Civil Aviation Department

Environmental Report 2014

Contents

Chapter 1 – Foreword

This Environmental Report covered the environmental performance of the Civil Aviation Department (CAD) in 2014.

In the work of environmental management, the Department strives to minimize the disturbance caused by aircraft operations to the local communities and pursue environmentally friendly operations both in various functional areas and office management. The new CAD Headquarters which commenced operation in December 2012 has been providing one-stop service to the aviation community and the general public.

Our Environmental Goals

CAD is committed to ensuring that all services provided by the Department as well as our operations are conducted in an environmentally responsible manner.

Our Environmental Policy

We support the Hong Kong Special Administrative Region Government's initiatives to improve the environment by:

- committing to a safe, efficient and sustainable air transport system in Hong Kong;
- compliance with relevant environmental protection ordinances;
- striving to minimize the adverse effect that the development of the aviation industry may cause to our quality of life and environment;
- promoting waste reduction, recovery and recycling, and reduction in consumption of resources including material, fuel and energy; and
- providing environmental education and training to staff.

Chapter 2 – Aircraft Noise Management

CAD is conscious of the impact of aircraft noise on the community and has implemented a series of noise mitigating measures. We also monitored the implementation of these noise mitigating measures and the aircraft noise situation in various districts with the aid of a computer-based Aircraft Noise and Flight Track Monitoring System.

Quieter Arrivals

Arrivals from Southwest over Water

Subject to weather and safety conditions, arrival aircraft between midnight and 7 am are required to approach from the southwest over water. This measure aims to reduce the number of aircraft overflying populated areas such as Shatin, Tsuen Wan, Kwai Chung, Tsing Yi, Sham Tseng and Tsing Lung Tau.

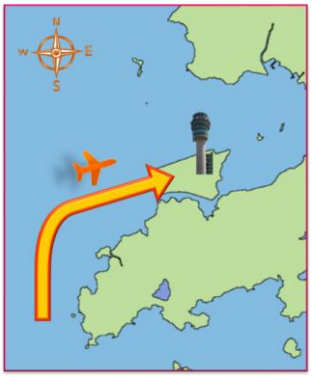


Figure 2-1: Route of arrival aircraft from southwest at night

Continuous Descent Approach

When weather and flight conditions do not allow night arrivals to approach from the southwest, arrival aircraft from the northeast direction are encouraged to adopt the Continuous Descent Approach (CDA).

The CDA requires the aircraft to fly higher and adopt a lower power and drag configuration during the commencement of the approach, thereby reducing aircraft noise impacts to areas such as Sai Kung, Tseung Kwan O and Ma On Shan.

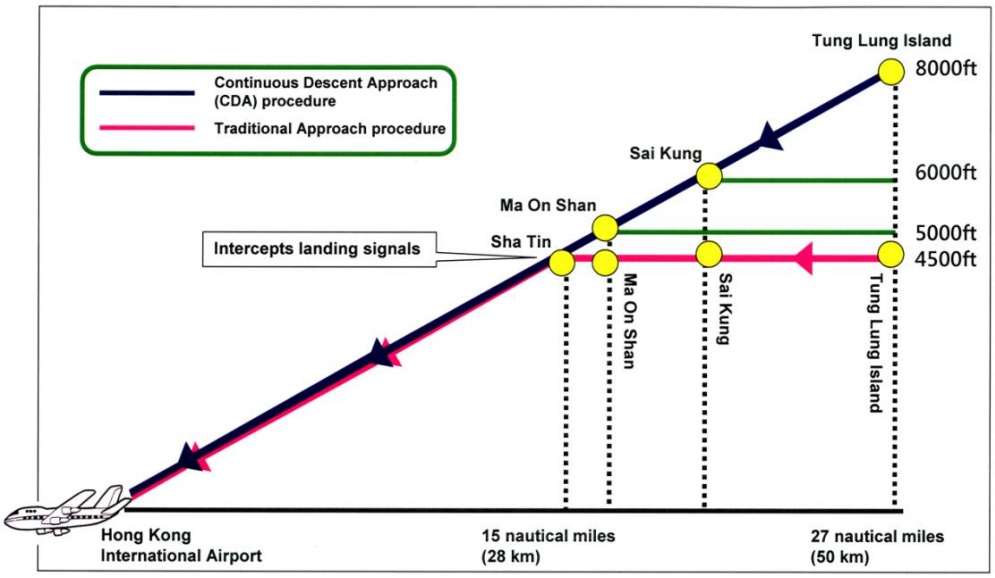


Figure 2-2: Diagram illustrating CDA

Quieter Departures

Noise Abatement Departure Procedures

All aircraft departing to the northeast are required to adopt the Noise Abatement Departure Procedures stipulated by the International Civil Aviation Organization (ICAO) so long as safe flight operations permit.

