香港民航處
Civil Aviation Department Hong Kong

民航處 環保報告

Civil Aviation Department Environmental Report 2001

前言 Foreword

在過去十二個月，我們不時檢討本處的環保表現，確保本處繼續貫徹執行最佳的環保措施，以達到所定的目標。今年，我們會進一步落實可持續發展的原則，並會藉着不斷提高本處的環保表現，盡量減少航空交通增長對環境和社區造成的影響。

During the last 12 months we have reviewed our performance to ensure that we keep up with the best practice and achieve the set targets. This year, we will further develop our focus on the principles of sustainable development. We are committed to minimizing the impact of air traffic growth on the environment and local communities through the continuous improvement of our environmental performance.

目錄 Contents

引言 Introduction

關於本報告

自一九九九年起，民航處每年均發表環保報告。今年，我們繼續匯報在過去一年，我們如何以務實的態度和可行的措施，盡量減少機場及飛機運作對社區環境的影響，從而達至改善香港環境的目的。

本報告涵蓋飛機噪音、節省能源及減少廢物三個主要範疇。在每個章節中，我們會就為該範疇所定下的目標，探討本處在二零零一年所取得的工作成效。最後，我們會列出本處二零零二年度的環保目標。

民航處工作概要

民航處負責向所有在香港飛行情報區和負責區內運作的飛機提供航空交通管制服務，以及監察和規管在香港所有與民航服務有關的事宜。主要職能包括：

(a) 向所有在國際民航組織指定由香港特別行政區負責的空域內運作的飛機提供航空交通管制服務、航空資料、飛行告警服務，以及海空搜索和拯救；

(b) 提供精確的電子儀器，例如雷達、無線電通訊儀器、無線電導航設備及進場和着陸設備，確保航空交通運作安全和有效率；

About this report

We have been publishing annual environmental reports since 1999. This year, we continue to report on our commitment to improving Hong Kong's environment by adopting sensible and workable measures to minimize environmental impact of the airport and aircraft operations on local communities.

This report covers three major aspects: aircraft noise, energy conservation and waste minimization. As each aspect is highlighted, our performance in 2001 against the set targets will be discussed. Thereafter, we will present our environmental targets for 2002.

Overview of Civil Aviation Department

The Civil Aviation Department (CAD) is responsible for providing air traffic control services to all aircraft operating within the Hong Kong Flight Information Region and the Area of Responsibility, and for regulating and monitoring of all matters relating to civil aviation in Hong Kong. The prime responsibilities include:

(a) the provision of air traffic control, flight information, air alerting service and air/sea search and rescue for all aircraft operating within the airspace assigned by the International Civil Aviation Organization to the Hong Kong Special Administrative Region;

(c) 監察飛機和機員的運作安全，包括確保在香港註冊的飛機須符合有關的適航標準、檢查本地註冊的飛機、以及向本地航空公司簽發航空營運許可證、考核和簽發機員與飛機維修工程人員執照、核准飛機維修機構、確保交予空運的危險物品得以安全付運，以及進行飛機事故和意外調查；

(d) 監察航空公司遵守民用航空運輸協定及其他就定期航班服務所作的安排的情況、規管不定期航班服務，以及向有關當局提供空運牌照申請和民用航空運輸談判的資料；

(e) 審批飛機班次的編配安排，並擬備航空交通統計資料；

(f) 制定飛機噪音政策和消減噪音措施，並監察飛機進出香港國際機場時的航道使用情況和有關的噪音影響；以及

(g) 為香港國際機場制定營運安全和保安標準，並監察其遵守這些標準的情況、簽發機場牌照給香港機場管理局，以確保機場可供飛機安全使用以及在管制和標示障礙物以利便導航方面，實施有關的國際安全標準和制定高度限制。

(b) the provision of sophisticated electronic equipment such as radar, radio communication, radio navigational aids and approach and landing aids to enable the efficient and safe operation of air traffic;

(c) safety oversight of aircraft and aircrew operations, including the assurance of airworthiness standards of aircraft under Hong Kong register, flight inspection of locally registered aircraft and issue of air operator's certificate to local airlines, licensing of aircrew and aircraft maintenance personnel, approval of maintenance organizations, ensuring the safe carriage of dangerous goods by air and conducting aircraft incident and accident investigations;

(d) monitoring compliance by airlines with Air Services Agreements and other arrangements which govern scheduled air services, regulating non-scheduled air services, providing information to the relevant authorities regarding air transport licence applications and for air services negotiations;

(e) approval of scheduling of aircraft movements and compilation of air traffic statistics;

(f) formulation of aircraft noise policy and mitigation measures and monitoring of noise impact and track keeping performance of aircraft operating to and from the Hong Kong International Airport (HKIA); and

(g) the drawing up and monitoring of compliance to operational safety and security standards at the Hong Kong International Airport and recommendation for the issue of Aerodrome Licence to the licensee, i.e. Airport Authority Hong Kong, for the purpose of ensuring the airport is safe for use by aircraft, implementation of international safety standards for the control and marking of obstacles to air navigation and determining height restrictions.

環保政策
Environmental Policy

民航處致力為香港維持和發展一套安全和效率超卓的航空運輸系統，並且把該系統對環境的影響盡量減低至可接受的水平。我們會以負責任的態度全力執行以下環保政策：

(a) 在各項設施和服務的規劃、設計及營運層面上應用可持續發展的原則；

(b) 制定措施以減少飛機噪音對環境和社區的影響；

(c) 與受飛機噪音影響的社區和人士保持坦率的溝通；

(d) 透過節約、再用及循環再造以減少能源和原料的使用量；

(e) 以確保符合環保規例為最基本的要求；

(f) 加強員工的環保意識和訓練，確保我們在各項決策過程中考慮到環保的因素；以及

(g) 就環保政策和標準與員工保持有效溝通，務求不斷改善我們的環保管理系統。

The Civil Aviation Department is committed to maintaining and developing a safe and efficient air transport system for Hong Kong whilst keeping the environmental effects to an acceptable minimum. We will strive to act as responsible stewards of the environment at all times by:

(a) applying the principle of sustainable development in the planning, design and operation of our facilities and services;

(b) developing measures to minimize the impact of aircraft noise on the environment and local communities;

(c) engaging in an open dialogue with local communities and others affected by aircraft noise;

(d) economizing the use of energy and materials through savings, reuse and recycling;

(e) ensuring compliance with environmental regulations as a minimum standard of performance;

(f) promoting the awareness and training of staff to ensure that environmental actions are included in the balance of all our decision making; and

(g) seeking continual improvement of environmental management systems through the effective communication of our policy and standards.

