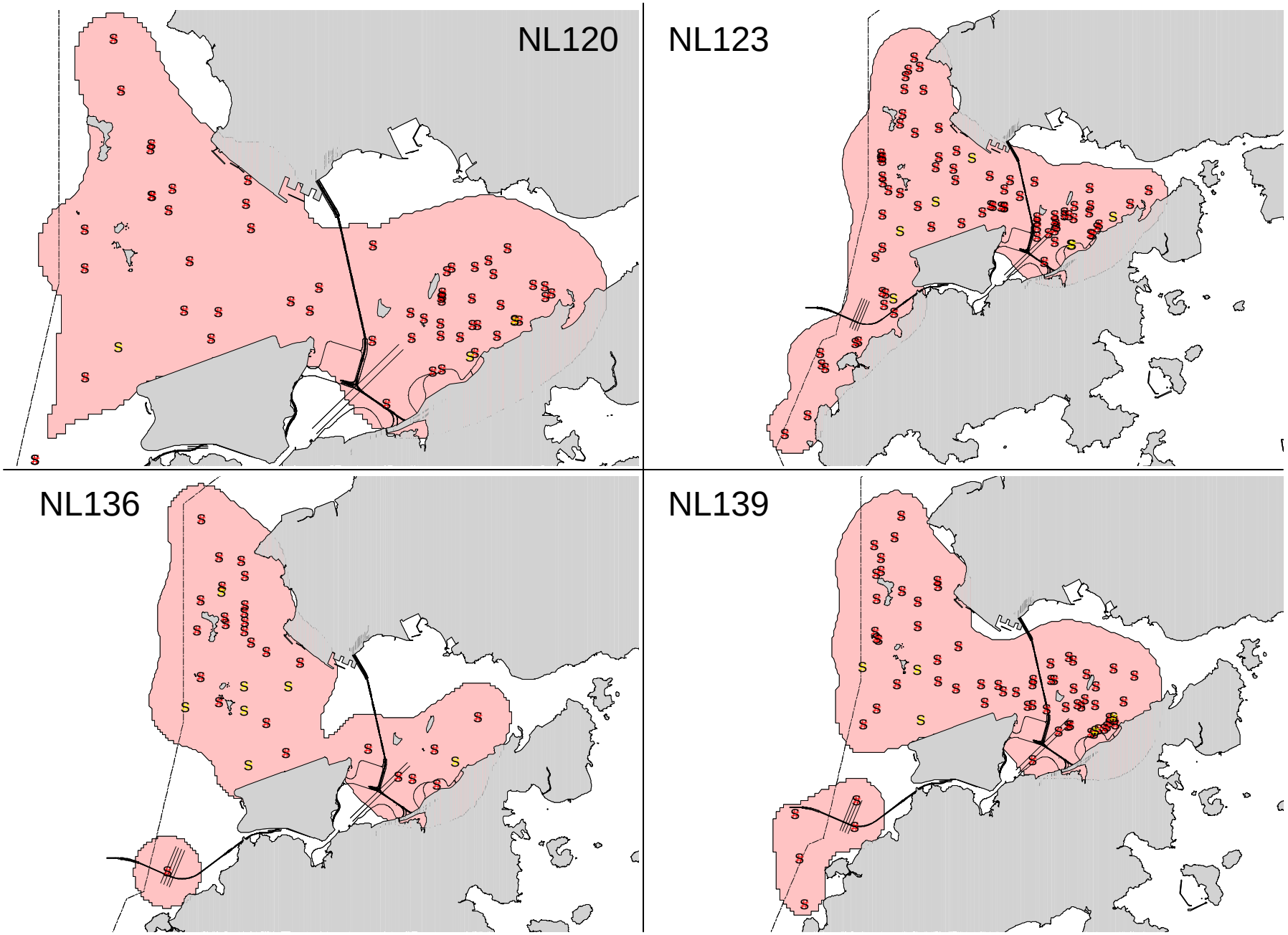
Appendix IV. (cont'd)



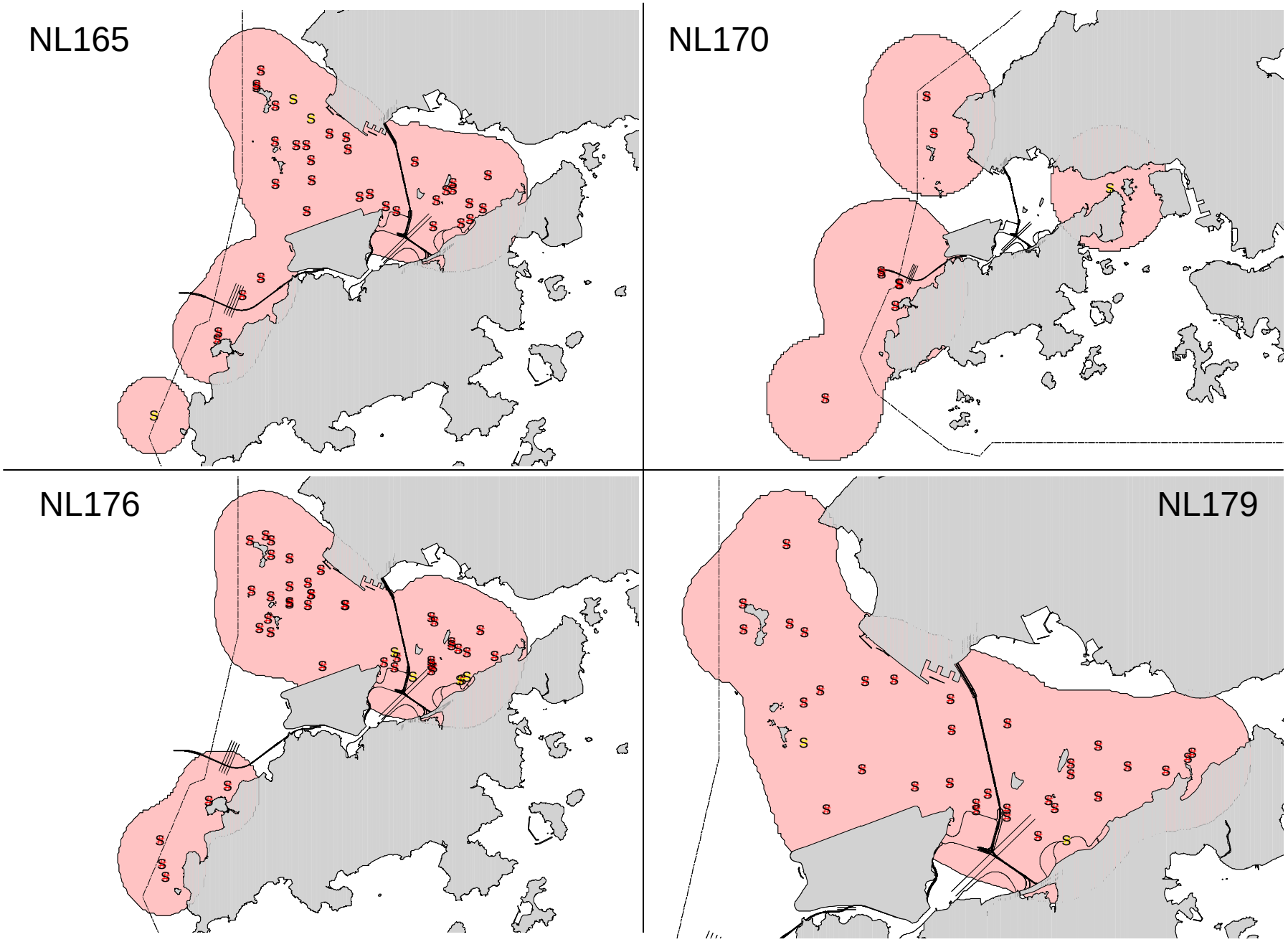
Appendix IV. (cont'd)



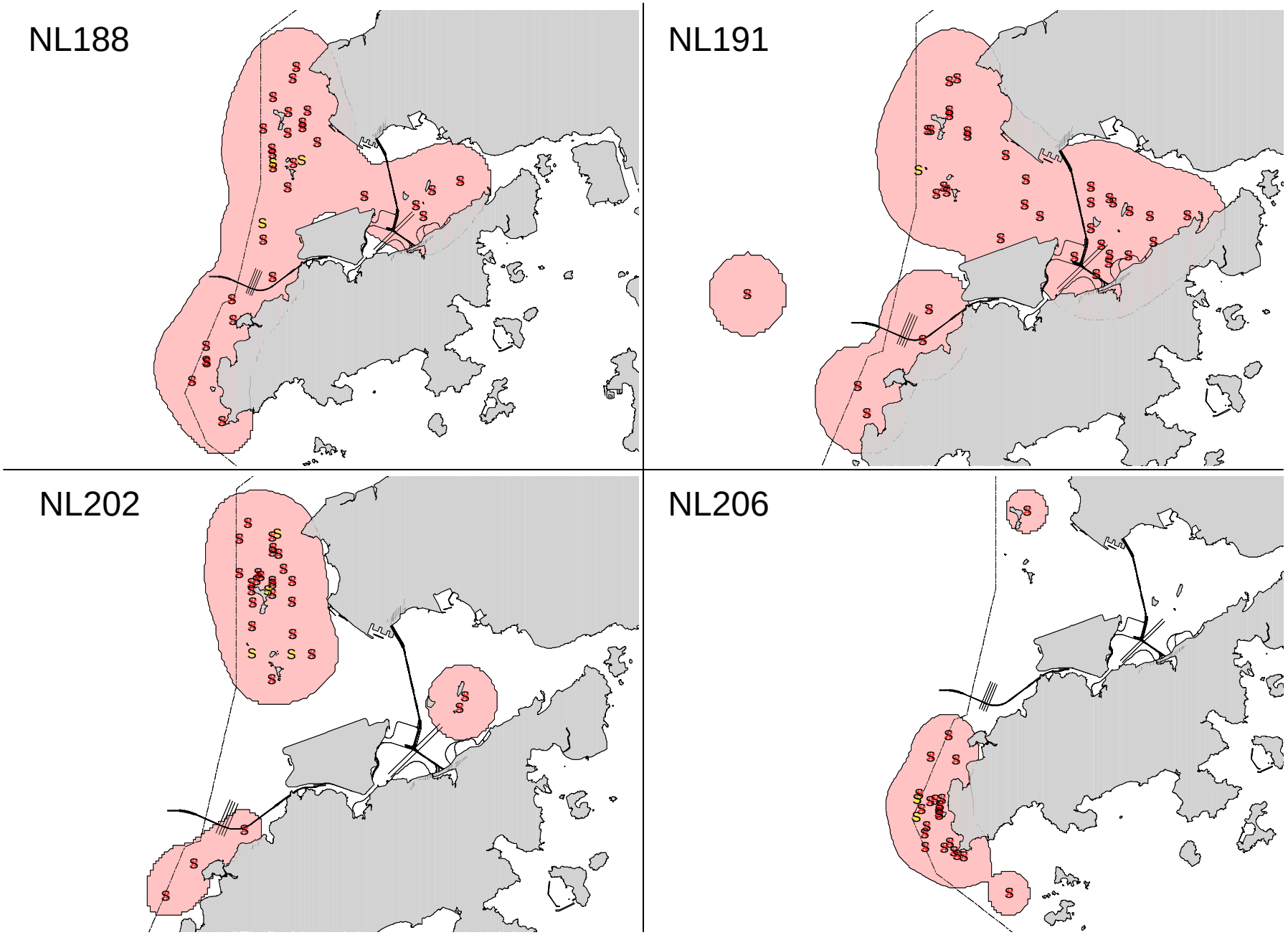
Appendix IV. (cont'd)



Appendix IV. (cont'd)



Appendix IV. (cont'd)



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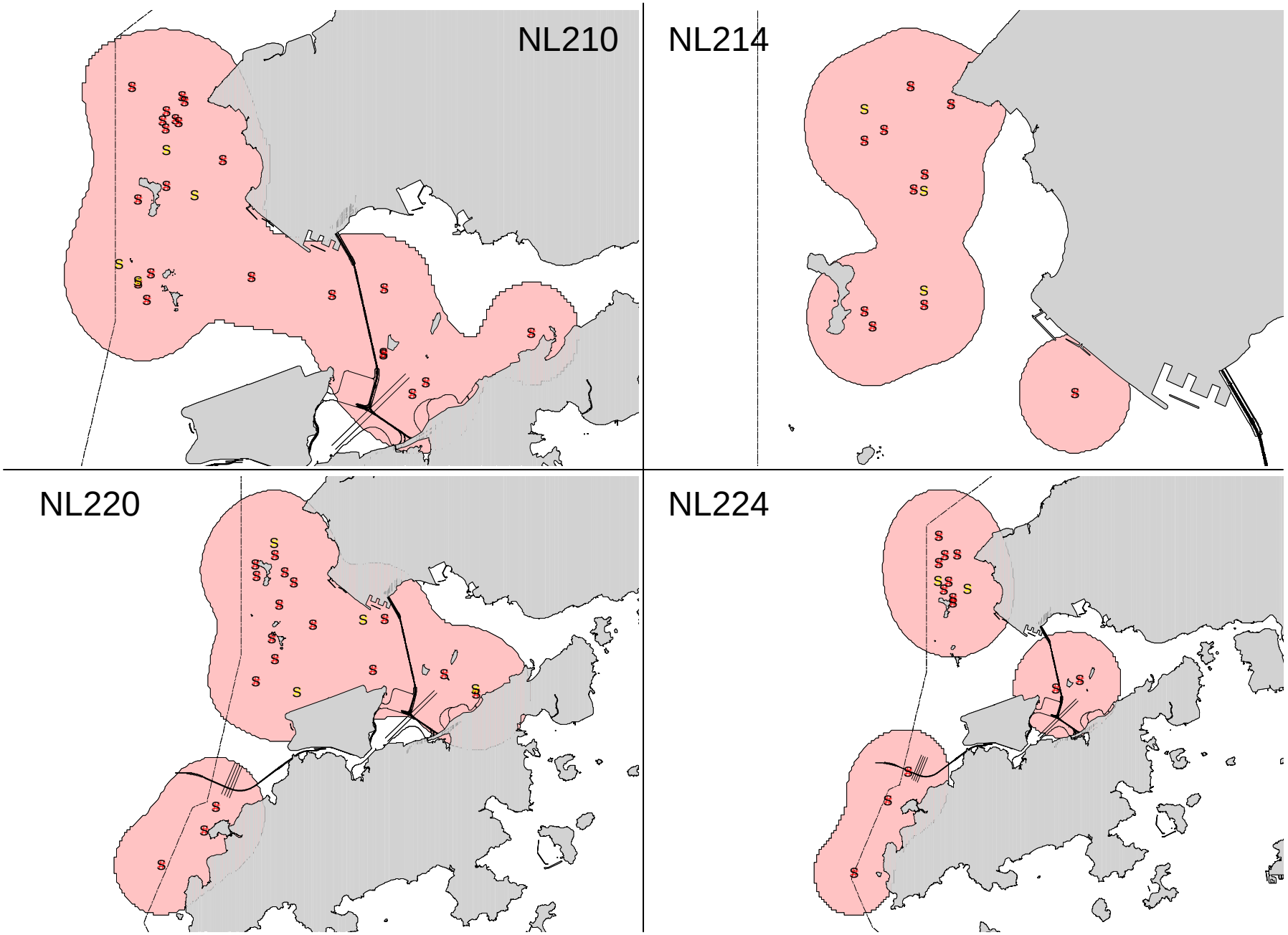

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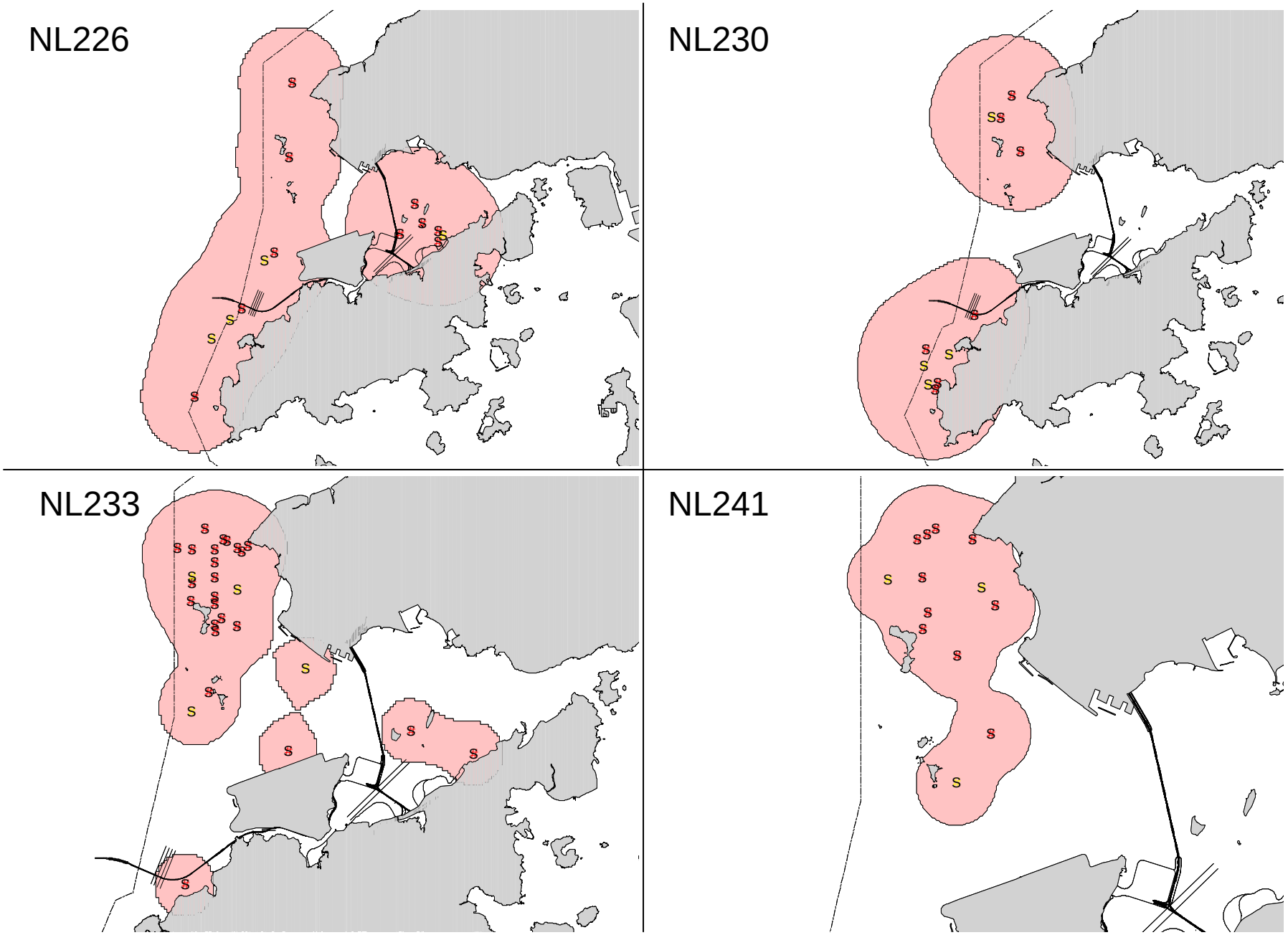

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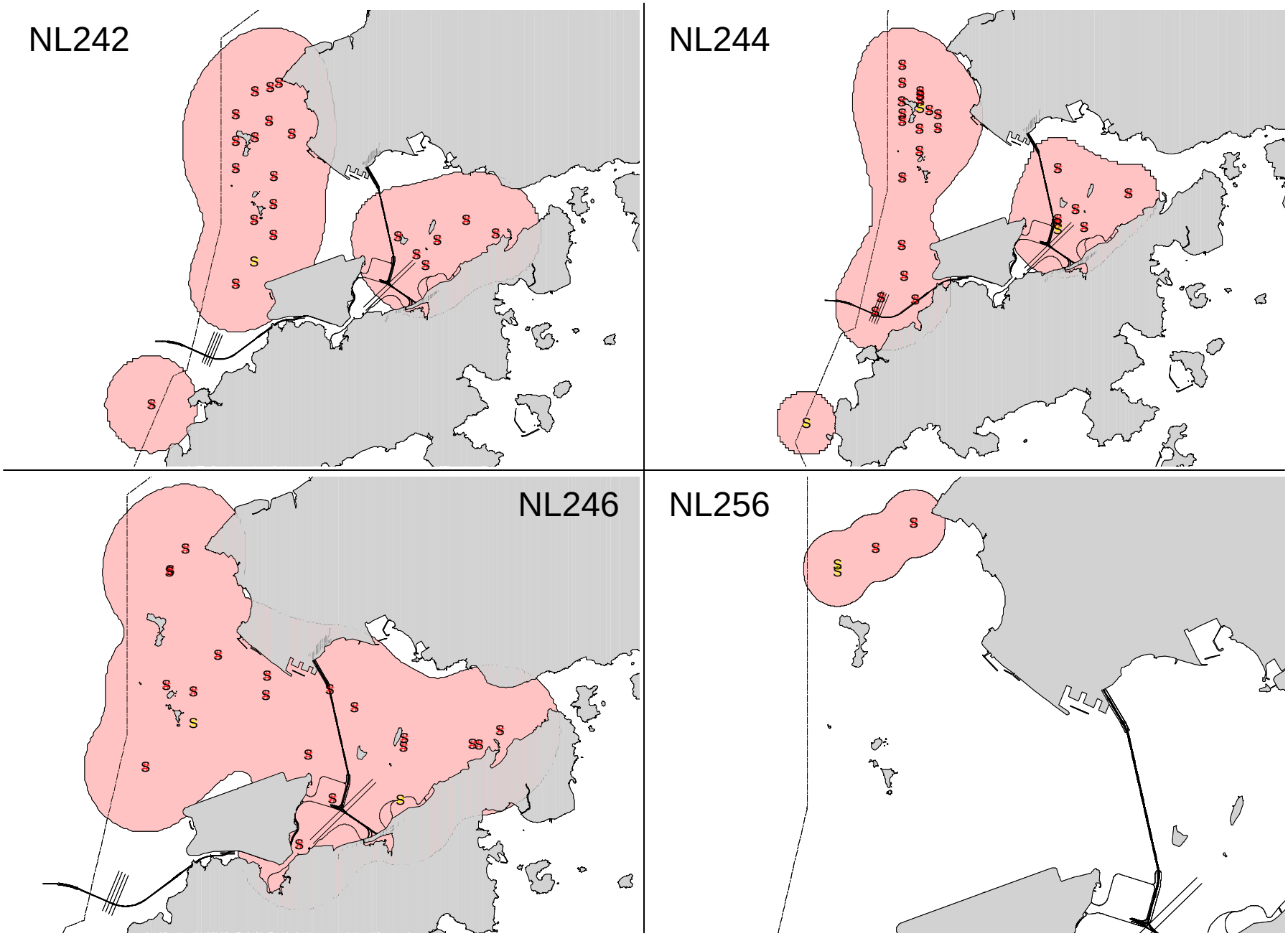
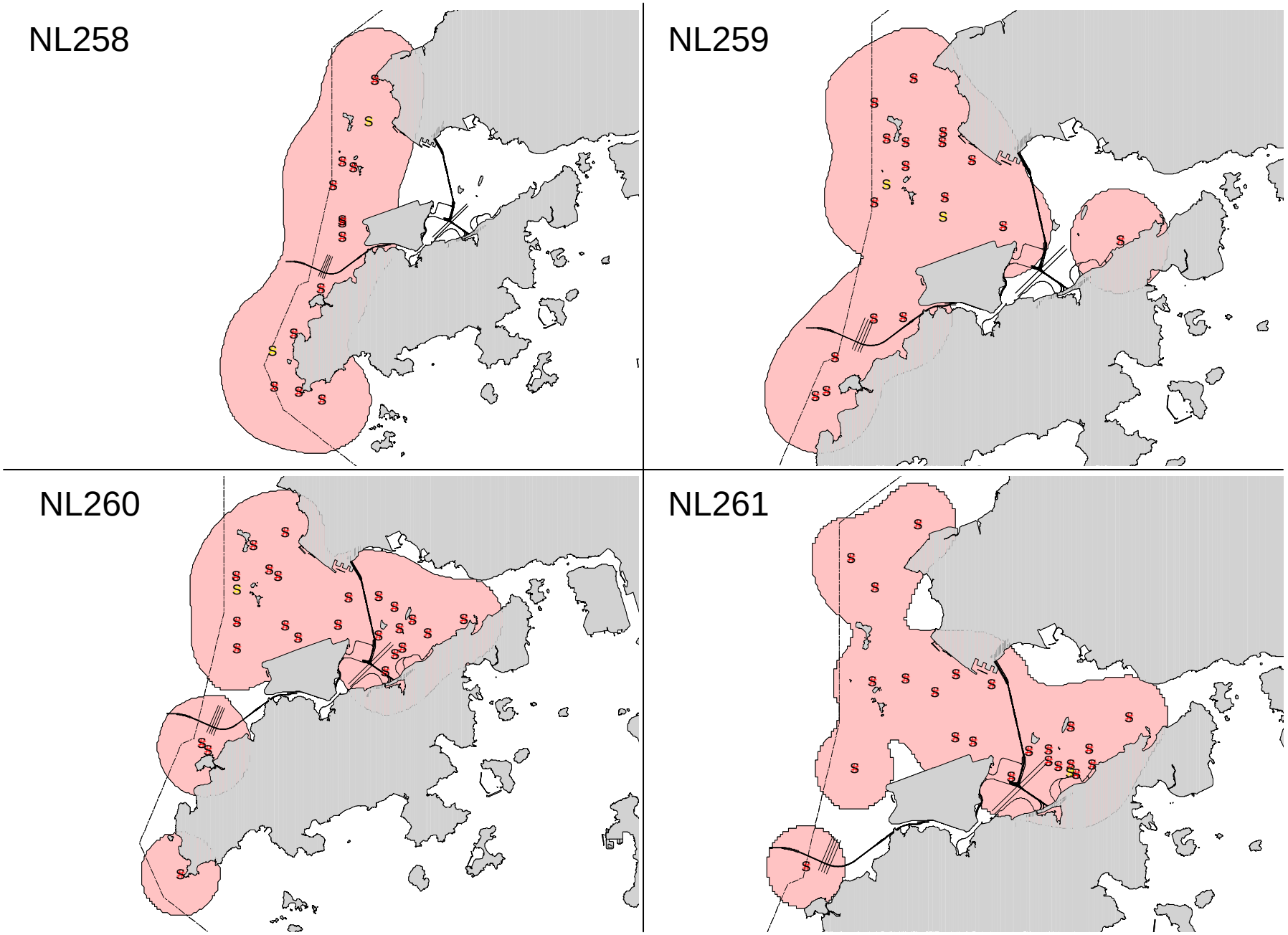
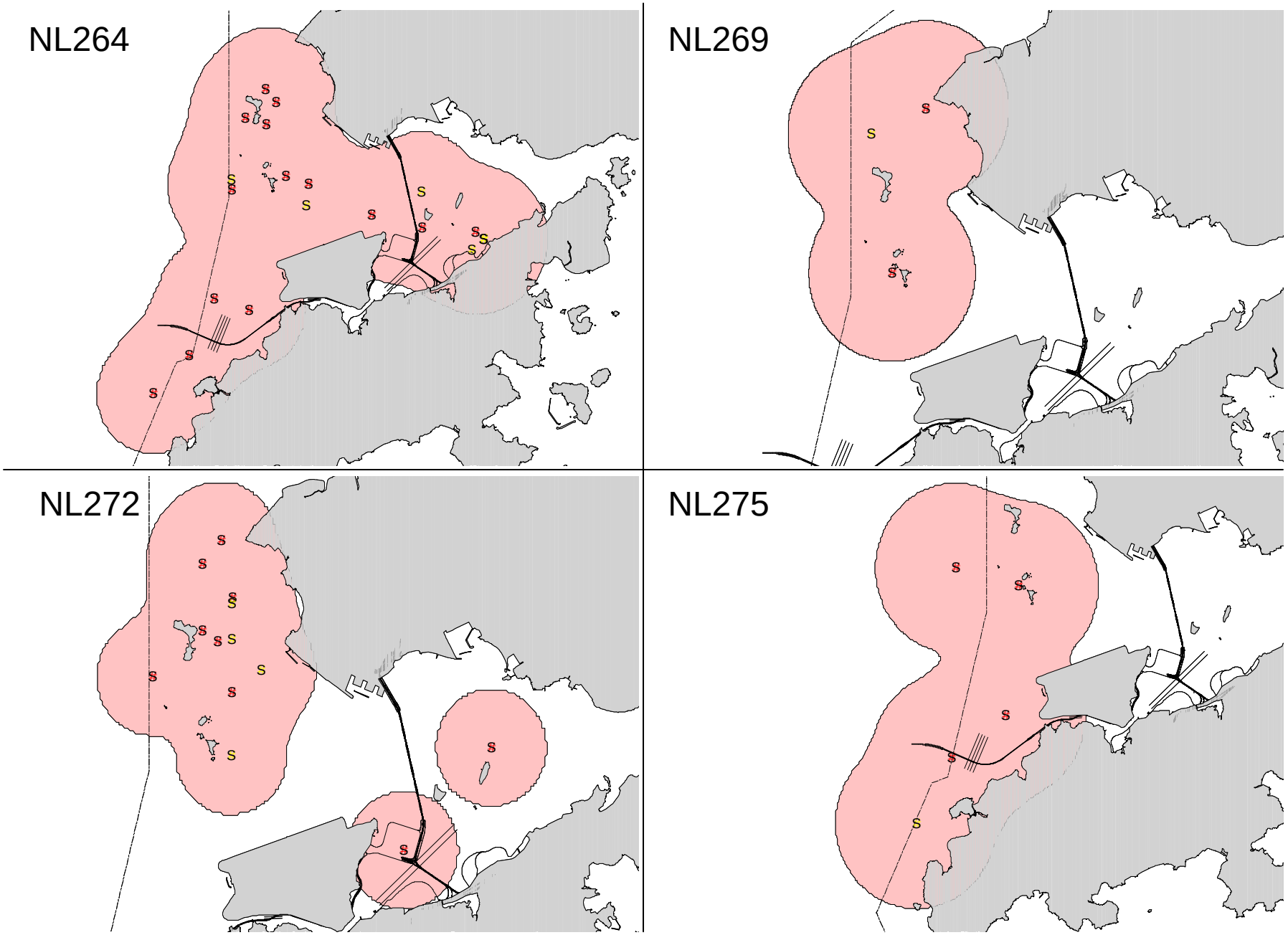


