



Government Flying Service Environmental Report 2008

Foreword

This environmental report covers the environmental issues of the Government Flying Service (GFS) in 2008. 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 residents, 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.

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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 corner of the Hong Kong International Airport.

We provide the Hong Kong community 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 the Hong Kong Flight Information Region and international merchant ships using the shipping lanes within the Hong Kong Maritime Area of Responsibility.

The GFS has an establishment of 223 full-time civil servants as at 31 December 2008 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 2008, the GFS flew a total of 4,910 hours. It assisted in 326 search and rescue operations, transported 1,350 patients to hospital by helicopter and flew 5,480 government officers and official visitors. The recurrent expenditure of the GFS in 2008/09 is \$161 million.

2. *Our Specific Job*

Our major tasks are to:

- carry out search and rescue over both land and sea;
- conduct casualty evacuation;
- provide Emergency Medical Services;
- support the Hong Kong Police Force and other disciplined services 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
- support various government departments in the transportation of materials or personnel to remote locations.

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, Government Flying Service is personally committed to the continual improvement of our environmental, health and safety performance and will authorise actions necessary to achieve these objectives.

In 2008, 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

Captain George Lee, 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.



Members of the Green Task Force (2007-08)

6. *Our Environmental Concerns and Initiatives*

6.1 *Aircraft Noise*

We are very much concerned with the noise 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

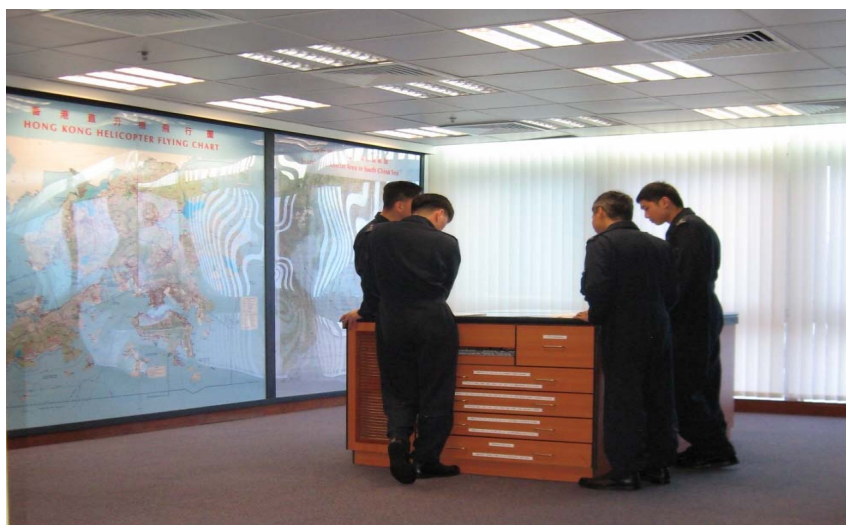
Unless there is an operational requirement, our helicopters will fly at 1,000 feet or above in the harbour to reduce the noise caused to the public.

(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.