飛機噪音
Aircraft Noise

目標成效

◆ *與航空公司及航空交通管制人員共同努力，使：*

(1) 由午夜12時至翌日早上7時到港的飛機中，有90% 從機場西南方對出海面進場降落。

(2) 由晚上11 時至翌日早上7 時從07 號跑道離港的飛機中，有95% 使用經西博寮海峽的南行航線。

本處環境管理組的同事一直密切監察飛機噪音消減措施的施行情況。在二零零一年，由午夜12 時至翌日早上7 時到港的飛機中，我們錄得平均超過94% 的飛機能夠從機場西南方對出海面進場降落，而由晚上11 時至翌日早上7 時向機場東北面離港的飛機中，超過98% 能夠使用經西博寮海峽的南行航線起飛。有少數飛機不能依照以上的要求，均是由於當時的風速及風向、導航系統正進行維修保養、航空交通擠塞及飛行安全等因素所致。

Performance against targets

◆ ***Work with airlines and Air Traffic Control (ATC) personnel to achieve:***

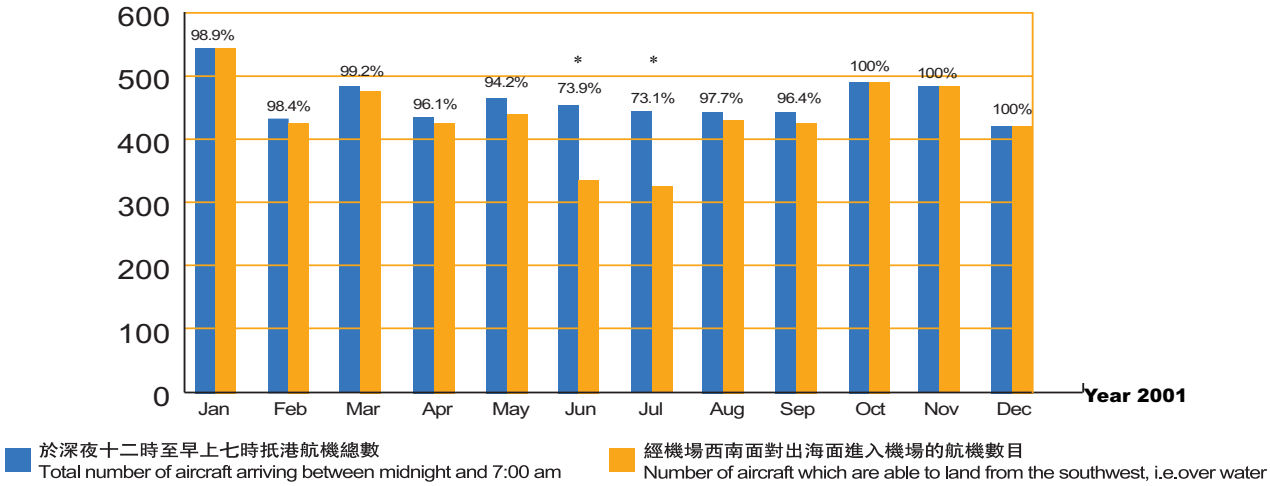
(1) 90% of arriving aircraft landing from the southwest (i.e. over water) between midnight and 07:00 am.

(2) 95% of departing aircraft using the southbound route via West Lamma Channel when Runway 07 is in use between 11:00 pm and 07:00 am.

Measures to control the impact of aircraft noise have been closely monitored by our environmental management team. In 2001, we recorded that on average over 94% of arriving aircraft were able to land from the southwest (over water) between midnight and 07:00 am; and over 98% of aircraft departing to the northeast of the airport were able to take the southbound route over the West Lamma Channel between 11:00 pm and 07:00 am. The small percentages of non-compliant flights were caused by factors such as prevailing wind conditions, maintenance of ground navigation aids, air traffic congestion, safety considerations, etc.

圖一－由午夜12 時至翌日早上7 時抵港的飛機須從西南方進場的記錄

Diagram 1 - Achievement record for aircraft arriving between midnight and 07:00 am to land from the southwest.

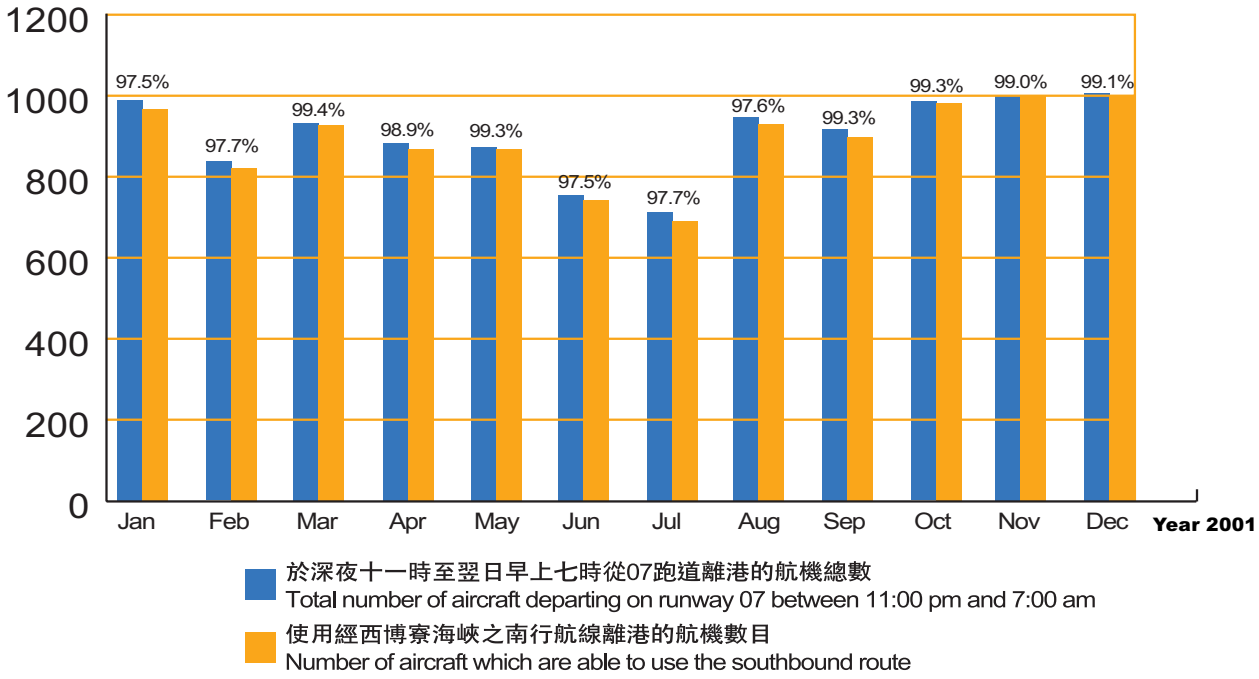


* 註：在六月及七月，分別有11個深夜時段的風速／風向情況是不利飛機從西南方降落機場，以致在六月及七月執行有關措施的整體百分比分別降至73.9% 及73.1%。

* Note:In both June and July, there were 11 overnight periods during which the wind condition prevailing at the time was unfavourable for aircraft to land from the southwest. This explains why the overall performance rates for June and July were only 73.9% and 73.1% respectively.

圖二－由晚上 11 時至翌日早上 7 時從 07 號跑道離港的班機須使用經西博寮海峽的南行航線的記錄

Diagram 2 - Achievement record for aircraft departing on Runway 07 between 11:00 pm and 07:00 am to use the southbound route via the West Lamma Channel.



