

Government Flying Service Environmental Report 2007

Foreword

This environmental report covers the environmental issues of the Government Flying Service (GFS) in 2007. In this report, we will focus on the key ways we work to help improve the environment and the direct environmental impact of our day-to-day departmental activities.

This report is primarily intended for Hong Kong citizens, our various business partners, other government departments, our own staff and other stakeholders. We understand that a single environmental report will probably not be capable of fully satisfying the information needs and interests of such a diverse group. If you feel there are specific areas that the report should include, please let us know and we will try to take into account your views in our future reports.

1. What we do

The Government Flying Service (GFS) is a disciplined services department of the Government of the Hong Kong Special Administrative Region and is located at the south-western edge of the Hong Kong International Airport.

We provide the community of Hong Kong with a wide range of flying services, including round-the-clock search and rescue coverage, casualty and medical evacuation, fire fighting and support to the law enforcement agencies and government departments. We also provide emergency services to the international air carriers within our Flight Information Region and international merchant ships using the shipping lanes within our Maritime Area of Responsibility.

The GFS has an establishment of 223 full-time civil servants as at 31 December 2007 responsible for operations, maintenance and administration. We operate a fleet of nine aircraft, namely two fixed-wing aeroplanes and seven helicopters to carry out the full range of flying services and support.

In 2007, the GFS flew a total of 5,588 hours. It assisted in 343 search and rescue operations, transported 1,400 patients to hospital by helicopter and flew 5,962 government officers and official visitors. The recurrent expenditure of the GFS in

2007/08 is \$152 million.

All the flying, engineering and administrative activities, including environmental management activities, are monitored by both internal and external quality and audit control organizations including our own Quality Section, the Civil Aviation Department, and other world renowned aviation units such as the Royal Air Force.

2. Our specific job

Our major tasks are to:

- carry out search and rescue over both land and sea;
- conduct casualty evacuation;
- support the Hong Kong Police Force and other law enforcement agencies of Hong Kong in carrying out their law enforcement duties;
- assist in fire fighting and in responding to any other emergencies which constitute a threat to life or property;
- carry out photography for aerial surveys; and
- assist the medical services.

3. Vision and Strategy on Green Management

The GFS will continue its efforts to minimize the impact of its activities on the environment and provide the community with excellent search, rescue and aviation support services in an environmentally friendly manner.

4. Environmental, Health & Safety Policy

The GFS is committed to conducting operations in compliance with all environmental, health and safety requirements and regulations. The management is entrusted to providing a safe workplace for all our employees and customers.

The managers and supervisors in the GFS have the responsibility to ensure that every employee fully understands the safety policies and procedures applicable to his/her work area. The responsibility for safety and environmental practices follow the chain of command and supervisors will be held accountable for a subordinate's actions. The supervisors should provide all necessary training and instructions for their staff to perform their duties in an environmentally sound and safe manner.

Each employee has the responsibility to comply with the GFS work rules, and follow

safe work practices and procedures established to protect the environment and the employees. All employees are asked to report to their supervisor all unsafe acts, hazardous conditions, and conditions which impact, or have the potential to impact the environment.

The Government Flying Service Environmental, Health and Safety Committee oversees the Government Flying Service environmental, health and safety policy and goals. It is also responsible for addressing certain topics, including but not limited to waste reduction, accident prevention and training programmes.

The Controller, GFS is personally committed to the continual improvement of our environmental, health and safety performance and will authorise actions necessary to achieve these objectives.

In 2007, the Committee continued to promote occupational safety and health as well as environmental protection.

5. Green Personnel

In the GFS, the Green Manager is responsible for overseeing the environmental issues of the department. He is assisted by the Green Task Force and Energy Wardens in implementing the GFS's Green Policy.

Green Manager

The Pilot I (Aeroplane Training) is the Green Manager of the GFS with the following responsibilities:

- (a) implementing a programme of green housekeeping within the department;
- (b) introducing measures to increase staff awareness and involvement in relation to environmental issues; and
- (c) publicising the commitment to protect the environment, formulating action plans and recording achievements.

He is the focal point whereby all initiatives related to the environment can be coordinated, sustained, reviewed and strengthened. He is assisted by the Assistant Departmental Secretary in carrying out these duties.

Green Task Force

The GFS set up a Green Task Force in February 2003 with the main focus on energy conservation. Members of the Task Force are:

Aircraft Engineer (Electrical/Instrument)2
Assistant Manager (Operations) 1
Assistant Departmental Secretary
Assistant Supplies Officer

They are representatives of the Engineering, Operations, Supplies and Administration Sections. They are responsible for liaising with staff members to explore possible options for saving energy without affecting the GFS operations and also discussing with the Electrical and Mechanical Services Department (EMSD) on how to make the proposals and ideas into effective measures.