Appendix IV. (cont'd)



Appendix IV. (cont'd)



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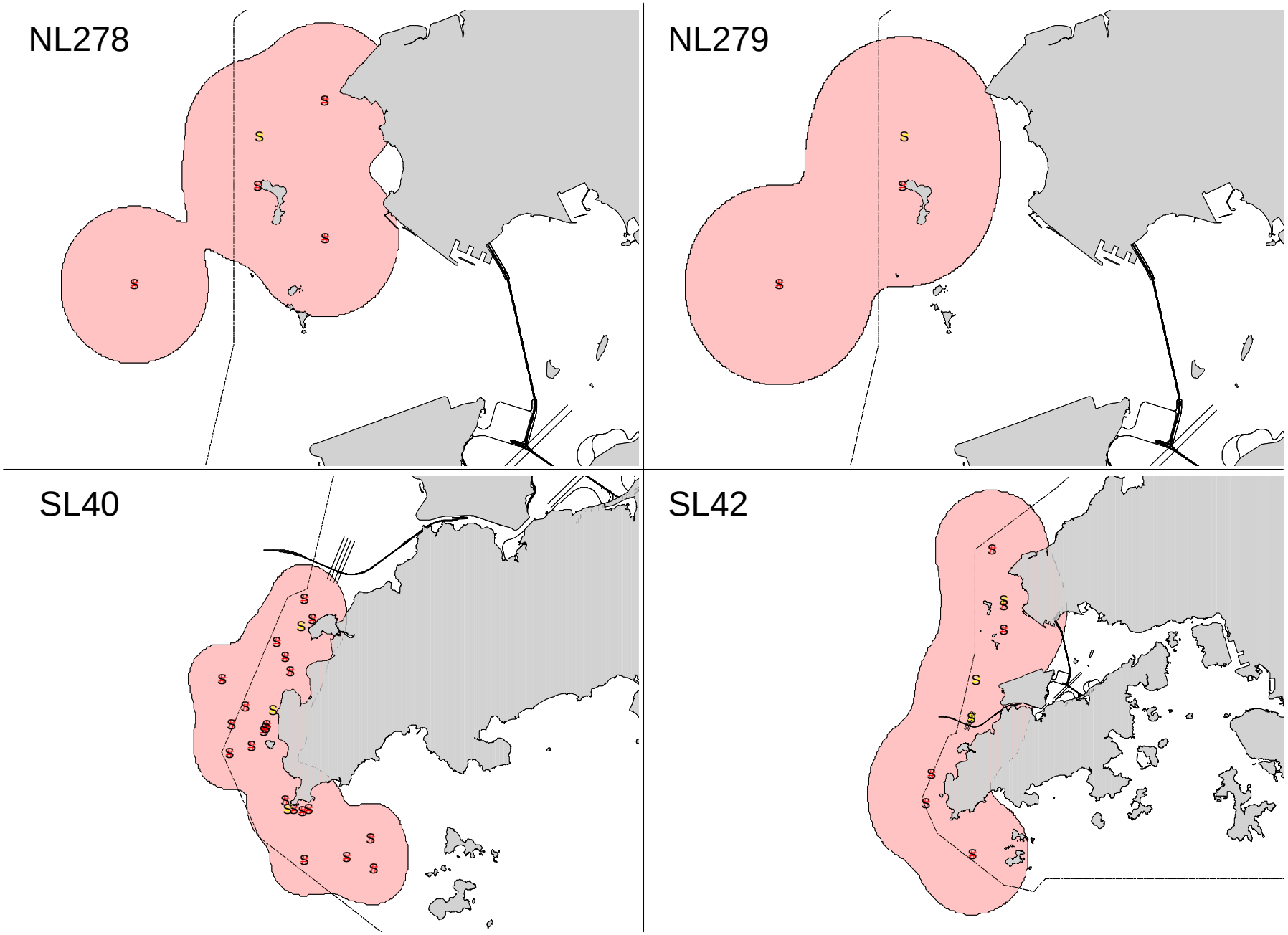

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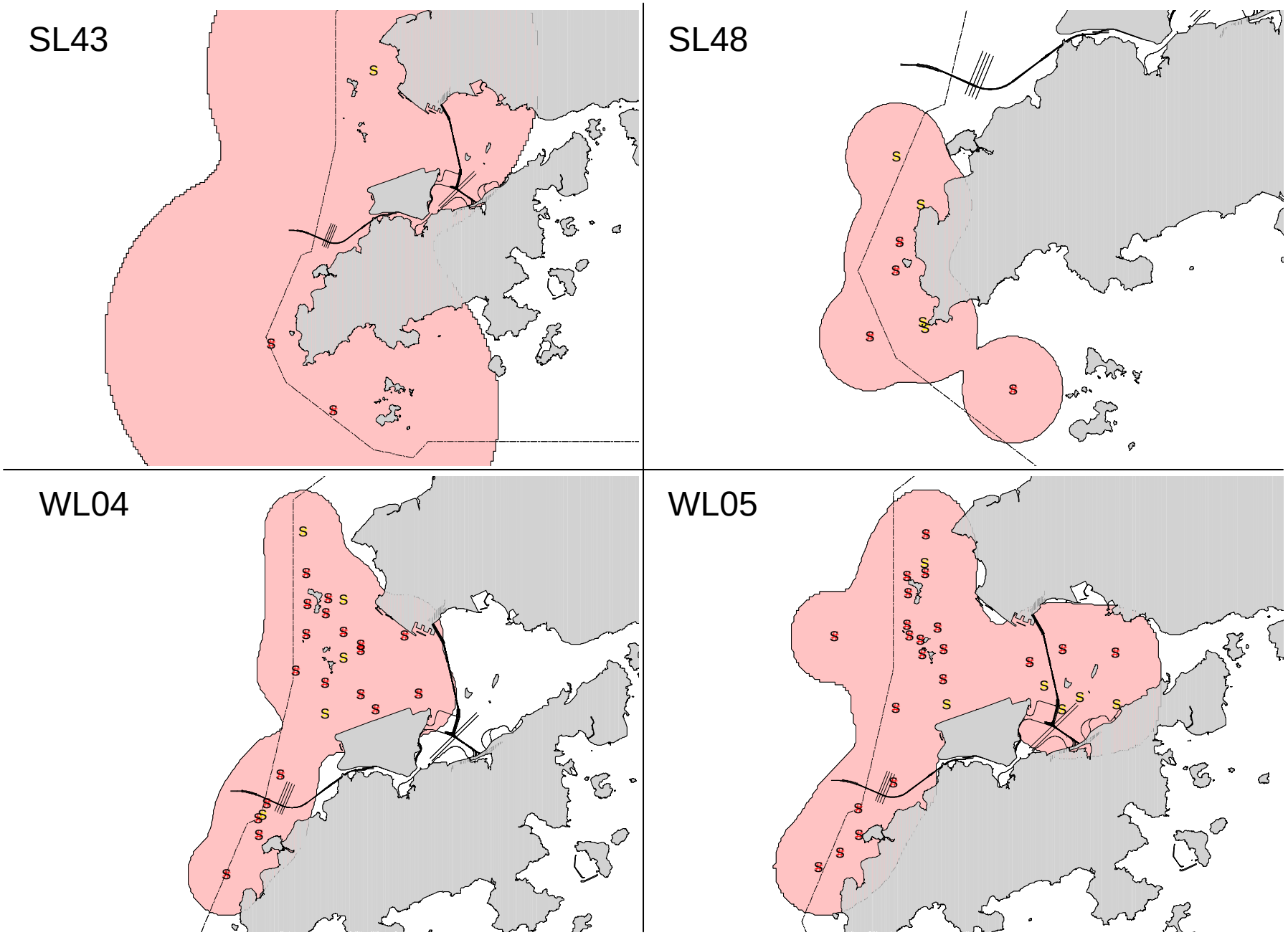
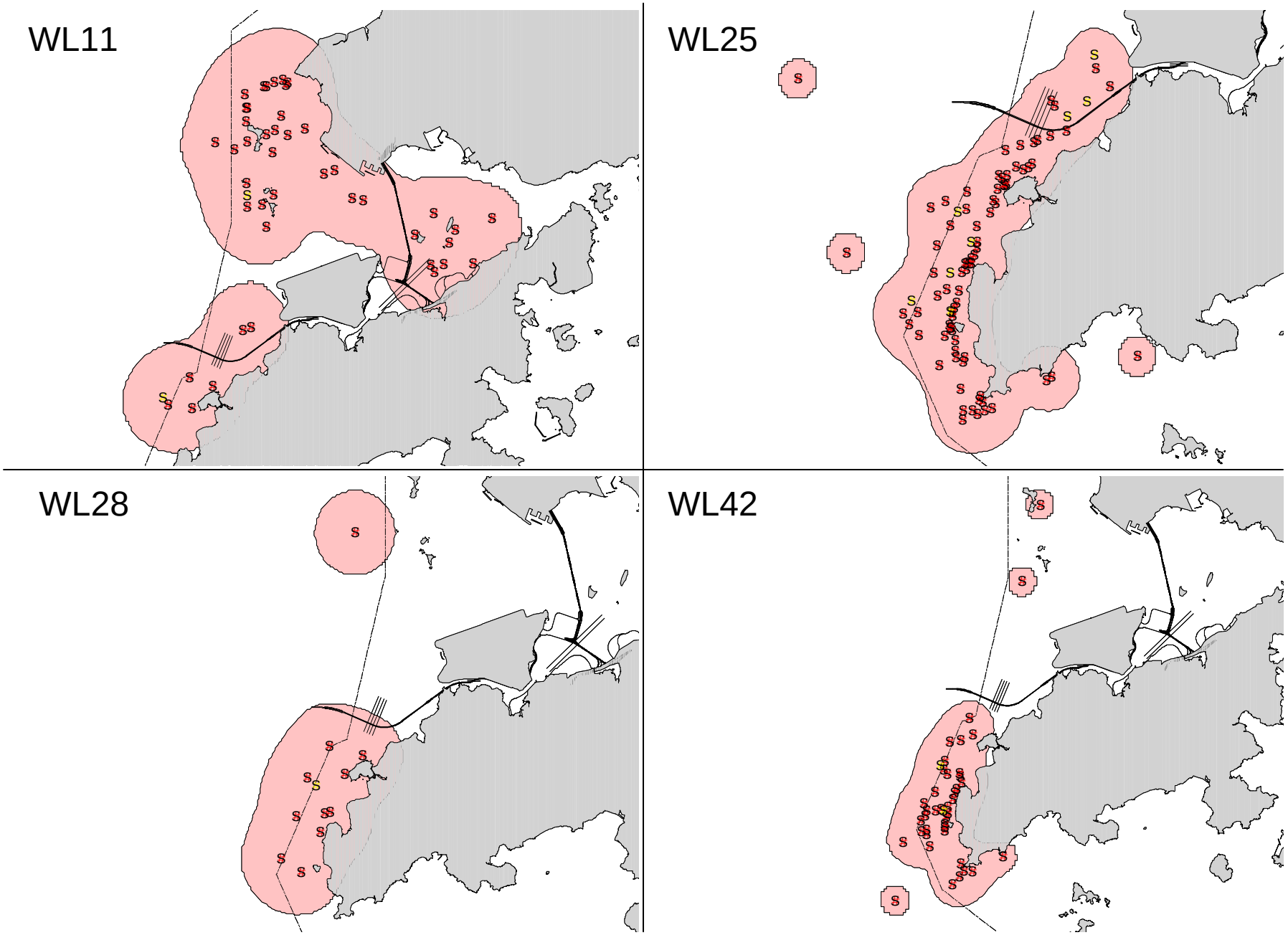


Appendix IV. (cont'd)



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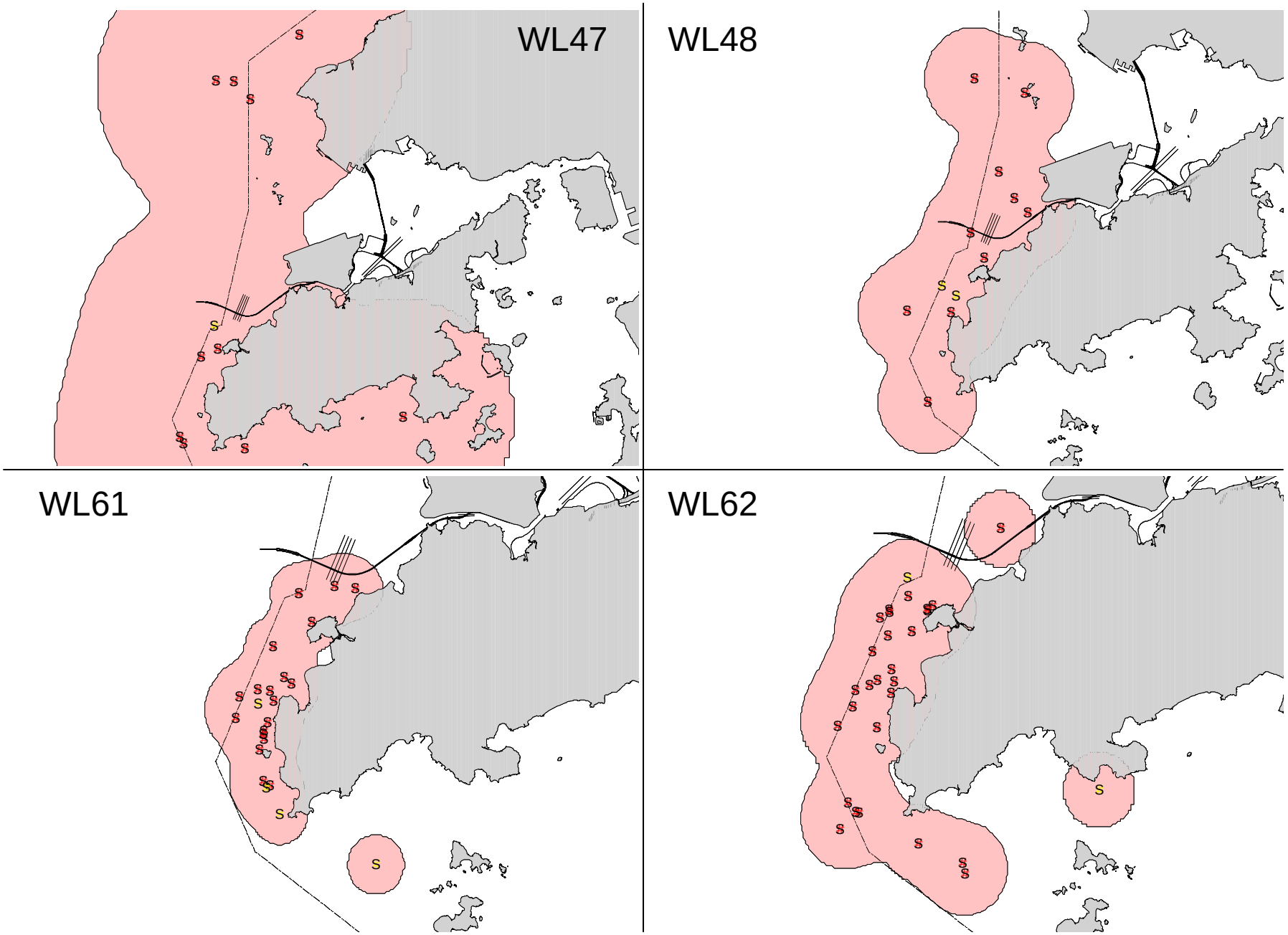

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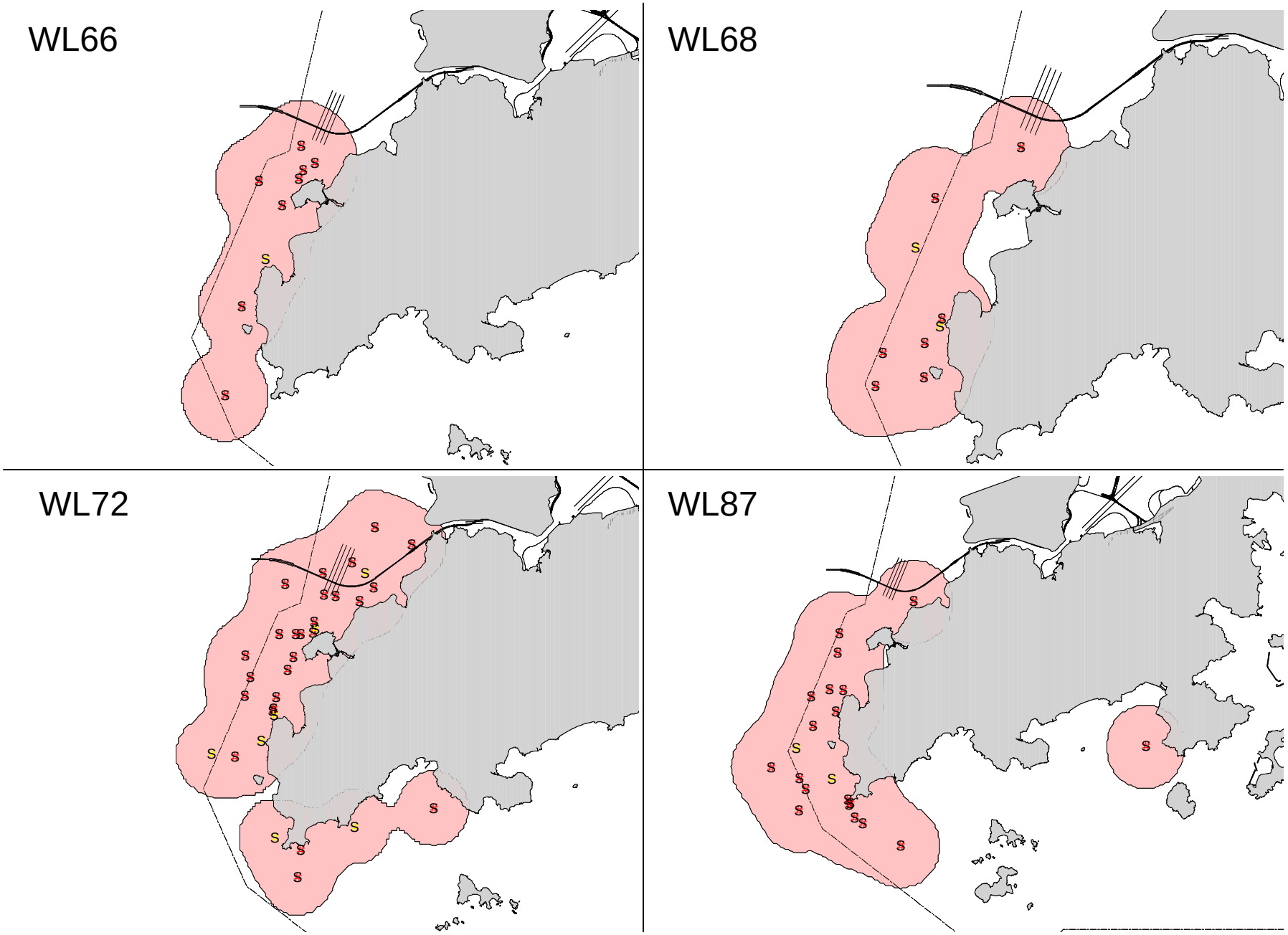

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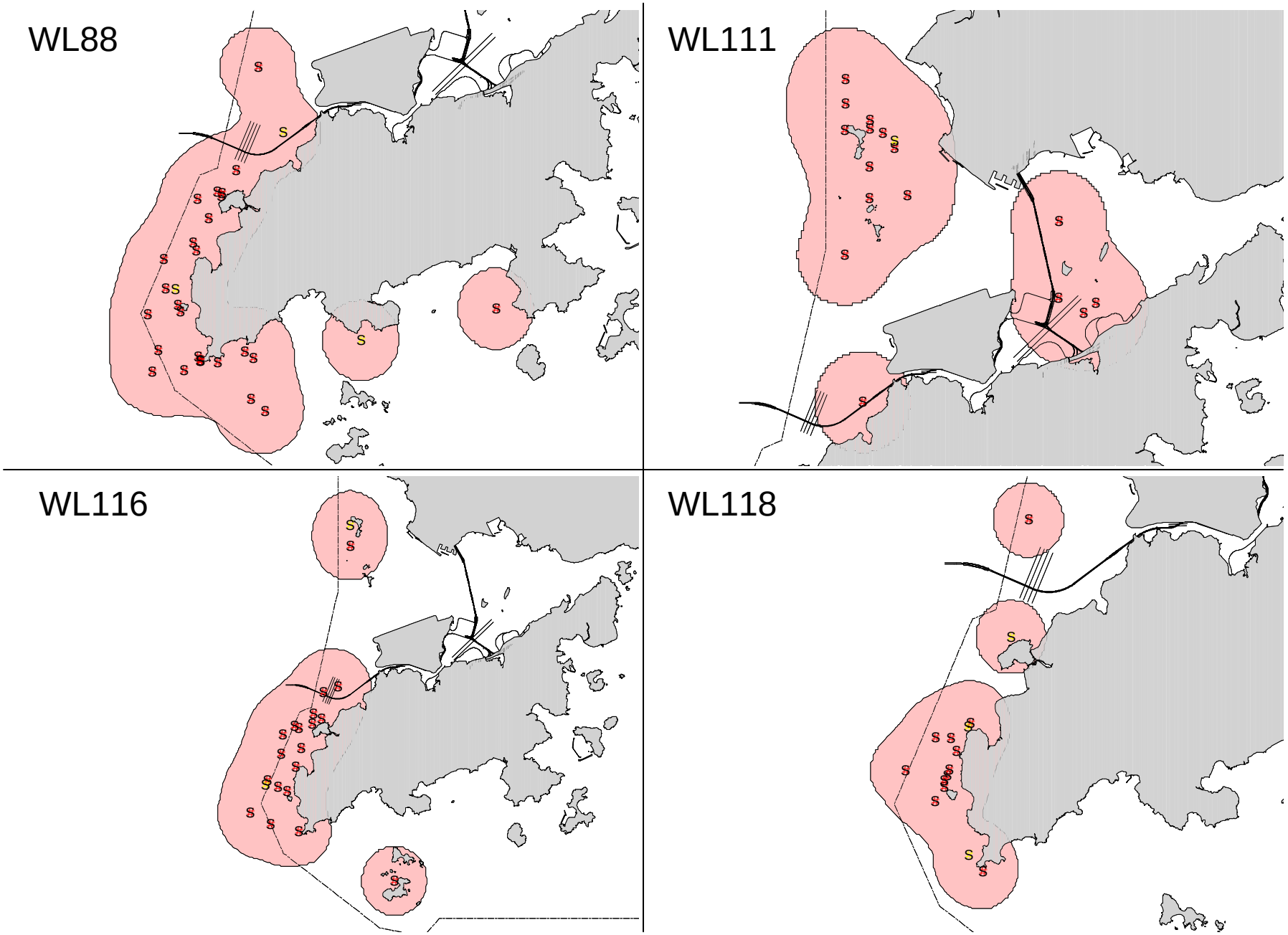

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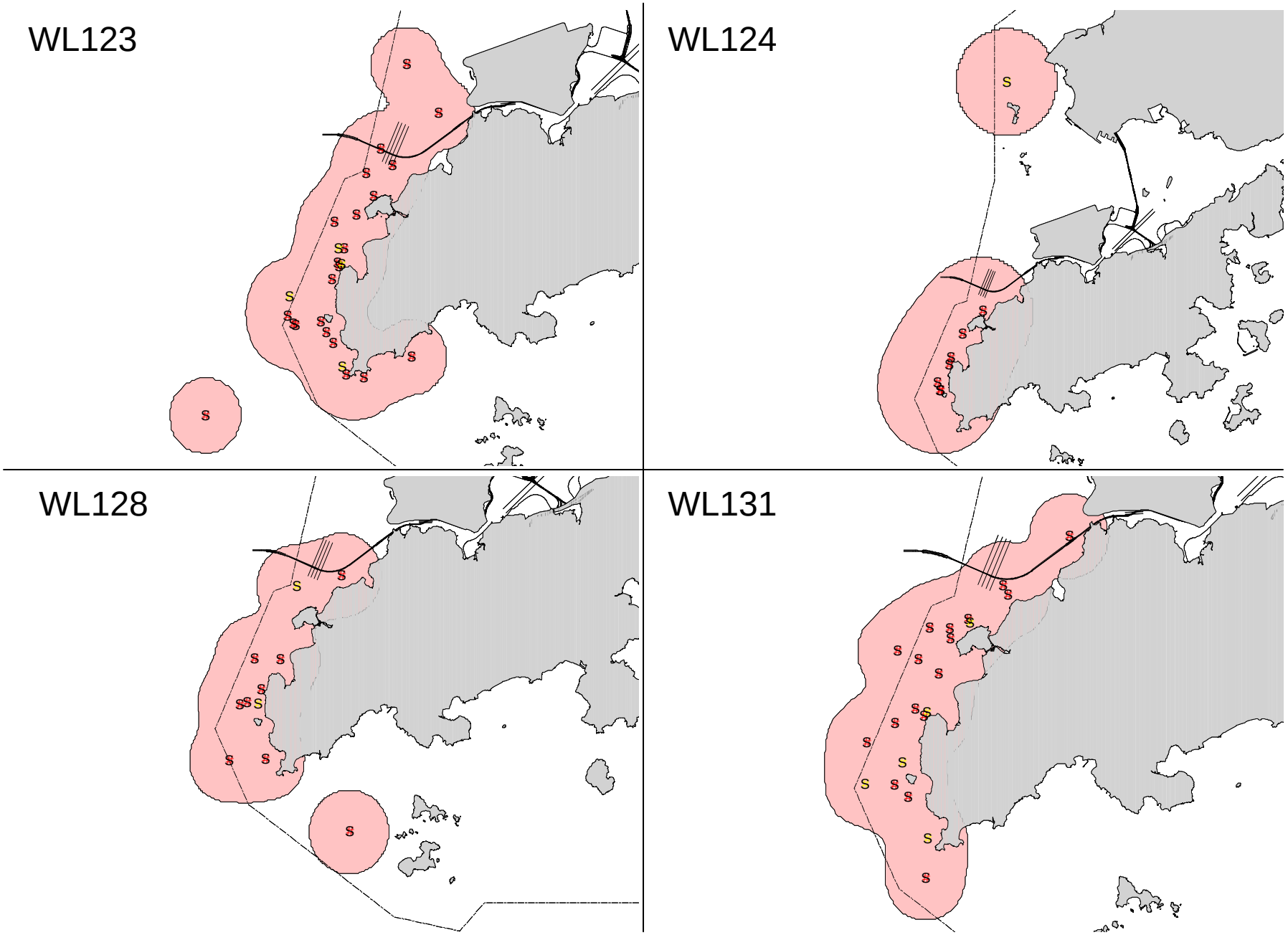

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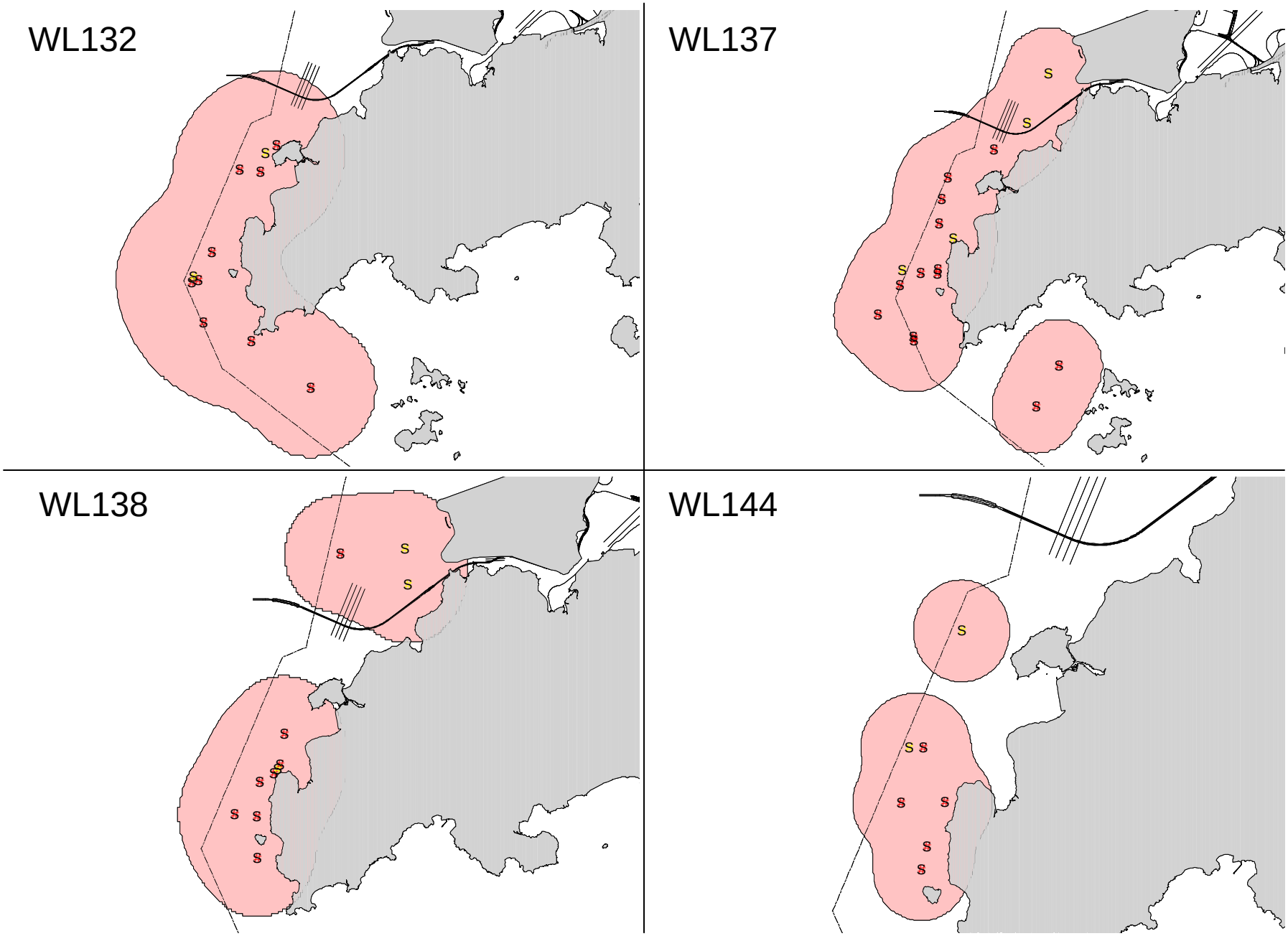