◆ ***對於向機場東北面起飛的飛機，航空公司繼續採用國際民航組織的消減噪音離場程序***

這項消減飛機噪音措施從一九九九年八月起開始實施。在這些程序下，飛機必須在起飛的初期維持預定的速度和推力值，在較短距離內爬升至較高的飛行高度，從而減低飛機噪音對機場附近地區的影響。為進一步紓緩飛機爬升時所產生的噪音影響，國際民航組織已修訂原有的消減噪音起飛程序。新程序要求飛機在到達 800 呎或以上的飛行高度時降低動力，採取消減噪音程序。在舊程序下，採取消減噪音程序的最低飛行高度是較高的。我們於二零零一年十一月進行一連串的模擬機測試，並就可否推行新程序一事徵詢本地航空公司意見，現打算於二零零二年三月施行有關程序。

◆ ***Airlines continue to adopt the International Civil Aviation Organisation (ICAO) noise abatement departure procedures for aircraft departing to the northeast of the airport.***

This noise mitigating measure has been in place since August 1999. Under these procedures, aircraft are required to maintain a pre-determined speed and power setting during the initial phase of the take-off so as to attain a higher altitude within a short distance. This aims to reduce the noise impact on areas located in the vicinity of the airport. In order to further alleviate the noise impact during take-offs, ICAO has revised the noise abatement take-off procedures. These new procedures require aircraft to initiate noise abatement procedures by means of power reduction upon reaching an altitude at or above 800 ft whereas in the old procedures, the minimum altitudes for initiating noise abatement procedures are higher. We have conducted a series of simulator trials and consultation with local airlines on the feasibility of these new procedures in November 2001 and planned to introduce them in March 2002.

◆ 制定計劃，逐步淘汰較舊型及嘈吵的飛機在香港國際機場運作

根據國際民航組織大會的決議，較舊型及嘈吵的飛機(名為第二類別飛機*)將會逐漸由較新型、較寧靜的飛機(名為第三類別飛機*)取代。我們在香港推行淘汰高噪音飛機的計劃是配合國際做法的。這項計劃的一部分，是在一九九九年十月起實施一項禁制措施，禁止航空公司編排第二類別飛機在晚上11 時至翌日早上7 時期間升降，而我們亦計劃在二零零二年全面禁止第二類別飛機在機場升降。

* 註：“第二類別”或“第三類別”飛機，是指那些分別符合《國際民用航空公約》附件 16 第 1 卷第二部分第二章或第三章所載的噪音標準的飛機。

◆ *Establish a programme to gradually phase out the operation of older and noisier aircraft at Hong Kong International Airport*

Under an ICAO Assembly Resolution, the older, noisier aircraft (known as Chapter 2 aircraft*) would be gradually replaced with newer, quieter aircraft (known as Chapter 3 aircraft*). Our programme of phasing out noisier aircraft in Hong Kong is in line with international practices. As part of our phasing out programme, a ban on the scheduled operation of Chapter 2 aircraft between 11:00 pm and 07:00 am has been successfully introduced since October 1999 and we plan to completely ban the operation of Chapter 2 aircraft in 2002.

* Note : “Chapter 2”or “Chapter 3” aircraft refer to those aircraft which meet the standards of noise specified in Volume I, Part II, Chapter 2 or Chapter 3 respectively of Annex 16 to the Convention on International Civil Aviation.

◆ 航機於晚上時份在香港國際機場降落時繼續採用持續降落模式運作

由二零零零年八月十日開始，本處籲請於晚上11 時至翌日早上7 時的時段內，所有從東北方進場，飛經西貢、馬鞍山及沙田上空的飛機，盡量使用持續降落模式運作。由於採用此降落程序的航機由較高的高度開始下降，並且在開始進場時通常會使用較低動力飛行，故預料在地面上聽到的噪音會較低。二零零一年，於晚上11 時至翌日早上 7 時的時段內，從東北方進入香港國際機場的航機中，有73% 已採用持續降落模式運作。

◆ *Airlines continue to adopt Continuous Descent Approach (CDA) procedure at HKIA during night period.*

Starting from 10 August 2000, all aircraft on approach to the HKIA from the northeast between 11:00 pm and 07:00 am, which typically fly over Sai Kung, Ma On Shan and Shatin, are encouraged to adopt the CDA procedure whenever practicable. As aircraft on CDA will fly higher and normally in a low power/low drag configuration during the commencement of the approach, noise experienced on the ground is expected to be lowered. In 2001, 73% of aircraft on approach to the HKIA from the northeast between 11:00 pm and 07:00 am was able to adopt the CDA procedure.

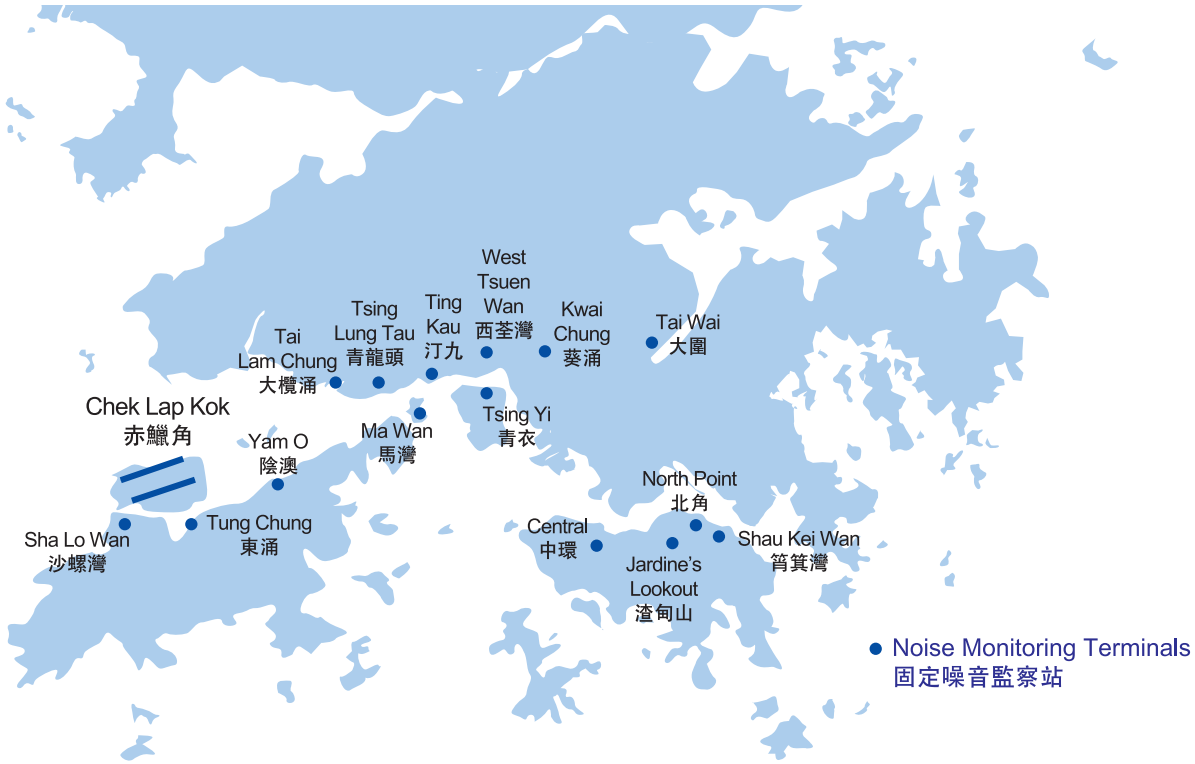
◆ *在東涌增設飛機噪音監察站*

目前，全港共有15 個飛機噪音監察站，分別設於沙螺灣、東涌、陰澳、青衣、葵涌、荃灣西、汀九、青龍頭、大欖涌、馬灣、大圍、中半山、北角、渣甸山及筲箕灣。民航處原計劃在二零零一年，於東涌第二期發展區域內其中一幢新建住宅大廈加裝一個新的飛機噪音監察站。不過，由於建築工程進度緩慢，而這實非民航處所能控制，監察站的落成日期須延至二零零二年。

◆ *Install additional noise monitor in Tung Chung*

At present, the aircraft noise and flight track monitoring system has a total of fifteen fixed noise monitors located at Sha Lo Wan, Tung Chung, Yam O, Tsing Yi, Kwai Chung, West Tsuen Wan, Ting Kau, Tsing Lung Tau, Tai Lam Chung, Ma Wan, Tai Wai, Mid-Levels in Central, North Point, Jardine's Lookout and Shau Kei Wan. It was planned to install an additional noise monitor at one of the new residential blocks at the second phase development area in Tung Chung in 2001. However, due to the slow progress of the building construction which was beyond the control of CAD, the target date for completion of this item has to be deferred to 2002.