Energy Wardens

Energy wardens from different sections have been appointed since January 2005. Their main duty is to inspect and ensure that the housekeeping measures for saving energy are complied with. For example, they assist in ensuring that the air-conditioning output at the corridor and lobby areas is always set at a "low cool" level in order to avoid unnecessary consumption of energy. They are also responsible for reminding colleagues to observe the energy saving measures.

6. Our Environmental Concerns and Initiatives

6.1 Aircraft Noise

We are very much concerned with the noise that is generated by our aircraft. Due to the nature of our flying services, such as casualty evacuation and support of law and order, it is not always possible to avoid flights where the noise may affect the public. Nevertheless, we have always been conscious of the need to conserve the environment and have taken various measures to protect the environment and minimize the noise nuisance caused to the public. Our measures include -

(a) Higher transit height through the harbour

Unless there is an operational requirement, our helicopters will fly at 1,000 feet or above in the harbour to reduce the noise caused to the public.

(b) Winding down of helicopter rotors

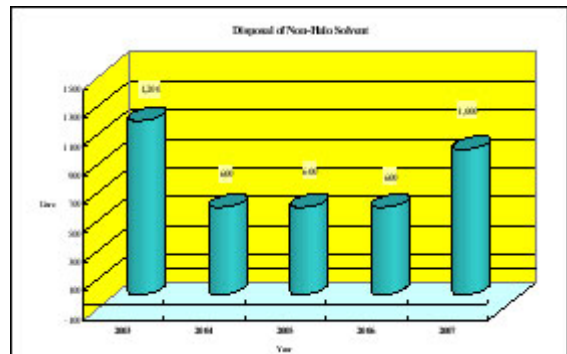
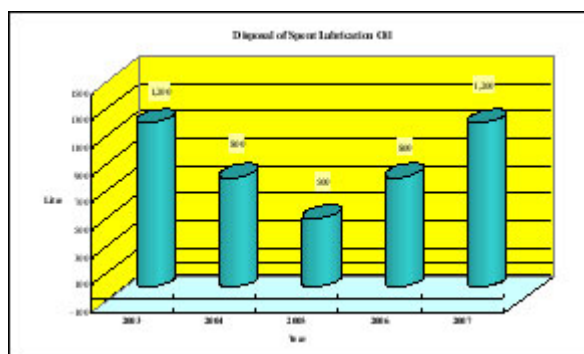
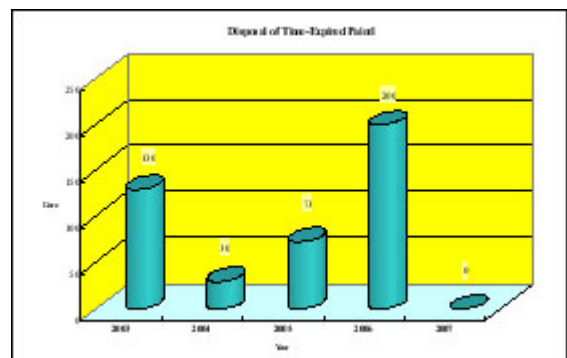
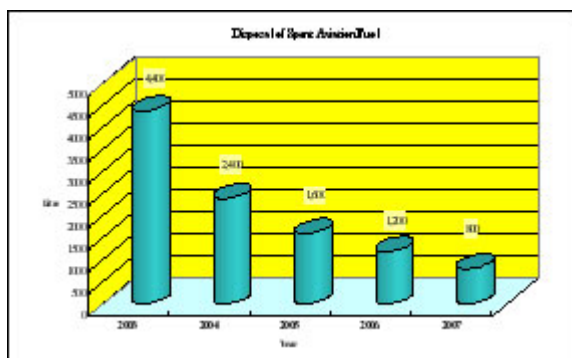
If a prolonged waiting time is expected, especially at a helipad in the urban area (e.g. Eastern Hospital rooftop), the helicopter rotors would be winded down to reduce the noise caused to the residence nearby. This can also help save fuel.

(c) Flight scheduling

Different tasks are combined into one flight as far as possible to reduce the total flight time and fuel consumption.

6.2 Chemical Substances

The common chemical substances used in the GFS for the maintenance of our fleet are cleaning solvent, aviation fuel (AVTUR), lubrication oil, grease and paints. These substances are used on a daily basis. The waste chemical substances are disposed of through licensed waste collectors approved by the Environmental Protection Department. The amount of waste disposed of in the past five years is as follows -



For flight safety, the GFS conducts fuel sampling for each aircraft daily before the fuel is injected into the aircraft. In the past, the GFS disposed of these fuel samples. To reduce the amount of chemical wastes, since 2005 the GFS filtered the fuel

samples and re-used it for other purposes. This has resulted in a significant reduction in the amount of spent aviation fuel.