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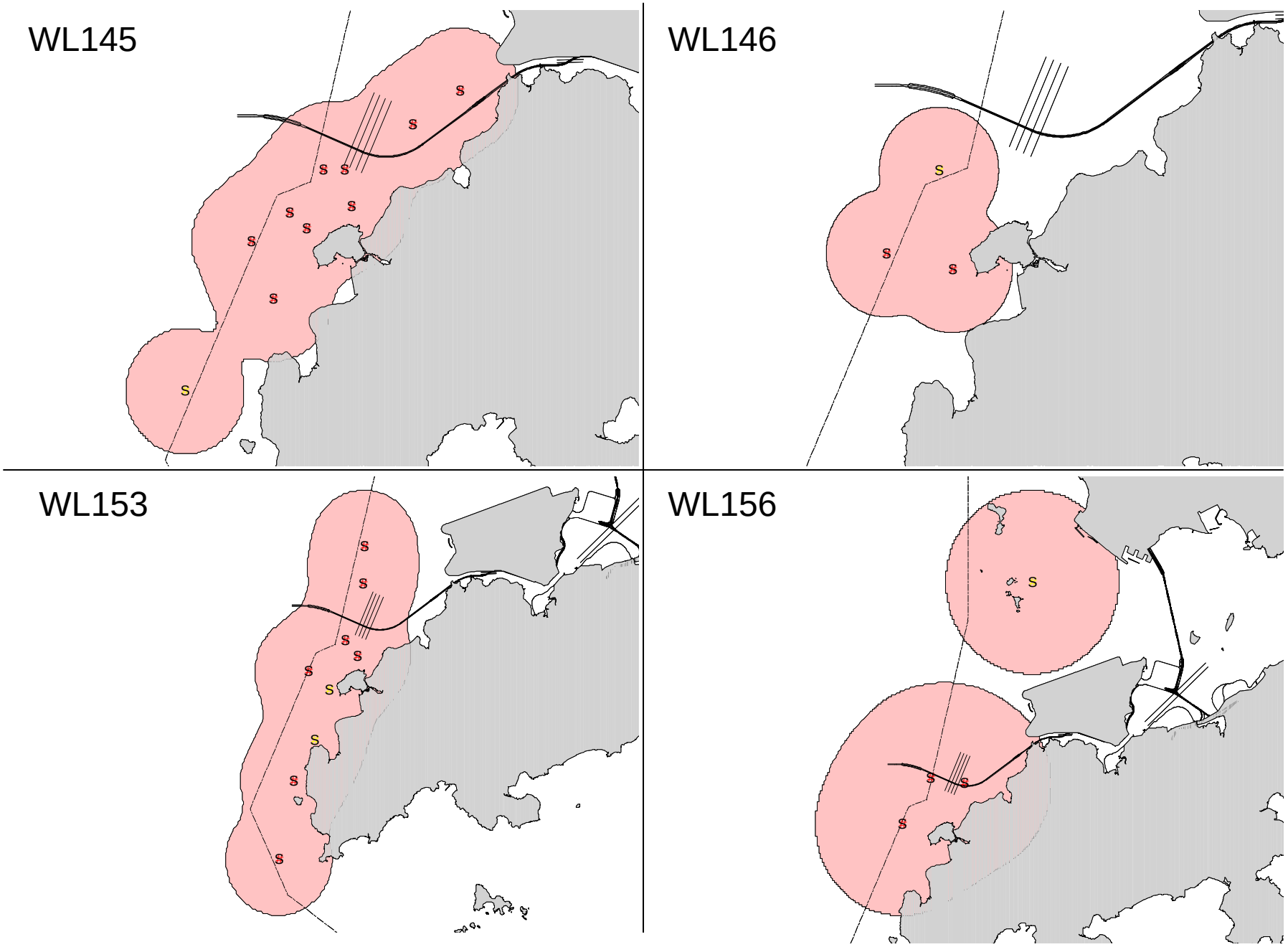
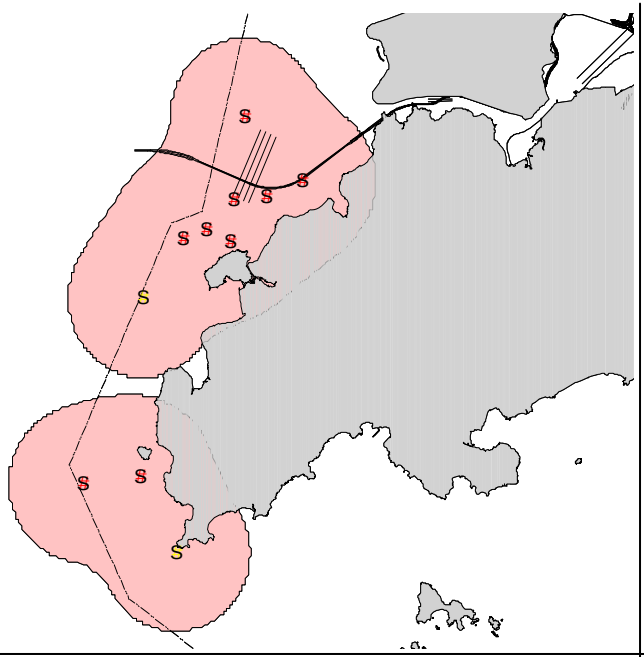
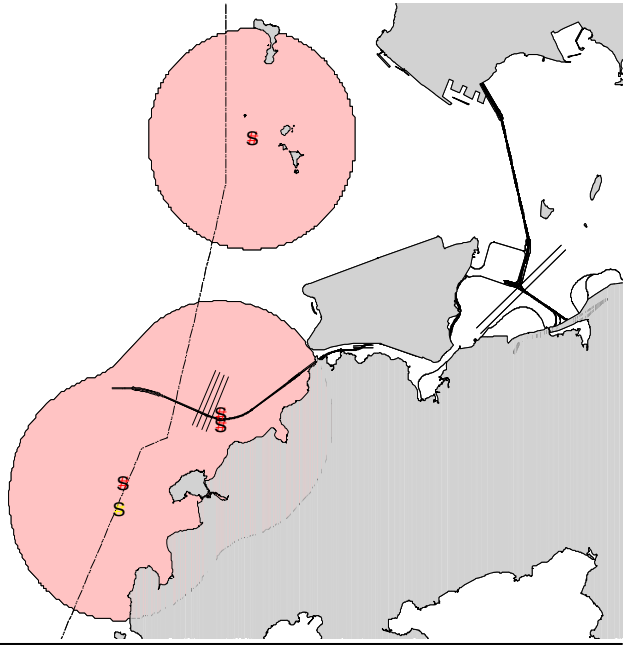


Appendix IV. (cont'd)

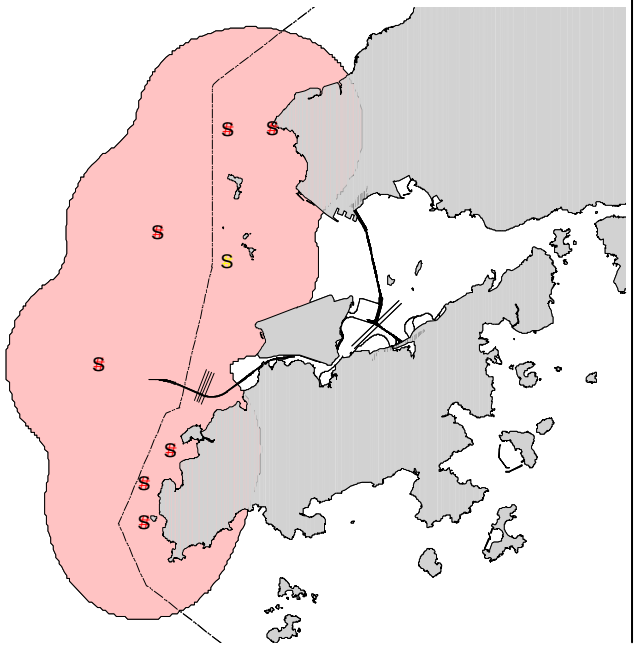
WL157



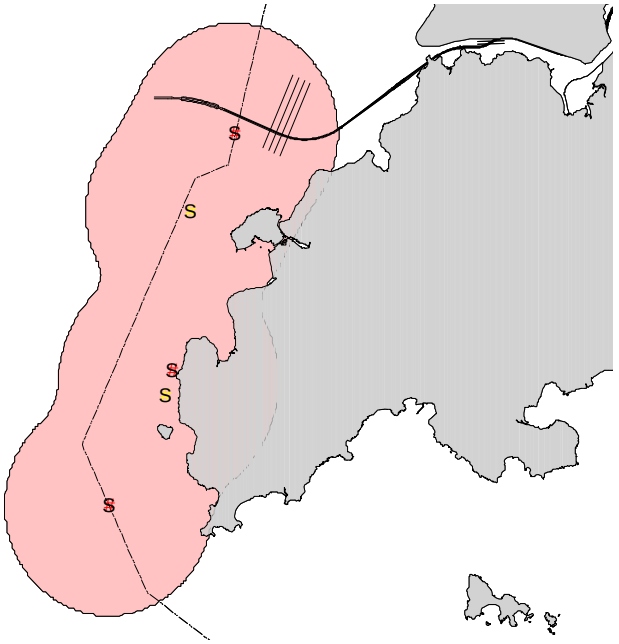
WL158



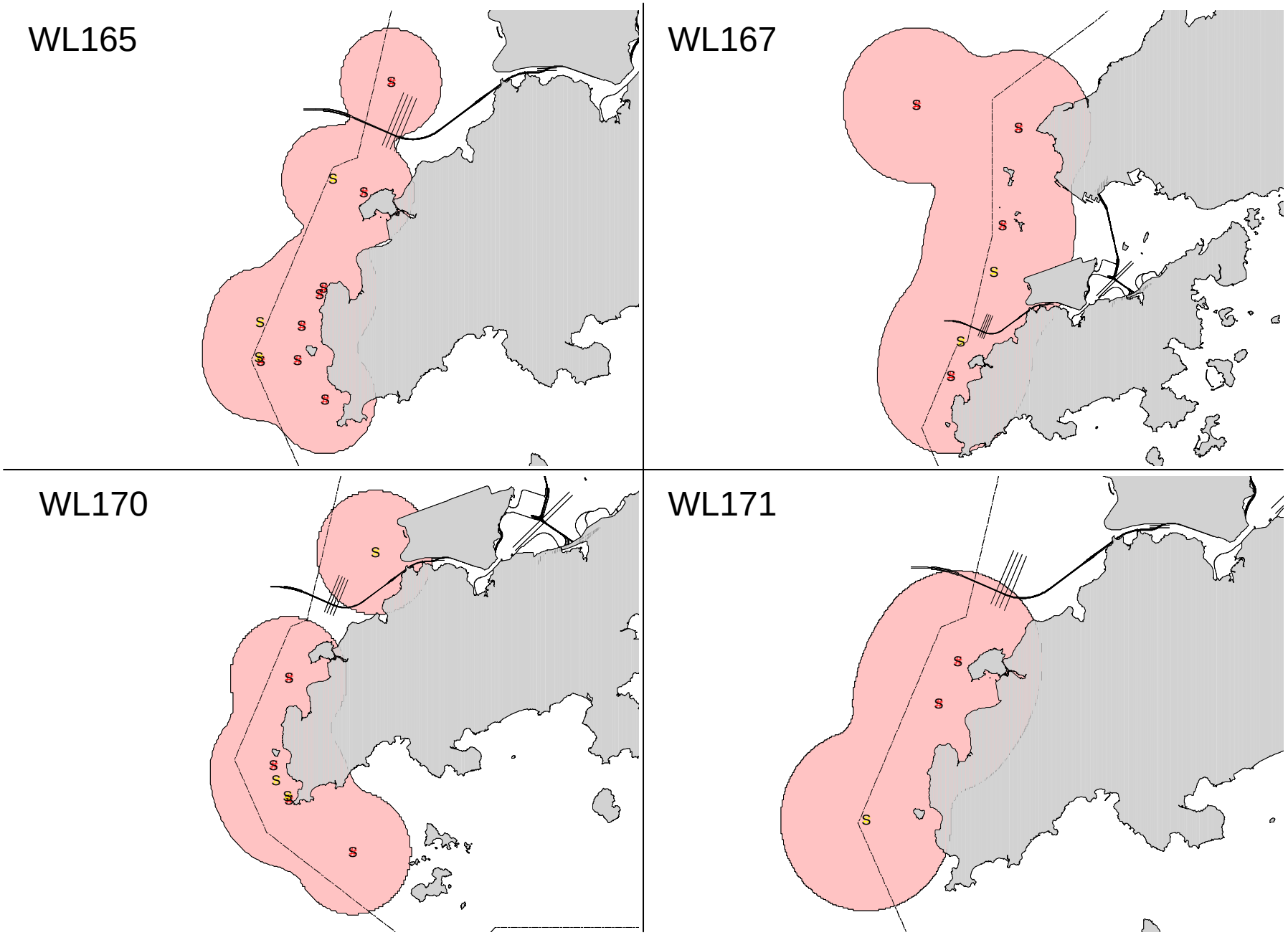
WL162



WL163



Appendix IV. (cont'd)



Appendix IV. (cont'd)

APPENDIX H
BASELINE DOLPHIN ACOUSTIC BEHAVIOUR MONITORING REPORT

CONTRACT HY/2011/09
Hong Kong-Zhuhai-Macao Bridge
Hong Kong Link Road – Section between HKSAR Boundary and Scenic Hill
on Dolphin Acoustic Behaviour Monitoring, Baseline Phase Report

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1. INTRODUCTION

The Hong Kong Link Road (HKLR) comprises a 9.4 km long viaduct section from the HKSAR boundary to Scenic Hill on the Airport Island; a 1-km tunnel section to the reclamation formed along the east coast of the Airport Island, and a 1.6-km long at-grade road section on the reclamation connecting to the Hong Kong Boundary Crossing Facilities (HKBCF). Dragages – China Harbour – VSL JV (hereinafter called the "Contractor") was awarded as the main contractor of "Contract No. HY/2011/09 – Hong Kong-Zhuhai-Macao Bridge Hong Kong Link Road – Section between HKSAR Boundary and Scenic Hill".

According to the HKLR EM&A Manual, a number of environmental monitoring and audit works related to Chinese White Dolphins (a.k.a. Indo-Pacific humpback dolphins, *Sousa chinensis*) shall be conducted during baseline, construction and post-construction phases, including dolphin acoustic behaviour monitoring in relation to bored piling activities. Such monitoring is being undertaken by qualified dolphin specialists who have sufficient (at least 5-10 years) relevant post-graduate experience and publication in the respective aspects. Approval of the specialists responsible for the dolphin acoustic behaviour monitoring was sought from AFCD and EPD, and Drs. Bernd Würsig, Marc Lammers, and Lisa Munger were selected and approved.

This dolphin acoustic behaviour monitoring assessment for the initial baseline phase details the methodology and results in the baseline phase (January 15 to February 22, 2013) to meet the requirement in the particular specification and EM&A Manual. The present data will need to be compared to construction and post-construction phases in due time.

2. METHODS AND MATERIALS

2.1. Overall Objective and Research Scheme

For the present dolphin acoustic behaviour monitoring study, the primary objective was to investigate dolphin acoustic behaviour and movement at and near bored piling sites during the baseline pre-construction phase. Overall, a set of parameters such as the presence of dolphin acoustic signaling, durations of periods of acoustic activity, relative occurrence of different kinds of signals per unit time and shifts in the time of day of acoustic activity were quantified. Other factors were also measured during the baseline phase, in order to compare to construction and post-construction phases to understand whether any observed differences in acoustic behaviour of dolphins may represent a reaction to the bored piling works, or are an artifact of other factors.

To achieve this primary goal, several approaches in acoustic data collection were adopted by the team of experienced bio-acoustician and dolphin behavioural researchers, including the local research team of the HK Cetacean Research Project (HKCRP). The primary approach was to conduct dedicated acoustic surveys of focal follows of Chinese White Dolphins in West Lantau with sound recordings from a calibrated hydrophone deployed from a research vessel, and their movements near the bored piling site was also monitored during focal follow sessions for the baseline phase. These recordings were used to establish baseline acoustic behaviour (e.g. rate of sound production, types of sounds) and its relation to visually determined group size, behaviour (e.g. foraging, socializing, traveling, milling) and covariates such as the time of day and occurrence of nearby vessels. Types, distances, and behaviours of vessels were determined from the recording vessel using a laser rangefinder.

A complementary approach for the acoustic data collection was to deploy two sets of ecological acoustic recorders (EARs) near the bored piling site and at a control site for passive acoustic monitoring. The EARs are bottom-moored, autonomous acoustic recording systems that are used to monitor ambient sounds on a programmable duty cycle (see detailed specifications of EAR in Lammers et al. 2008 and Appendix I for hydrophone specifications). They were programmed to a bandwidth 20 Hz to 32 kHz, with duty cycle of 20%, at 1 min. recording for every 5 min. total time.

2.2. Monitoring Location

The dedicated acoustic surveys with calibrated hydrophone deployment were conducted mostly along the west coast of Lantau Island during the baseline phase.

The research vessel followed a predefined route for systematic search effort in West Lantau waters to cover the HKLR alignment in Northwest and West Lantau waters (in particular the area near the first three bored piling sites) (Figure 1), where dolphins will be potentially disturbed by the bored piling works. The acoustic surveys also covered parts of Northwest and Southwest Lantau waters where dolphins were likely to be encountered for dolphin acoustic data collection (e.g. Sha Chau, Lung Kwu Chau, Black Point, Fan Lau, Kau Ling Chung).

The EARs were deployed at two locations: 1) near the bridge alignment (N22°17.222, E113°53.016), about 500 m from the first three bored piling sites (Site B2), and 2) at a less disturbed site away from the bridge alignment as control site, off Fan Lau (N22°11.827, 113°50.648; Site B1) (Figure 1). EAR at site B2 was in water depth 4 m, and EAR at site B1 in 7 m.

2.3. Monitoring Methodology

2.3.1. Acoustic survey using calibrated hydrophone

During dedicated acoustic surveys, the survey team of two (an experienced sound operator and another HKCRP research assistant) conducted systematic search for dolphins within the study area on a predefined route. The survey protocol to search for dolphins was similar to the line-transect survey methodology adopted in the vessel survey under the HKLR09 EM&A programme. For each survey, a 15 m inboard vessel with an open upper deck (The vessel 32816) was used to make observations from the flying bridge area, at a visual height of 4-5 m above water surface. Two observers searched with unaided eyes and 7 x 50 marine binoculars ahead of the vessel (between 270° and 90° in relation to the bow, which is defined as 0°). The survey team recorded effort data including time, position (latitude and longitude), weather conditions (Beaufort sea state and visibility), and distance travelled in each series (a continuous period of search effort) with the assistance of a handheld GPS.

When dolphins were sighted, the survey team ended the search effort, and the research vessel was diverted from its course to slowly approach the animals for group size estimation, assessment of group composition, and behavioural observations in the initial 5-10 minutes. The calibrated hydrophone was then deployed 3 to 7 m below the sea surface by 2 m long spar buoy from the stern of the research vessel, with vessel engine noise off and the vessel drifting. Broadband dolphin recordings were made with a Cetacean Research Technology spot-calibrated hydrophone (model: CR1; sensitivity: -197.46 dB, re. 1 V/µPa; usable frequency response listed as 0.05 Hz-68 kHz +3/-12 dB connected to a 1 MΩ input impedance; linear frequency range: 0.2-48

kHz ± 3 dB) (see Appendix II for specifications and calibration report). The spar buoy acted to prevent excessive hydrophone movement from wave and boat motion. The recordings were streamed into a digital memory field recorder (model: Fostex FR-2; frequency response: 20 Hz-80kHz ±3 dB) with a pre-amplified signal conditioner (model: PC200-ICP; precision gain: x0.1-x100; frequency range: >100 kHz; system response: 1 Hz-100 kHz ± 3 dB; 192 kHz sample rate) to prevent overloading and minimize cable noise. The recordings were then stored on a 4 GB Compact Flash Card, and downloaded for further analysis. The above acoustic data collection setup has been used in the long-term monitoring study on Chinese White Dolphins in Hong Kong since April 2010 (Sims et al. 2011, 2012; also see Hung 2012).

During hydrophone deployment, the date, start and end times, hydrophone and water depths, Beaufort sea state, survey area, locations, ICP gain, event, and notes were taken for each recording in five-minute intervals. Within each corresponding five-minute interval, observers also noted variables including the dolphin group size, group composition and their general behaviour during the 5-minute period (i.e. feeding, socializing, travelling, resting, milling and any aerial activity). The number of vessels that passed within 500 m of the dolphin group were recorded during the same 5-minute interval, with special notes on close approaches by vessels within 100 m of dolphins, including the time of closest approach and any behavioural reaction noted. Distances of vessels were gathered by hand-held laser rangefinder (*Bushnell* Yardage Pro 800; maximum range of detection for most objects: 720 metres; ranging accuracy ± 2 metres under most circumstances). Also, notes were made on the approximate distance (i.e. 0-250m, 250-500m, >500 m) of the dolphin group to the hydrophone during the 5-minute interval. Notably, positions of dolphin group were recorded continuously during the entire focal follow session to examine their movement in detail, especially when they occurred in the vicinity of the HKLR alignment (in particular the area near the first three bored piling sites).

2.3.2. Passive acoustic monitoring using EARs

Two sets of EARs were deployed at two sites in West Lantau, one near the bored piling site and another at the control site off Fan Lau, as mentioned above. The EARs were deployed and recovered by a professional dive team from Oceanway Corporation Limited. During each deployment, the EAR serial number, as well as the time and date of deployment were recorded. Moreover, the GPS position, water depth and type of substrate at the deployment location were also recorded.

The EARs were programmed to record on a 20% duty cycle (1 min “on” for

every 5 min). Recording was from approximately 20 Hz at the low end to 32 kHz at the high end, which effectively covers a major part of the acoustic channel of the Chinese White Dolphins (Sims et al. 2011). Data from the EARs were downloaded onto a computer hard disk at the conclusion of the baseline phase of the project on February 22, 2013, and the EARs were then be re-deployed at the same location on February 26, 2013 until the end of the 30-day construction monitoring period.

2.4. Data Analysis

2.4.1. Calibrated hydrophone data

To evaluate if dolphin acoustic behaviour varies between baseline and construction phases, a number of parameters will be examined during both phases for comparison, and we have begun this data analysis for the baseline phase. For the calibrated hydrophone data, parameters include the duration of acoustic encounters of dolphins and the rates of their whistling and click production (echolocation and burst pulses) per 5 min recording time bin. The rates of sound production as a function of dolphin group size, behavioural state, location and time of day were also examined.

For the comparison of response variables between baseline and construction phases, each 5 min recording time bin was treated as a sample point, providing a measure of the rate of whistling (whistles/min) and click production (clicks/min). The rate of whistling is quantified for each time period by visually and aurally examining individual recordings and logging the presence of signals using the program Raven Pro 1.5™. Click production (echolocation and burst pulses) was quantified using a custom-written click detector program in MATLAB™ R2011b. Recording periods when the dolphins were more than 500 m away or when they were on the bow of the research vessel were excluded from consideration.

To investigate signal production as a function of dolphin group size, the whistling and clicking rates were binned by group size as follows: 1 individual dolphin, 2-5 dolphins, 6-9 dolphins, and 10+ dolphins. The whistling and clicking rates were also similarly grouped by the behavioural categories of milling, traveling, socializing, feeding and resting. Signal production by time of day was investigated by grouping the number of sightings and rates of whistling and clicking occurring in four two-hour periods of data collection (09:00-10:59, 11:00-12:59, 13:00-14:59 and 15:00-16:59). Finally, to examine sound production by location, the GPS coordinates of the first recording for each sighting were plotted using Google Earth™, and these were divided into three zones based on proximity to the construction area. The recordings were then grouped by zone.

2.4.2 EARs data

The data from EARs were analyzed by visually and aurally examining individual recordings. The presence of clicks and/or whistles was used to establish the presence of dolphins near the EAR. Analysts scanned spectrograms of each file in either a 60-second display window (browsing mode) or a 10-second display window (verification mode). Dolphin sounds were confirmed visually and aurally by playing back at reduced speed (usually to ½ original speed, and in some cases ¼ speed).

The occurrence of dolphin signals was used to examine temporal trends in dolphin presence and activity level, and to provide a baseline for future comparison with the construction phase. The number and duration of dolphin encounters was established for each day. Here an encounter is defined as a period of recordings containing dolphin signals in which the interval between detected signals is less than 30 minutes. For example, two recordings with detections separated by 25 minutes would be treated as part of the same encounter, while two recordings with detections separated 40 minutes would be treated as two separate encounters. In addition, the overall acoustic behaviour (not per individual dolphin) was also established and any changes in temporal patterns (e.g. from mostly calling at night, to mostly during the day, or vice versa), or any increase/reduction and change in the average duration of acoustic presence at the location of EAR deployment will be compared between pre-construction and construction phases.

3. RESULTS AND ANALYSES

3.1. Summary of Acoustic Monitoring Effort

Thirty days of acoustic monitoring surveys were conducted between 15 January and 22 February 2013 for the baseline period (see Appendix III for detailed monitoring schedule). During this period, 1,885 km of survey effort were conducted to search for dolphins in the western and northwestern waters of Lantau. A total of 196 groups, numbering 694 dolphins, were sighted during these surveys (Appendix IV), and 238 sound samples were taken from some of these dolphin groups (Appendix V).

3.2. Calibrated hydrophone recordings

A total of 212 five-minute recordings were made between 22 January and 22 February 2013. Recordings made on 21 January were excluded from the analysis because they were deemed exceedingly noisy and the signal to noise ratio was not comparable to the rest of the data. Figure 2 shows the number of recording minutes

summed for each day, as well as the number of sightings per day. There was a general decreasing trend, with fewer sightings (mean = 3.0, S.D. = 1.4) and minutes recorded (mean = 28.5, S.D. = 16.1) during the second half of the data collection period (4-22 February) than during the first half (22 January to 3 February; mean number of sightings = 4.3, S.D. = 2.1; mean number of minutes recorded = 50.0, S.D. = 18.9). The cause or significance of this trend, if any, is not presently clear.

Whistling rates were determined for all recordings (n = 212). Clicking rates were also calculated for all recordings except for some or all recordings made on 26-29 January, 1-2 February and 13-16 February (a total of 73 recording periods excluded) due to the presence of high frequency electronic noise in the recordings originating from an unknown extraneous source. This noise precluded the detection of clicks due to the frequency range affected, but the rate of whistling could still be established. A total of 139 recordings were analyzed for click rate. Figure 3 shows the averaged daily rate of click and whistle production recorded. The daily rates varied considerably, with some days containing more whistles than clicks and vise versa.

Notably, the inter-pulse interval was also mentioned in the methodology paper as one of the examples of dolphin vocalization characteristics that could be examined. However, after much careful considerations that this is not related to the range of echolocation targets, the dolphin specialists do not see any benefit of calculating this for the purpose of the current study, and they decided to just focus on clicking and whistling rates.

The variability of whistling and clicking rates was examined as a function of group size, behavioural state, time of day, distance to the nearest vessel, Beaufort sea state and location within the study area. Figure 4 shows the rate of both click and whistle production as a function of group size. Both the rate of whistling and click production generally increased with group size. In Figure 5 the rate of signaling is represented in relation to the dolphins' observed behavioural state during the recording period. Milling was the most common behavioural state noted. However, the rate of both whistle and click production was greatest when the animals were observed socializing.

The greatest number of recordings were made during the 11:00-12:59 time period (n = 94), followed by the 13:00-14:59 period (n = 60), the 15:00-16:59 period (n = 51) and lastly the 9:00-10:59 period (n = 29) (Figure 6). The highest rates of both whistling and clicking occurred in the afternoon period from 13:00 to 14:59. Notably, the daily monitoring effort has been held consistent throughout the entire

monitoring period. However, the recording effort was largely depended upon the time of dolphin occurrence and whether they were available for recording. Therefore, no bias was introduced in the monitoring and recording effort throughout the day which may be related to the observed asymmetry in peak rates of whistling and clicking during the day.

A total of 134 recordings were made with vessels transiting nearby. Of these, 22 were with vessels between 0 and 99 m at the closest approach, 36 were between 100 and 199 m, 20 were between 200 and 299 m, 8 between 300 and 399 m, 5 between 400 and 499 m, and 43 were 500 m or further away. The highest rate of whistling and clicking occurred with vessels transiting between 300 and 399 m (Figure 7). However, the sample size of this distance bin is small and the variability is high, so no firm conclusions should yet be drawn about the effects of vessel distance on signaling rate from these data.

Recordings were collected in Beaufort sea states (BSS) ranging from 0 to 5. There were 9 recordings made in BSS 0, 40 recordings in BSS 1, 145 recordings in BSS 2, 19 recordings in BSS 3, 2 recordings in BSS 4, and 6 recordings in BSS 5. Whistling rates were lowest during BSS 1 and clicking rates were lowest during BSS 2 (Figure 8). However, the variability and difference in sample sizes between the BSS bins suggest that differences are likely due to unequal sample sizes rather than changes in the dolphin's acoustic behavior.

The location of each recording and the division of the study area into three zones are shown in Figure 9. Zone 2 includes the construction area, while Zones 1 and 3 are north and south of the construction area, respectively. The greatest number of recordings was made in Zone 3 (n = 97), followed by Zone 2 (n = 65) and the fewest were made in Zone 1 (n = 59). The rates of whistling and clicking were comparable between Zones 2 and 3 (Figure 10). However, in Zone 1, considerably more whistles and fewer clicks were recorded. This difference must be considered with some caution, however, as fewer recordings suitable for click analysis were available from Zone 1 (n = 26) than from Zone 2 (n = 41) and Zone 3 (n = 81).

3.3. EAR data

The EAR at Fan Lau (Site B1) was deployed between 4 and 22 February for a total of 19 days. It yielded 5,236 one min recordings totaling 87 hours of data. The EAR at the bridge alignment site (site B2) was also deployed between 4 and 22 February for 19 days and recorded 5,225 one min files. However, the disk drive from the EAR at site B2 developed a hardware problem, resulting in parts of the drive

becoming corrupted. As a result, only 2,224 recordings made between 4 and 14 February could be recovered, totaling 37 hours of data.