圖三－飛機噪音監察站位置圖　　***Diagram 3 - Noise Monitoring Terminals Location Map***



◆ *與有關區議會、傳媒及有關團體保持定期的接觸*

年內，我們得到傳媒、個別立法會議員及有關區議會，包括離島區議會及中西區區議會的邀請，講解飛機進入及離開機場的運作情況和這對於居住在航道範圍或附近的居民所造成的噪音影響。我們亦與荃灣區議會保持緊密聯繫，向該會提供荃灣和青衣區每月的飛機噪音資料。我們並於二零零一年十一月安排荃灣區議員參觀航空交通指揮塔。此外，我們曾數次與居住在航道附近，對飛機噪音問題甚表關注的居民會面。在會面期間，我們向居民講述根據實地噪音測量所得而作的分析，並詳細解釋現行的噪音緩解措施。本年內，我們會繼續在需要時向有關區議會、其轄下環境委員會和受影響的居民匯報我們的工作，以加強雙方的聯繫。

我們在二零零一年總共收到369宗飛機噪音投訴。我們會以專業及持平的態度去調查所有的投訴，盡力回應社會的需要。

◆ ***Maintain regular contact with concerned district councils, the media and other concerned parties***

During the year, we were invited by the media, individual legislative councillors, and concerned district councils such as the Islands District Council and the Central and Western District Council, to explain the flight operation to and from the airport and its noise impact on areas under or in the vicinity of flight paths. We also closely liaised with Tsuen Wan District Council by providing them monthly aircraft noise data of the Tsuen Wan and Tsing Yi areas. A visit to the Air Traffic Control Tower was also organised for Tsuen Wan District Council members in November 2001. Besides, meetings with residents in the vicinity of flight paths who showed particular interest on aircraft noise issues were also held. In the meetings, factual analyses based on on-site noise measurements together with detailed explanations of the current noise mitigation measures were presented. This year, we will continue to strengthen our links with the concerned district councils, their environmental committees and concerned residents through briefings to them as and when required.

In 2001, we received a total of 369 complaints on aircraft noise. We will endeavour to respond to community needs by investigating all complaints in a professional and impartial manner.

◆ ***維持互聯網網站的運作以方便公眾人士取得有關飛機噪音和飛機航道資料***

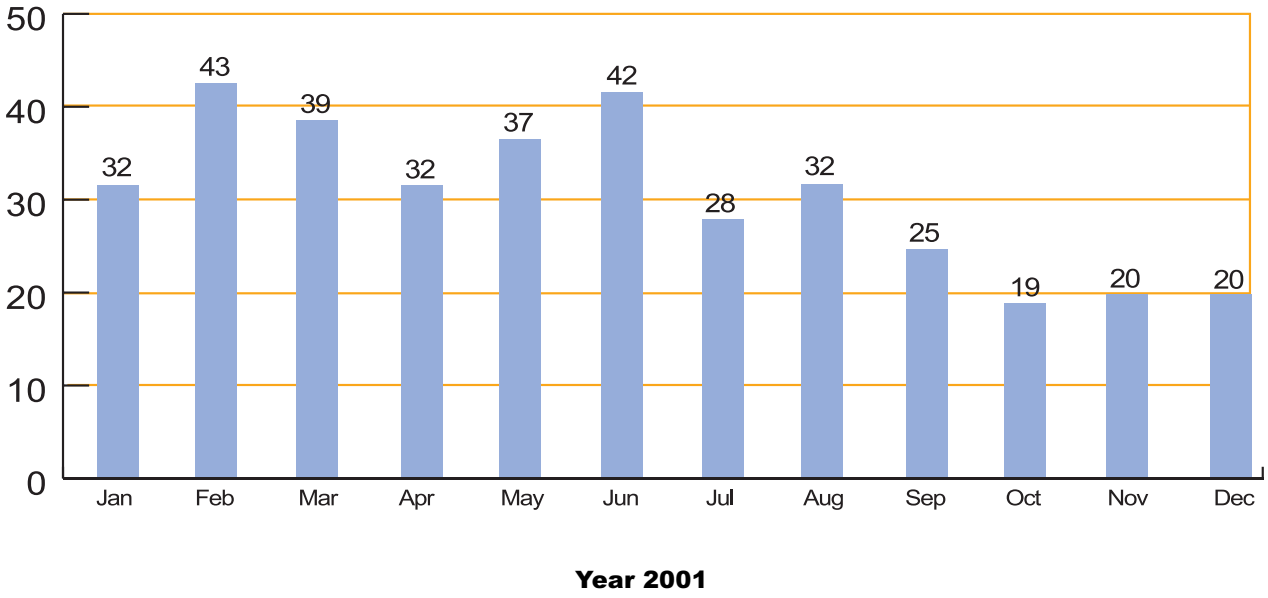
有關網站於一九九九年十二月設立，以方便公眾人士取得飛機噪音和飛機航道資料。在過去一年，我們不斷更新網站內容，發放每月和每年的噪音資料，並且匯報噪音消減措施的執行情況。

◆ ***Maintain an internet web site to facilitate public access to aircraft noise and flight path information***

The web site was set up in December 1999 to facilitate public access to aircraft noise and flight path information. In the past year, we continued to maintain the web site and produce monthly and yearly noise data and performance records of noise abatement measures in the web site.

圖四－飛機噪音投訴數目

Diagram 4 - Number of Aircraft Noise Complaints



二零零二年的新目標

- *於青衣曉峰園增設一個飛機噪音監察站，以監察該屋苑的飛機噪音情況。*
- *於上環增設一個飛機噪音監察站，以監察信德直升機機場產生的直升機噪音。*
- *施行國際民航組織新定的消減噪音離場程序。*

New target in 2002

- ***Install an additional noise monitor at Mount Haven, Tsing Yi, to monitor the aircraft noise environment of the estate.***
- ***Install an additional noise monitor at Sheung Wan to monitor the helicopter noise arising from the operation of Shun Tak heliport.***
- ***Introduce the new ICAO noise abatement departure procedures.***

節省能源
Energy Conservation

目標成效

◆ *探討各項節約能源的措施*

有關為航空交通管制大樓（航管大樓）和備用航空交通管制大樓(備用航管大樓）的供電系統安裝諧波調節器以改善整體能源效率的建議，我們已進行詳細的成本效益研究。鑑於有關儀器的成本高昂，加上預期節省能源的效率不高，所以我們決定暫時擱置這個方案。

為了節省空調系統的用電量，我們正物色適當的反光罩，以便安裝到備用航管大樓的精密跑道監察系統和微波儀器室，藉此降低室內的溫度。此外，我們亦為航管大樓的空調系統安裝化學物過濾器的可行性和成本效益一事，與機電工程署一同進行研究。安裝此類化學物過濾器，有助改善室內空氣質素，從而提高空調系統的整體能源效率。

在節省照明裝置的用電量方面，我們正與機電工程署進行可行性研究，考慮以無需用電的自動發光標誌，取代航管大樓現有的出口標誌。

Performance against targets

◆ ***Explore various initiatives in energy saving***

A detailed study on the cost effectiveness of installing harmonic conditioners to the electricity supply systems of the Air Traffic Control Complex (ATCX) and the Backup Air Traffic Control Complex (BATCX) to help improve the overall energy efficiency was carried out. However, in view of the high equipment cost and the expected low energy savings achievable, it was decided to put in abeyance this option.