After years of effort, the disposal of time-expired paint has stabilised at a low level. The 200 litres of time-expired paint disposed of in 2006 included some expired paint in 2004. We have not disposed of it earlier because the Environmental Protection Department requires that chemical waste cannot be disposed of without the relevant material safety data sheet. We were only able to obtain such data sheet for the 2004 expired paint in 2006. There will be savings in cost if the paint is disposed of in one lot. We have not disposed of any time-expired paint in 2007 because the amount was minimal. The disposal action will roll over to 2008.

When compared to 2006, we disposed of 400 litres (or 50%) more spent lubricating oil in 2007 because more maintenance tasks involving large consumption and waste generation of lubrication oil were performed in 2007. We are mindful of such waste generation during maintenance and would keep it to the absolute minimum.

In 2007 we disposed of 1,000 litres of non-halo solvent which was 400 litres (or 60%) more than that in 2006 because we have included some solvent which was generated from 2004 to 2006. We have not disposed of it earlier because we were only able to obtain EPD's relevant material safety data sheet for it in 2007.

The GFS reminds its staff regularly the importance of the effective use of chemical and solvents in maintenance activities so as to further reduce the amount of chemical wastes.

6.3 Working with Other Government Departments in Environmental Protection

We work closely with other government departments in environmental protection. For example, our helicopters assist the Marine Department in conducting surveillance of floating refuse and oil pollution in Hong Kong waters. We also help in spraying oil dispersant over the sea when required.

Our helicopters also assist the Agriculture, Fisheries and Conservation Department in conducting a "Sky-shout" exercise on hill fire prevention publicity. On Sunday, public holidays and particularly Chung Yeung Festival and Ching Ming Festival, our helicopters help to disseminate the message of preventing hill fire to the public by flying above the countryside and playing pre-recorded voice messages through the

loudhailers.

In addition, our aircraft carry officers of the Environmental Protection Department (EPD) to take aerial photographs of power stations and their surrounding environment for studies and analysis. We also assist EPD in conducting aerial inspections, surveys and monitoring of river catchments of Deep Bay and Mirs Bay on the spreading of wastewater plumes from major sewage outfalls. Our aircraft are also used to take aerial photographs for conducting site inspections and survey of existing waste facilities such as landfills and transfer stations as well as planning of special waste projects in the territories.

6.4 Energy Use and Energy Savings Measures

The 'Green Personnel' of the GFS are constantly looking for opportunities and the latest products that can bring about savings in energy or electricity consumption.

As an initiative for the use of renewable energy, with the assistance from the EMSD, the GFS installed 66 solar panels at the rooftop of the GFS HQ Premises in 2007. The solar panels will be used for collecting and converting solar energy into alternative current and produce power supply to the GFS HQ Premises. It is expected that about 36,135 kWh of electricity could be generated from the solar panels annually and about \$25,294 cost on electricity could be saved. It also represents a reduction in emission of 69 kg of Sulphur dioxide (SO₂), 41.92 kg of Nitrogen oxides (NO_x) and 25,294 kg of Carbon dioxide (CO₂) which are the major air pollutants in Hong Kong. The system will come into operation in the second quarter of 2008 after testing and fine-tunings of the system.

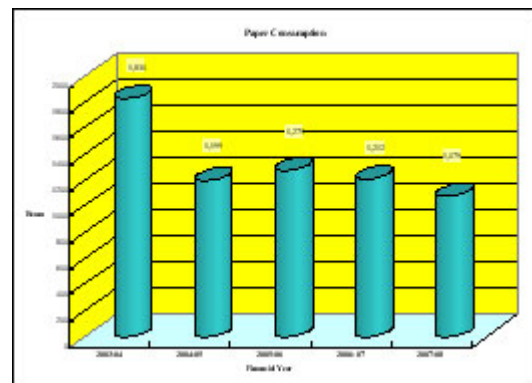
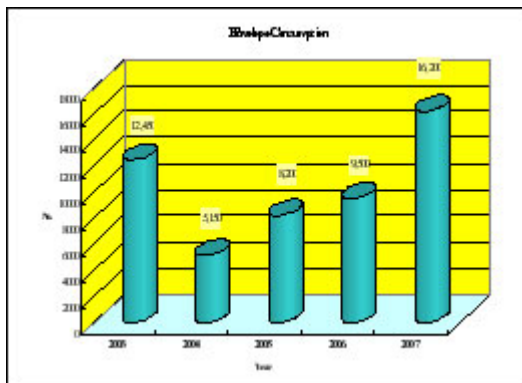
We understand that good practices and house keeping rules help towards energy conservation. From time to time, the GFS management reminds officers through emails or circulars of the importance of saving energy and also of the various means for achieving this.