3.3.1. Site B1 - Fan Lau

Dolphin signals were detected on all 19 days of the EAR deployment at this site. Figure 11 shows the percentage of files for each day (288 recordings per day) that contained dolphin signals. Daily dolphin acoustic activity was variable, with between ~2% and 60% of recordings (calculated only for days with 24 hours of data) containing dolphin signals any given day. Figure 12 shows the number of dolphin encounters (as defined in section 2.4.2) and the average duration of encounters for each day of the deployment period. There were an average of 6.4 encounters per day (S.D. = 3.2) at site B1, which lasted and average of 49.7 min (S.D. = 46.1).

Figure 13 shows the occurrence of dolphin acoustic signals in EAR recordings at site B1 as a function of the hour of the day. Nearly all detections were of dolphin click trains. Only two detections were made of dolphin whistles. The most likely explanation for this is that high levels of ambient and anthropogenic noise in the frequency bands associated with whistles (4-12 kHz) characterize the site (see below). Therefore, dolphins either do not produce many whistles in this area or they are masked in our analyses, or both.

Approximately 47% of detections occurred during the nighttime period between 19:00 and 6:59 and 53% occurred during the day between 7:00 and 18:59. However, there was a distinct peak in acoustic activity in the dawn and early morning hours and a low period in the afternoon between 13:00 and 16:00. This temporal pattern remained consistent even when only the equivalent time period available for site B2 (4-14 February) was considered.

Figure 14 shows the root-mean-square (RMS) sound pressure level (SPL) in 1-octave bands and full bandwidth averaged hourly at site B1. The noise level was approximately equivalent across the frequency bands between 0-16 kHz. The SPLs in these frequency bands were high (between 100 and 110 dB RMS) and were primarily driven by the activity of snapping shrimp and noise from vessel traffic.

3.3.2. Site B2 - Bridge Alignment Area

Dolphin signals were detected on all 11 days of EAR data that have been recovered to date. Figure 15 shows the percentage of files for each day (288 recordings per day) that contained dolphin signals. Daily dolphin acoustic activity was variable, with between ~1% and 17% or recordings (calculated only for days with 24

hours of data) containing dolphin signals any given day. Figure 16 shows the number of dolphin encounters (as defined in section 2.4.2) and the average duration of encounters for each day of the deployment period. There were an average of 4.8 encounters per day (S.D. = 2.7) at site B1, which lasted and average of 25.5 min (S.D. = 16.1).

Figure 17 shows the occurrence of dolphin acoustic signals in EAR recordings as a function of the hour of the day. Although the majority of detections at site B2 were also of click trains, considerably more whistles were detected at this site than at site B1. In addition, there was a strong diel trend in the occurrence of detections, with approximately 88% occurring during the nighttime period between 19:00 and 6:59.

Figure 18 shows the root-mean-square (RMS) sound pressure level (SPL) in 1-octave bands and full bandwidth averaged hourly at site B2. Noise levels were within 3-5 dB re 1 µPa across all frequency bands between 0-32 kHz. However, SPLs overall were much lower (by about 8-12 dB RMS) at B2 than at B1 due to considerably less snapping shrimp activity and less noise from vessel traffic.

4. DISCUSSION

4.1. Calibrated hydrophone data

The information obtained by focal follow hydrophone data collection yielded both anticipated and novel information about the acoustic activity of Chinese White Dolphins in Hong Kong waters. It is not a surprise that acoustic activity levels increased with group size and were highest during socializing periods. Larger groups have more animals that can contribute signals to recordings and it is common for delphinids to be more vocally active during periods of socializing (for example, Würsig et al. 1994; Brownlee and Norris 1994). On the other hand, it was interesting to find that acoustic activity patterns appeared to differ between Zone 1 and Zones 2 & 3. Zone 1 had proportionately more whistling and less echolocation than the other two zones. This suggests that, at least during daytime hours when the data were obtained, Zone 1 may be used differently than Zones 2 and 3 by the dolphins. A proportionately greater whistling rate suggests more emphasis on social activities, while a lower rate of click production suggests less effort invested in maintaining vigilance and/or foraging (Herzing 1996). As mentioned previously, these data must be viewed with caution at this time, as data sample size for Zone 1 was not high.

The higher rates of whistling and clicking observed during the afternoon period

between 13:00 and 14:59 are in contrast to the temporal patterns of acoustic activity observed on the two EARs (see below). This two-hour period corresponds to the time bins with the fewest detections on both EARs. One possible reason for this is that dolphins may not occur frequently near the two EAR sites during this time of day. Alternatively, it could be that the proximity of the focal follow vessel had an effect on the acoustic behaviour of the animals being recorded.

4.2. EAR data

The EAR data indicate that dolphin acoustic activity is greater at site B1 (Fan Lau) than at B2 (bridge alignment area). On average, 17% of files at B1 per day contained dolphin detections, compared to only 8% of files per day at B2. In addition, the average number of daily encounters and the duration of encounters were greater at site B1 than at B2. The day with the greatest number of detections at B1 was 20 Feb 2013, with 60% of files containing dolphin detections. At B2, the day with most detections was 6 Feb 2013, with 17% files containing dolphin signals. Interestingly, there was a relative lull in acoustic detections for 10-14 February at site B1 and 11-13 February at site B2, and it is presently unknown what factor(s) may have caused this apparent synchrony in fewer acoustic recordings at that time of month. It is also interesting to note that more dolphin activity was recorded at site B1 despite the higher ambient noise levels occurring there compared to site B2.

Both sites showed a bimodal distribution in dolphin detections by time of day. Site B1 showed a primary peak in detections around the morning hour of 7:00, and a secondary peak in the late evening at 23:00, whereas at B2, dolphin detections peaked at the evening and nighttime hours of 20:00 and 1:00. Interestingly, one site (B2) exhibited a diel pattern of activity while the other site did not, suggesting a differential pattern of habitat use. The increase in nighttime vocalizations at B2 could be related to an increase in social or foraging activity, for example, and more data are needed on this point.

5. CONCLUSION & EVENT AND ACTION PLAN

The calibrated hydrophone data showed a general increase in whistles and clicks by group size, and most of these sounds occurred during socializing. As well, there was an increase of sounds between 13:00-14:59; and many more whistles than clicks in Zone 1, north of the airport, than in the other two zones. With more information in future, we will be able to investigate interactions among these and other factors, as group sizes, times of day, and areas (for example) are not likely to be fully

independent.

The EAR data showed a lull in recorded dolphin sounds in mid-month and a tendency for some changes in diel sound (or dolphin occurrence) structure, although these were different by the two sites.

The data obtained during the initial phase of this project provide a pre-construction baseline for measuring the potential consequences of construction activities on dolphin behaviour. The dolphin acoustic activities measured using the two combined methods provide quantitative metrics against which to measure any changes in the behaviour or occurrence of dolphins near the bridge construction area once construction has begun. Dolphin sound recordings – especially from the EAR data – will be integrated with dolphin sightings and tracks as obtained from shore-based censuses and theodolite tracks (according to procedures by Piwetz et al. 2012) in the final analyses for this project.

The values of two response variables (clicking and whistling rates) as a function of the size of dolphin group, their behavioural state and time of day deduced from the calibrated hydrophone data are presented in Table 1. To develop the Event and Action Plan (EAP) on dolphin acoustic behaviour, we propose to take all response variables described above into account. Departures of any of these variables between baseline and construction phases with a 20% difference will be of concern and should trigger the Action Level under the EAP. If a 40% difference in any of these variables between baseline and construction phases is detected, then the Limit Level under the EAP should be triggered and immediate action will be required (see Table 2).

Moreover, the response variable for the EAR data would be the hours in peak occurrence at the two sites as shown in Figure 17 for Site B2 (00:00-01:00) and Figure 13 for Site B1 (06:00-07:00). We propose that if there is a shift of 3 hours or more in peak occurrence at Site B2, the Action Level should be triggered. If a shift of 6 hours or more in peak occurrence at Site B2 occurs, the Limit Level should be triggered. For example, if the peak occurrence of dolphins is shifted from 00:00-01:00 to 21:00-22:00 (or earlier) or to 03:00-04:00 (or later), then the Action Level should be triggered. On the other hand, if the peak occurrence of dolphins is shifted from 00:00-01:00 to 18:00-19:00 (or earlier) or to 06:00-07:00 (or later), then the Limit Level should be triggered. However, if there is a shift in peak occurrence in both Site B2 (00:00-01:00) and Site B1 (06:00-07:00), the action or limit level should not be triggered, as the change in peak occurrence does not only occur at the site of impact (Site B2) but also at the control site (Site B1), and the changes in peak occurrences of

dolphins at both sites may not be directly to the HKLR09 construction works. Such review of data from Site B1 (control site at Fan Lau) should be part of the review as listed in Action #2 by the ET Leader when the AL or LL is triggered as detailed in the Action and Event Plan (Table 2).

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Table 1. Values of the two response variables of dolphin acoustic behaviour collected by calibrated hydrophone (average clicks and whistles per minutes) by size of group, behavioural state and time of day during baseline period

	Average clicks per minute (± s.d.)	**Average whistles per minute (± s.d.)**
Group Size		
1 dolphins	62.19 ± 77.73 (n=20)	0.21 ± 1.49 (n=20)
2-6 dolphins	54.03 ± 179.32 (n=125)	0.56 ± 1.70 (n=12)
6-9 dolphins	118.00 ± 310.31 (n=37)	1.58 ± 4.63 (n=37)
10+ dolphins	289.33 ± 140.58 (n=35)	2.74 ± 1.99 (n=35)
Behavioural State		
Feeding	30.95 ± 69.90 (n=28)	0.62 ± 1.33 (n=28)
Milling	71.29 ± 205.44 (n=138)	0.66 ± 1.85 (n=138)
Socializing	287.48 ± 326.22 (n=25)	3.78 ± 4.14 (n=25)
Traveling	13.16 ± 208.94 (n=11)	0.25 ± 1.48 (n=11)
Resting	0.10 ± 70.35 (n=5)	0.13 ± 1.43 (n=5)
Time of day		
09:00-10:59	38.14 ± 69.90 (n=28)	0.70 ± 1.33 (n=28)
11:00-12:59	79.97 ± 144.51 (n=93)	0.68 ± 1.86 (n=93)
13:00-14:59	159.41 ± 303.43 (n=61)	1.74 ± 3.80 (n=61)
15:00-16:59	65.40 ± 140.58 (n=35)	1.16 ± 1.99 (n=35)

Table 2. Event and Action Plan on Dolphin Acoustic Behaviour

EVENT	ACTION			
	ET Leader	**IEC**	**SO**	**Contractor**
Action Level With the numerical values presented in Table 1, when any of the response variable for dolphin acoustic behaviour recorded in the construction phase monitoring is **20% lower or higher** than that recorded in the baseline monitoring, or when there is a shift of **3 hours or more** in peak occurrence at B2 Site (i.e. 00:00 – 01:00), the action level should be triggered	1. Repeat statistical data analysis to confirm findings; 2. Review all available and relevant data to ascertain if differences are as a result of natural variation or seasonal differences; 3. Identify source(s) of impact; 4. Inform the IEC, SO and Contractor; 5. Check monitoring data; 6. Carry out audit to ensure all dolphin protective measures are implemented fully and additional measures be proposed if necessary	1. Check monitoring data submitted by ET and Contractor; 2. Discuss monitoring with the ET and the Contractor;	1. Discuss with the IEC the repeat monitoring and any other measures proposed by the ET; 2. Make agreement on measures to be implemented.	1. Inform the SO and confirm notification of the non-compliance in writing; 2. Discuss with the ET and the IEC and propose measures to the IEC and the SO; 3. Implement the agreed measures.
Limit Level With the numerical values presented in Table 1, when any of the response variable for dolphin acoustic behaviour recorded in the construction phase monitoring is **40% lower or higher** than that recorded in the baseline monitoring, or when there is a shift of **6 hours or more** in peak occurrence at B2 Site (i.e. 00:00 – 01:00), the limit level should be triggered	1. Repeat statistical data analysis to confirm findings; 2. Review all available and relevant data to ascertain if differences are as a result of natural variation or seasonal differences; 3. Identify source(s) of impact; 4. Inform the IEC, SO and Contractor; 5. Check monitoring data; 6. Carry out audit to ensure all dolphin protective measures are implemented fully and additional measures be proposed if necessary 7. Discuss additional dolphin monitoring and any other potential mitigation measures (e.g. consider to temporarily stop relevant portion of construction activity) with the IEC and Contractor.	1. Check monitoring data submitted by ET and Contractor; 2. Discuss monitoring with the ET and the Contractor; 3. Review proposals for additional monitoring and any other measures submitted by the Contractor and advise ER accordingly.	1. Discuss with the IEC the repeat monitoring and any other measures proposed by the ET; 2. Make agreement on measures to be implemented.	1. Inform the SO and confirm notification of the non-compliance in writing; 2. Discuss with the ET and the IEC and propose measures to the IEC and the SO; 3. Implement the agreed measures.

Abbreviations: ET – Environmental Team, IEC – Independent Environmental Checker, SO – Supervising Office

Table 3. Values of action level (AL) and limit level (LL) for all response variables by size of group, behavioural state and time of day

	Average clicks per minute	Average whistles per minute
Group Size	AL / LL	AL / LL
1 dolphins (20%/40% ***lower***)	49.76 / 37.32	0.17 / 0.13
1 dolphins (20%/40% ***higher***)	74.63 / 87.07	0.26 / 0.30
2-6 dolphins (20%/40% ***lower***)	43.22 / 32.42	0.45 / 0.34
2-6 dolphins (20%/40% ***higher***)	64.84 / 75.64	0.67 / 0.78
6-9 dolphins (20%/40% ***lower***)	94.40 / 70.80	1.26 / 0.95
6-9 dolphins (20%/40% ***higher***)	141.60 / 165.20	1.89 / 2.21
10+ dolphins (20%/40% ***lower***)	231.46 / 173.60	2.19 / 1.65
10+ dolphins (20%/40% ***higher***)	347.19 / 405.06	3.29 / 3.84
Behavioural State	AL / LL	AL / LL
Feeding (20%/40% ***lower***)	24.76 / 18.57	0.50 / 0.37
Feeding (20%/40% ***higher***)	37.14 / 43.33	0.75 / 0.87
Milling (20%/40% ***lower***)	57.03 / 42.77	0.53 / 0.40
Milling (20%/40% ***higher***)	85.55 / 99.80	0.79 / 0.92
Socializing (20%/40% ***lower***)	229.98 / 172.49	3.02 / 2.27
Socializing (20%/40% ***higher***)	344.98 / 402.47	4.53 / 5.29
Traveling (20%/40% ***lower***)	10.53 / 7.89	0.20 / 0.15
Traveling (20%/40% ***higher***)	15.79 / 18.42	0.30 / 0.35
Resting (20%/40% ***lower***)	0.08 / 0.06	0.11 / 0.08
Resting (20%/40% ***higher***)	0.12 / 0.14	0.16 / 0.19
Time of day	AL / LL	AL / LL
09:00-10:59 (20%/40% ***lower***)	30.51 / 22.88	0.56 / 0.42
09:00-10:59 (20%/40% ***higher***)	45.77 / 53.40	0.84 / 0.98
11:00-12:59 (20%/40% ***lower***)	63.98 / 47.98	0.55 / 0.41
11:00-12:59 (20%/40% ***higher***)	95.96 / 111.96	0.82 / 0.96
13:00-14:59 (20%/40% ***lower***)	127.53 / 95.65	1.39 / 1.05
13:00-14:59 (20%/40% ***higher***)	191.29 / 223.18	2.09 / 2.44
15:00-16:59 (20%/40% ***lower***)	52.32 / 32.94	0.93 / 0.70
15:00-16:59 (20%/40% ***higher***)	78.48 / 91.56	1.40 / 1.63

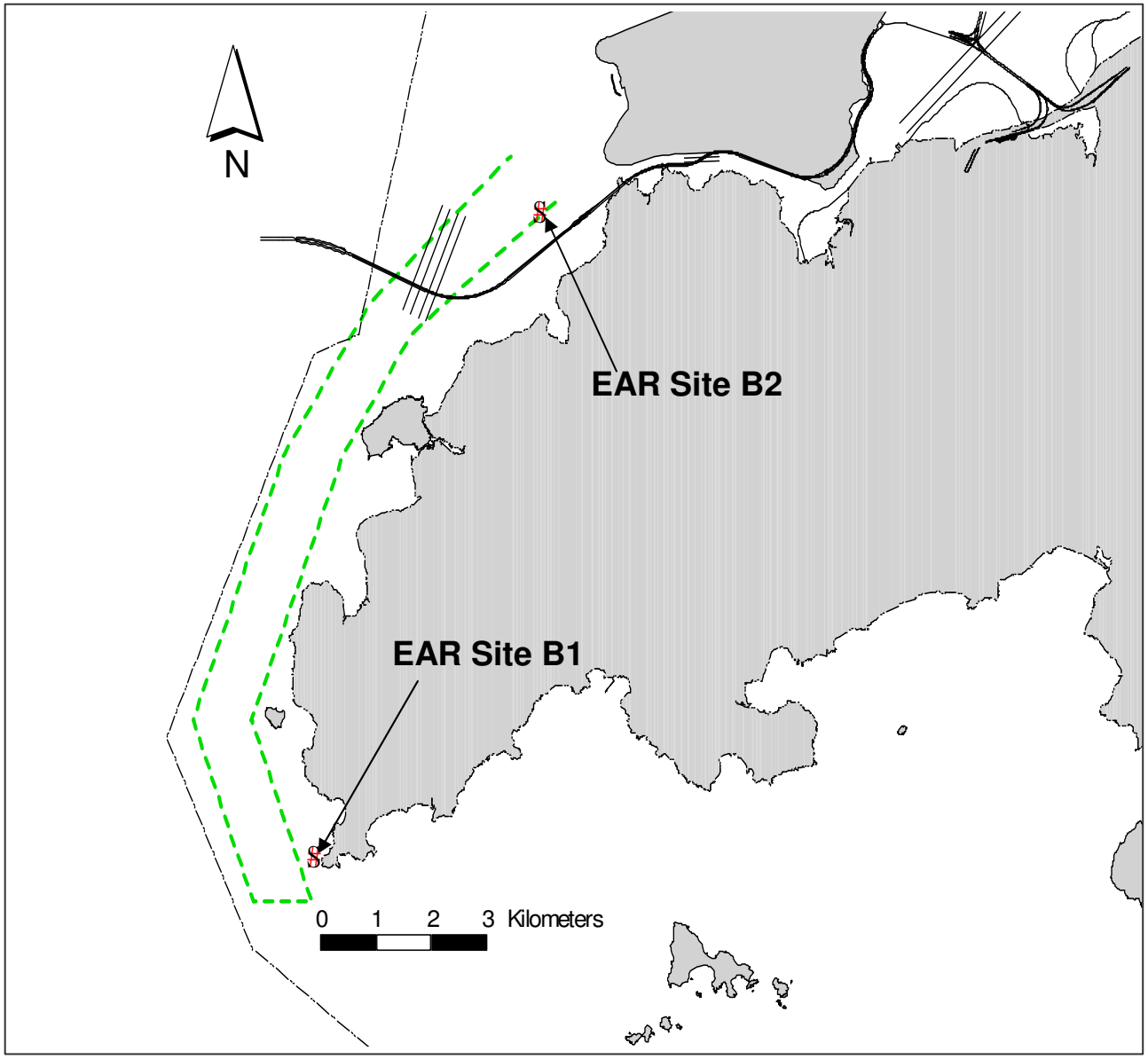

Figure 1. Predefined route for systematic effort (green dotted line) in West Lantau for HKLR acoustic monitoring surveys during January – February 2013, as well as the locations of two EARs deployed near Fan Lau (site B1) and bored piling site (site B2).

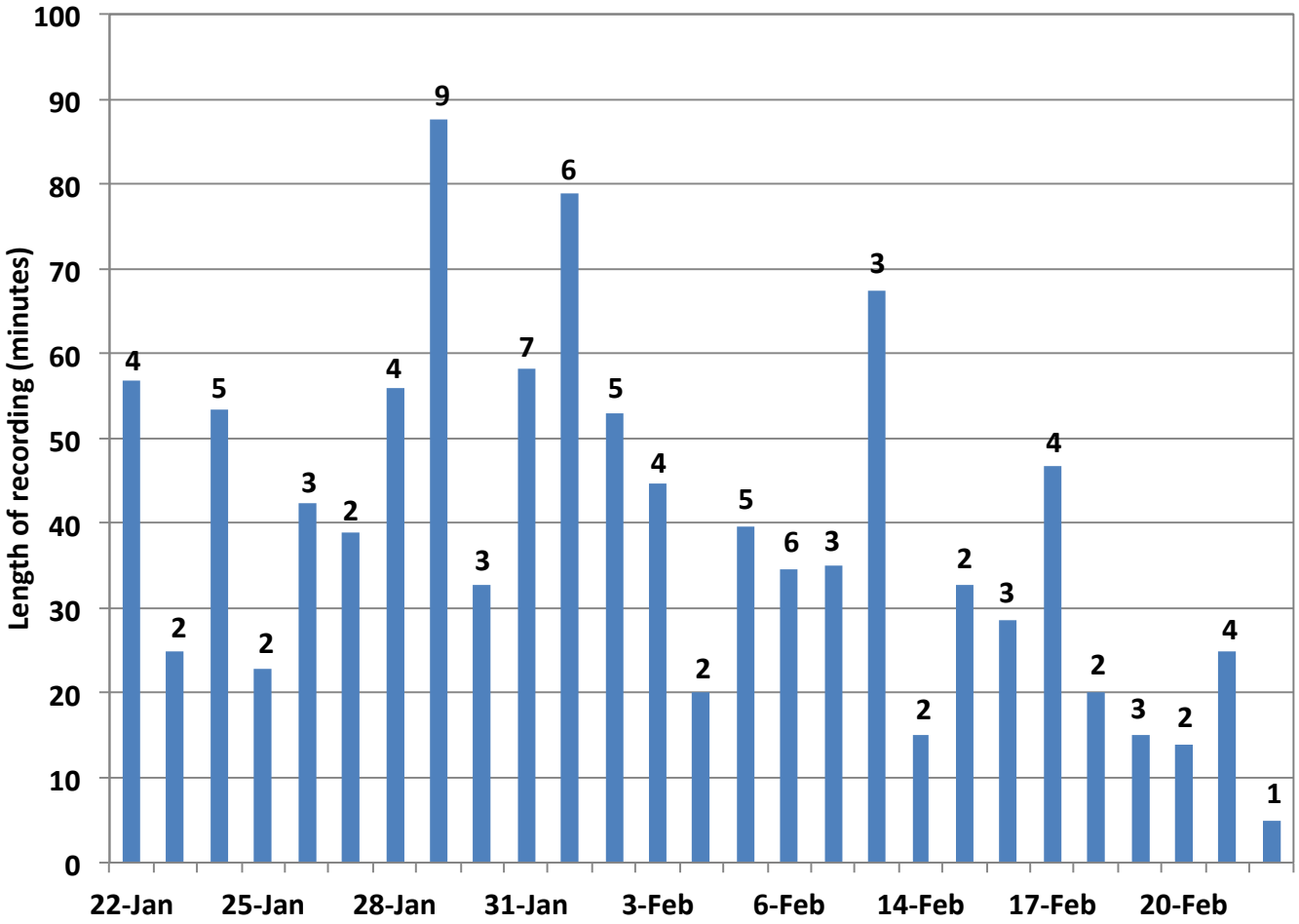

Figure 2. The summed length of recordings in minutes made for each day of observational effort during the baseline acoustic monitoring in January-February 2013. The values above each column represent the number of sightings per day.

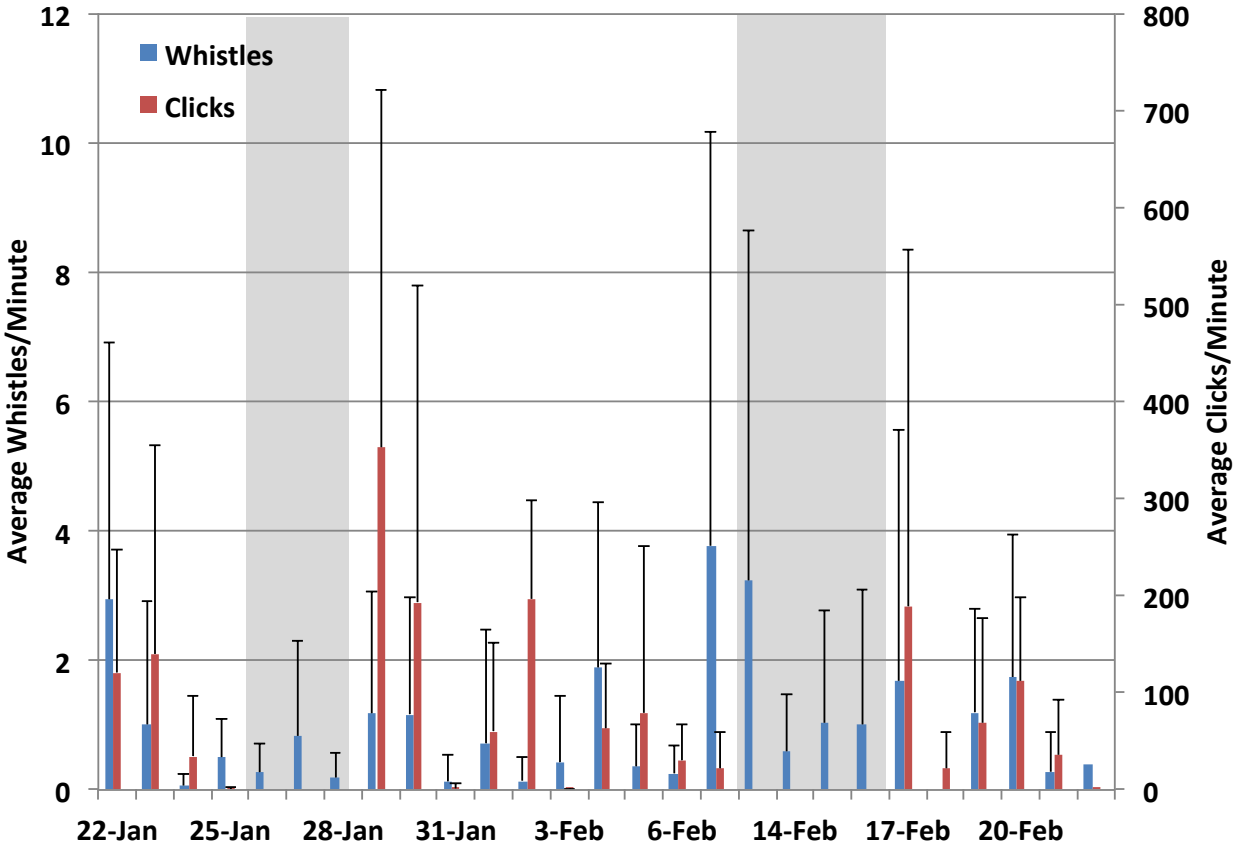

Figure 3. The average number of clicks and whistles per minute of recording detected for each day of observational effort. Shaded areas represent days with recordings that had high-frequency noise interference and therefore could not be analyzed for clicks. Errors bars represent one standard deviation.

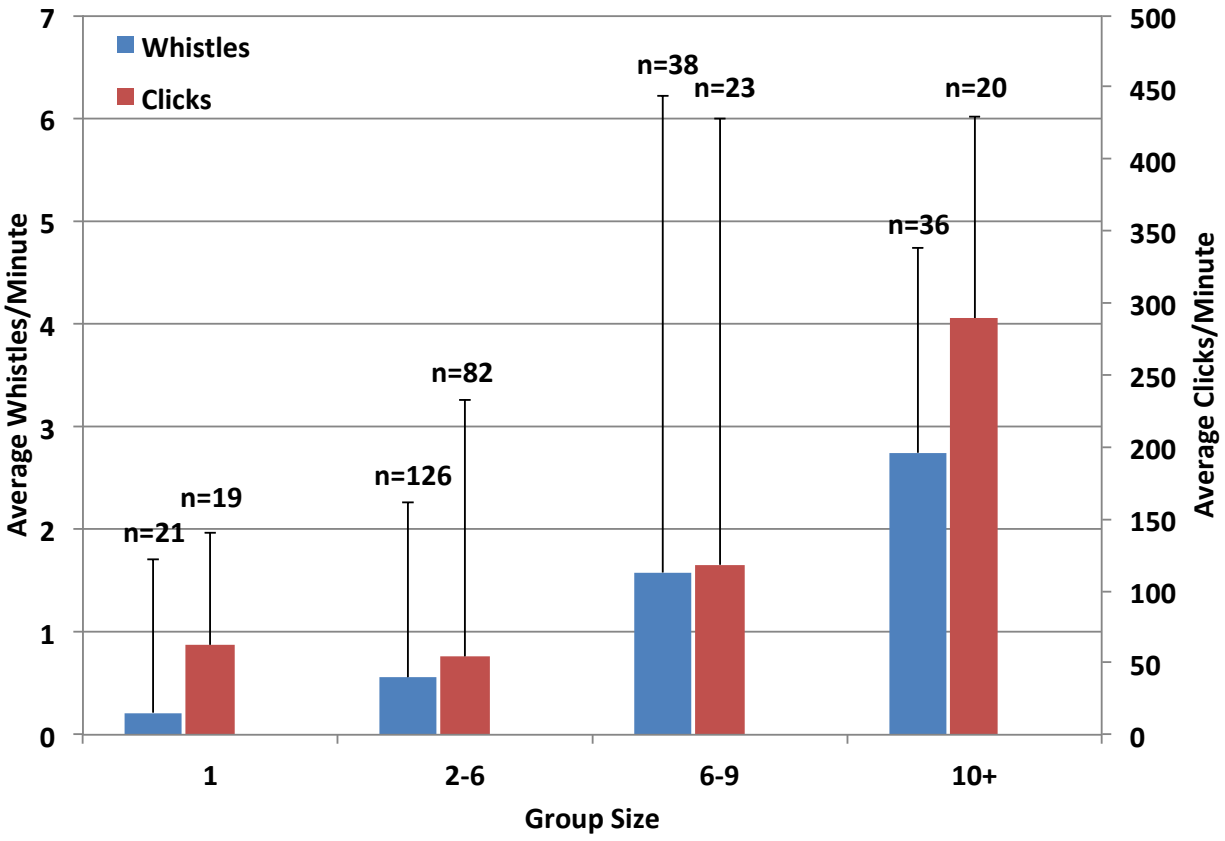

Figure 4. Average number of whistles per minute and clicks per minute as a function of dolphin group size. Error bars represent one standard deviation.