In order to save energy on air conditioning, a suitable light reflective shade is now being identified for installation in the Precision Runway Monitor and Microwave Equipment Room of the BATCX to help lower the room temperature. We are also exploring with EMSD the feasibility and the cost effectiveness of installing some kind of chemical filters in the air conditioning system of the ATCX. The chemical filters can help improve the indoor air quality and hence raise the overall energy efficiency of the air conditioning system.

Regarding saving energy on lighting, we are exploring with EMSD the feasibility of replacing existing “Exit” signs in ATCX by self-luminous signs that do not require power.

We will continue to explore initiatives in energy saving. Apart from ATCX and BATCX of which the building management is under the purview of CAD, we have also conveyed our concerns of exploring energy saving initiatives to the building management organizations of

我們會繼續研究各項節約能源措施，除了留意由民航處負責管理的航管大樓和備用航管大樓的用電情況外，我們亦已就民航處設於金鐘道政府合署、香港國際機場客運大樓及機場空運中心的其他辦公室的用電情況，向有關大廈管理機構表達我們對採取節約能源措施的關注。

◆ 安裝更省電的電子鎮流器以更換航管大樓所有光管組件中的電感式鎮流器

這項工程已獲中華電力有限公司（中電）批准納入用電需求管理計劃內。該項計劃由兩家電力公司和政府共同推行，藉此提升能源效益和節約能源。以電子鎮流器更換光管組件中的電感式鎮流器的工程於二零零一年四月展開，於同年五月完成。中電已按照用電需求管理計劃，向民航處提供港幣175,350元的回扣，款額相當於電子鎮流器的成本。估計使用電子鎮流器後，每年可節省電費達港幣六萬元。

◆ 購買具高能源效益的設備

民航處是一個對環境負責任的機構。為了支持政府對保護環境的承擔，我們有義務遵循中央訂定的環保採購指引，在採購貨品和服務時一併考慮環保的因素。在適當情況下，我們會把回收性高和具能源效益等環保要求加入標書的細則中。

◆ 在二零零一年維持用電增長率低於香港國際機場的航機班次增幅

在二零零一年，航管大樓的平均每日用電量為16,235千瓦小時，與二零零零年比較，增幅為2.3%。用電量上升，是因為更多使用雷達模擬器測試修訂航空交通管制運作程序，以配合重劃南中國海飛行空域，以及在七月至九月夏季期間一台額外鮮風櫃全日運作所致。不過，在二零零一年，備用航管大樓錄得的平均每日用電量為6,718千瓦小時，與去年比較稍微下降0.9%。

other CAD offices in the Queensway Government Offices (QGO), Passenger Terminal Building of HKIA and the Airport Freight Forwarding Centre (AFFC).

◆ *Complete the installation of more energy efficient electronic ballasts to replace the electro-magnetic ballasts of all the fluorescent light tubes installed in ATCX*

This replacement work was approved by CLP Power Hong Kong Ltd for inclusion in the Demand Side Management Programme (DSMP) which was launched by the two power companies and the Government to promote energy efficiency and conservation. The work to replace the electro-magnetic ballasts of fluorescent light tubes by electronic ballasts started in April and completed in May 2001. Under the DSMP, CLP Power Hong Kong Ltd rebated HK$175,350.00, being the cost of the electronic ballasts, to CAD. It is estimated that the use of electronic ballasts saves an energy cost of HK$60,000 per year.

◆ *Purchase equipment of high standard of energy efficiency*

As an environmentally responsible organization and in support of Government's commitment to environmental protection, we are obliged to observe central guidelines for green purchasing and take environmental considerations into account when procuring goods and services. Environmental terms such as high standard of recyclability and energy efficiency have been included in tender specifications whenever applicable.

◆ *Maintain the growth in electricity consumption at a level below the traffic growth, in terms of aircraft movements, in 2001*

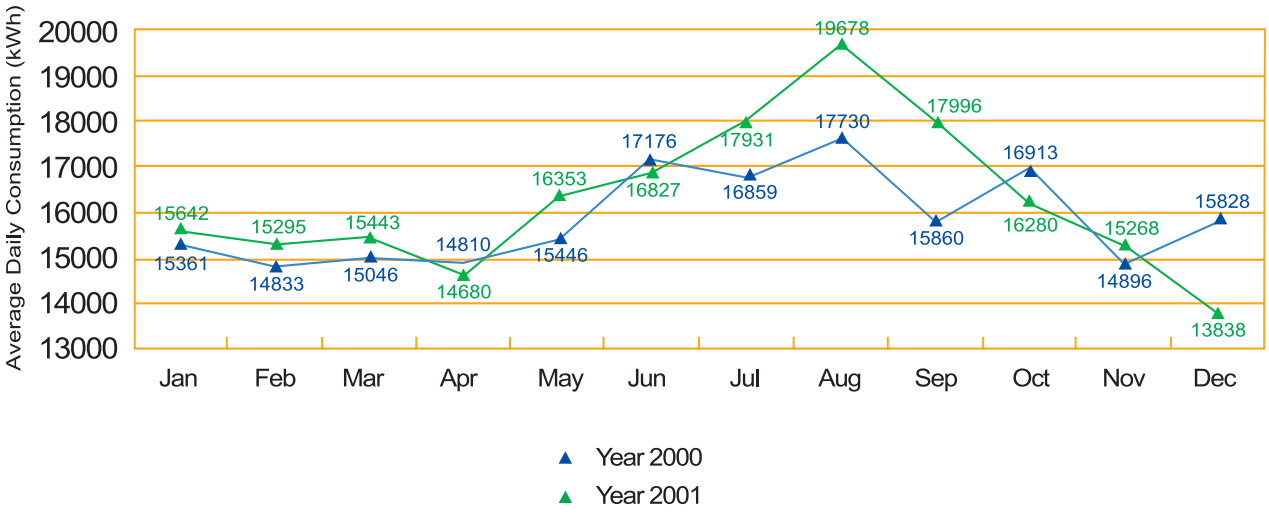
The average daily electricity consumption in ATCX in 2001 increased by 2.3% comparing to 2000, amounted to 16,235 kilowatt-hours. The increase could be attributed to the increased use of the radar simulator for testing the revised air traffic control operating procedures in connection with the re-organization of the South China Sea air-space, and the use of an additional fresh air unit round-the-clock during the summer months of July to September. The BATCX, however, recorded a slight decrease of 0.9% of average daily electricity consumption, amounting to 6,718 kilowatt-hours, in 2001.

在二零零一年，於香港國際機場升降的航機班次達196,820班，與二零零零年比較，增幅為8.2%。在二零零一年，整體用電增長率低於航機班次的增幅，達到預期的目標。與二零零一年的情況相若，我們就二零零二年所定的目標，同樣是維持用電增長率低於同年的航機班次增幅。我們會繼續加強員工的節約能源意識，並研究各項省電措施，確保達到目標。

In 2001, aircraft movement reached 196,820, represented a rise of 8.2% over 2000. Since the overall growth rate of electricity consumption in 2001 was below the traffic growth rate, this target is achieved. Similar to 2001, the target for 2002 will also be to maintain the growth in electricity consumption at a level below the growth of aircraft movement. We will continue to raise staff's awareness on energy conservation and to explore energy saving initiatives in order to ensure that the target will be met.