6.5 Office Resource Consumption

(a) Paper and Envelope Consumption

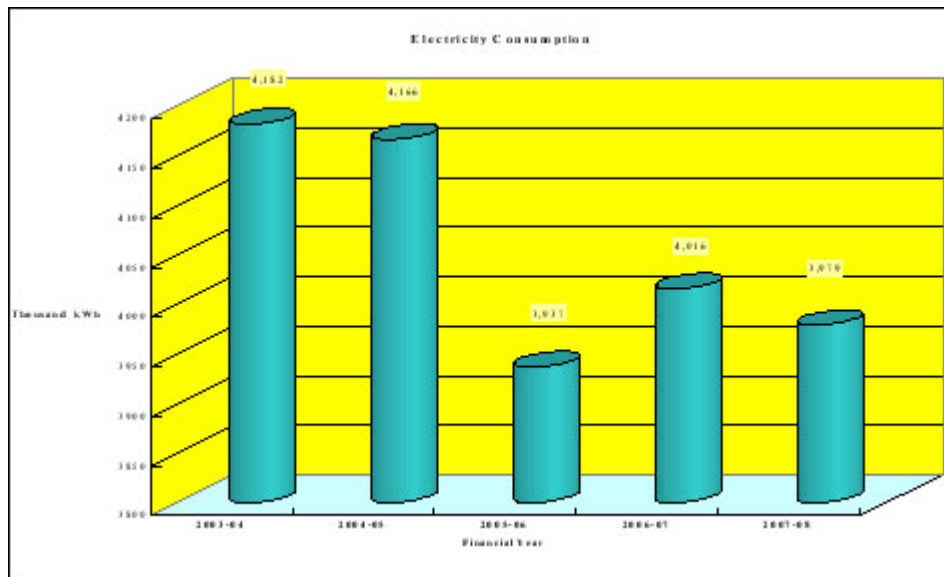
The overall policy of the Government on paper consumption for departments is to reduce the consumption progressively by 2.5%, 5%, 7.5% and ultimately 10% over four years by 2006-07, using the Financial Year of 2002-03 as the base year. In 2006-07, the paper consumption in the GFS has reduced by 33.5% when compared with that of 2002-03. The target of reduction in paper consumption was

met. In 2007-08, the GFS was able to further reduce the paper consumption by 11% when compared with that of 2006-07. There was a significant increase in envelope consumption in 2007. The increase was mainly due to unavoidable demand for sending out publicity materials for the GFS Open Day and letters for the recruitment exercises in 2007. We will continue to closely monitor the use of paper and envelopes.



(b) Electricity Consumption

It is the government's policy for each department to cut down the electricity consumption by 1.5%, 3%, 4.5% and 6% over four years by 2006-07, using the Financial Year of 2002-03 as the base year. In 2006-07, the electricity consumption in GFS has reduced by 12.9% when compared to that of 2002-03. The target of reduction in electricity consumption was met. In 2007-08, the GFS was able to further reduce the electricity consumption by 37,000 kWh or 0.9% when compared to that of 2006-07. It represented a reduction in emission of 70.67 kg of Sulphur dioxide (SO₂), 42.92 kg of Nitrogen oxides (NO_x) and 25,900 kg of Carbon dioxide (CO₂).



6.6 Green Housekeeping Measures

The green housekeeping measures we have continued to implement in 2007 can be broadly grouped into the following categories:

- reducing paper and energy consumption (e.g. encourage the use of electronic means for circulation of documents, communications ; suspension of lifts and setting the temperature for offices at 25.5°C)
- using environmentally friendly stationery, office equipment and lighting equipment (e.g. use of bio-degradable plastic rubbish bags, use of energy saving light bulbs, occupancy sensors for lighting at common areas and timer-control for illumination lights at the lift lobby, activating the "energy saving" mode in all computer terminals)
- collecting recyclable materials (e.g. paper, aluminum cans, floppy diskettes and toner cartridges);
- implementing the smoke-free workplace policy;
- conducting regular indoor air quality checks;
- arranging with Environmental Protection Department to deliver talks on environment protections and green lifestyle to GFS staff ; and
- encouraging staff to contribute ideas on green practices.

7. Aims for 2008

We will continue to encourage and remind our staff to practise and implement the various measures/programmes initiated in 2007 to help protect the environment.

Our targets in 2008 are:

- to maintain the electricity consumption at current level despite the anticipated increase in the number of electrical and electronic equipment in the coming year;
- to work closely with the EMSD in implementing more energy-saving measures to reduce electricity consumption and identifying new source of renewable energy ; and
- to continue to educate our officers on the awareness and importance of environmental protection. We will invite officers from the Environmental Protection Department to deliver talks on environmental protection topics and nominate staff to attend seminars on related topics organized by other government departments.

We will continue to monitor progress in the above areas.

8. Information and Suggestions

For further information required or any suggestions, you may contact the Departmental Secretary of the GFS through:

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