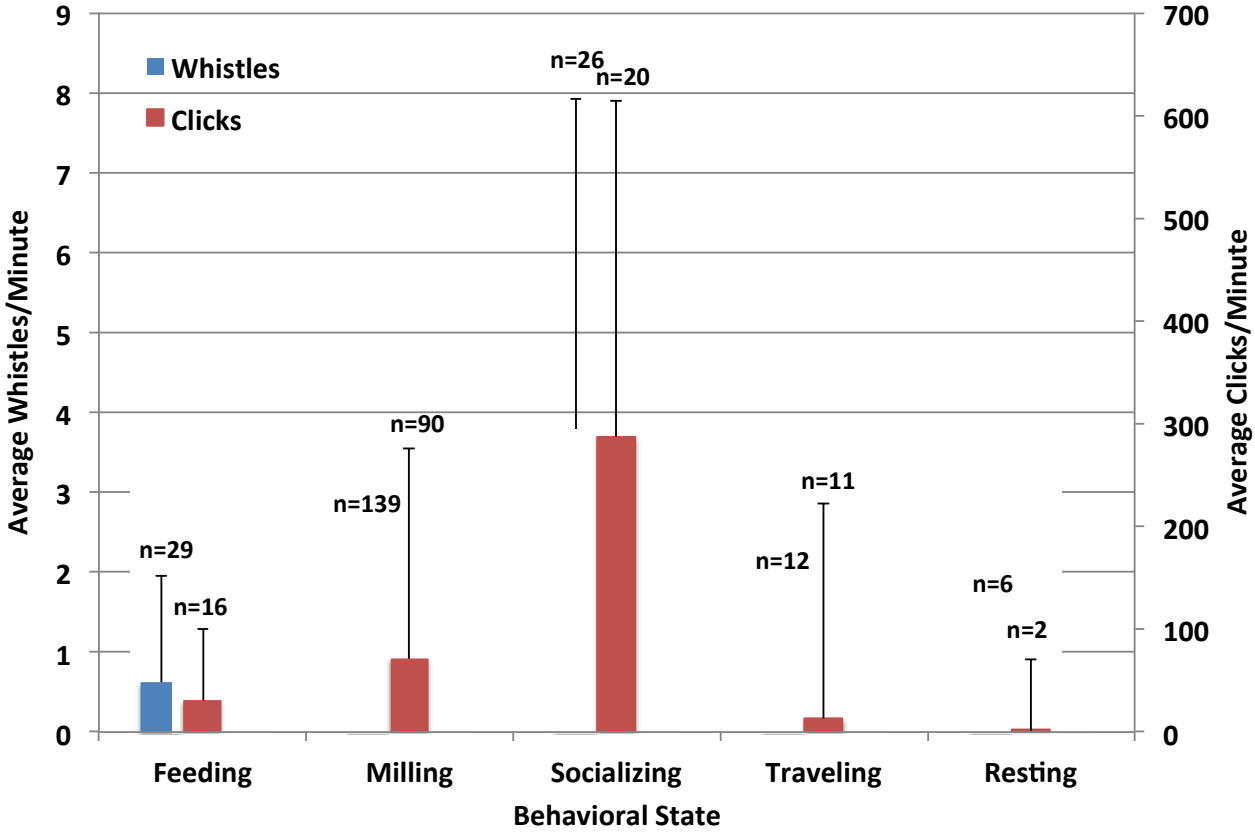

Figure 5. Average number of whistles per minute and clicks per minute as a function of dolphin behavioural state. Error bars represent one standard deviation.

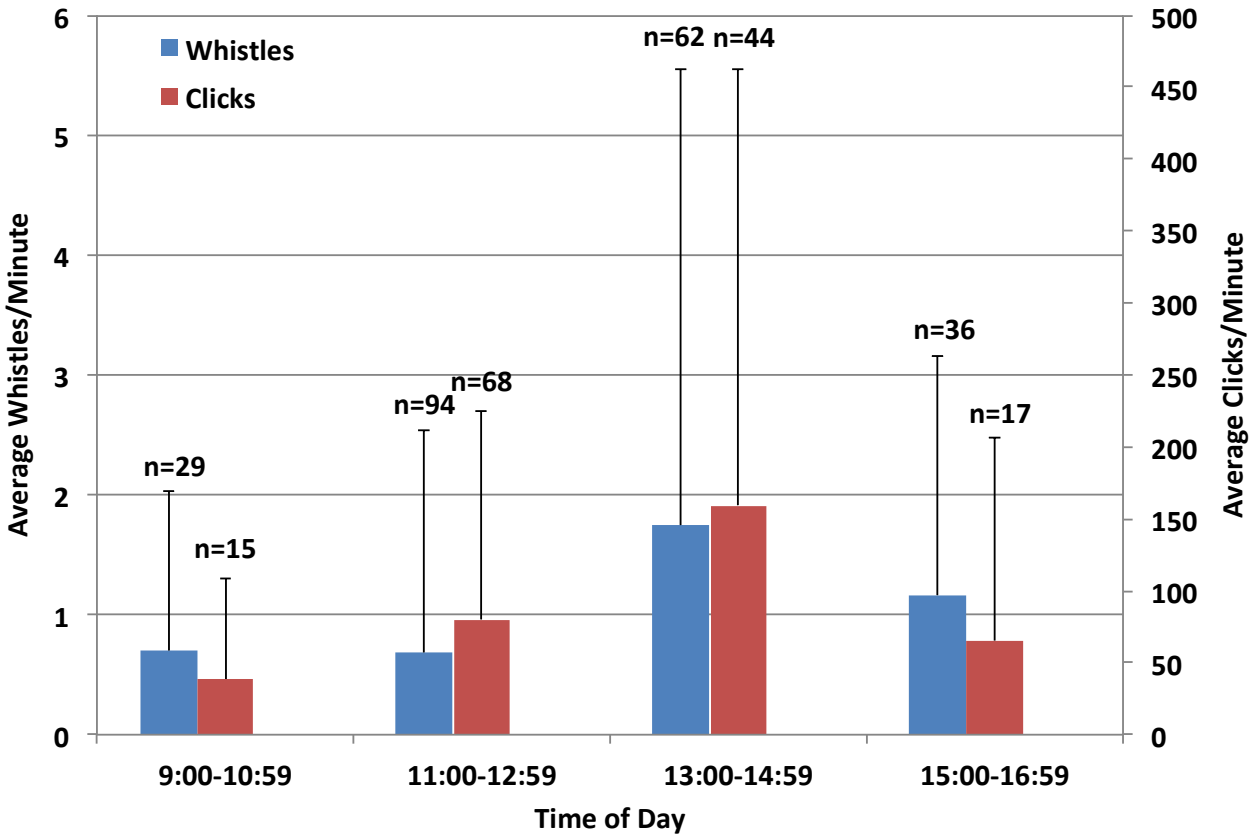

Figure 6. Average number of whistles per minute and clicks per minute as a function of the time of day. Error bars represent one standard deviation.

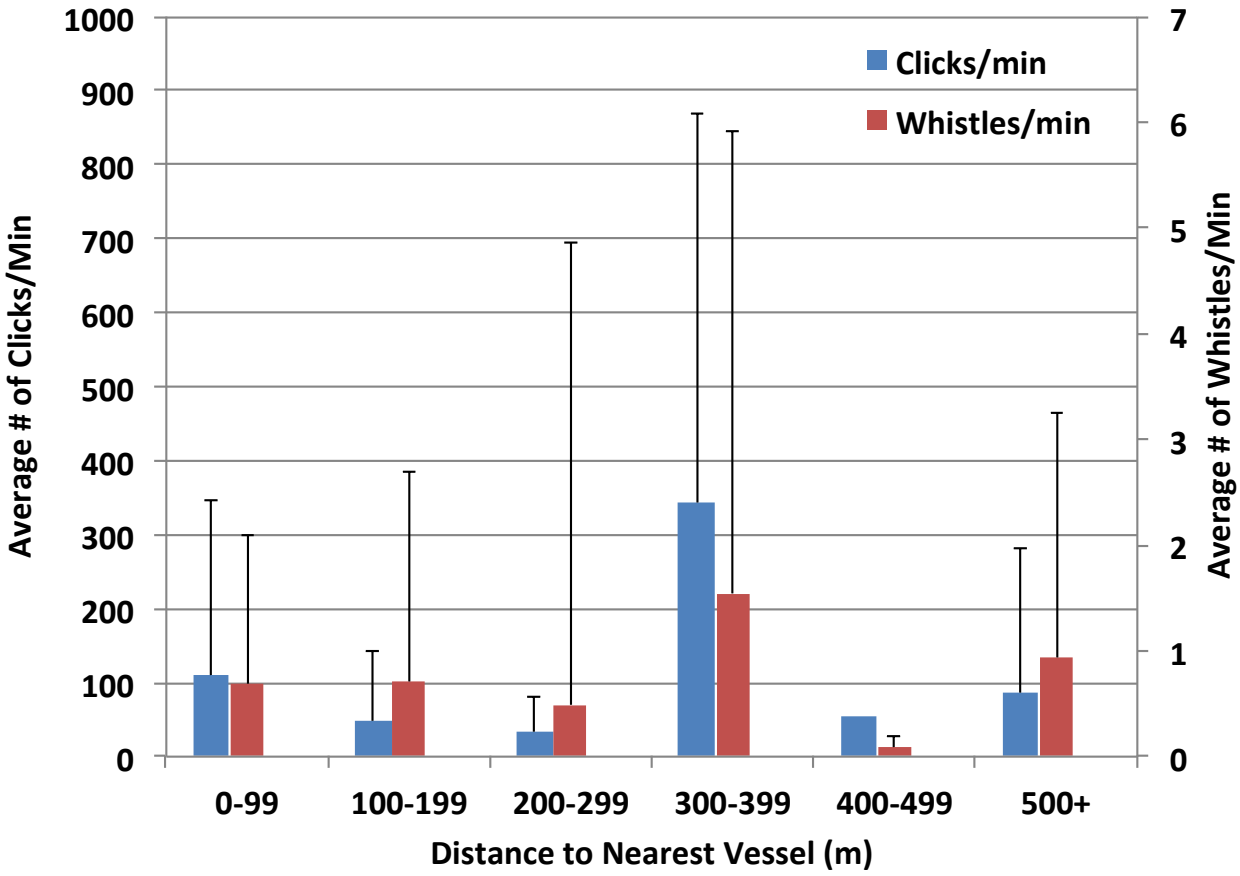

Figure 7. Average number of clicks/min and whistles/min recorded as a function of the distance to the nearest vessel. Error bars represent one standard deviation.

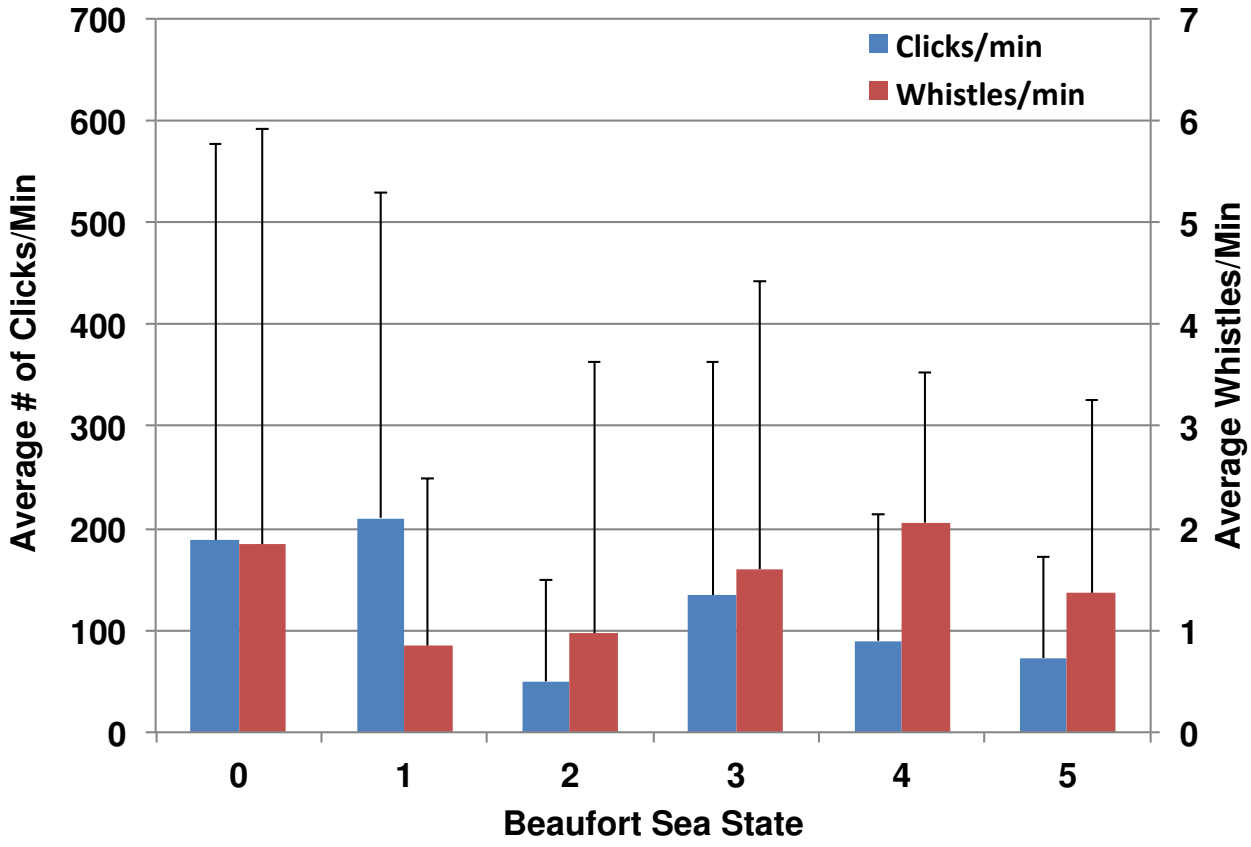

Figure 8. Average number of clicks/min and whistles/min recorded as a function of the Beaufort Sea State. Error bars represent one standard deviation.

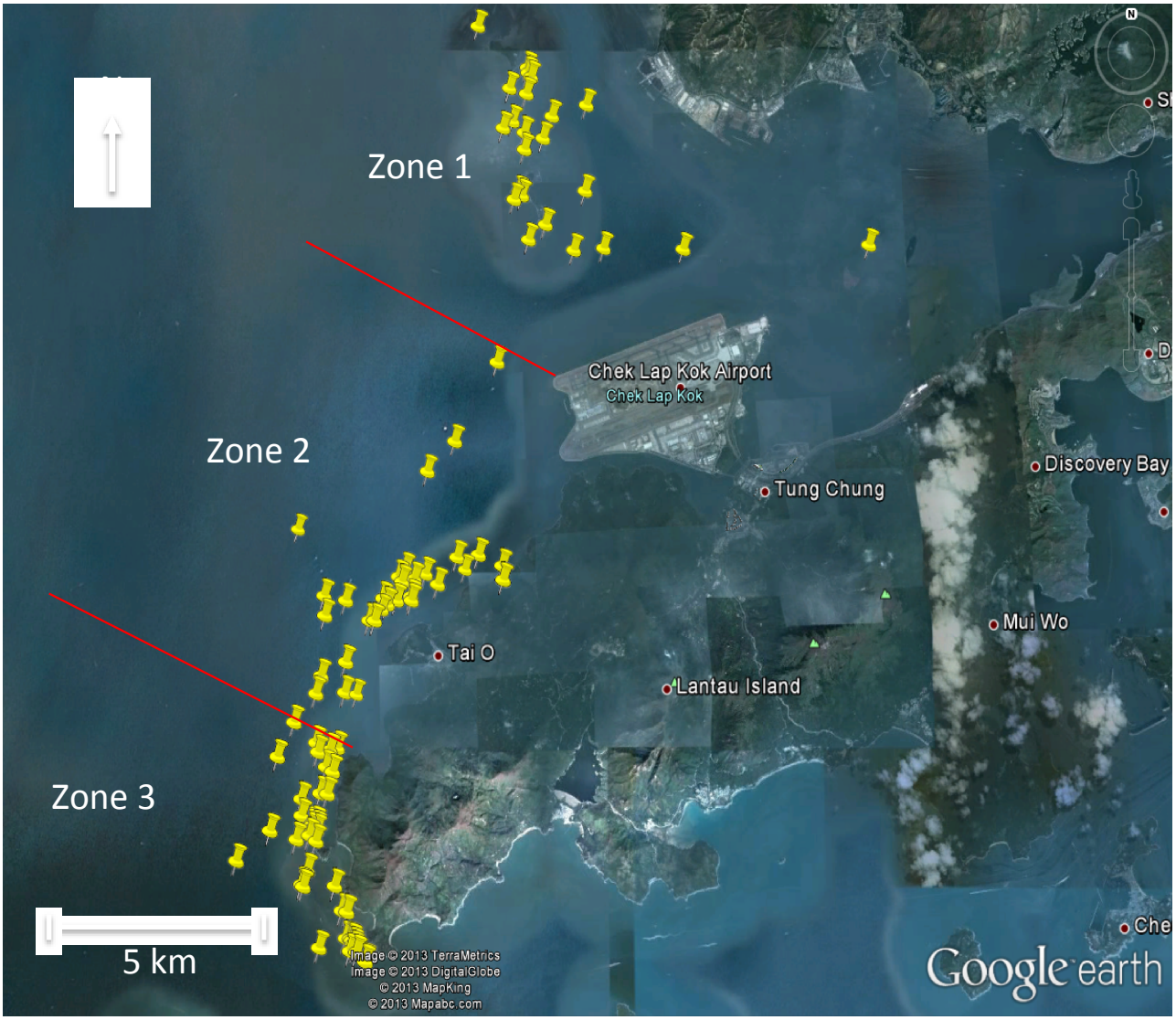

Figure 9. The location of the first recordings made for each sighting for each day of observational effort. Place marks represent GPS coordinates. The solid lines designate the boundaries of three zones. Map generated in Google Earth 7.0.3.8542.

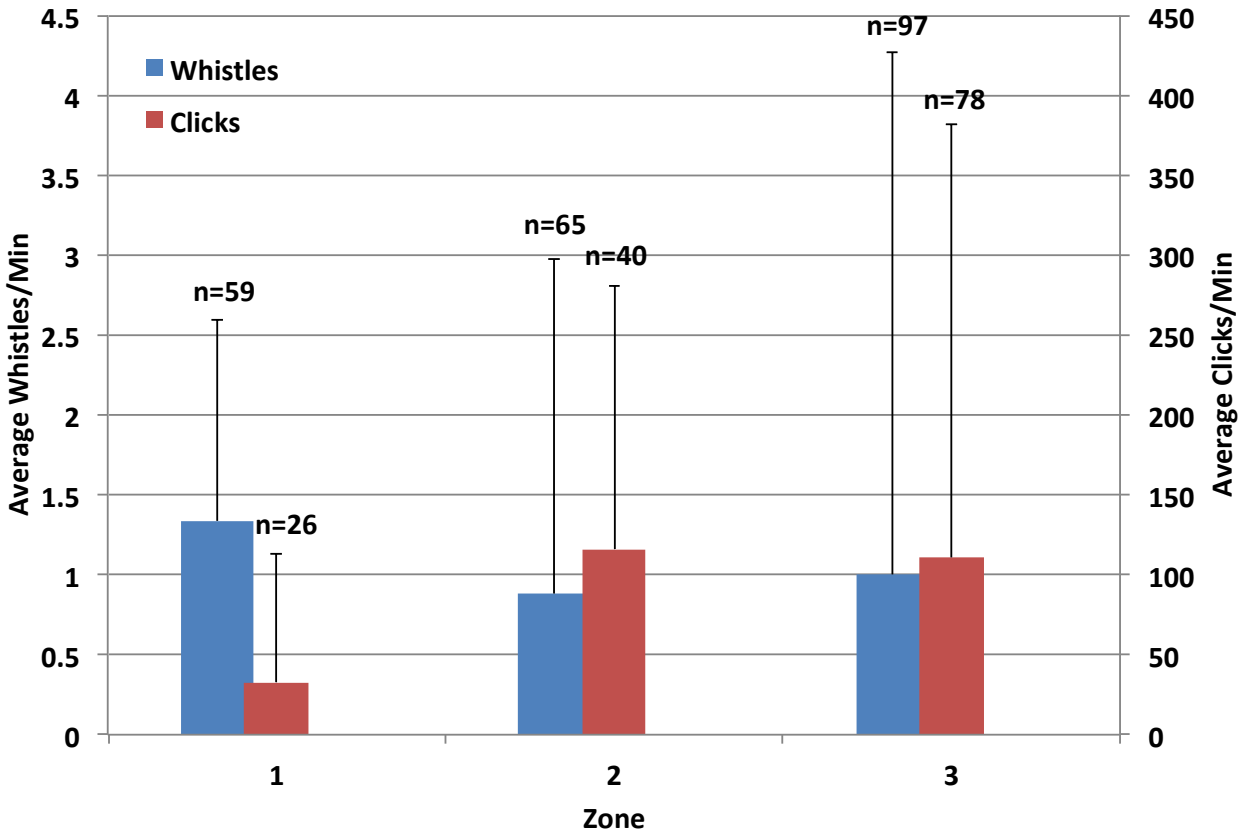

Figure 10. Average number of whistles per minute and clicks per minute recorded in each zone of the study area. Error bars represent one standard deviation.

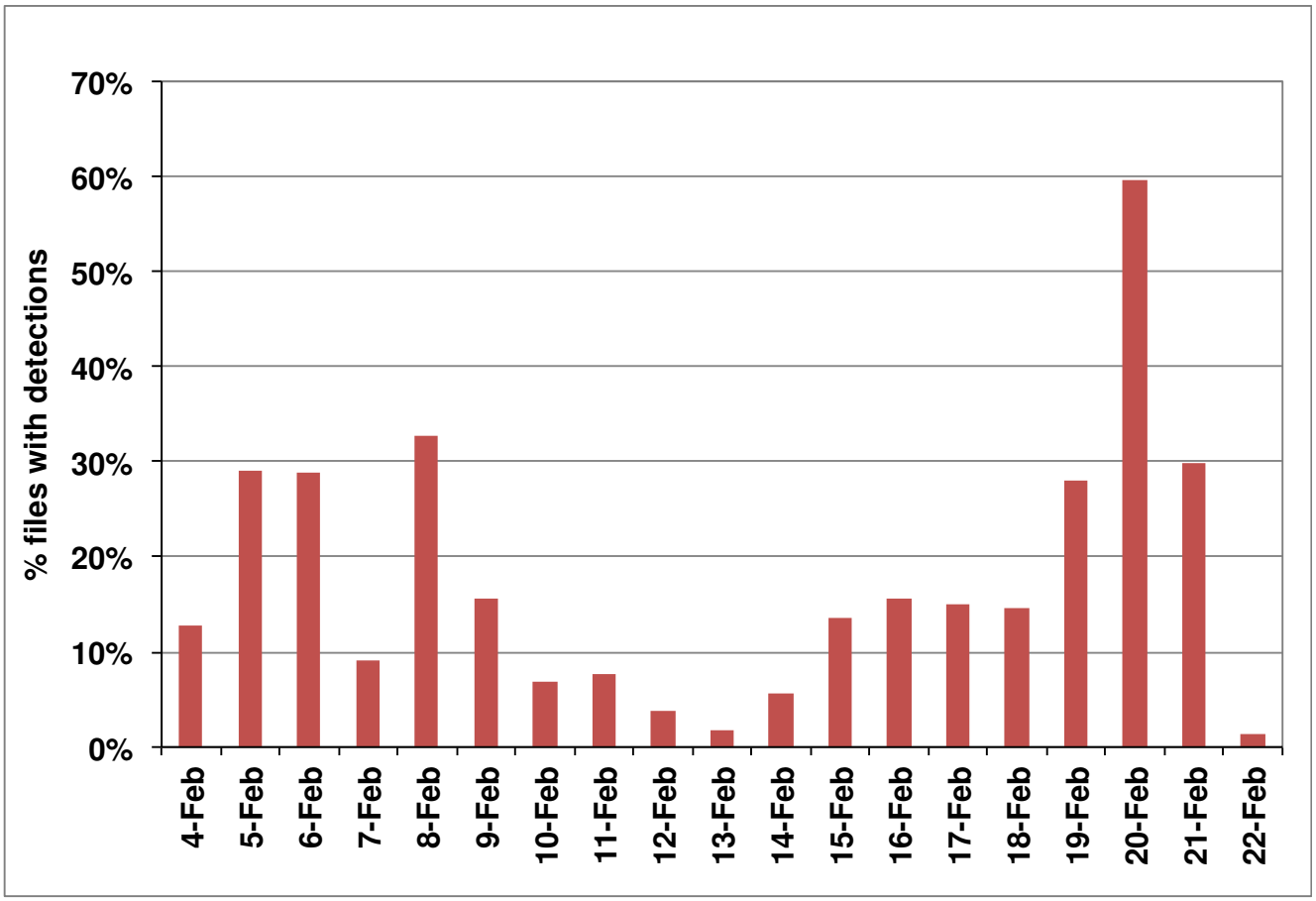

Figure 11. Histogram of the percentage of EAR recordings with dolphin detections made at site B1 (Fan Lau) during each day for the deployment period (Note: February 4 and 22 did not have a full day of recordings)

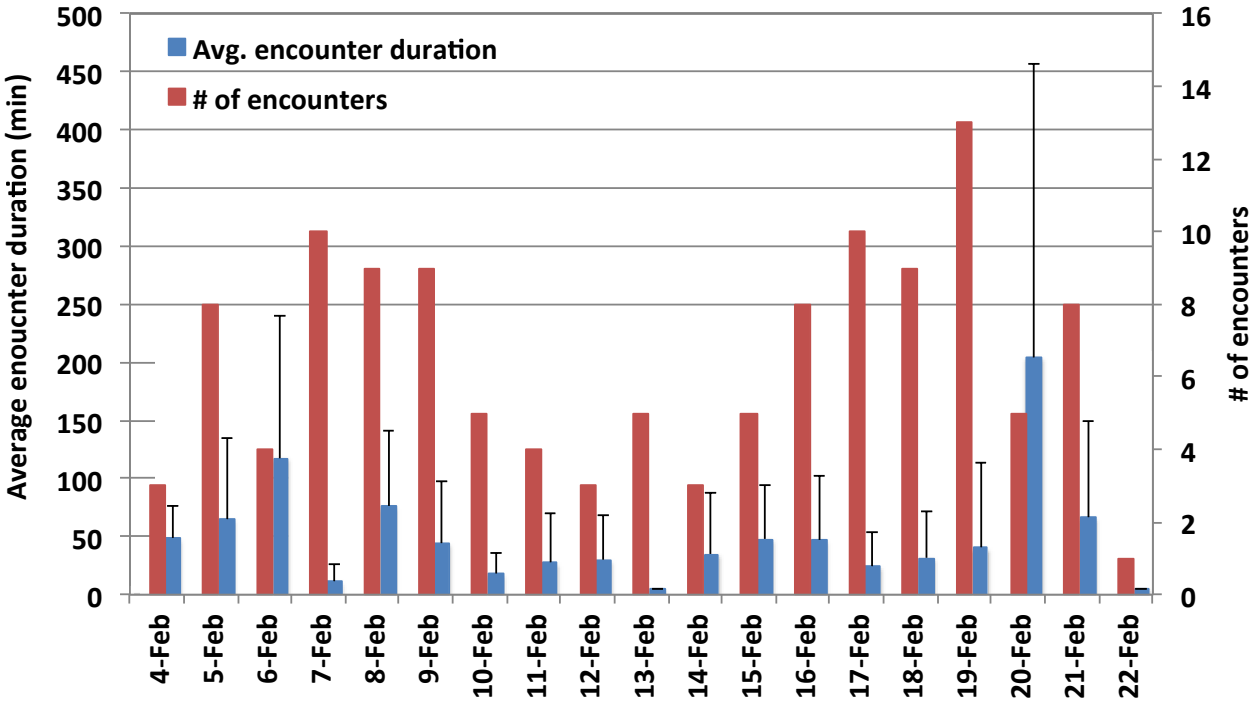

Figure 12. The number of dolphin encounters and the average encounter duration for each day recorded on the EAR at site B1 (Fan Lau). Error bars represent one standard deviation.

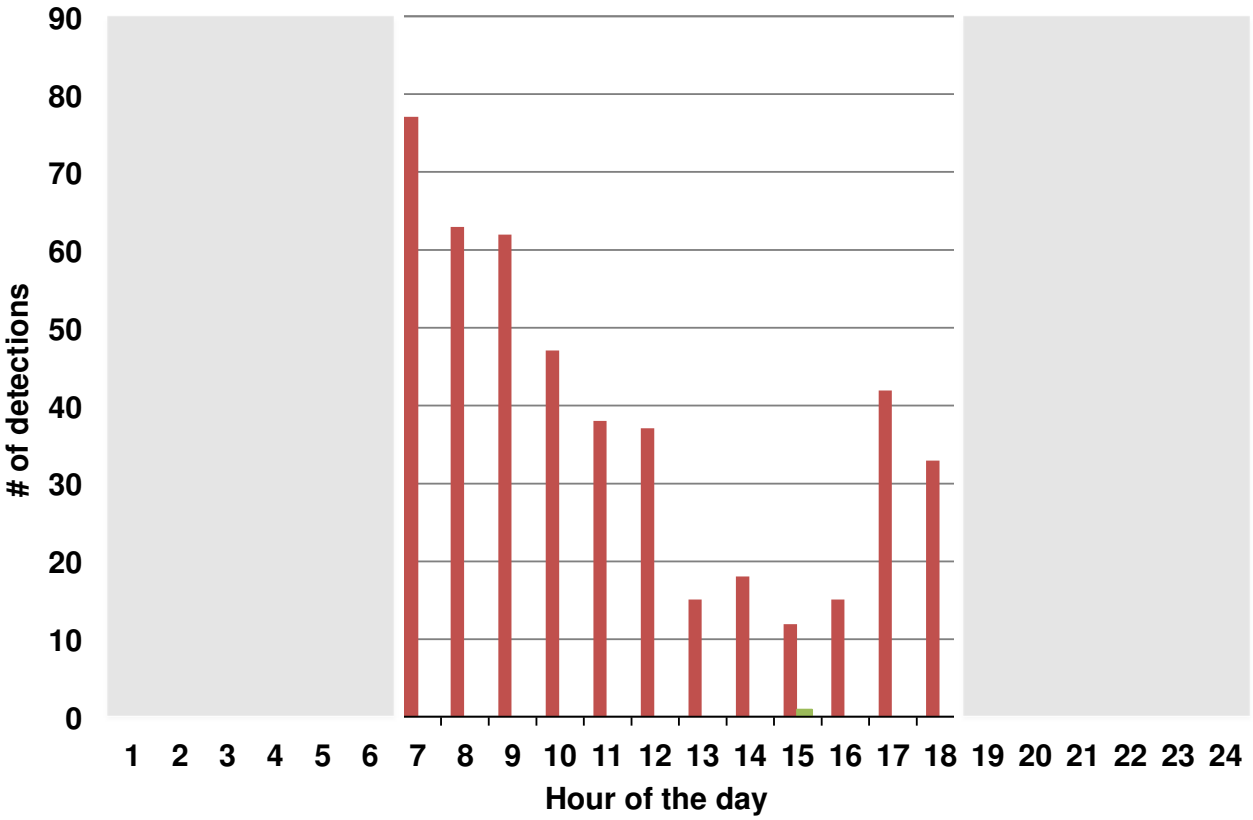

Figure 13. Detections of dolphin signals at site B1 (Fan Lau) as a function of the hour of the day. Values are the total number of detections in each hour across the entire monitoring period.