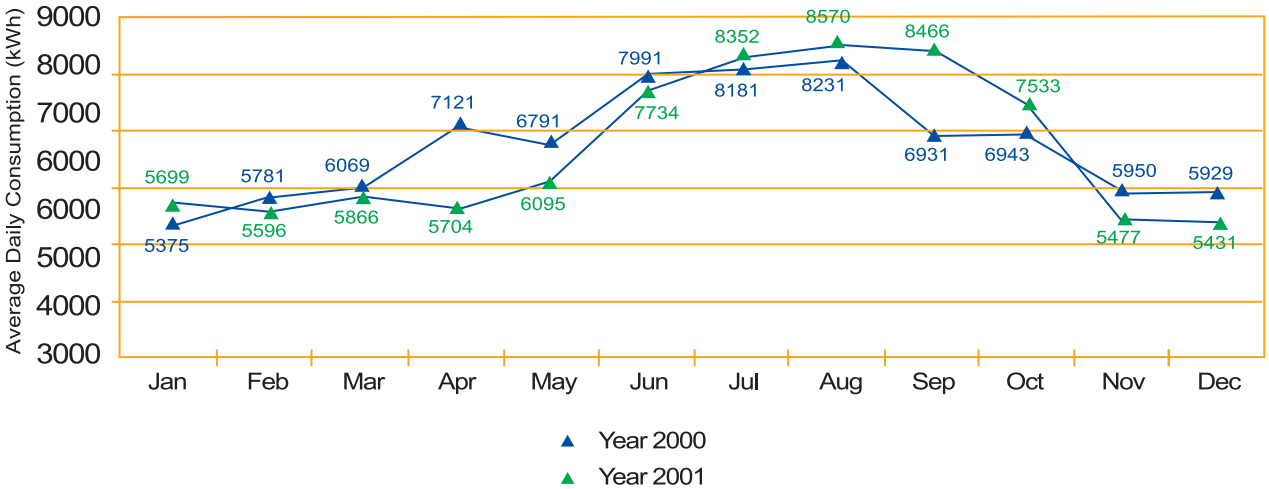
圖五－航空交通管制大樓的用電量

Diagram 5 - Electricity consumption in ATCX



圖六－備用航空交通管制大樓的用電量

Diagram 6 - Electricity consumption in BATCX



減少廢物
Waste Minimization

目標成效

◆ *維持用紙量於二零零零年的水平*

我們把用紙量由一九九八年的8,000疊減至二零零零年的5,925疊，減幅約為26%。在二零零一年，由於員工致力減少廢物，我們得以把用紙量維持在二零零零年的低水平。我們為二零零二年訂下的目標，是把用紙量維持在二零零一年的水平(即5,925疊)。

Performance against targets

◆ ***maintain the paper consumption at the low level of 2000.***

We have reduced paper consumption by about 26% over two years from 8,000 reams in 1998 to 5,925 reams in 2000. In 2001, with the continuous effort of staff in waste reduction, we were able to maintain the paper consumption at the low level of 2000. Our target for 2002 is to maintain the paper consumption at the level of 2001 (i.e., 5,925 reams).

	1998	1999	2000	2001
用紙量	8000 疊 (13% 不含木材)	6300 疊 (13% 不含木材)	5925 疊 (100% 不含木材)	5925 疊 (100% 不含木材)
Paper Consumption	8000 reams (13% were wood-free)	6300 reams (13% were wood-free)	5925 reams (100% were wood-free)	5925 reams (100% were wood-free)

◆ *繼續實施廢紙和雷射打印機墨盒回收計劃*

把用過的紙張放在特別的回收袋內，使清潔承辦商能夠分開處理，以及交回已用完的雷射打印墨盒給供應商循環再造，都是我們的持續目標。

◆ ***Continue to implement the waste paper and laser printer cartridge recycling schemes***

It is our continuous target to dispose of waste paper separately for cleaning contractors' separate treatment and to return used printer cartridge to suppliers for recycling.

	1998	1999	2000	2001
雷射打印機墨盒	購買數量	購買數量	購買數量	購買數量
	153 個	150 個	166 個	167 個
	回收數量	回收數量	回收數量	回收數量
	33 個	72 個	67 個	77 個
Laser Printer Cartridge	purchased	purchased	purchased	purchased
	153 units	150 units	166 units	167 units
	recycled	recycled	recycled	recycled
	33 units	72 units	67 units	77 units

◆ ***按紙張重量定出基數和準則，以便據此監察回收廢紙供循環再造的成效***

為使我們能監察回收廢紙供循環再造的成效，我們已把二零零一年回收供循環再造的廢紙重量記錄在案。

◆ ***Establish base figures and yardstick in terms of weight for monitoring the performance on collection of waste paper for recycling***

In order to enable us to monitor our performance in waste paper collection for recycling, weights of waste paper collected for recycling in 2001 were recorded.

2001 年					
廢紙回收量 Waste Paper Collection	1 月 - 3 月 Jan-Mar	4 月 - 6 月 Apr-Jun	7 月 - 9 月 Jul-Sep	10 月 - 12 月 Oct-Dec	**總數** Total
(千克 /kg)	1707	2117	2130	1580	7534

◆ ***遵照有關的環保規例去處理冷卻系統所排放的海水和處置化學廢物***

民航處作為排污者，已依照環境保護署(環保署)根據《廢物處置條例》(第 354 章)下的《廢物處置(化學廢物)(一般)規例》所訂立的要求及條件，來處置本處的機器和設備運作時所排出的廢物。