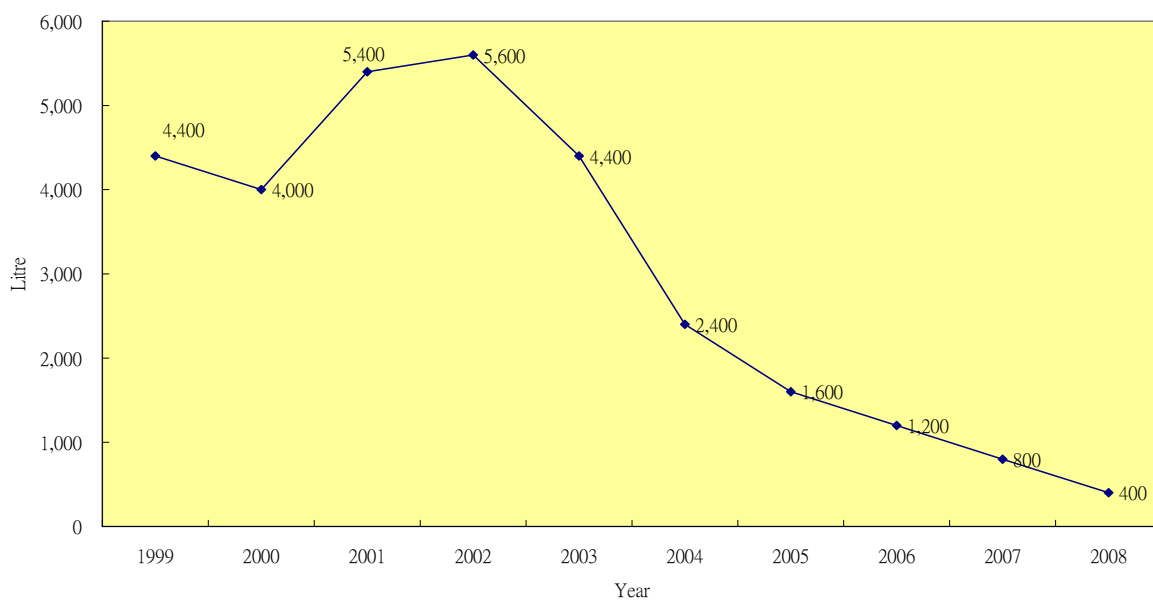


Pre-flight planning

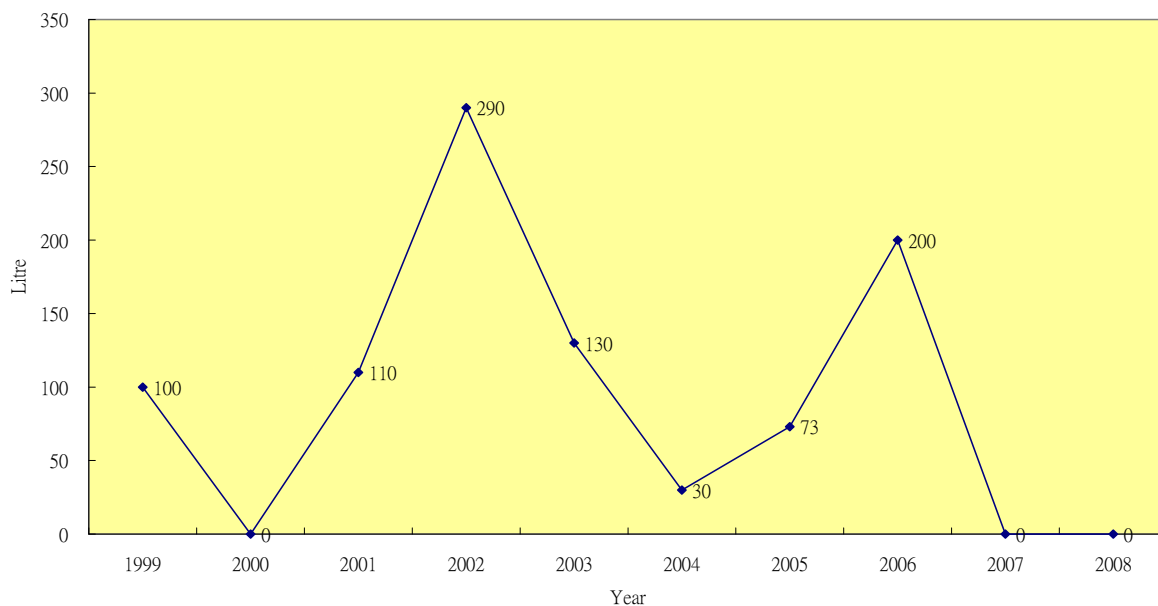
6.2 Chemical Substances

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 ten years is as follows -

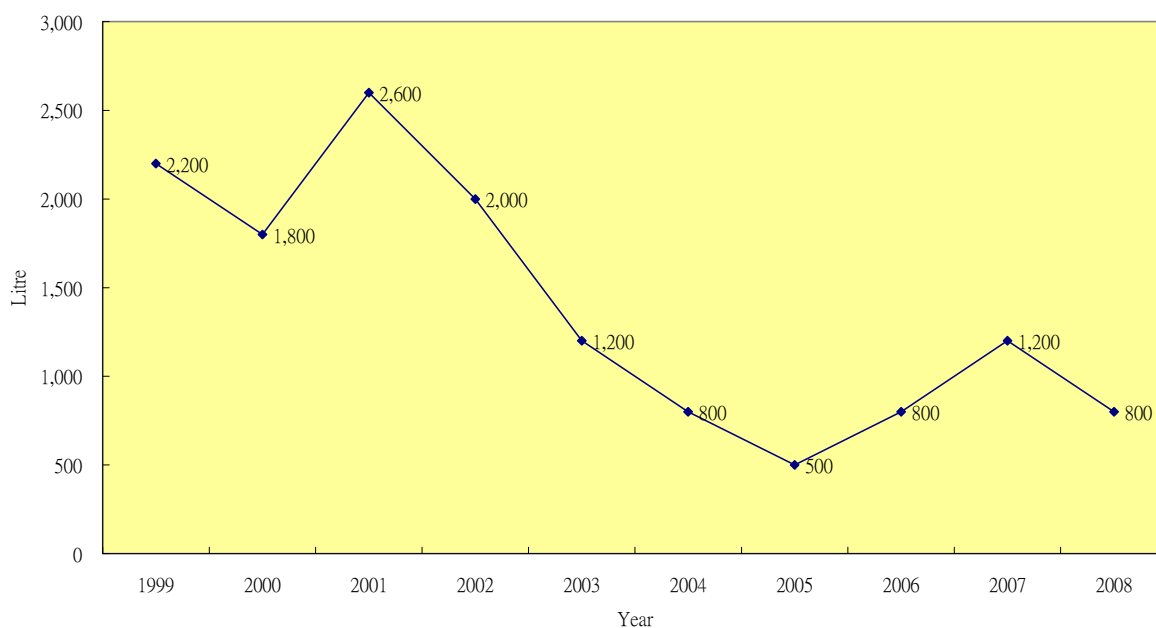
Disposed spent aviation oil



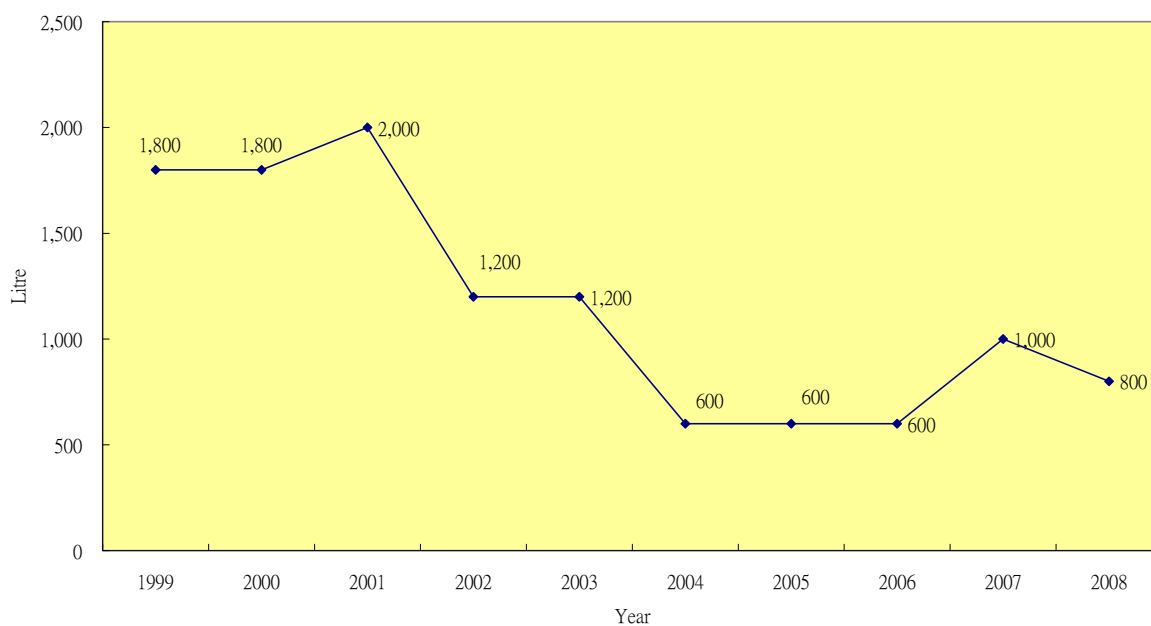
Disposed time-expired paint



Disposed spent lubrication oil



Disposed non-halo solvent



For flight safety purpose, the GFS conducts fuel sample check for each storage tank and each aircraft daily. 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 stabilized at a low level. The amount of time-expired paint disposed of in 2008 was zero. We have not disposed of any time-expired paint in 2007 and 2008 because the amount was minimal. The