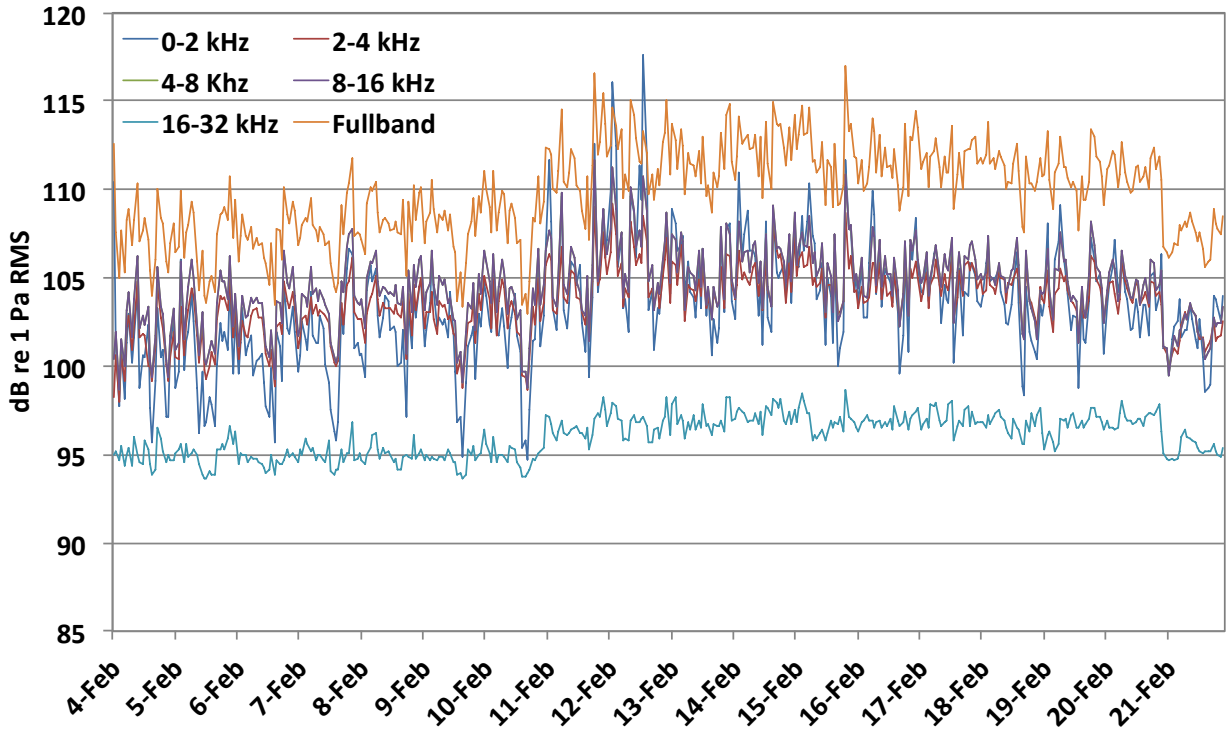

Figure 14. Root-mean-square (RMS) sound pressure level (SPL) in 1-octave bands and full bandwidth averaged hourly over the deployment period at site B1 (Fan Lau).

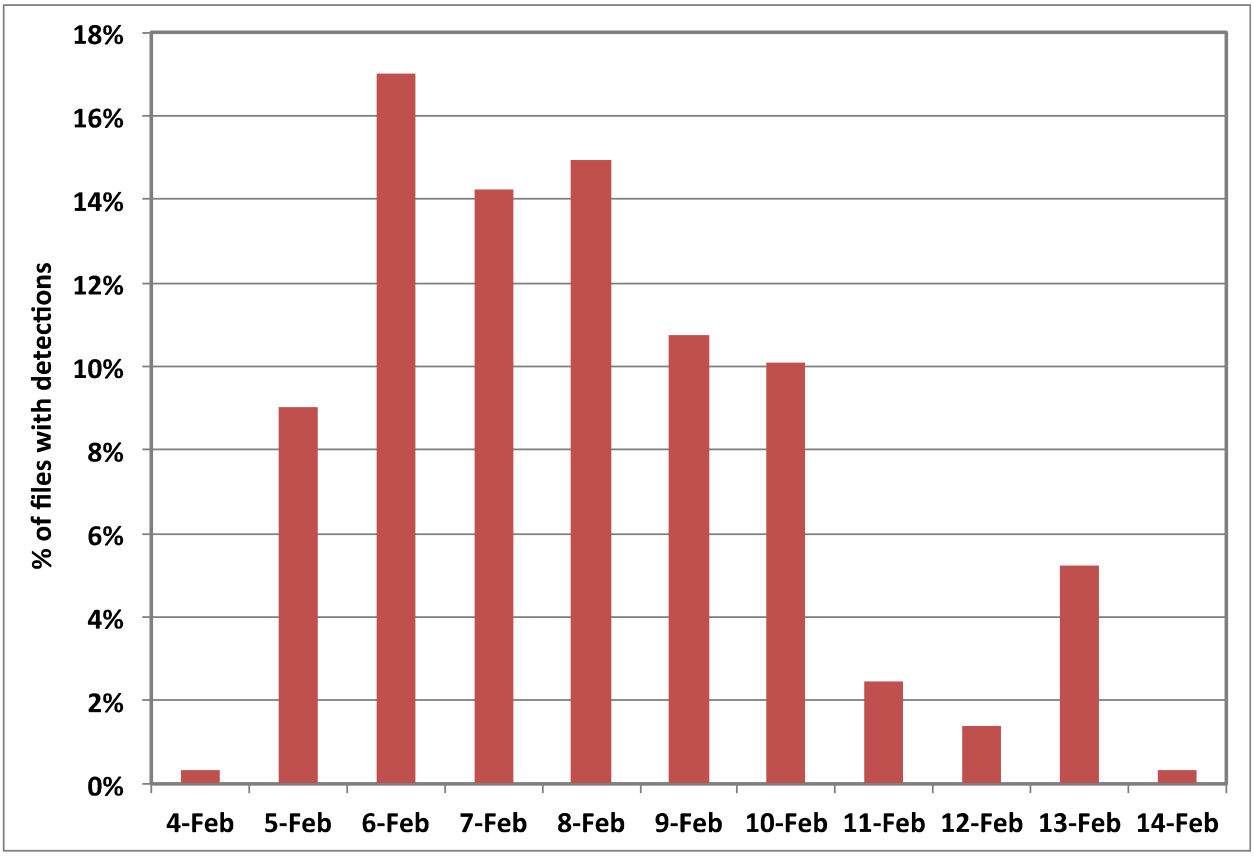

Figure 15. Histogram of the percentage of EAR recordings at site B2 (Bridge Alignment Area), with dolphin detections made during each day for the deployment period recovered (Note: February 4 and 14 did not have a full day of recordings)

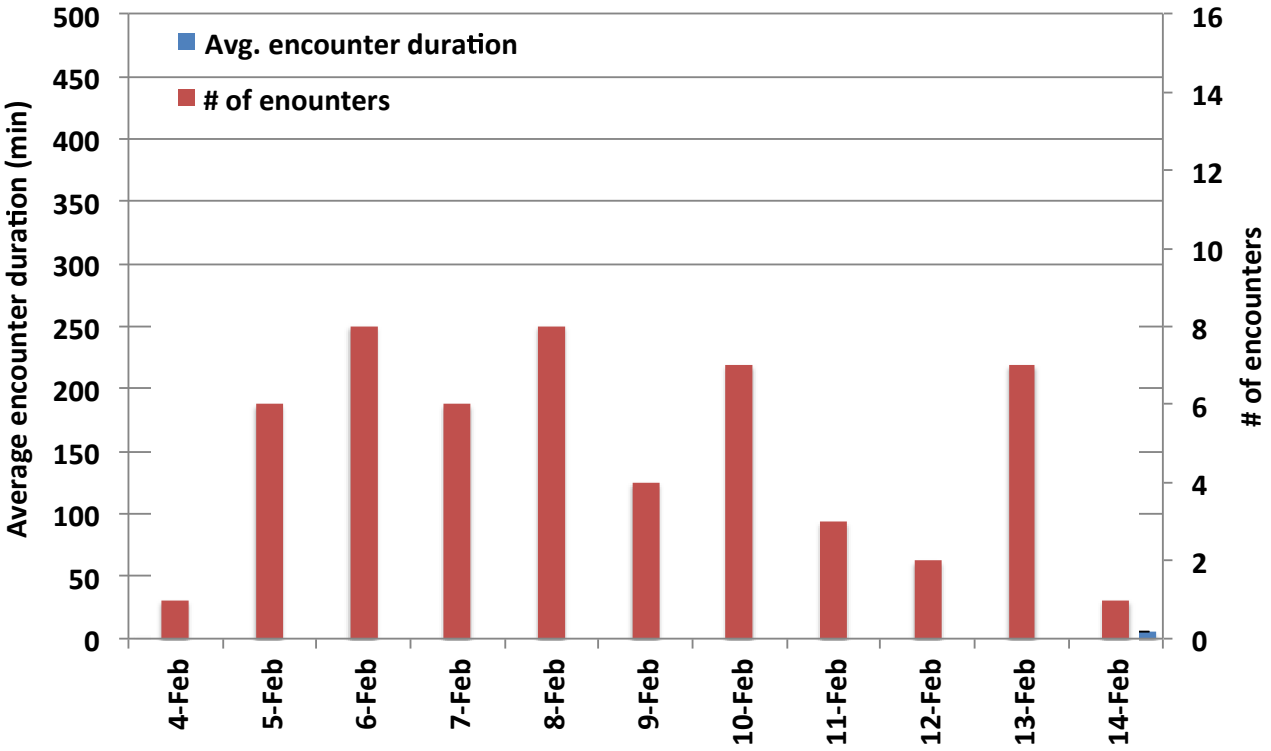

Figure 16. The number of dolphin encounters and the average encounter duration for each day recorded on the EAR at site B2 (Bridge Alignment Area). Error bars represent one standard deviation.

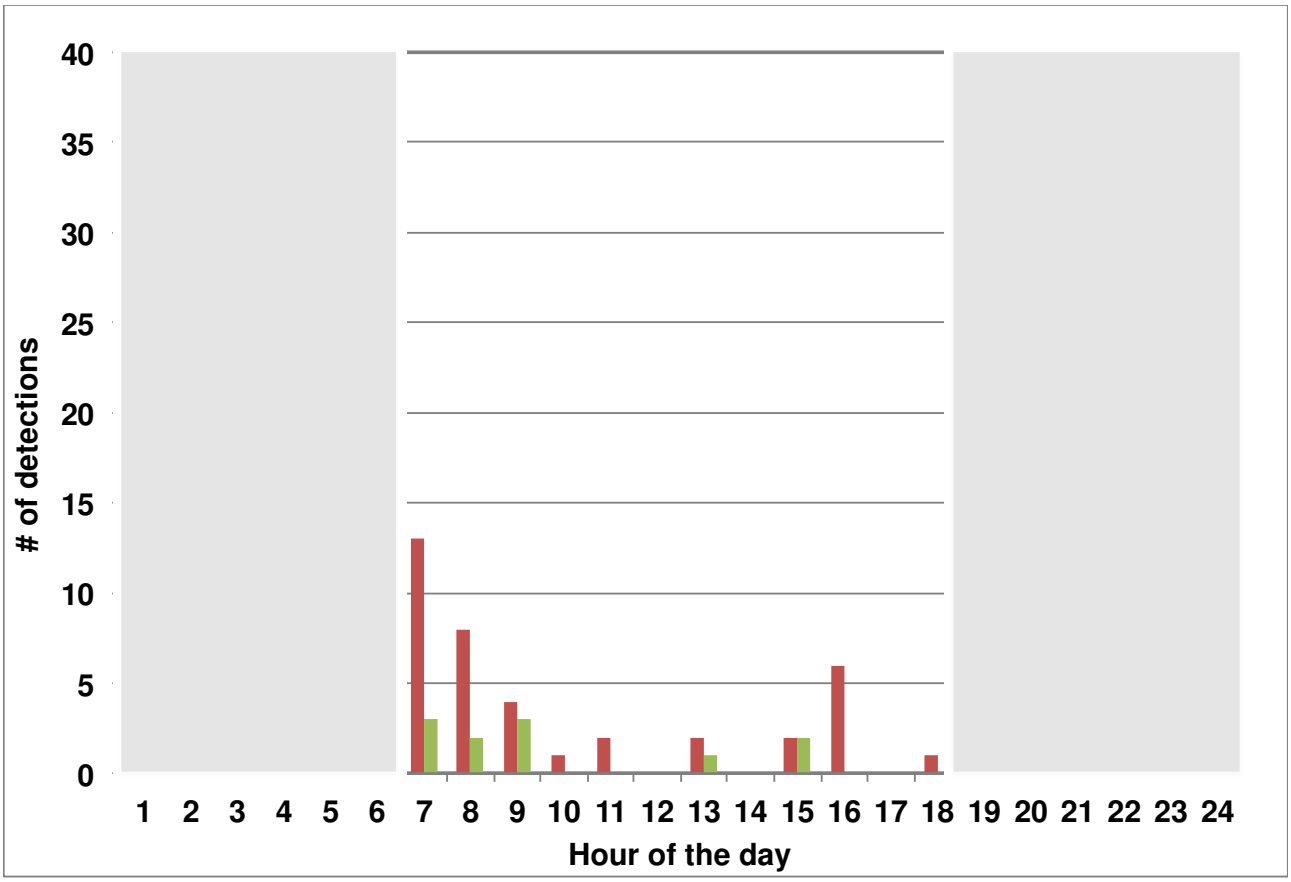

Figure 17. Detections of dolphin signals at site B2 (Bridge Alignment Area) as a function of the hour of the day. Values are the total number of detections in each hour across the entire monitoring period.

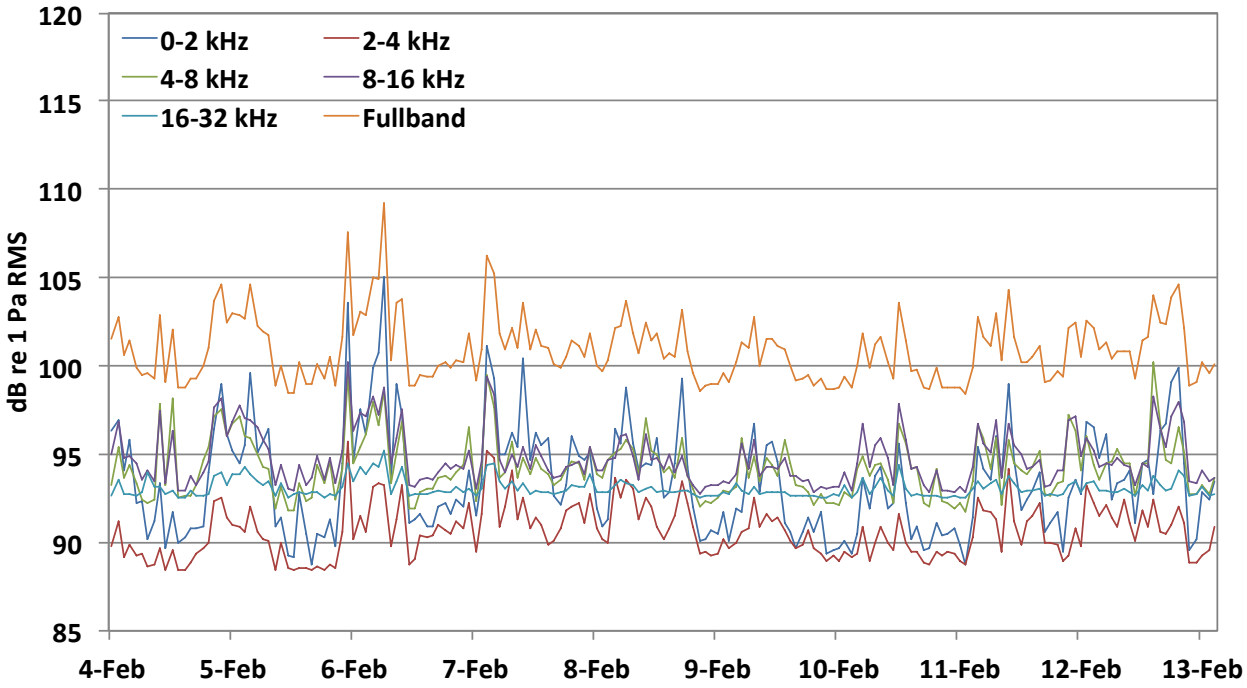

Figure 18. Root-mean-square (RMS) sound pressure level (SPL) in 1-octave bands and full bandwidth averaged hourly over the deployment period at site B2 (Bridge Alignment Area).

Appendix I: The Ecological Acoustic Recorder's hydrophone specifications

SENSOR — Sensor Technology Limited

SQ26 Seismic & Towed Array Hydrophone — HYDROPHONES

Features
- Low cost
- Rugged
- Good depth capability

Applications
- General-purpose research
- Towed arrays

Overview

The SQ26 is a general-purpose low-cost hydrophone. It has good sensitivity, wide bandwidth and good stability. Custom configurations of these hydrophones are also available. For additional data on frequency response or outline drawings, please call our technical support.

All parameters measured after hydrophones have been subjected to pressures of 200 bar. The polyurethane-encapsulated hydrophone will withstand continuous immersion in isoparaffinic hydrocarbon fluids and sea water.

Specifications

Voltage sensitivity:	-193.5 ± 1.0 dBV re 1 µPa @ 20 °C, 20 V/bar
Charge sensitivity:	24 nC/bar
Capacitance:	1.4 nF ± 10 % @ 20 °C
Capacitance variation with temperature:	0.33% increase per °C
Capacitance variation with depth:	7% loss per 1,000 m (3,300 ft)
Operating depth:	down to 2,000 m
Frequency response:	flat from 1 Hz to 28,000 Hz
Acceleration sensitivity:	< 0.2 mbar/g when properly mounted
Diameter:	28.7 mm (1.13")
Length:	30.5 mm (1.20") max.
Mass:	16 grams (0.56 oz)
Electrical leads:	two red and black stranded, 28AWG 15 cm (6") long, Hytrel-insulated leads
Electrical insulation:	> 500 M Ohms
Water blocked leads:	Yes
	Also available with integral shield in a low noise configuration (SQ26-01)

ISO 9001:2000 REGISTERED

Established in 1983

20 Stewart Rd, Collingwood, ON, Canada L9Y 4K1
Tel: (705) 444-1440 Fax: (705) 444-6787
www.sensortech.ca techsupport@sensortech.ca

Appendix II: The calibrated hydrophone specifications and calibration record. The CR1 hydrophone of the left column below was used for these data. The Sensor Technology calibration report highlights the CR1 (serial Number CR1-12161-04) used for this report.

CETACEAN RESEARCH TECHNOLOGY

HYDROPHONE SPECIFICATIONS

Model Number	CR1	CR2	CR3
Linear Frequency Range (±3dB) [kHz]	0.0002† – 48	0.002† – 28	0.0004† – 77
Useable Frequency Range (+3/-12dB) [kHz]	0.00005† – 68	0.0004† – 60	0.0001† – 240
Sensitivity [dB, re 1V/µPa]	-198‡	-214	-210‡
SPL Equiv. Noise at 1kHz [dB, re 1µPa/√Hz]	38 (< *Sea State Zero*)	68	57
Maximum Operating Depth [m]	100	460	250
Operating Temperature Range [°C]	-25 to 60‡	-40 to 70	-40 to 90‡
Capacitance [nF]	10	0.82	4.0
Dimensions [mm]	73L x 32 dia.	56L x 14 dia.	50L x 18 dia.
Coaxial Cable Length [m]	15	10	15
Directionality	Omni below 10kHz	Omni below 10kHz	Omnidirectional
Base Price [US dollars]	Please contact us	crtinfo [at] cetaceanresearch dot com	206-297-1310

† Requires a preamplifier with 100MΩ input impedance, such as VP2000. If a preamplifier with 1MΩ input impedance is used, such as PC200, then the low frequency -3dB point will be increased by a factor of 100 (e.g. 2Hz instead of 0.02Hz). ‡ Hydrophone is spot calibrated at the factory; calibration is guaranteed between -5C and 30C. Calibrated frequency response measurements can be performed for an additional fee.

Appendix II (cont'd)

SENSOR TECHNOLOGY LTD

TEST REPORT

Work Order # 12161
Date 31-Aug-12

Tested in air at 46Hz

Part # CR1 with 15m cable

Serial #	Sensitivity (dB)	Capacitance	Dissipation (%)
CR1-12161-01	-197.27	10.5	1.63
CR1-12161-02	-197.58	10.41	1.596
CR1-12161-03	-197.22	10.37	1.563 *
CR1-12161-04	-197.46	10.44	1.158
CR1-12161-05	-197.59	10.45	1.848
CR1-12161-06	-197.78	10.34	1.339
CR1-12161-07	-197.03	10.28	1.482
CR1-12161-08	-197.44	10.39	1.515 *
CR1-12161-09	-197.63	10.41	1.007
CR1-12161-10	-197.53	10.42	1.351 *
CR1-12161-11	-197.43	10.43	1.705 *

* Cables cut to 4m.
Decrease Capacitance by 0.7nF
Increase Sensitivity by 0.6dB

P.O. Box 97, 20 Stewart Rd, Collingwood, ON, Canada L9Y 3Z4
Tel: (705)444-1440 • Fax: (705)444-6787 • www.sensortech.ca

SINCE 1983 ISO 9001 REGISTERED

Appendix III. Baseline Monitoring on Acoustic Monitoring in relation to HKLR bored-piling works

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1-Jan	2-Jan	3-Jan	4-Jan	5-Jan
6-Jan	7-Jan	8-Jan	9-Jan	10-Jan	11-Jan	12-Jan
13-Jan	14-Jan	15-Jan	16-Jan	17-Jan	18-Jan	19-Jan
		Dolphin Acoustic Survey (COMPLETED)	No Survey Due to Boat and Equipment Availability	No Survey Due to Boat and Equipment Availability	No Survey Due to Boat and Equipment Availability	No Survey Due to Boat and Equipment Availability
20-Jan	21-Jan	22-Jan	23-Jan	24-Jan	25-Jan	26-Jan
No Survey Due to Boat and Equipment Availability	Dolphin Acoustic Survey (COMPLETED)	Dolphin Acoustic Survey (COMPLETED)	Dolphin Acoustic Survey (COMPLETED)	Dolphin Acoustic Survey (COMPLETED)	Dolphin Acoustic Survey (COMPLETED)	Dolphin Acoustic Survey (COMPLETED)
27-Jan	28-Jan	29-Jan	30-Jan	31-Jan		
Dolphin Acoustic Survey (COMPLETED)	Dolphin Acoustic Survey (COMPLETED)	Dolphin Acoustic Survey (COMPLETED)	Dolphin Acoustic Survey (COMPLETED)	Dolphin Acoustic Survey (COMPLETED)		

Appendix III. (cont'd)

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1-Feb	2-Feb
					Dolphin Acoustic Survey (COMPLETED)	Dolphin Acoustic Survey (COMPLETED)
3-Feb	4-Feb	5-Feb	6-Feb	7-Feb	8-Feb	9-Feb
Dolphin Acoustic Survey (COMPLETED)	Dolphin Acoustic Survey (COMPLETED)	Dolphin Acoustic Survey (COMPLETED)	Dolphin Acoustic Survey (COMPLETED)	Dolphin Acoustic Survey (COMPLETED)	Dolphin Acoustic Survey (COMPLETED)	CNY Holiday
10-Feb	11-Feb	12-Feb	13-Feb	14-Feb	15-Feb	16-Feb
CNY Holiday	CNY Holiday	CNY Holiday	Dolphin Acoustic Survey (COMPLETED)	Dolphin Acoustic Survey (COMPLETED)	Dolphin Acoustic Survey (COMPLETED)	Dolphin Acoustic Survey (COMPLETED)
17-Feb	18-Feb	19-Feb	20-Feb	21-Feb	22-Feb	23-Feb
Dolphin Acoustic Survey (COMPLETED)	Dolphin Acoustic Survey (COMPLETED)	Dolphin Acoustic Survey (COMPLETED)	Dolphin Acoustic Survey (COMPLETED)	Dolphin Acoustic Survey (COMPLETED)	Dolphin Acoustic Survey (COMPLETED)	
24-Feb	25-Feb	26-Feb	27-Feb	28-Feb		

Appendix IV. Sighting records of Chinese White Dolphins during baseline period of acoustic monitoring

DATE	STG #	TIME	HRD SZ	AREA	BEAU	TYPE	LATITUDE	LONGITUDE	SEASON	BOAT ASSOC.	RECORDING
15-Jan-13	1	1125	3	SW LANTAU	3	HKLR-A	22.1946	113.8564	WINTER	NONE	N
15-Jan-13	2	1156	2	SW LANTAU	3	HKLR-A	22.1940	113.8453	WINTER	NONE	N
15-Jan-13	3	1217	1	W LANTAU	3	HKLR-A	22.1943	113.8448	WINTER	NONE	N
15-Jan-13	4	1227	2	W LANTAU	3	HKLR-A	22.2077	113.8363	WINTER	NONE	N
21-Jan-13	1	1052	16	W LANTAU	2	HKLR-A	22.2002	113.8423	WINTER	GILLNET	Y
21-Jan-13	2	1210	2	SW LANTAU	2	HKLR-A	22.1875	113.8489	WINTER	NONE	Y
21-Jan-13	3	1249	1	W LANTAU	2	HKLR-A	22.2148	113.8182	WINTER	NONE	N
21-Jan-13	4	1448	2	NW LANTAU	1	HKLR-A	22.3612	113.8783	WINTER	NONE	N
21-Jan-13	5	1508	7	NW LANTAU	1	HKLR-A	22.3664	113.8774	WINTER	NONE	Y
21-Jan-13	6	1544	3	NW LANTAU	1	HKLR-A	22.3834	113.8774	WINTER	NONE	N
22-Jan-13	1	1011	1	W LANTAU	1	HKLR-A	22.2797	113.8827	WINTER	NONE	N
22-Jan-13	2	1054	4	W LANTAU	2	HKLR-A	22.2219	113.8338	WINTER	NONE	Y
22-Jan-13	3	1118	2	W LANTAU	2	HKLR-A	22.2177	113.8231	WINTER	NONE	Y
22-Jan-13	4	1136	1	W LANTAU	2	HKLR-A	22.2109	113.8165	WINTER	NONE	Y
22-Jan-13	5	1212	14	W LANTAU	2	HKLR-A	22.2088	113.8300	WINTER	NONE	Y
22-Jan-13	6	1540	1	W LANTAU	1	HKLR-A	22.1991	113.8317	WINTER	NONE	N
22-Jan-13	7	1546	6	W LANTAU	1	HKLR-A	22.2094	113.8280	WINTER	NONE	N
22-Jan-13	8	1605	1	W LANTAU	1	HKLR-A	22.2178	113.8264	WINTER	NONE	N
22-Jan-13	9	1610	3	W LANTAU	1	HKLR-A	22.2273	113.8317	WINTER	NONE	N
22-Jan-13	10	1616	1	W LANTAU	0	HKLR-A	22.2366	113.8368	WINTER	NONE	N
23-Jan-13	1	1029	1	W LANTAU	1	HKLR-A	22.2608	113.8517	WINTER	NONE	N
23-Jan-13	2	1034	1	W LANTAU	1	HKLR-A	22.2590	113.8496	WINTER	NONE	N
23-Jan-13	3	1100	5	W LANTAU	2	HKLR-A	22.2195	113.8326	WINTER	NONE	Y
23-Jan-13	4	1335	1	W LANTAU	2	HKLR-A	22.2040	113.8291	WINTER	NONE	N
23-Jan-13	5	1540	7	NW LANTAU	2	HKLR-A	22.3730	113.8743	WINTER	NONE	Y
23-Jan-13	6	1617	1	NW LANTAU	2	HKLR-A	22.3503	113.8817	WINTER	NONE	N
24-Jan-13	1	1021	1	W LANTAU	1	HKLR-A	22.2612	113.8519	WINTER	NONE	Y
24-Jan-13	2	1047	1	W LANTAU	2	HKLR-A	22.2289	113.8354	WINTER	NONE	N
24-Jan-13	3	1055	1	W LANTAU	2	HKLR-A	22.2161	113.8336	WINTER	NONE	Y
24-Jan-13	4	1117	8	W LANTAU	2	HKLR-A	22.1908	113.8419	WINTER	NONE	Y
24-Jan-13	5	1228	3	W LANTAU	2	HKLR-A	22.2035	113.8280	WINTER	NONE	N
24-Jan-13	6	1441	4	NW LANTAU	1	HKLR-A	22.3731	113.8882	WINTER	NONE	Y
24-Jan-13	7	1503	4	NW LANTAU	1	HKLR-A	22.3572	113.8910	WINTER	NONE	Y

Appendix IV. (cont'd)