航管大樓及備用航管大樓的冷卻系統所排出的海水亦符合環保署根據《水污染管制條例》(第 358 章)所訂立的規定。

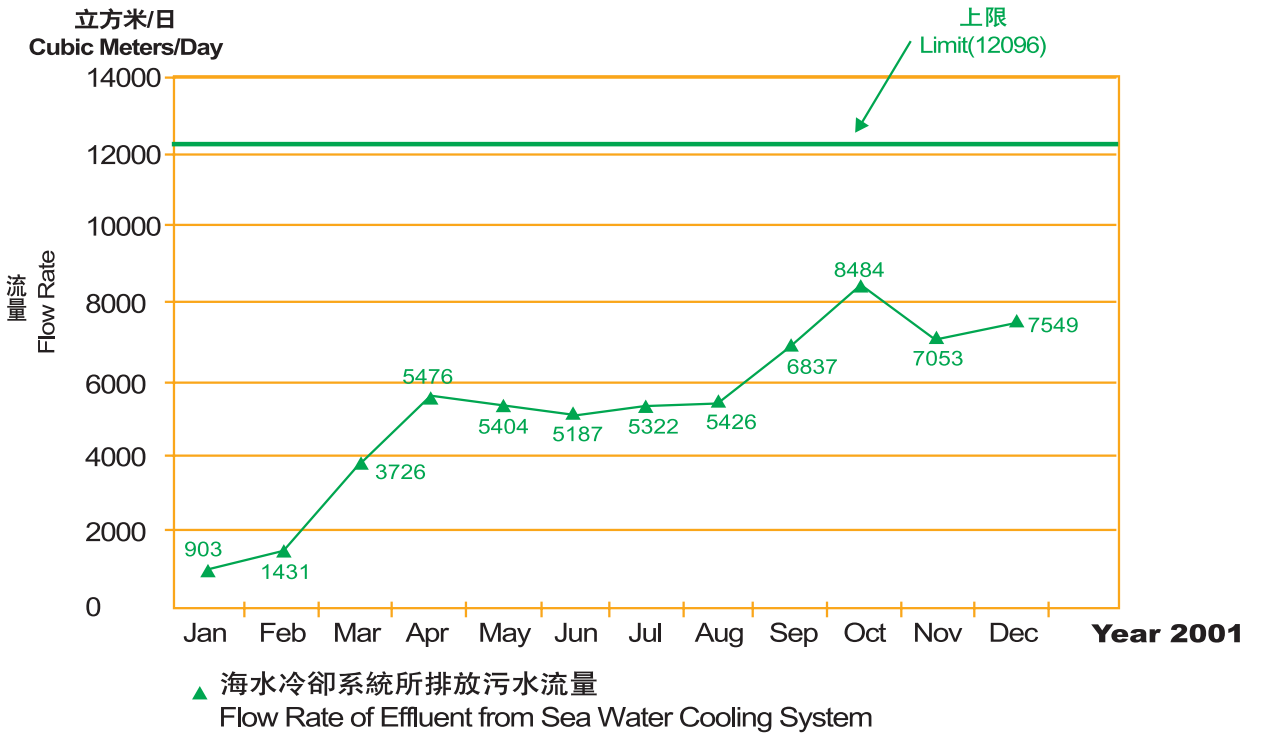
◆ ***Comply with environmental regulations with regard to the discharge of sea water for cooling systems and chemical waste disposal***

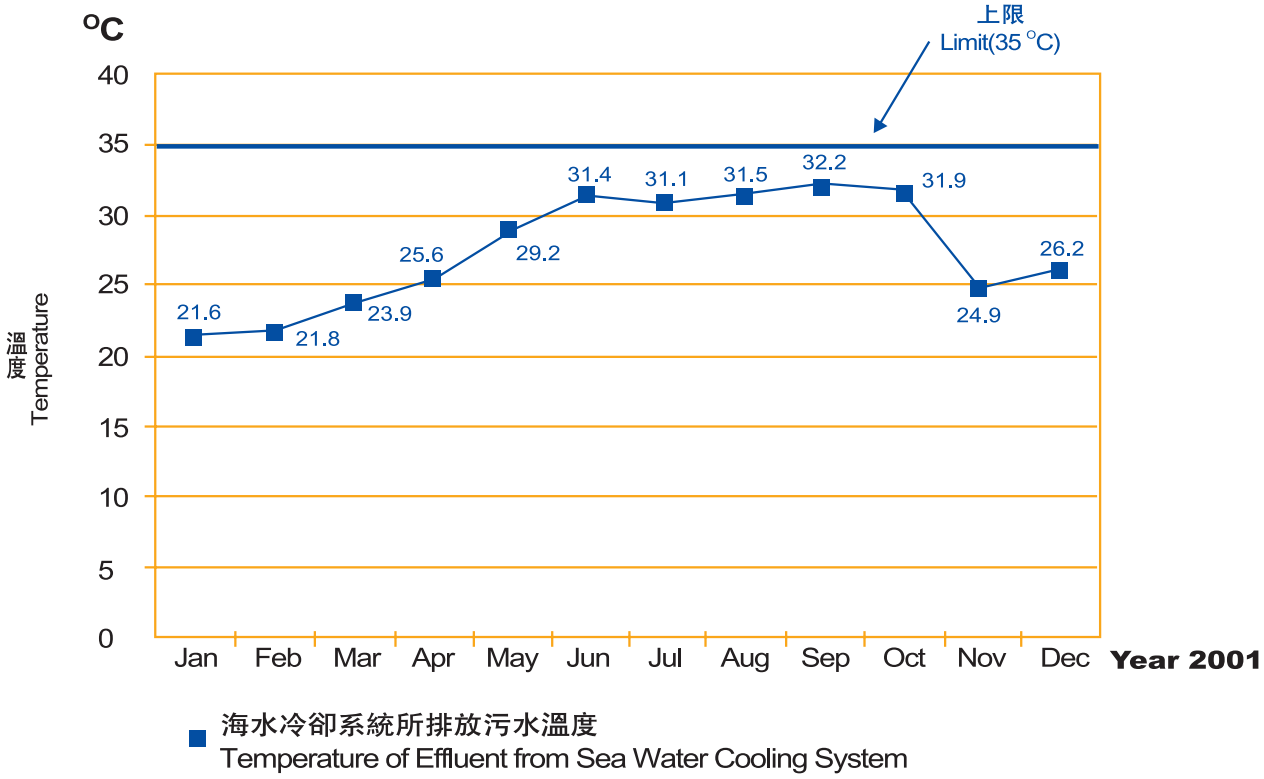
As a waste producer, the disposal of waste in regard to the plants and machinery operated by CAD was conducted in compliance with the terms and conditions set by the Environment Protection Department (EPD) under the Waste Disposal (Chemical Waste) (General) Regulation of the Waste Disposal Ordinance (Chapter 354).

The discharge of sea water from the cooling system in ATCX and BATCX was conducted in compliance with the Water Pollution Control Ordinance (Chapter 358).