disposal action will be taken in 2009 together with those produced in that year. We have tried to use some of the aircraft paint waste for ground equipment maintenance with the aim of reducing the waste.

When compared to 2007, we disposed of 400 litres (or 33%) less spent lubricating oil in 2008 because less maintenance tasks involving large consumption and waste generation of lubrication oil were performed in 2008. We are mindful of such waste generation during maintenance and would keep it to the absolute minimum.

In 2008, we disposed of 800 litres of non-halo solvent which was 200 litres (or 20%) less than that in 2007 because less maintenance tasks involving large generation of non-halo solvent were performed in 2008.

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.



Helicopter in oil spill dispersant spray operation

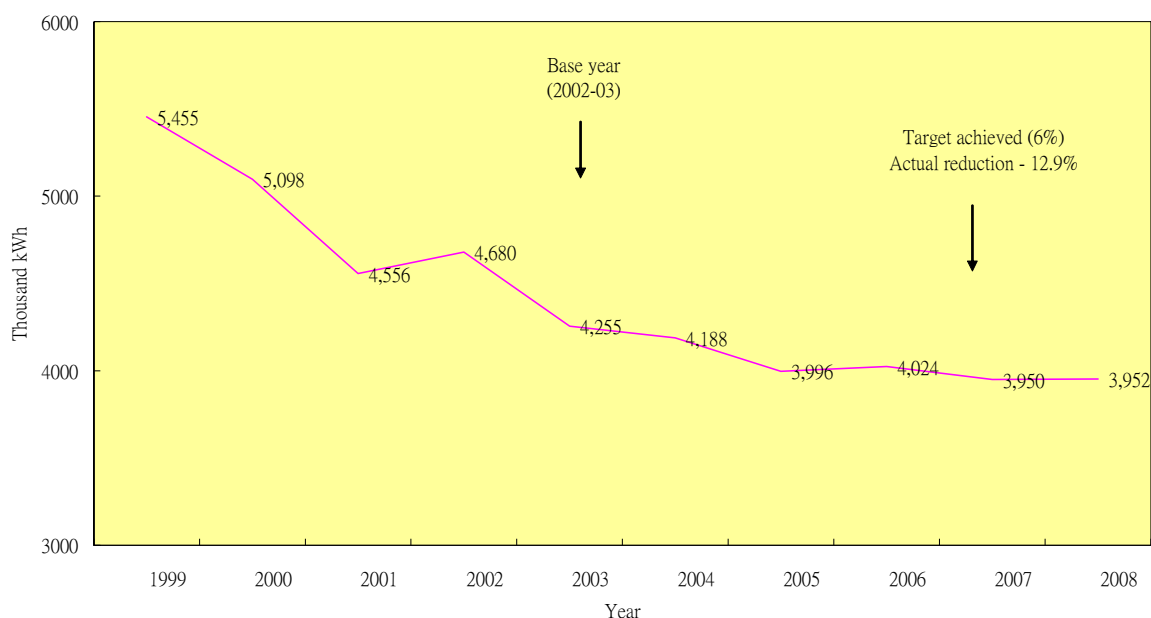


Helicopter in fire-fighting operation (fire tank)

6.4 Energy Use and Energy Savings Measures

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 2002-03 as the base year. In 2006-07 GFS was able to reduce the electricity consumption by 12.9% when compared to 2002-03. The target of reduction in electricity consumption was met. The GFS is highly concerned about energy conservation. Through the implementation of different energy saving measures, we are able to achieve reduction in electricity consumption and to maintain the consumption at a low level. The table below shows the electricity consumption in the GFS for the past ten years.