DATE	STG #	TIME	HRD SZ	AREA	BEAU	TYPE	LATITUDE	LONGITUDE	SEASON	BOAT ASSOC.	RECORDING
25-Jan-13	1	1027	1	W LANTAU	2	HKLR-A	22.2548	113.8476	WINTER	NONE	N
25-Jan-13	2	1111	10	W LANTAU	2	HKLR-A	22.1935	113.8453	WINTER	NONE	Y
25-Jan-13	3	1351	5	NW LANTAU	2	HKLR-A	22.3719	113.8866	WINTER	NONE	Y
26-Jan-13	1	1011	1	W LANTAU	2	HKLR-A	22.2876	113.8872	WINTER	NONE	N
26-Jan-13	2	1028	1	W LANTAU	2	HKLR-A	22.2697	113.8657	WINTER	NONE	N
26-Jan-13	3	1043	2	W LANTAU	2	HKLR-A	22.2619	113.8523	WINTER	NONE	Y
26-Jan-13	4	1102	1	W LANTAU	2	HKLR-A	22.2632	113.8526	WINTER	NONE	Y
26-Jan-13	5	1115	12	W LANTAU	2	HKLR-A	22.2698	113.8631	WINTER	NONE	Y
26-Jan-13	6	1305	5	NW LANTAU	2	HKLR-A	22.3441	113.8830	WINTER	NONE	Y
26-Jan-13	7	1514	4	NW LANTAU	2	HKLR-A	22.3430	113.9870	WINTER	NONE	N
27-Jan-13	1	1104	2	W LANTAU	3	HKLR-A	22.1938	113.8458	WINTER	NONE	N
27-Jan-13	2	1228	9	W LANTAU	2	HKLR-A	22.1907	113.8477	WINTER	NONE	Y
27-Jan-13	3	1503	4	NW LANTAU	1	HKLR-A	22.3396	113.8834	WINTER	NONE	Y
28-Jan-13	1	1010	1	W LANTAU	2	HKLR-A	22.2716	113.8730	WINTER	NONE	N
28-Jan-13	2	1028	1	W LANTAU	2	HKLR-A	22.2612	113.8536	WINTER	NONE	N
28-Jan-13	3	1048	3	W LANTAU	2	HKLR-A	22.2428	113.8436	WINTER	NONE	Y
28-Jan-13	4	1110	3	W LANTAU	2	HKLR-A	22.2425	113.8421	WINTER	NONE	N
28-Jan-13	5	1125	8	W LANTAU	2	HKLR-A	22.2305	113.8364	WINTER	NONE	Y
28-Jan-13	6	1222	4	W LANTAU	4	HKLR-A	22.2058	113.8328	WINTER	NONE	N
28-Jan-13	7	1245	1	W LANTAU	4	HKLR-A	22.2223	113.8302	WINTER	NONE	N
28-Jan-13	8	1302	8	W LANTAU	2	HKLR-A	22.2397	113.8356	WINTER	NONE	Y
28-Jan-13	9	1425	3	NW LANTAU	2	HKLR-A	22.3219	113.8791	WINTER	NONE	N
28-Jan-13	10	1502	4	NW LANTAU	2	HKLR-A	22.3665	113.8797	WINTER	NONE	Y
29-Jan-13	1	1014	2	W LANTAU	2	HKLR-A	22.2742	113.8731	WINTER	NONE	N
29-Jan-13	2	1023	2	W LANTAU	2	HKLR-A	22.2691	113.8698	WINTER	NONE	Y
29-Jan-13	3	1049	3	W LANTAU	2	HKLR-A	22.2671	113.8573	WINTER	NONE	Y
29-Jan-13	4	1219	1	W LANTAU	2	HKLR-A	22.2196	113.8340	WINTER	NONE	Y
29-Jan-13	5	1232	1	W LANTAU	2	HKLR-A	22.2104	113.8359	WINTER	NONE	Y
29-Jan-13	6	1249	4	W LANTAU	2	HKLR-A	22.1994	113.8431	WINTER	NONE	Y
29-Jan-13	7	1312	3	W LANTAU	1	HKLR-A	22.2073	113.8308	WINTER	NONE	Y
29-Jan-13	8	1325	10	W LANTAU	1	HKLR-A	22.2067	113.8313	WINTER	NONE	Y
29-Jan-13	9	1403	4	W LANTAU	1	HKLR-A	22.2039	113.8309	WINTER	NONE	Y
29-Jan-13	10	1422	1	W LANTAU	1	HKLR-A	22.2232	113.8299	WINTER	NONE	N

Appendix IV. (cont'd)

DATE	STG #	TIME	HRD SZ	AREA	BEAU	TYPE	LATITUDE	LONGITUDE	SEASON	BOAT ASSOC.	RECORDING
29-Jan-13	11	1430	1	W LANTAU	1	HKLR-A	22.2305	113.8311	WINTER	NONE	N
29-Jan-13	12	1540	2	NW LANTAU	1	HKLR-A	22.3438	113.8835	WINTER	NONE	N
29-Jan-13	13	1556	3	NW LANTAU	2	HKLR-A	22.3580	113.8898	WINTER	NONE	Y
29-Jan-13	14	1607	3	NW LANTAU	2	HKLR-A	22.3676	113.8881	WINTER	NONE	N
30-Jan-13	1	1040	4	W LANTAU	5	HKLR-A	22.2763	113.8710	WINTER	NONE	Y
30-Jan-13	2	1158	1	W LANTAU	3	HKLR-A	22.2507	113.8465	WINTER	NONE	Y
30-Jan-13	3	1243	2	W LANTAU	2	HKLR-A	22.2305	113.8262	WINTER	NONE	Y
31-Jan-13	1	904	8	W LANTAU	2	HKLR-A	22.2589	113.8508	WINTER	NONE	Y
31-Jan-13	2	953	1	W LANTAU	2	HKLR-A	22.2655	113.8500	WINTER	NONE	N
31-Jan-13	3	1017	3	W LANTAU	2	HKLR-A	22.2612	113.8521	WINTER	NONE	N
31-Jan-13	4	1115	3	W LANTAU	3	HKLR-A	22.2658	113.8513	WINTER	NONE	N
31-Jan-13	5	1214	2	W LANTAU	3	HKLR-A	22.2808	113.8760	WINTER	NONE	N
31-Jan-13	6	1252	2	W LANTAU	2	HKLR-A	22.2413	113.8394	WINTER	NONE	N
31-Jan-13	7	1403	1	W LANTAU	2	HKLR-A	22.2430	113.8305	WINTER	NONE	N
31-Jan-13	8	1417	4	W LANTAU	2	HKLR-A	22.2572	113.8379	WINTER	NONE	N
31-Jan-13	9	1532	2	NW LANTAU	2	HKLR-A	22.3531	113.8829	WINTER	NONE	Y
31-Jan-13	10	1609	3	NW LANTAU	2	HKLR-A	22.3325	113.9214	WINTER	NONE	Y
31-Jan-13	11	1649	2	NW LANTAU	2	HKLR-A	22.3540	113.9533	WINTER	NONE	N
1-Feb-13	1	1025	8	W LANTAU	3	HKLR-A	22.2598	113.8498	WINTER	NONE	Y
1-Feb-13	2	1116	4	W LANTAU	2	HKLR-A	22.2723	113.8588	WINTER	NONE	Y
1-Feb-13	3	1147	1	W LANTAU	1	HKLR-A	22.2315	113.8372	WINTER	NONE	Y
1-Feb-13	4	1223	2	W LANTAU	2	HKLR-A	22.1972	113.8398	WINTER	NONE	Y
1-Feb-13	5	1357	2	W LANTAU	1	HKLR-A	22.2149	113.8285	WINTER	NONE	Y
1-Feb-13	6	1514	16	NW LANTAU	2	HKLR-A	22.3349	113.9067	WINTER	NONE	Y
2-Feb-13	1	1007	3	W LANTAU	1	HKLR-A	22.2724	113.8740	WINTER	NONE	Y
2-Feb-13	2	1047	2	W LANTAU	2	HKLR-A	22.2680	113.8659	WINTER	NONE	Y
2-Feb-13	3	1117	1	W LANTAU	2	HKLR-A	22.2621	113.8551	WINTER	NONE	N
2-Feb-13	4	1137	2	W LANTAU	2	HKLR-A	22.2600	113.8498	WINTER	NONE	Y
2-Feb-13	5	1209	3	W LANTAU	2	HKLR-A	22.2305	113.8352	WINTER	NONE	Y
2-Feb-13	6	1233	1	W LANTAU	2	HKLR-A	22.2183	113.8341	WINTER	NONE	N
2-Feb-13	7	1248	4	W LANTAU	2	HKLR-A	22.1975	113.8435	WINTER	NONE	Y
2-Feb-13	8	1329	1	W LANTAU	1	HKLR-A	22.2156	113.8302	WINTER	NONE	N
2-Feb-13	9	1344	2	W LANTAU	1	HKLR-A	22.2360	113.8324	WINTER	NONE	N

Appendix IV. (cont'd)

DATE	STG #	TIME	HRD SZ	AREA	BEAU	TYPE	LATITUDE	LONGITUDE	SEASON	BOAT ASSOC.	RECORDING
2-Feb-13	10	1449	2	W LANTAU	2	HKLR-A	22.3492	113.8823	WINTER	NONE	N
2-Feb-13	11	1528	1	NW LANTAU	5	HKLR-A	22.3596	113.9283	WINTER	NONE	N
3-Feb-13	1	958	1	NE LANTAU	4	HKLR-A	22.3310	113.9769	WINTER	NONE	Y
3-Feb-13	2	1130	4	NW LANTAU	4	HKLR-A	22.3837	113.8763	WINTER	NONE	Y
3-Feb-13	3	1342	2	W LANTAU	2	HKLR-A	22.2546	113.8471	WINTER	NONE	Y
3-Feb-13	4	1412	3	W LANTAU	2	HKLR-A	22.2199	113.8341	WINTER	NONE	Y
3-Feb-13	5	1453	2	W LANTAU	2	HKLR-A	22.1969	113.8434	WINTER	NONE	Y
4-Feb-13	1	1038	5	W LANTAU	1	HKLR-A	22.2214	113.8346	WINTER	NONE	Y
4-Feb-13	2	1110	1	W LANTAU	3	HKLR-A	22.1960	113.8435	WINTER	NONE	N
4-Feb-13	3	1135	2	W LANTAU	1	HKLR-A	22.1923	113.8470	WINTER	NONE	Y
5-Feb-13	1	1030	2	W LANTAU	1	HKLR-A	22.2382	113.8398	WINTER	NONE	N
5-Feb-13	2	1040	1	W LANTAU	1	HKLR-A	22.2318	113.8369	WINTER	NONE	Y
5-Feb-13	3	1055	2	W LANTAU	1	HKLR-A	22.2205	113.8354	WINTER	NONE	Y
5-Feb-13	4	1114	6	W LANTAU	2	HKLR-A	22.2056	113.8386	WINTER	NONE	Y
5-Feb-13	5	1204	13	W LANTAU	2	HKLR-A	22.1971	113.8374	WINTER	NONE	Y
5-Feb-13	6	1242	1	W LANTAU	2	HKLR-A	22.1917	113.8281	WINTER	NONE	N
5-Feb-13	7	1257	2	W LANTAU	1	HKLR-A	22.2566	113.8404	WINTER	NONE	Y
6-Feb-13	1	1022	4	W LANTAU	1	HKLR-A	22.2626	113.8539	WINTER	NONE	Y
6-Feb-13	2	1054	3	W LANTAU	0	HKLR-A	22.2332	113.8361	WINTER	NONE	Y
6-Feb-13	3	1116	1	W LANTAU	0	HKLR-A	22.2184	113.8338	WINTER	NONE	N
6-Feb-13	4	1124	2	W LANTAU	1	HKLR-A	22.2138	113.8351	WINTER	NONE	N
6-Feb-13	5	1129	2	W LANTAU	1	HKLR-A	22.2067	113.8381	WINTER	NONE	Y
6-Feb-13	6	1234	1	W LANTAU	0	HKLR-A	22.2223	113.8258	WINTER	NONE	N
6-Feb-13	7	1258	4	W LANTAU	0	HKLR-A	22.2834	113.8408	WINTER	NONE	N
6-Feb-13	8	1321	4	W LANTAU	0	HKLR-A	22.2884	113.8649	WINTER	NONE	Y
6-Feb-13	9	1342	5	W LANTAU	0	HKLR-A	22.2910	113.8652	WINTER	NONE	Y
6-Feb-13	10	1415	2	NW LANTAU	2	HKLR-A	22.3360	113.8876	WINTER	NONE	Y
7-Feb-13	1	1054	1	NW LANTAU	3	HKLR-A	22.3506	113.8937	WINTER	NONE	N
7-Feb-13	2	1239	1	W LANTAU	2	HKLR-A	22.2602	113.8529	WINTER	NONE	N
8-Feb-13	1	1209	5	NW LANTAU	5	HKLR-A	22.3925	113.8913	WINTER	NONE	Y
8-Feb-13	2	1355	2	W LANTAU	2	HKLR-A	22.2346	113.8377	WINTER	NONE	Y
8-Feb-13	3	1452	18	W LANTAU	3	HKLR-A	22.2242	113.8290	WINTER	NONE	Y

Appendix IV. (cont'd)

DATE	STG #	TIME	HRD SZ	AREA	BEAU	TYPE	LATITUDE	LONGITUDE	SEASON	BOAT ASSOC.	RECORDING
13-Feb-13	1	1018	2	W LANTAU	3	HKLR-A	22.2633	113.8565	WINTER	NONE	Y
13-Feb-13	2	1052	3	W LANTAU	3	HKLR-A	22.2410	113.8382	WINTER	NONE	N
13-Feb-13	3	1106	1	W LANTAU	3	HKLR-A	22.2382	113.8375	WINTER	NONE	N
13-Feb-13	4	1114	2	W LANTAU	3	HKLR-A	22.2358	113.8381	WINTER	NONE	N
13-Feb-13	5	1232	12	W LANTAU	3	HKLR-A	22.2428	113.8320	WINTER	NONE	Y
13-Feb-13	6	1358	1	NW LANTAU	2	HKLR-A	22.3427	113.8845	WINTER	NONE	N
13-Feb-13	7	1413	20	NW LANTAU	2	HKLR-A	22.3488	113.8995	WINTER	NONE	Y
13-Feb-13	8	1547	4	NE LANTAU	2	HKLR-A	22.3379	113.9724	WINTER	NONE	N
14-Feb-13	1	1008	1	W LANTAU	2	HKLR-A	22.2714	113.8711	WINTER	NONE	N
14-Feb-13	2	1026	6	W LANTAU	2	HKLR-A	22.2628	113.8554	WINTER	NONE	Y
14-Feb-13	3	1049	5	W LANTAU	2	HKLR-A	22.2503	113.8447	WINTER	NONE	N
14-Feb-13	4	1211	3	W LANTAU	3	HKLR-A	22.2353	113.8294	WINTER	NONE	N
14-Feb-13	5	1215	6	W LANTAU	3	HKLR-A	22.2399	113.8323	WINTER	NONE	N
14-Feb-13	6	1317	8	NW LANTAU	2	HKLR-A	22.3509	113.8822	WINTER	NONE	Y
14-Feb-13	7	1353	1	NW LANTAU	3	HKLR-A	22.3854	113.8789	WINTER	NONE	N
14-Feb-13	8	1422	3	NW LANTAU	3	HKLR-A	22.3439	113.8947	WINTER	NONE	N
15-Feb-13	1	1021	2	W LANTAU	2	HKLR-A	22.2675	113.8643	WINTER	NONE	N
15-Feb-13	2	1034	2	W LANTAU	2	HKLR-A	22.2603	113.8517	WINTER	NONE	N
15-Feb-13	3	1038	2	W LANTAU	2	HKLR-A	22.2551	113.8476	WINTER	NONE	N
15-Feb-13	4	1048	4	W LANTAU	2	HKLR-A	22.2390	113.8384	WINTER	GILLNET	N
15-Feb-13	5	1124	2	W LANTAU	1	HKLR-A	22.1945	113.8447	WINTER	NONE	Y
15-Feb-13	6	1449	21	NW LANTAU	1	HKLR-A	22.3465	113.8832	WINTER	NONE	Y
15-Feb-13	7	1555	5	NW LANTAU	1	HKLR-A	22.3398	113.9320	WINTER	NONE	N
15-Feb-13	8	1611	1	NE LANTAU	1	HKLR-A	22.3391	113.9537	WINTER	NONE	N
16-Feb-13	1	1017	1	W LANTAU	3	HKLR-A	22.2708	113.8694	WINTER	GILLNET	N
16-Feb-13	2	1038	2	W LANTAU	2	HKLR-A	22.2520	113.8459	WINTER	GILLNET	N
16-Feb-13	3	1050	1	W LANTAU	2	HKLR-A	22.2433	113.8392	WINTER	NONE	N
16-Feb-13	4	1106	6	W LANTAU	2	HKLR-A	22.2269	113.8345	WINTER	NONE	Y
16-Feb-13	5	1200	3	W LANTAU	3	HKLR-A	22.2261	113.8253	WINTER	NONE	Y
16-Feb-13	6	1221	1	W LANTAU	3	HKLR-A	22.2416	113.8330	WINTER	NONE	N
16-Feb-13	7	1318	5	NW LANTAU	2	HKLR-A	22.3419	113.8853	WINTER	NONE	Y
16-Feb-13	8	1403	5	NW LANTAU	3	HKLR-A	22.3733	113.8880	WINTER	NONE	Y

Appendix IV. (cont'd)

DATE	STG #	TIME	HRD SZ	AREA	BEAU	TYPE	LATITUDE	LONGITUDE	SEASON	BOAT ASSOC.	RECORDING
17-Feb-13	1	1056	2	W LANTAU	1	HKLR-A	22.1985	113.8423	WINTER	NONE	Y
17-Feb-13	2	1130	1	SW LANTAU	2	HKLR-A	22.1970	113.8600	WINTER	NONE	N
17-Feb-13	3	1220	2	W LANTAU	2	HKLR-A	22.2478	113.8330	WINTER	NONE	N
17-Feb-13	4	1324	4	NW LANTAU	1	HKLR-A	22.3425	113.8859	WINTER	NONE	Y
17-Feb-13	5	1406	3	NW LANTAU	0	HKLR-A	22.3817	113.8866	WINTER	NONE	Y
17-Feb-13	6	1431	1	NW LANTAU	0	HKLR-A	22.3792	113.8885	WINTER	NONE	N
17-Feb-13	7	1451	16	NW LANTAU	0	HKLR-A	22.3739	113.8760	WINTER	NONE	Y
18-Feb-13	1	1144	2	W LANTAU	2	HKLR-A	22.2430	113.8367	WINTER	NONE	Y
18-Feb-13	2	1310	4	NW LANTAU	2	HKLR-A	22.3305	113.8861	WINTER	NONE	Y
19-Feb-13	1	1049	3	W LANTAU	1	HKLR-A	22.2121	113.8349	WINTER	NONE	N
19-Feb-13	2	1102	4	W LANTAU	1	HKLR-A	22.1983	113.8422	WINTER	NONE	Y
19-Feb-13	3	1206	2	W LANTAU	3	HKLR-A	22.2421	113.8380	WINTER	NONE	Y
19-Feb-13	4	1222	1	W LANTAU	3	HKLR-A	22.2495	113.8488	WINTER	NONE	N
19-Feb-13	5	1359	5	NW LANTAU	2	HKLR-A	22.3779	113.8750	WINTER	GILLNET	Y
19-Feb-13	6	1427	6	NW LANTAU	2	HKLR-A	22.3677	113.8769	WINTER	NONE	Y
19-Feb-13	7	1457	1	NW LANTAU	2	HKLR-A	22.3505	113.8937	WINTER	NONE	N
20-Feb-13	1	1117	1	NW LANTAU	3	HKLR-A	22.3816	113.8863	WINTER	NONE	N
20-Feb-13	2	1131	1	NW LANTAU	2	HKLR-A	22.3801	113.8750	WINTER	NONE	N
20-Feb-13	3	1326	4	W LANTAU	4	HKLR-A	22.2197	113.8329	WINTER	NONE	Y
20-Feb-13	4	1435	6	W LANTAU	3	HKLR-A	22.1981	113.8424	WINTER	NONE	Y
20-Feb-13	5	1532	1	W LANTAU	3	HKLR-A	22.2599	113.8501	WINTER	NONE	N
21-Feb-13	1	1101	5	W LANTAU	2	HKLR-A	22.2193	113.8326	WINTER	NONE	Y
21-Feb-13	2	1126	2	SW LANTAU	3	HKLR-A	22.1938	113.8485	WINTER	NONE	N
21-Feb-13	3	1201	2	SW LANTAU	3	HKLR-A	22.1915	113.8452	WINTER	NONE	N
21-Feb-13	4	1207	2	W LANTAU	3	HKLR-A	22.1937	113.8418	WINTER	NONE	Y
21-Feb-13	5	1245	3	W LANTAU	1	HKLR-A	22.2432	113.8330	WINTER	NONE	Y
21-Feb-13	6	1424	3	NW LANTAU	1	HKLR-A	22.3772	113.8894	WINTER	NONE	N
21-Feb-13	7	1435	2	NW LANTAU	1	HKLR-A	22.3821	113.8867	WINTER	NONE	N
21-Feb-13	8	1442	3	NW LANTAU	1	HKLR-A	22.3846	113.8787	WINTER	NONE	N
21-Feb-13	9	1459	12	NW LANTAU	2	HKLR-A	22.3640	113.8825	WINTER	NONE	Y
21-Feb-13	10	1530	3	NW LANTAU	2	HKLR-A	22.3524	113.9150	WINTER	NONE	N
22-Feb-13	1	1056	3	W LANTAU	3	HKLR-A	22.1937	113.8447	WINTER	NONE	N
22-Feb-13	2	1318	4	NW LANTAU	3	HKLR-A	22.3712	113.8878	WINTER	NONE	Y

Appendix V. Database for acoustic focal follow during baseline period

Date	Area	Stg#	File#	Hp Depth	Water Depth	ICP Gain	HPF	Time	Latitude	Longitude	Beau	Dolphin Grp Sz
21-Jan-13	W LANTAU	1	1	2.5	3.4	x10	N	10:59	22.2002	113.8433	2	6
21-Jan-13	W LANTAU	1	2	2.5	4.3	x10	N	11:07	22.1996	113.8422	2	10
21-Jan-13	W LANTAU	1	4	2.5	4.8	x10	N	11:15	22.1970	113.8430	2	8
21-Jan-13	W LANTAU	1	5	7.0	14.3	x10	N	11:25	22.1935	113.8481	2	4
21-Jan-13	W LANTAU	1	7	7.0	11.7	x10	N	11:35	22.1940	113.8514	2	7
21-Jan-13	SW LANTAU	1	8	7.0	16.2	x10	N	11:54	22.1945	113.8476	2	7
21-Jan-13	SW LANTAU	2	10	7.0	19.0	x10	N	12:10	22.1875	113.8489	2	2
21-Jan-13	SW LANTAU	2	11	7.0	19.0	x10	N	12:20	22.1856	113.8482	2	8
21-Jan-13	NW LANTAU	3	1	4.0	5.7	x10	N	15:00	22.3604	113.8786	1	2
21-Jan-13	NW LANTAU	5	2	4.0	5.9	x10	N	15:08	22.3664	113.8774	1	7
21-Jan-13	NW LANTAU	5	3	4.0	5.9	x10	N	15:15	22.3642	113.8784	1	7
21-Jan-13	NW LANTAU	5	4	4.0	5.9	x10	N	15:24	22.3634	113.8828	1	5
21-Jan-13	NW LANTAU	5	5	4.0	5.8	x10	N	15:32	22.3675	113.8795	1	5
22-Jan-13	W LANTAU	2	1	7.0	15.5	x10	N	11:03	22.2184	113.8292	2	4
22-Jan-13	W LANTAU	3	2	7.0	19.6	x10	N	11:18	22.2177	113.8231	2	2
22-Jan-13	W LANTAU	3	3	7.0	19.6	x10	N	11:22	22.2170	113.8227	2	2
22-Jan-13	W LANTAU	4	4	7.0	27.2	x10	N	11:48	22.2119	113.8152	2	1
22-Jan-13	W LANTAU	4	5	7.0	27.1	x10	N	11:57	22.2112	113.8105	2	1
22-Jan-13	W LANTAU	5	6	7.0	12.5	x10	N	12:16	22.2101	113.8321	2	6
22-Jan-13	W LANTAU	5	7	7.0	12.5	x10	N	12:22	22.2089	113.8326	2	6
22-Jan-13	W LANTAU	5	8	7.0	12.5	x10	N	12:27	22.2081	113.8322	3	7
22-Jan-13	W LANTAU	5	9	7.0	12.5	x10	N	12:32	22.2070	113.8315	3	9
22-Jan-13	W LANTAU	5	10	7.0	15.8	x10	N	12:37	22.2063	113.8311	0	10
22-Jan-13	W LANTAU	5	11	7.0	17.0	x10	N	12:42	22.2052	113.8304	3	10
22-Jan-13	W LANTAU	5	12	7.0	18.9	x10	N	12:47	22.2044	113.8300	3	10
23-Jan-13	W LANTAU	3	1	7.0	12.4	x10	N	11:07	22.2182	113.8345	2	4
23-Jan-13	W LANTAU	3	3	7.0	10.7	x10	N	11:26	22.2186	113.8348	2	4
23-Jan-13	W LANTAU	3	4	7.0	10.7	x10	N	11:38	22.2191	113.8346	2	4
23-Jan-13	W LANTAU	7	5	5.5	6.5	x10	N	15:48	22.3109	113.8778	2	7
23-Jan-13	W LANTAU	7	6	5.5	6.5	x10	N	15:58	22.3699	113.8782	2	7
24-Jan-13	W LANTAU	1	1	7.0	14.1	x10	N	10:26	22.2611	113.8497	1	1
24-Jan-13	W LANTAU	3	2	7.0	15.0	x10	N	10:58	22.2186	113.8329	2	1
24-Jan-13	W LANTAU	4	3	7.0	15.1	x10	N	11:22	22.1948	113.8423	2	4
24-Jan-13	W LANTAU	4	4	7.0	21.8	x10	N	11:31	22.1934	113.8455	2	8
24-Jan-13	W LANTAU	4	5	7.0	23.5	x10	N	12:03	22.1960	113.8335	2	8
24-Jan-13	W LANTAU	4	6	7.0	23.5	x10	N	12:08	22.1955	113.8330	2	8
24-Jan-13	W LANTAU	4	7	7.0	23.5	x10	N	12:13	22.1951	113.8326	2	8
24-Jan-13	W LANTAU	4	8	7.0	23.5	x10	N	12:18	22.1946	113.8320	2	8
24-Jan-13	NW LANTAU	6	9	6.0	7.2	x10	N	14:48	22.3730	113.8858	2	4
24-Jan-13	NW LANTAU	7	10	6.0	15.3	x10	N	15:26	22.3650	113.9006	2	4
24-Jan-13	NW LANTAU	7	11	6.0	15.3	x10	N	15:32	22.3646	113.9005	2	4
25-Jan-13	W LANTAU	2	1	7.0	18.3	x10	N	11:30	22.1936	113.8463	2	6
25-Jan-13	W LANTAU	2	2	7.0	16.0	x10	N	11:40	22.1948	113.8439	2	6
25-Jan-13	W LANTAU	2	3	4.5	12.7	x10	N	11:56	22.1916	113.8413	2	6
25-Jan-13	NW LANTAU	3	4	5.0	6.3	x10	N	14:03	22.3674	113.8855	2	5
25-Jan-13	NW LANTAU	3	5	5.0	5.7	x1	N	14:08	22.3673	113.8842	2	5
26-Jan-13	W LANTAU	3	1	7.0	12.7	x10	N	10:50	22.2627	113.8531	2	2
26-Jan-13	W LANTAU	3	2	7.0	12.7	x10	N	10:55	22.2620	113.8521	2	2
26-Jan-13	W LANTAU	5	3	5.5	6.5	x10	N	11:30	22.2659	113.8631	2	12
26-Jan-13	W LANTAU	5	4	5.5	8.4	x10	N	11:42	22.2614	113.8552	2	12
26-Jan-13	W LANTAU	5	5	5.5	8.4	x10	N	11:48	22.2610	113.8545	2	12
26-Jan-13	W LANTAU	5	6	7.0	11.5	x10	N	11:56	22.2568	113.8494	2	12
26-Jan-13	NW LANTAU	6	8	4.0	6.0	x10	N	13:10	22.3449	113.8822	2	5
26-Jan-13	NW LANTAU	6	9	4.0	6.8	x10	N	13:20	22.3467	113.8824	2	5
26-Jan-13	NW LANTAU	6	10	4.0	7.0	x10	N	13:39	22.3432	113.8775	2	5

Appendix V. (cont'd)