These procedures require aircraft to reduce power upon reaching an altitude of 800 feet or above, thus can alleviate aircraft noise impact during take-offs on communities in the vicinity of the airport.

Departures via West Lamma Channel

Subject to weather and safety conditions, aircraft taking off to the northeast between 11 pm and 7 am the following day are required to fly south to the West Lamma Channel, thereby avoiding flying over populated areas such as Kowloon, North Point, Shau Kei Wan and Chai Wan. Our statistics showed that most aircraft complied with this requirement.

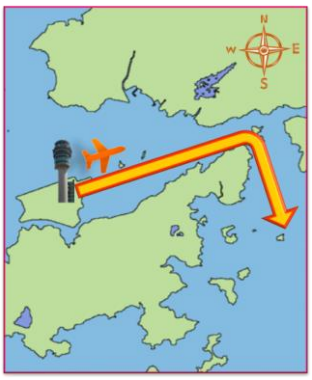


Figure 2-3: Route of departure aircraft to northeast at night

Improving Track Adherence

In 2012, we introduced a set of new noise mitigating departure procedures which makes use of satellite-based navigation technology for noise mitigation. Aircraft which are equipped to use the technology, when departing to the northeast of the Hong Kong International Airport (HKIA), can make use of the on-board navigation capabilities to achieve higher track-keeping accuracy during their turn to the West Lamma Channel. With better adherence to the designated flight path, aircraft can keep themselves at a distance from the populated residential areas. In doing so, the aircraft noise footprint can be confined and the overall aircraft noise effect on those residential areas can be reduced.

Restrictions on Noisy Aircraft

Since 1 July 2002, all noisy aircraft which do not comply with the noise standards stipulated in Chapter 3 of Annex 16, Volume I, Part II to the Convention on International Civil Aviation (Chapter 3 Noise Standards) are not allowed to operate in Hong Kong.

To further alleviate the aircraft noise impact on local communities, commencing from end of March 2014, CAD ceased to allow airlines to schedule aircraft whose noise levels only marginally meet the Chapter 3 noise standards (so-called "Marginally Compliant Chapter 3 aircraft") to operate between 11 pm and 7 am the following day. This measure was extended to cover the whole day from the end of October 2014.

Figure 2-4: New aircraft engine with improved efficiency in emissions and noise reduction

Noise Monitoring

CAD has installed an Aircraft Noise and Flight Track Monitoring System to monitor the implementation and effectiveness of various noise mitigating measures, and the noise environment in various districts. The system comprises 16 outdoor noise monitoring terminals located in the vicinity of the flight paths and a central computer server which correlates the flight data provided by radars and the noise data recorded by the noise monitoring terminals.

Figure 2-5: Outdoor noise monitoring terminal

Chapter 3 – Aircraft Emissions

Most aircraft operating at HKIA comply with the engine emission standards as stipulated in Annex 16, Volume II to the Convention on International Civil Aviation.

With the growing attention to the climate change caused by the greenhouse gas (i.e. carbon dioxide, CO_2), CAD has been closely monitoring the development of guidelines from ICAO on the reduction of CO_2 emission from aircraft operations. These guidelines were conveyed to the industry stakeholders.

Measures Taken by Airlines

Airlines have taken measures to retire old aircraft and replace them with new models which are more fuel efficient hence less emissions. Apart from the modernization of aircraft fleet, airlines also endeavour to reduce emissions through reduction of aircraft weights, better maintenance and improved flight planning and management.

Measures Taken by CAD

CAD, being the air navigation services provider, also introduced a series of air traffic management initiatives to reduce emissions. The CAD initiatives provide not only the benefits of noise mitigation but also fuel saving.

New Air Routes with Shorter Travelling Distance

Since October 2009, CAD has introduced new air routes which have shorter travelling distances for aircraft arriving from the west and the north of Hong Kong. Each arrival flight from the Mainland, South East Asia and Europe has been able to save up to about 210 kilometres in flight distance or 14 minutes in flight time. In 2014, around 73,000 flights have been benefited from the shortened air routes.