圖七－航空交通管制大樓海水冷卻系統所排放的污水分析

Diagram 7 - Analysis of Effluent from Sea Water Cooling System in ATCX



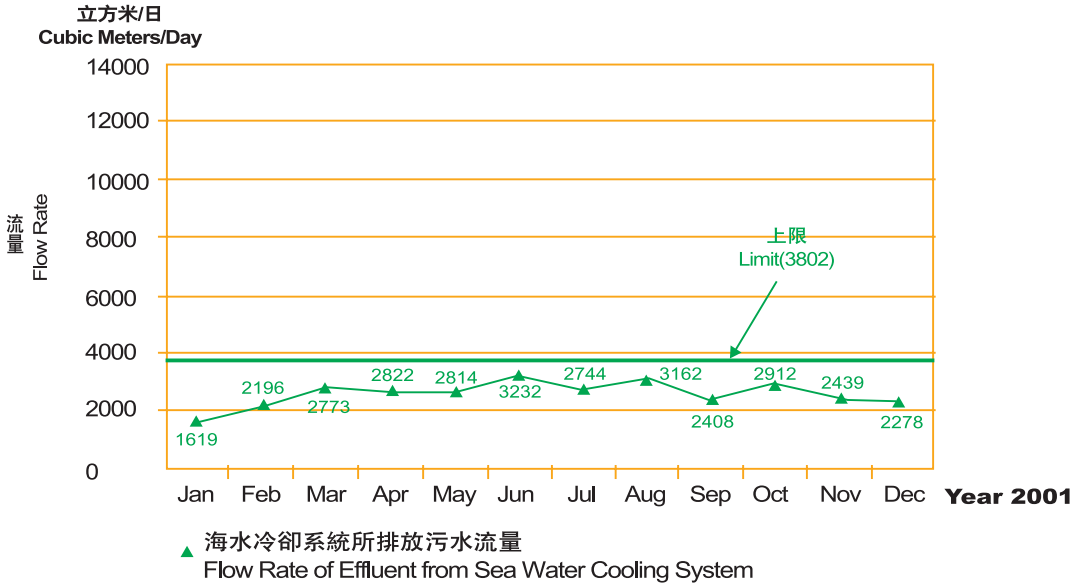


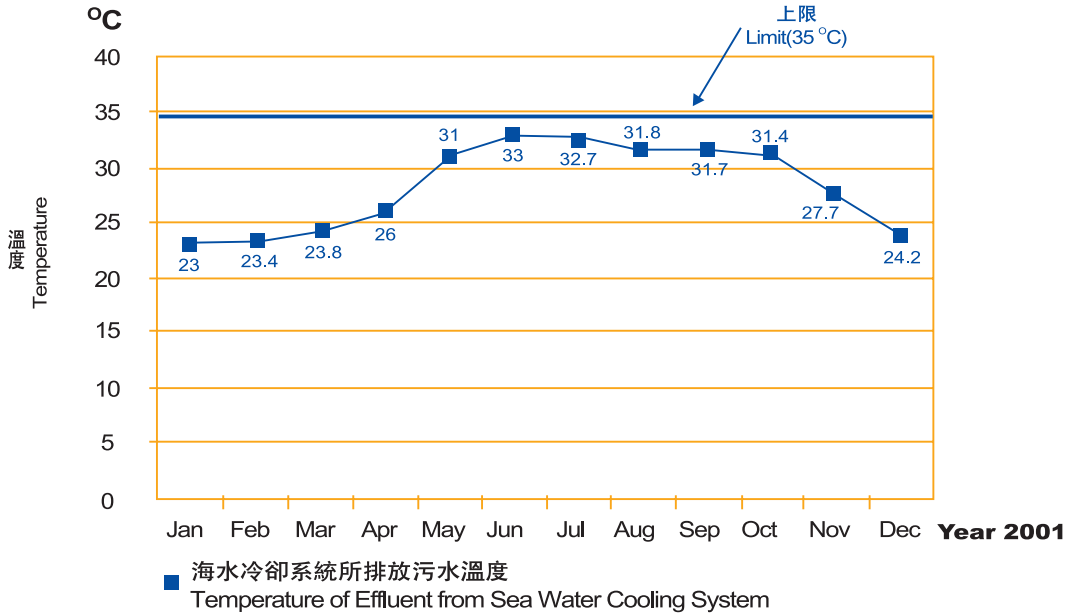
* 所排放污水的酸鹼值及總殘餘氯水平均符合環保署訂定的標準（酸鹼值：6-9，總殘餘氯：0.5 毫克／升）

* The pH and Total Residual Chlorine levels of the discharged water were also within the limits (pH : 6-9, Total Residual Chlorine : 0.5 mg/l) set by EPD.

圖八－備用航空交通管制大樓海水冷卻系統所排放的污水分析

Diagram 8 - Analysis of Effluent from Sea Water Cooling System in BATCX





* 所排放污水的酸鹼值及總殘餘氯水平均符合環保署訂定的標準（酸鹼值：6-9，總殘餘氯：0.5 毫克／升）

* The pH and Total Residual Chlorine levels of the discharged water were also within the limits (pH : 6-9, Total Residual Chlorine : 0.5 mg/l) set by EPD.

◆ 鼓勵員工使用電郵溝通

鼓勵員工用電郵作內部溝通，從而節約用紙是本處的持續目標。目前，我們正謀求以電子方式分發職位調派通告、內務通告、電話目錄等資料，藉此盡量減少用紙。我們會繼續不遺餘力，鼓勵員工多以電子媒介來溝通。

◆ *Encourage use of e-mail for office communication*

This is a continuous target to reduce paper consumption by encouraging staff to use e-mail for internal communications. Currently, we are exploring ways and means to disseminate information such as posting circulars, departmental circulars and telephone lists electronically with a view to reducing paper circulation as far as practicable. We will continue our effort in promoting electronic communication among staff.

目標概覽
Target Summary

項目 Issue	目標完成日期 Target Date	進度 Progress
飛機噪音 Aircraft Noise		
與航空公司和空管人員共同努力，使由晚上11時至翌日早上7時從07號跑道離港的飛機中，有95%使用南行航線 Work with airlines and ATC to achieve 95% of departing aircraft using south-bound route when Runway 07 is in use between 11:00 pm and 7:00 am	持續目標 Continuous Target	於二零零一年達到目標 Achieved in 2001
與航空公司和空管人員共同努力，使由午夜12時至翌日早上7時到港的飛機中，有90%從機場西南方對出海面進場降落 Work with airlines and ATC to achieve 90% of arriving aircraft landing over water from the southwest between midnight and 7:00 am	持續目標 Continuous Target	於二零零一年達到目標 Achieved in 2001
採用國際民航組織新定的消減噪音離場程序 Introduce the new ICAO noise abatement departure procedures	二零零二年 2002	有待完成 To be achieved
制定計劃以便逐步淘汰在香港國際機場運作的較舊型和嘈吵的飛機 Establish a programme to gradually phase out the operation of older and noisier aircraft at HKIA	持續目標 Continuous Target	繼續 Continuing
與航空公司和空管人員共同努力，以配合航機於晚上時份在香港國際機場着陸時採用持續降落模式運作 Work with airlines and ATC to facilitate airlines' adoption of CDA procedure at HKIA during night period	持續目標 Continuous Target	繼續 Continuing
與有關區議會、傳媒、其他有關各方及市民保持定期的接觸 Maintain regular contact with concerned district councils, the media, other concerned parties and the general public	持續目標 Continuous Target	繼續 Continuing
維持互聯網網站的運作以方便市民取得有關飛機噪音和飛機航道的資料 Maintain an internet web site to facilitate public access to aircraft noise and flight path information	持續目標 Continuous Target	繼續 Continuing
在東涌增設噪音監察站 Install additional noise monitor in Tung Chung	二零零一年 2001	延至二零零二年 Deferred to 2002
在青衣增設噪音監察站 Install additional noise monitor in Tsing Yi	二零零二年 2002	有待完成 To be achieved
在上環增設噪音監察站 Install additional noise monitor in Sheung Wan	二零零二年 2002	有待完成 To be achieved

節省能源 Energy Conservation		
購買具高能源效益的設備 Purchase equipment of high standard of energy efficiency	**持續目標** Continuous Target	**於二零零一年達到目標** Achieved in 2001
維持用電增長率低於航機班次的增幅 Maintain the growth in electricity consumption at a level below the growth in air traffic movements	**持續目標** Continuous Target	**於二零零一年達到目標** Achieved in 2001
減少廢物 Waste Minimisation		
繼續實施廢紙和雷射打印機墨盒回收計劃 Continue to implement the waste paper and laser printer cartridge recycling schemes	**持續目標** Continuous Target	**繼續** Continuing
遵照有關的環保規例去處理冷卻系統所排放的海水和處理化學廢物 Comply with environmental regulations with regard to the discharge of sea water for cooling system and chemical waste disposal	**持續目標** Continuous Target	**於二零零一年達到目標** Achieved in 2001
維持用紙量於二零零零年的水平 Maintain the paper consumption at the level of 2000	**二零零一年** 2001	**達到目標** Achieved
維持用紙量於二零零一年的水平 Maintain the paper consumption at the level of 2001	**二零零二年** 2002	**有待完成** To be achieved
按紙張重量定出基數和準則，以便據此監察回收廢紙供循環再造的成效 Establish base figures and yardstick in terms of weight for monitoring performance on collection of waste paper for recycling	**二零零一年** 2001	**達到目標** Achieved
鼓勵員工使用電郵溝通 Encourage use of e-mail for office communication	**持續目標** Continuous Target	**繼續** Continuing