Date	Area	Stg#	File#	Hp Depth	Water Depth	ICP Gain	HPF	Time	Latitude	Longitude	Beau	Dolphin Grp Sz
27-Jan-13	W LANTAU	2	1	7.0	20.1	x10	N	12:42	22.1930	113.8466	2	9
27-Jan-13	W LANTAU	2	2	7.0	8.5	x10	N	12:54	22.1962	113.8342	2	9
27-Jan-13	W LANTAU	2	3	7.0	5.5	x10	N	12:59	22.1942	113.8442	2	9
27-Jan-13	W LANTAU	2	4	7.0	14.9	x10	N	13:23	22.1945	113.8455	2	9
27-Jan-13	NW LANTAU	3	6	4.0	4.9	x10	N	15:21	22.3364	113.8858	1	4
27-Jan-13	NW LANTAU	3	7	4.0	6.5	x10	N	15:31	22.3319	113.8870	1	4
27-Jan-13	NW LANTAU	3	8	4.0	7.5	x10	N	15:41	22.3256	113.8884	1	4
27-Jan-13	NW LANTAU	3	9	4.0	7.9	x10	N	15:55	22.3171	113.8895	1	4
28-Jan-13	W LANTAU	3	1	7.0	9.4	x10	N	11:00	22.2444	113.8436	2	3
28-Jan-13	W LANTAU	5	2	7.0	10.9	x10	N	11:31	22.2249	113.8350	2	8
28-Jan-13	W LANTAU	5	3	7.0	10.9	x10	N	11:37	22.2236	113.8356	2	8
28-Jan-13	W LANTAU	5	4	7.0	11.2	x10	N	11:48	22.2258	113.8344	2	8
28-Jan-13	W LANTAU	8	5	7.0	15.8	x10	N	13:09	22.2387	113.8286	2	8
28-Jan-13	W LANTAU	8	6	7.0	15.8	x10	N	13:15	22.2383	113.8297	2	8
28-Jan-13	W LANTAU	8	7	7.0	13.9	x10	N	13:35	22.2478	113.8318	2	8
28-Jan-13	NW LANTAU	10	9	4.0	5.1	x10	N	15:18	22.3686	113.8813	2	4
28-Jan-13	NW LANTAU	10	10	4.0	5.5	x10	N	15:29	22.3701	113.8843	2	4
28-Jan-13	NW LANTAU	10	11	4.0	5.5	x10	N	15:34	22.3708	113.8849	2	4
28-Jan-13	NW LANTAU	10	12	4.0	15.0	x10	N	15:52	22.3744	113.8916	2	4
29-Jan-13	W LANTAU	2	1	7.0	9.2	x10	N	10:21	22.2691	113.8698	2	2
29-Jan-13	W LANTAU	2	2	7.0	8.2	x10	N	10:27	22.2690	113.8699	2	2
29-Jan-13	W LANTAU	3	3	7.0	11.3	x10	N	10:52	22.2670	113.8574	2	3
29-Jan-13	W LANTAU	3	4	7.0	12.1	x10	N	11:01	22.2649	113.8551	2	3
29-Jan-13	W LANTAU	3	5	7.0	12.1	x10	N	11:06	22.2652	113.8559	2	3
29-Jan-13	W LANTAU	4	6	7.0	13.6	x10	N	11:06	22.2168	113.8325	2	1
29-Jan-13	W LANTAU	5	7	3.0	4.0	x10	N	12:41	22.2022	113.8415	2	1
29-Jan-13	W LANTAU	6	8	3.0	4.3	x10	N	12:50	22.1995	113.8429	2	4
29-Jan-13	W LANTAU	6	9	3.0	4.8	x10	N	12:55	22.1980	113.8439	2	4
29-Jan-13	W LANTAU	7	10	7.0	15.7	x10	N	13:12	22.2074	113.8307	1	3
29-Jan-13	W LANTAU	7	11	7.0	15.8	x10	N	13:17	22.2063	113.8312	1	3
29-Jan-13	W LANTAU	8	12	7.0	15.5	x10	N	13:25	22.2070	113.8311	1	3
29-Jan-13	W LANTAU	8	1	7.0	14.9	x10	N	13:30	22.2057	113.8319	1	10
29-Jan-13	W LANTAU	8	2	7.0	15.1	x10	N	13:37	22.2036	113.8329	1	10
29-Jan-13	W LANTAU	8	3	7.0	14.9	x10	N	13:42	22.2020	113.8338	1	10
29-Jan-13	W LANTAU	8	4	7.0	15.7	x10	N	13:47	22.2001	113.8349	1	10
29-Jan-13	W LANTAU	8	5	7.0	16.6	x10	N	13:52	22.1990	113.8353	1	10
29-Jan-13	W LANTAU	9	6	7.0	18.4	x10	N	14:10	22.2067	113.8291	1	2
29-Jan-13	NW LANTAU	13	7	4.0	7.7	x10	N	15:54	22.3579	113.8896	2	3
30-Jan-13	W LANTAU	1	1	7.0	7.5	x10	N	10:44	22.2790	113.8706	5	4
30-Jan-13	W LANTAU	1	3	5.0	6.9	x10	N	10:54	22.2881	113.8753	5	4
30-Jan-13	W LANTAU	1	4	5.0	7.3	x10	N	11:02	22.2927	113.8739	5	4
30-Jan-13	W LANTAU	1	5	5.0	7.3	x10	N	11:11	22.2975	113.8762	5	4
30-Jan-13	W LANTAU	1	6	5.0	7.4	x10	N	11:21	22.3009	113.8789	5	4
30-Jan-13	W LANTAU	2	7	7.0	11.9	x10	N	12:10	22.2463	113.8411	3	1
30-Jan-13	W LANTAU	3	8	7.0	17.4	x10	N	12:49	22.2320	113.8247	3	2
31-Jan-13	W LANTAU	1	1	7.0	14.7	x10	N	9:08	22.2619	113.8508	2	8
31-Jan-13	W LANTAU	1	2	7.0	11.3	x10	N	9:22	22.2576	113.8501	3	8
31-Jan-13	W LANTAU	1	3	7.0	14.6	x10	N	9:32	22.2610	113.8497	3	8
31-Jan-13	W LANTAU	1	4	7.0	12.4	x10	N	9:41	22.2650	113.8481	2	8
31-Jan-13	W LANTAU	3	5	7.0	15.3	x10	N	10:23	22.2587	113.8478	2	3
31-Jan-13	W LANTAU	4	6	7.0	10.1	x10	N	11:26	22.2680	113.8601	3	3
31-Jan-13	W LANTAU	6	7	7.0	13.0	x10	N	13:06	22.2329	113.8344	2	2
31-Jan-13	W LANTAU	8	8	7.0	14.8	x10	N	14:23	22.2597	113.8358	2	4
31-Jan-13	W LANTAU	8	9	7.0	14.9	x10	N	14:29	22.2590	113.8365	2	4
31-Jan-13	NW LANTAU	9	11	5.0	7.7	x10	N	15:38	22.3555	113.8849	2	2
31-Jan-13	NW LANTAU	10	12	5.0	7.6	x10	N	16:16	22.3344	113.9242	2	3
31-Jan-13	NW LANTAU	10	13	5.0	8.8	x10	N	16:25	22.3330	113.9275	2	3

Appendix V. (cont'd)

Date	Area	Stg#	File#	Hp Depth	Water Depth	ICP Gain	HPF	Time	Latitude	Longitude	Beau	Dolphin Grp Sz
1-Feb-13	W LANTAU	1	2	7.0	12.2	x10	N	10:36	22.2664	113.8544	3	8
1-Feb-13	W LANTAU	1	3	7.0	9.0	x10	N	10:45	22.2735	113.8637	3	8
1-Feb-13	W LANTAU	1	4	7.0	8.0	x10	N	11:57	22.2821	113.8665	3	5
1-Feb-13	W LANTAU	1	5	7.0	7.9	x10	N	11:02	22.2829	113.8675	3	5
1-Feb-13	W LANTAU	2	6	7.0	11.4	x10	N	11:22	22.2689	113.8552	2	4
1-Feb-13	W LANTAU	3	7	7.0	9.3	x10	N	11:51	22.2291	113.8379	2	1
1-Feb-13	W LANTAU	4	8	5.0	5.9	x10	N	12:29	22.1968	113.8428	2	1
1-Feb-13	W LANTAU	4	9	4.0	9.4	x10	N	12:37	22.1971	113.8417	2	1
1-Feb-13	W LANTAU	4	10	4.0	4.5	x10	N	12:49	22.1987	113.8428	2	1
1-Feb-13	W LANTAU	4	11	4.0	4.5	x10	N	12:54	22.1988	113.8425	2	1
1-Feb-13	W LANTAU	4	12	7.0	18.8	x10	N	13:15	22.1934	113.8428	2	1
1-Feb-13	W LANTAU	4	13	7.0	19.2	x10	N	13:22	22.1937	113.8436	2	1
1-Feb-13	W LANTAU	4	14	7.0	19.8	x10	N	13:28	22.1935	113.8442	2	2
1-Feb-13	W LANTAU	4	15	7.0	13.9	x10	N	13:38	22.1963	113.8409	2	2
1-Feb-13	NW LANTAU	5	16	7.0	16.4	x10	N	14:01	22.2160	113.8294	1	2
1-Feb-13	NW LANTAU	6	17	7.0	7.4	x10	N	15:18	22.3346	113.9044	2	16
1-Feb-13	NW LANTAU	6	18	7.0	8.0	x10	N	15:27	22.3328	113.9013	2	16
1-Feb-13	NW LANTAU	6	19	7.0	8.0	x10	N	15:32	22.3337	113.9009	2	16
2-Feb-13	W LANTAU	1	1	5.0	6.9	x10	N	10:12	22.2718	113.8730	1	3
2-Feb-13	W LANTAU	1	2	5.0	6.7	x10	N	10:20	22.2722	113.8727	1	3
2-Feb-13	W LANTAU	1	3	5.0	6.4	x10	N	10:30	22.2731	113.8737	1	3
2-Feb-13	W LANTAU	1	4	5.0	6.4	x10	N	10:35	22.2736	113.8748	1	3
2-Feb-13	W LANTAU	2	5	7.0	7.8	x10	N	10:55	22.2713	113.8678	2	2
2-Feb-13	W LANTAU	2	6	7.0	7.8	x10	N	11:02	22.2719	113.8683	2	2
2-Feb-13	W LANTAU	4	7	7.0	14.1	x10	N	11:46	22.2587	113.8465	2	2
2-Feb-13	W LANTAU	5	8	7.0	13.3	x10	N	12:15	22.2347	113.8339	2	3
2-Feb-13	W LANTAU	5	9	7.0	13.3	x10	N	12:20	22.2354	113.8351	1	3
2-Feb-13	W LANTAU	7	10	7.0	14.5	x10	N	12:59	22.1953	113.8433	2	3
2-Feb-13	W LANTAU	7	11	7.0	11.4	x10	N	12:59	22.1953	113.8444	2	4
3-Feb-13	NW LANTAU	1	1	7.0	8.9	x10	N	10:05	22.3353	113.9705	4	1
3-Feb-13	NW LANTAU	2	2	7.0	9.0	x10	N	11:37	22.3820	113.8734	2	4
3-Feb-13	NW LANTAU	2	3	7.0	7.9	x10	N	11:49	22.3791	113.8706	2	4
3-Feb-13	NW LANTAU	2	4	7.0	7.9	x10	N	11:59	22.3792	113.8707	2	4
3-Feb-13	W LANTAU	3	5	7.0	13.2	x10	N	13:52	22.2505	113.8409	2	2
3-Feb-13	W LANTAU	4	6	7.0	12.2	x10	N	14:17	22.2183	113.8341	2	3
3-Feb-13	W LANTAU	4	7	7.0	15.3	x10	N	14:22	22.2176	113.8343	2	3
3-Feb-13	W LANTAU	4	8	7.0	14.3	x10	N	14:28	22.2182	113.8345	2	3
3-Feb-13	W LANTAU	4	9	7.0	12.9	x10	N	14:38	22.2183	113.8335	2	3
3-Feb-13	W LANTAU	5	10	7.0	11.4	x10	N	14:58	22.1958	113.8435	2	2
4-Feb-13	W LANTAU	1	1	7.0	11.3	x10	N	10:44	22.2191	113.8340	2	5
4-Feb-13	W LANTAU	1	2	7.0	10.2	x10	N	10:50	22.2205	113.8344	2	5
4-Feb-13	W LANTAU	3	3	7.0	20.9	x10	N	11:42	22.1928	113.8459	2	1
4-Feb-13	W LANTAU	3	4	7.0	16.9	x10	N	12:18	22.1941	113.8454	2	1
5-Feb-13	W LANTAU	2	2	7.0	10.0	x10	N	10:45	22.2300	113.8363	1	1
5-Feb-13	W LANTAU	3	3	7.0	12.0	x10	N	11:03	22.2157	113.8341	1	2
5-Feb-13	W LANTAU	4	4	4.0	4.2	x10	N	11:19	22.2071	113.8386	2	5
5-Feb-13	W LANTAU	4	5	4.0	4.2	x10	N	11:24	22.2069	113.8388	2	5
5-Feb-13	W LANTAU	4	6	4.0	4.4	x10	N	11:32	22.2040	113.8392	2	5
5-Feb-13	W LANTAU	4	7	4.0	4.4	x10	N	11:40	22.2037	113.8395	2	5
5-Feb-13	W LANTAU	5	8	7.0	20.4	x10	N	12:09	22.1954	113.8350	2	6
5-Feb-13	W LANTAU	5	9	7.0	20.6	x10	N	12:16	22.1910	113.8348	2	13
5-Feb-13	W LANTAU	7	10	7.0	11.8	x10	N	13:00	22.2566	113.8408	1	2

Appendix V. (cont'd)

Date	Area	Stg#	File#	Hp Depth	Water Depth	ICP Gain	HPF	Time	Latitude	Longitude	Beau	Dolphin Grp Sz
6-Feb-13	W LANTAU	1	2	7.0	7.9	x10	N	10:27	22.2627	113.8567	1	3
6-Feb-13	W LANTAU	1	3	7.0	7.9	x10	N	10:32	22.2626	113.8560	1	4
6-Feb-13	W LANTAU	2	4	7.0	10.0	x10	N	11:01	22.2337	113.8390	0	3
6-Feb-13	W LANTAU	5	5	4.0	4.0	x10	N	11:45	22.2024	113.8403	1	2
6-Feb-13	W LANTAU	8	6	7.0	8.0	x10	N	13:34	22.2886	113.8606	0	4
6-Feb-13	W LANTAU	9	7	7.0	7.4	x10	N	13:49	22.2947	113.8673	0	5
6-Feb-13	NW LANTAU	10	8	7.0	13.4	x10	N	14:23	22.3396	113.8900	2	2
8-Feb-13	NW LANTAU	1	1	7.0	21.9	x10	N	12:16	22.3916	113.9809	5	5
8-Feb-13	W LANTAU	2	2	7.0	10.8	x10	N	13:59	22.2333	113.8372	2	1
8-Feb-13	W LANTAU	2	3	7.0	10.8	x10	N	14:04	22.2327	113.8367	2	1
8-Feb-13	W LANTAU	3	4	7.0	14.3	x10	N	14:57	22.2238	113.8305	2	18
8-Feb-13	W LANTAU	3	5	7.0	14.3	x10	N	15:02	22.2239	113.8300	2	18
8-Feb-13	W LANTAU	3	6	7.0	14.3	x10	N	15:07	22.2244	113.8291	2	18
8-Feb-13	W LANTAU	3	7	7.0	14.3	x10	N	15:13	22.2248	113.8284	2	18
13-Feb-13	W LANTAU	1	1	7.0	9.8	x10	N	10:31	22.2635	113.8566	3	1
13-Feb-13	W LANTAU	5	2	7.0	13.0	x10	N	12:38	22.2443	113.8338	2	4
13-Feb-13	W LANTAU	5	3	7.0	13.0	x10	N	12:47	22.2426	113.8337	2	11
13-Feb-13	W LANTAU	5	4	7.0	13.6	x10	N	12:57	22.2426	113.8331	2	7
13-Feb-13	NW LANTAU	7	5	7.0	9.8	x10	N	14:17	22.3467	113.9000	2	16
13-Feb-13	NW LANTAU	7	6	7.0	9.6	x10	N	14:22	22.3454	113.9007	2	16
13-Feb-13	NW LANTAU	7	7	7.0	9.6	x10	N	14:27	22.3442	113.9015	2	6
13-Feb-13	NW LANTAU	7	8	7.0	9.6	x10	N	14:32	22.3434	113.9023	2	6
13-Feb-13	NW LANTAU	7	9	7.0	8.9	x10	N	14:43	22.3447	113.9033	2	10
13-Feb-13	NW LANTAU	7	10	7.0	8.9	x10	N	14:48	22.3436	113.9043	2	10
13-Feb-13	NW LANTAU	7	11	7.0	9.0	x10	N	15:57	22.3438	113.9077	2	7
13-Feb-13	NW LANTAU	7	12	7.0	9.0	x10	N	15:10	22.3443	113.9174	2	4
13-Feb-13	NW LANTAU	7	13	7.0	21.4	x10	N	15:22	22.3422	113.9267	2	5
13-Feb-13	NW LANTAU	7	14	7.0	21.4	x10	N	15:27	22.3412	113.9284	2	5
14-Feb-13	W LANTAU	2	1	7.0	14.9	x10	N	10:35	22.2631	113.8498	2	6
14-Feb-13	NW LANTAU	6	2	4.0	6.5	x10	N	13:26	22.3601	113.8796	2	5
14-Feb-13	NW LANTAU	6	3	4.0	6.5	x10	N	13:31	22.3603	113.8790	2	5
15-Feb-13	W LANTAU	5	1	7.0	19.8	x10	N	11:26	22.1946	113.8439	2	2
15-Feb-13	W LANTAU	5	2	7.0	15.2	x10	N	11:31	22.1953	113.8425	2	2
15-Feb-13	W LANTAU	5	3	7.0	20.4	x10	N	11:38	22.1945	113.8444	2	2
15-Feb-13	NW LANTAU	6	4	4.0	6.4	x10	N	15:07	22.3591	113.8849	1	21
15-Feb-13	NW LANTAU	6	5	4.0	6.1	x10	N	15:15	22.3609	113.8834	1	21
15-Feb-13	NW LANTAU	6	6	4.0	6.1	x10	N	15:19	22.3609	113.8842	1	21
15-Feb-13	NW LANTAU	6	7	4.0	6.8	x10	N	15:24	22.3641	113.8840	1	21
15-Feb-13	NW LANTAU	6	8	4.0	6.2	x10	N	15:29	22.3639	113.8844	1	21
16-Feb-13	W LANTAU	4	1	7.0	8.0	x10	N	11:11	22.2248	113.8367	2	2
16-Feb-13	W LANTAU	4	2	7.0	10.7	x10	N	11:20	22.2206	113.8344	2	4
16-Feb-13	W LANTAU	5	3	7.0	14.8	x10	N	12:11	22.2206	113.8306	3	3
16-Feb-13	NW LANTAU	7	4	4.0	6.3	x10	N	13:26	22.3457	113.8842	2	3
16-Feb-13	NW LANTAU	7	5	4.0	5.2	x10	N	13:38	22.3438	113.8842	2	5
16-Feb-13	NW LANTAU	7	6	4.0	5.2	x10	N	13:44	22.3449	113.8851	2	5
17-Feb-13	W LANTAU	1	1	4.0	6.3	x10	N	11:02	22.1971	113.8424	1	2
17-Feb-13	NW LANTAU	1	2	4.0	11.5	x10	N	11:13	22.1960	113.8428	1	2
17-Feb-13	NW LANTAU	4	3	4.0	7.4	x10	N	13:30	22.3464	113.8834	1	4
17-Feb-13	NW LANTAU	4	4	4.0	6.8	x10	N	13:39	22.3456	113.8843	1	4
17-Feb-13	NW LANTAU	4	5	4.0	6.8	x10	N	13:44	22.3455	113.8843	1	4
17-Feb-13	NW LANTAU	5	6	4.0	8.1	x10	N	14:22	22.3719	113.8860	0	3
17-Feb-13	NW LANTAU	7	7	4.0	6.9	x10	N	14:57	22.2696	113.8787	0	16
17-Feb-13	NW LANTAU	7	8	4.0	6.9	x10	N	15:02	22.3693	113.8789	0	16
17-Feb-13	NW LANTAU	7	9	4.0	6.7	x10	N	15:10	22.3704	113.8777	0	16
17-Feb-13	NW LANTAU	7	10	4.0	6.7	x10	N	15:16	22.3700	113.8777	0	16

Appendix V. (cont'd)

Date	Area	Stg#	File#	Hp Depth	Water Depth	ICP Gain	HPF	Time	Latitude	Longitude	Beau	Dolphin Grp Sz
18-Feb-13	W LANTAU	1	1	7.0	12.2	x10	N	12:21	22.2674	113.8536	1	2
18-Feb-13	W LANTAU	1	2	7.0	9.2	x10	N	12:38	22.2774	113.8608	1	2
18-Feb-13	NW LANTAU	2	3	7.0	9.0	x10	N	13:21	22.3342	113.8970	2	4
18-Feb-13	NW LANTAU	2	4	7.0	8.9	x10	N	13:34	22.3425	113.9019	2	4
19-Feb-13	W LANTAU	2	1	7.0	10.9	x10	N	11:10	22.1972	113.8413	1	4
19-Feb-13	W LANTAU	3	2	7.0	11.2	x10	N	12:14	22.2445	113.8407	3	2
19-Feb-13	NW LANTAU	5	3	3.0	5.3	x10	N	14:15	22.3741	113.8787	2	5
19-Feb-13	NW LANTAU	6	4	3.0	6.3	x10	N	14:44	22.3615	113.8820	2	4
20-Feb-13	W LANTAU	3	1	7.0	13.1	x10	N	13:31	22.2190	113.8331	4	4
20-Feb-13	W LANTAU	4	2	7.0	15.9	x10	N	14:43	22.2006	113.8356	3	6
20-Feb-13	W LANTAU	4	3	7.0	16.3	x10	N	14:49	22.2008	113.8346	3	6
21-Feb-13	W LANTAU	1	4	7.0	13.0	x10	N	11:05	22.2179	113.8330	2	5
21-Feb-13	W LANTAU	4	9	7.0	11.5	x10	N	12:13	22.1960	113.8431	2	2
21-Feb-13	W LANTAU	5	10	7.0	12.6	x10	N	12:56	22.2478	113.8350	1	3
21-Feb-13	NW LANTAU	9	14	4.0	10.1	x10	N	15:08	22.3626	113.8919	2	12
21-Feb-13	NW LANTAU	9	15	4.0	10.1	x10	N	15:14	22.3626	113.8920	2	12
22-Feb-13	NW LANTAU	2	1	7.0	7.6	x10	N	13:29	22.3710	113.8867	3	2

APPENDIX VI. Raw data for histogram bar plots.

Data for Figure 2. The summed length of recordings in minutes made for each day of observational effort during the baseline acoustic monitoring in January-February 2013.

Date	Length of recording (min)
22-Jan	56.83
23-Jan	25.00
24-Jan	53.52
25-Jan	22.83
26-Jan	42.33
27-Jan	38.87
28-Jan	55.90
29-Jan	87.73
30-Jan	32.73
31-Jan	58.27
1-Feb	78.85
2-Feb	52.92
3-Feb	44.60
4-Feb	20.12
5-Feb	39.58
6-Feb	34.63
8-Feb	35.05
13-Feb	67.50
14-Feb	15.00
15-Feb	32.80
16-Feb	28.67
17-Feb	46.75
18-Feb	20.00
19-Feb	14.98
20-Feb	13.98
21-Feb	25.00
22-Feb	5.00

APPENDIX VI (cont'd)

Data for Figure 3. The average number of clicks and whistles per minute of recording detected for each day of observational effort. SD = standard deviation, W = whistles, C = clicks

Date	Whistles	SD W	Clicks	SD C
22-Jan	2.95	3.95	120.83	126.48
23-Jan	1	1.92	140.28	214.1
24-Jan	0.07	0.16	34.97	62.68
25-Jan	0.5	0.59	0.94	2.11
26-Jan	0.27	0.46	NA	NA
27-Jan	0.82	1.47	NA	NA
28-Jan	0.19	0.38	NA	NA
29-Jan	1.18	1.89	352.14	368.43
30-Jan	1.17	1.8	193.56	325.1
31-Jan	0.13	0.4	1.69	4.64
1-Feb	0.72	1.76	60.54	90.38
2-Feb	0.15	0.37	196.94	102.3
3-Feb	0.43	1.03	0.79	0.81
4-Feb	1.9	2.55	62.82	67.87
5-Feb	0.36	0.67	79.41	172.06
6-Feb	0.26	0.44	30.81	36.73
8-Feb	3.77	6.4	21.8	38.46
13-Feb	3.23	5.4	NA	NA
14-Feb	0.6	0.87	NA	NA
15-Feb	1.04	1.74	NA	NA
16-Feb	1	2.08	NA	NA
17-Feb	1.68	3.88	189.37	367.85
18-Feb	0	NA	22.19	37.31
19-Feb	1.2	1.59	68.46	109.44
20-Feb	1.74	2.2	111.76	87.23
21-Feb	0.28	0.63	35.98	56.6
22-Feb	0.4	NA	2.2	NA

Data for figure 4. Average number of whistles per minute and clicks per minute as a function of dolphin group size. SD = standard deviation, W = whistles, C = clicks

Group Size	Whistles	SD W	Clicks	SD C
1	0.21	1.49	62.19	77.73
2-6	0.56	1.7	54.03	179.32
6-9	1.58	4.63	117.99	310.31
10+	2.74	1.99	289.32	140.58

APPENDIX VI (cont'd)

Data for Figure 5. Average number of whistles per minute and clicks per minute as a function of dolphin behavioural state. SD = standard deviation, W = whistles, C = clicks

Behavioral State	Whistles	SD W	Clicks	SD C
Feeding	0.62	1.33	30.95	69.9
Milling	0.66	1.85	71.29	205.44
Socializing	3.78	4.14	287.48	326.22
Traveling	0.25	1.48	13.16	208.94
Resting	0.13	1.43	0.1	70.35

Data for Figure 6. Average number of whistles per minute and clicks per minute as a function of the time of day.

Time of observation	Whistles	SD W	Clicks	SD C
9:00-10:59	0.7	1.33	38.14	69.9
11:00-12:59	0.68	1.86	79.97	144.51
13:00-14:59	1.74	3.8	159.41	303.43
15:00-16:59	1.16	1.99	65.4	140.58

Data for Figure 7. Average number of clicks/min and whistles/min recorded as a function of the distance to the nearest vessel.

Distance to nearest boat	Average whistles/min	SD W	Average clicks/min	SD C
0-99m	0.69	1.41	109.34	237.67
100-199m	0.71	1.98	47.53	95.3
200-299m	0.49	4.37	32.39	48.5
300-399m	1.54	4.37	342.25	527.43
400-499m	0.09	0.12	54.69	
500+	0.93	2.31	86.7	195.44

Data for Figure 8. Average number of clicks/min and whistles/min recorded as a function of the Beaufort Sea State.

Beaufort Scale	Average whistles/min	SD W	Average clicks/min	SD C
0	1.84	4.08	188.22	388.37
1	0.84	1.64	210.35	318.08
2	0.97	2.66	50.11	99.13
3	1.6	2.82	134.3	228.1
4	2.04	1.48	89.75	124.19
5	1.37	1.89	72.98	99.15

APPENDIX VI (cont'd)

Data for Figure 10. Average number of whistles per minute and clicks per minute recorded in each zone of the study area.

Zone	Whistles	SD W	Clicks	SDC
1	1.34	1.26	32.81	80.1
2	0.88	2.09	116.06	164.71
3	1	3.27	110.48	271.04

Data for Figure 11. Histogram of the percentage of EAR recordings with dolphin detections made at site B1 (Fan Lau) during each day for the deployment period (Note: February 4 and 24 did not have a full day of recordings)

Date	# of files	% files per day
4-Feb	16	13%
5-Feb	84	29%
6-Feb	83	29%
7-Feb	26	9%
8-Feb	94	33%
9-Feb	45	16%
10-Feb	20	7%
11-Feb	22	8%
12-Feb	11	4%
13-Feb	5	2%
14-Feb	16	6%
15-Feb	39	14%
16-Feb	45	16%
17-Feb	43	15%
18-Feb	42	15%
19-Feb	81	28%
20-Feb	172	60%
21-Feb	86	30%
22-Feb	2	1%

APPENDIX VI (cont'd)

Data for Figure 12. The number of dolphin encounters and the average encounter duration recorded on the EAR at site B2 (Fan Lau).

Date	# of encounters	Average encounter duration	Std Dev
4-Feb	3	48.33	27.54
5-Feb	8	65	69.69
6-Feb	4	117.5	121.83
7-Feb	10	11	15.6
8-Feb	9	76.11	64.41
9-Feb	9	44.38	52.27
10-Feb	5	18	17.89
11-Feb	4	27.5	41.73
12-Feb	3	30	39.05
13-Feb	5	5	0
14-Feb	3	35	51.96
15-Feb	5	48	45.77
16-Feb	8	46.88	55.61
17-Feb	10	24.44	28.99
18-Feb	9	31.67	40.23
19-Feb	13	40	73.71
20-Feb	5	204	253.39
21-Feb	8	66.25	82.32
22-Feb	1	5	0

APPENDIX VI (cont'd)

Data for Figure 13. Detections of dolphin signals at site B1 (Fan Lau) as a function of the hour of the day. Values are the total number of detections in each hour across the entire monitoring period.

Hour of day	Tonal Click Detection	Whistle Detections	Average detections/hr	Std Dev Detns/hr
0	31	0	1.63	3.02
1	34	1	1.84	3.73
2	50	0	2.63	4.17
3	43	0	2.26	3.48
4	58	0	3.05	4.59
5	58	0	3.05	3.70
6	77	0	4.05	4.29
7	63	0	3.32	3.64
8	62	0	3.26	4.45
9	47	0	2.47	3.84
10	38	0	2.00	2.62
11	37	0	1.95	3.98
12	15	0	0.79	1.23
13	18	0	0.95	2.57
14	12	1	0.68	1.16
15	15	0	0.79	1.44
16	42	0	2.21	3.92
17	33	0	1.74	2.94
18	26	0	1.37	2.31
19	30	0	1.58	2.19
20	33	0	1.74	2.58
21	40	0	2.11	2.85
22	50	0	2.63	3.89
23	20	0	1.05	2.46

Data for Figure 15. Histogram of the percentage of EAR recordings at site B2 (Bridge Alignment Area), with dolphin detections made during each day for the deployment period recovered (Note: February 4 and 16 did not have a full day of recordings).

Date	# Files	% files/day
4-Feb	1	0.35
5-Feb	26	9.03
6-Feb	49	17.01
7-Feb	41	14.24
8-Feb	43	14.93
9-Feb	31	10.76
10-Feb	29	10.07
11-Feb	7	2.43
12-Feb	4	1.39
13-Feb	15	5.21
14-Feb	1	0.35

APPENDIX VI (cont'd)

Data for Figure 16. The number of dolphin encounters and the average encounter duration recorded on the EAR at site B3 (Bridge Alignment Area).

Date	# of encounters	Avg. encounter duration	Std Dev
4-Feb	1	5	0
5-Feb	6	31.67	41.79
6-Feb	8	36.25	59.39
7-Feb	6	39.17	49.24
8-Feb	8	32.5	38.54
9-Feb	4	57.5	105
10-Feb	7	28.57	22.31
11-Feb	3	16.67	20.21
12-Feb	2	17.5	17.68
13-Feb	7	11.43	11.8
14-Feb	1	5	0

Data for Figure 17. Detections of dolphin signals at site B2 (Bridge Alignment Area) as a function of the hour of the day. Values are the total number of detections in each hour across the entire monitoring period.

Hour of day	Tonal Click Detection	Whistle Detections	Average detections/hr	Std Dev Detns/hr
0	35	7	3.91	5.79
1	17	1	1.64	2.62
2	21	5	2.36	3.44
3	14	3	1.55	2.84
4	15	5	2.00	3.58
5	8	2	0.91	2.43
6	13	3	1.55	3.17
7	8	2	1.00	2.68
8	4	3	0.73	1.42
9	1	0	0.09	0.30
10	2	0	0.18	0.60
11	0	0	0.00	0.00
12	2	1	0.27	0.47
13	0	0	0.00	0.00
14	2	2	0.36	0.50
15	6	0	0.55	1.51
16	0	0	0.00	0.00
17	1	0	0.09	0.30
18	1	0	0.09	0.30
19	22	1	2.09	4.21
20	20	3	2.00	4.36
21	11	7	1.55	2.11
22	12	5	1.55	2.81
23	6	4	0.91	1.64