Annual Electricity Consumption in the GFS HQ Premises



When compared to 2002, the GFS was able to reduce 728,000 kWh (or 16%) of electricity consumption in 2008. It also represents a reduction in emission of 1,504 kg of Sulphur dioxide (SO₂), 850 kg of Nitrogen oxides (NO_x) and 5,398,848 kg of Carbon dioxide (CO₂) which are the major air pollutants in Hong Kong.

In 2008, we adopted the following energy saving measures –

(a) Solar Panels

As an initiative for the use of renewable energy, the GFS installed 66 solar panels at the rooftop of the GFS HQ Premises with the assistance from the EMSD in 2007. The solar panels are used for collecting and converting solar energy into alternative current and produce power supply to the GFS HQ Premises. The system started operation in April 2008. It has contributed to a saving of about 7,864 kWh of electricity (equivalent to \$8,650 electricity cost) during the period from April to December 2008.

(b) Use of occupancy sensors and timer-controlled switches

We extended the use of occupancy sensors for the control of lighting at changing rooms, corridors, common rooms and workshops. Now we have over 40 occupancy sensors installed at the GFS Premises which cover about 30% of office area in the GFS. We also use timer-controlled lighting for areas like the display board at the lift lobby, corridors, car park, illumination lights on the outside walls.

(c) Modification and rewiring of the lighting and air-conditioner switches

We modified the lighting and air-conditioning switches to reduce the area controlled by individual switches to reduce unnecessary electricity consumption. We have also incorporated the idea of “zoning” the lighting and air-conditioning facilities in our office renovation projects.

(d) Other house keeping measures

We also adopted other measures such as activating the “energy saving” mode in all computer terminals, suspension of the passenger lift, installation of solar films at the windows which are exposed to direct sunlight, setting the room temperature at 25.5°C and regular inspection to common areas.