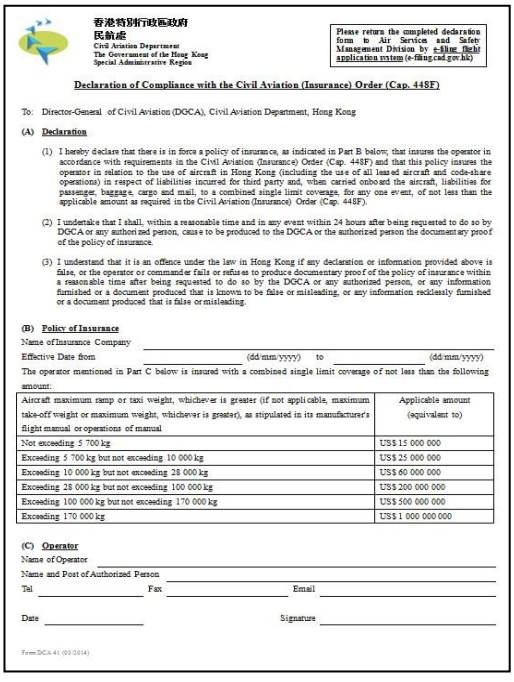
Reduce Spacing Requirement between Flights

By collaborating with air traffic control centres of adjacent regimes, CAD has reduced spacing requirement between flights on air routes transiting from Hong Kong and Taipei FIRs for Korea since July 2011. By reducing spacing requirement between flights, the air route capacity has increased, enabling more aircraft to fly at optimum and fuel efficient altitudes, thereby achieving fuel saving and reduction in CO_2 emission. During 2014, more than 21,000 flights have taken these routes.

Chapter 4 – Green Measures in other Aviation related Operations

Standardized Forms for Application of Passenger and Cargo Fuel Surcharge

Exchange of correspondence and submission of documents in relation to various tariff and flight applications to the Air Services Office involve considerable consumption of paper and processing time. By constantly reviewing the application procedures and formats, we aim to improve our work efficiency and at the same time minimize paper consumption. By the use of standardized forms for application of passenger and cargo fuel surcharge, the required information and details can be provided in pre-set formats. This avoids excessive emails and letter exchanges by providing a one-stop platform in respect of provision of guidance to and collection of essential information from applicants, as well as approval of the application by CAD with the use of the same application form. Similarly, with the streamlined procedures to submit documents for flight applications using standardized forms, paper consumption can be reduced.



香港特別行政區政府
民航處
Civil Aviation Department
The Government of the Hong Kong Special Administrative Region

Please return the completed declaration form to Air Services and Safety Management Division by e-filing flight application system (e-filing.cad.gov.hk)

Declaration of Compliance with the Civil Aviation (Insurance) Order (Cap. 448F)

To: Director-General of Civil Aviation (DGCA), Civil Aviation Department, Hong Kong

(A) Declaration

(1) I hereby declare that there is in force a policy of insurance, as indicated in Part B below, that insures the operator in accordance with requirements in the Civil Aviation (Insurance) Order (Cap. 448F) and that this policy insures the operator in relation to the use of aircraft in Hong Kong (including the use of all leased aircraft and code-share operations) in respect of liabilities incurred for third party and, when carried onboard the aircraft, liabilities for passenger, baggage, cargo and mail, to a combined single limit coverage, for any one event, of not less than the applicable amount as required in the Civil Aviation (Insurance) Order (Cap. 448F).

(2) I undertake that I shall, within a reasonable time and in any event within 24 hours after being requested to do so by DGCA or any authorized person, cause to be produced to the DGCA or the authorized person the documentary proof of the policy of insurance.

(3) I understand that it is an offence under the law in Hong Kong if any declaration or information provided above is false, or the operator or commander fails or refuses to produce documentary proof of the policy of insurance within a reasonable time after being requested to do so by the DGCA or any authorized person, or any information furnished or a document produced that is known to be false or misleading, or any information recklessly furnished or a document produced that is false or misleading.

(B) Policy of Insurance

Name of Insurance Company _____

Effective Date from _____ (dd/mm/yyyy) to _____ (dd/mm/yyyy)

The operator mentioned in Part C below is insured with a combined single limit coverage of not less than the following amount:

Aircraft maximum ramp or taxi weight, whichever is greater (if not applicable, maximum take-off weight or maximum weight, whichever is greater), as stipulated in its manufacturer's flight manual or operations of manual	Applicable amount (equivalent to)
Not exceeding 5 700 kg	US$ 15 000 000
Exceeding 5 700 kg but not exceeding 10 000 kg	US$ 25 000 000
Exceeding 10 000 kg but not exceeding 28 000 kg	US$ 60 000 000
Exceeding 28 000 kg but not exceeding 100 000 kg	US$ 200 000 000
Exceeding 100 000 kg but not exceeding 170 000 kg	US$ 500 000 000
Exceeding 170 000 kg	US$ 1 000 000 000