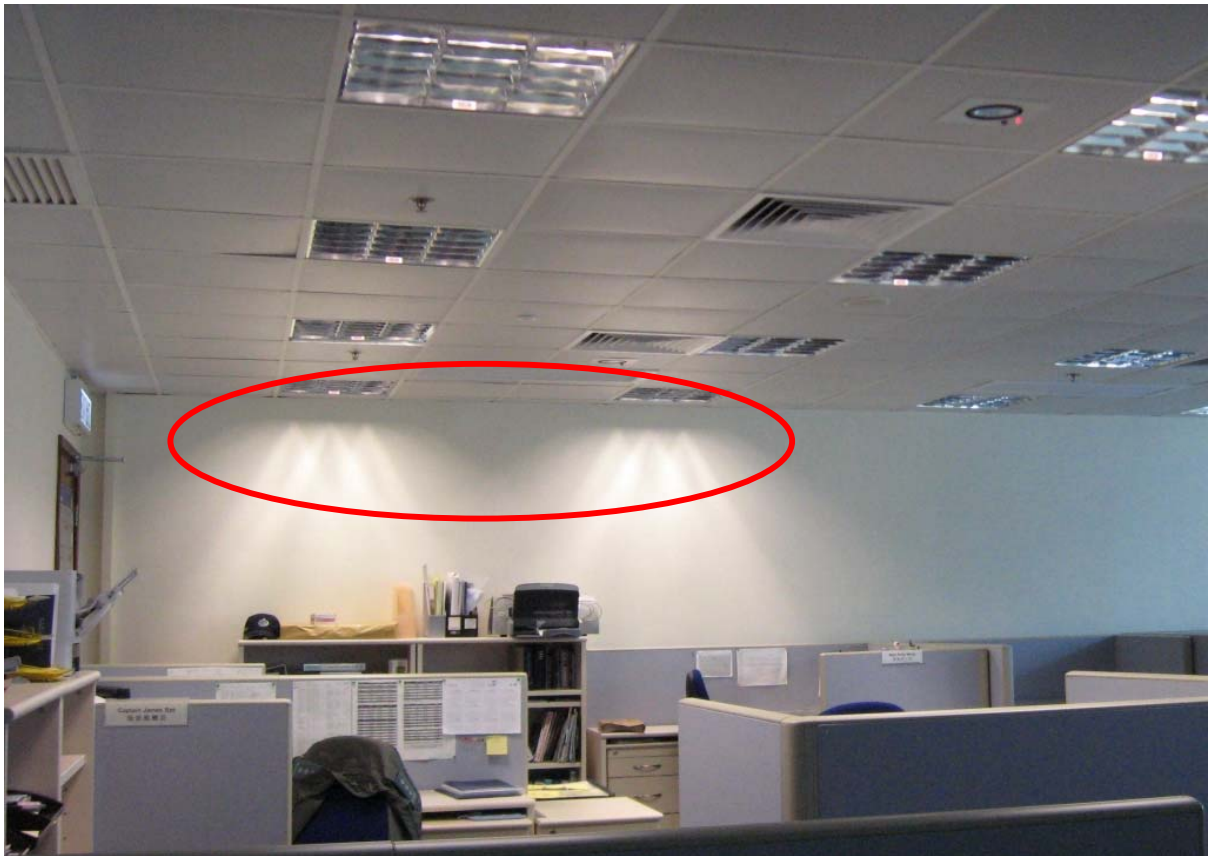
Solar Panels



Occupancy sensor



Setting room temperature at 25.5°C



Zoned lighting and switches



Suspension of the passenger lift

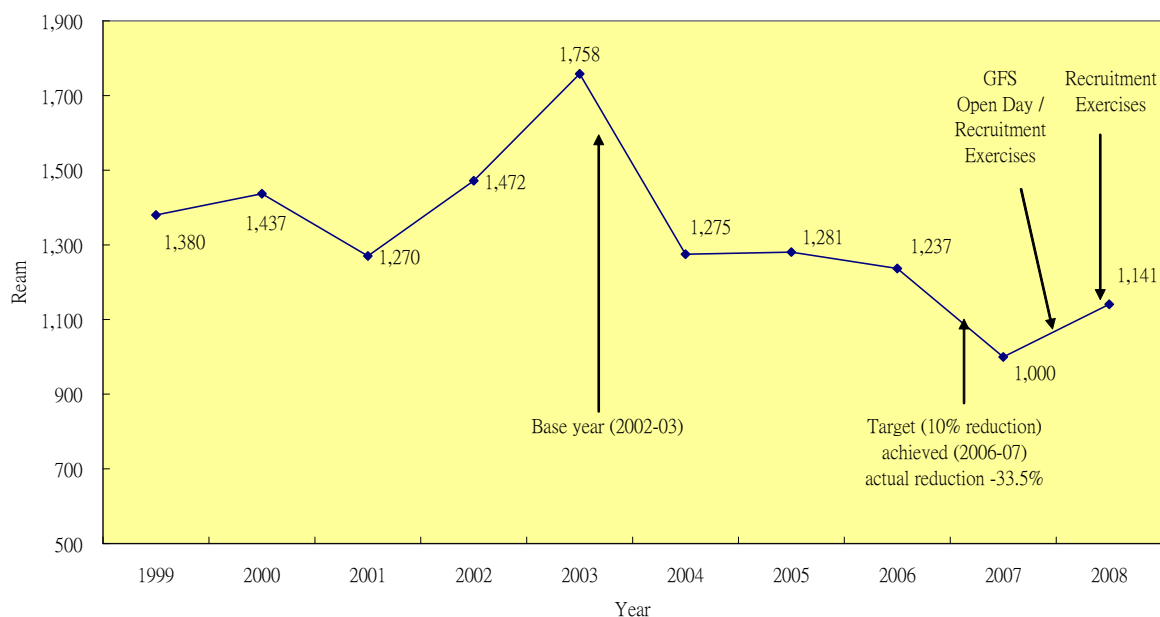


Solar films at the Air Command and Control Centre

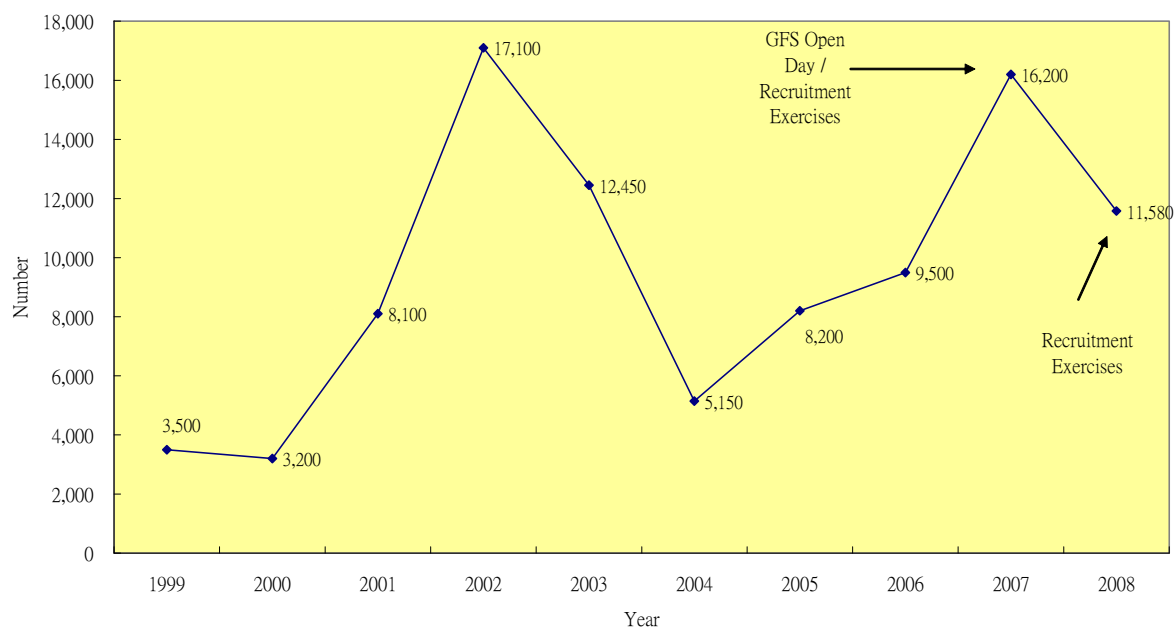
6.5 Paper Consumption

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.

Annual Paper Consumption in GFS



Annual Envelope Consumption in GFS



Compared to 2006, the consumption of envelope in 2007 and 2008 has increased by 71% and 22% respectively. This was mainly due to unavoidable demand for activities like recruitment exercises for filling vacancies and the 2007 GFS Open Day. We will continue to closely monitor the use of paper and envelopes and promote the use of electronic communication, reuse of paper, envelopes and file jackets etc.

6.6 Other Green Housekeeping Measures

The green housekeeping measures we have continued to implement in 2008 can be broadly grouped into the following categories:

- use of environmentally friendly lighting facilities, electrical appliances, stationery, office equipment and sundries items (e.g. bio-degradable plastic rubbish bags and rechargeable batteries) ;
- collection of recyclable materials (e.g. paper, aluminum cans, floppy diskettes, plastic bottles and toner cartridges) ;
- implementation of a smoke-free workplace policy and setting up of a designated smoking area outside the GFS HQ Building ;
- promotion of “Green” lifestyle through the issue of Green tips and e-newsletters and participation in related activities such as the Community Chest Green Day on 19.3.2008.



Removal of fluorescent light bulbs in offices and corridors



Rechargeable batteries and charger



Recycle bins

7. *Aims for 2009*

We will continue to encourage and remind our staff to practise and implement the various measures/programmes initiated in 2008 to help protect the environment. Our targets in 2009 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 (e.g. installation of solar films and extension of occupancy sensors) to reduce electricity consumption 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:

letter	:	Government Flying Service 18 South Perimeter Road Hong Kong International Airport Lantau Hong Kong
fax	:	2753 8438
telephone	:	2305 8212
e-mail	:	gfsenq@gfs.gov.hk