(C) Operator

Name of Operator _____

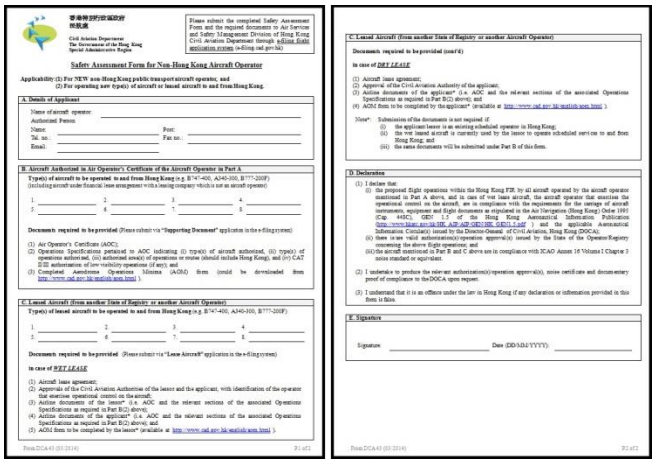
Name and Post of Authorized Person _____

Tel _____ Fax _____ Email _____

Date _____ Signature _____

Form DCA 41 (03/2014)

Figure 4-1: Standard Form for Declaration of Compliance with Insurance Requirement



Please submit the completed Safety Assessment Form and the required documents to Air Services and Safety Management Division of Hong Kong Civil Aviation Department through e-filing flight application system (e-filing.cad.gov.hk)

Safety Assessment Form for Non-Hong Kong Aircraft Operator

Applicability: (1) For NEW non-Hong Kong public transport aircraft operator, and
(2) For operating new type(s) of aircraft or leased aircraft to and from Hong Kong.

A. Details of Applicant

Name of aircraft operator: _____
Authorized Person
Name: _____ Post: _____
Tel. no.: _____ Fax no.: _____
Email: _____

B. Aircraft Authorized in Air Operator's Certificate of the Aircraft Operator in Part A

Type(s) of aircraft to be operated to and from Hong Kong (e.g. B747-400, A340-300, B777-200F)
(including aircraft under financial lease arrangement with a leasing company which is not an aircraft operator)

1. _____ 2. _____ 3. _____ 4. _____
5. _____ 6. _____ 7. _____ 8. _____

Documents required to be provided (Please submit via "Supporting Document" application in the e-filing system)

(1) Air Operator's Certificate (AOC);
(2) Operations Specifications pertained to AOC indicating (i) type(s) of aircraft authorized, (ii) type(s) of operations authorized, (iii) authorized area(s) of operations or routes (should include Hong Kong), and (iv) CAT II/III authorization of low visibility operations (if any); and
(3) Completed Aerodrome Operations Minima (AOM) form (could be downloaded from http://www.cad.gov.hk/english/aom.html)

C. Leased Aircraft (from another State of Registry or another Aircraft Operator)

Type(s) of leased aircraft to be operated to and from Hong Kong (e.g. B747-400, A340-300, B777-200F)

1. _____ 2. _____ 3. _____ 4. _____
5. _____ 6. _____ 7. _____ 8. _____

Documents required to be provided (Please submit via "Lease Aircraft" application in the e-filing system)

In case of *WET LEASE*

(1) Aircraft lease agreement;
(2) Approvals of the Civil Aviation Authorities of the lessor and the applicant, with identification of the operator that exercises operational control on the aircraft;
(3) Airline documents of the lessor* (i.e. AOC and the relevant sections of the associated Operations Specifications as required in Part B(2) above); and
(4) Airline documents of the applicant* (i.e. AOC and the relevant sections of the associated Operations Specifications as required in Part B(2) above); and
(5) AOM form to be completed by the lessor* (available at http://www.cad.gov.hk/english/aom.html)

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C. Leased Aircraft (from another State of Registry or another Aircraft Operator)

Documents required to be provided (cont'd)

In case of *DRY LEASE*

(1) Aircraft lease agreement;
(2) Approval of the Civil Aviation Authority of the applicant;
(3) Airline documents of the applicant* (i.e. AOC and the relevant sections of the associated Operations Specifications as required in Part B(2) above); and
(4) AOM form to be completed by the applicant* (available at http://www.cad.gov.hk/english/aom.html)

Note*: Submission of the documents is not required if:
(i) the applicant lessee is an existing scheduled operator in Hong Kong;
(ii) the wet leased aircraft is currently used by the lessor to operate scheduled services to and from Hong Kong; and
(iii) the same documents will be submitted under Part B of this form.

D. Declaration

(1) I declare that:
(i) the proposed flight operations within the Hong Kong FIR by all aircraft operated by the aircraft operator mentioned in Part A above, and in case of wet lease aircraft, the aircraft operator that exercises the operational control on the aircraft, are in compliance with the requirements for the carriage of aircraft instruments, equipment and flight documents as stipulated in the Air Navigation (Hong Kong) Order 1995 (Cap. 448C), CEO 1.5 of the Hong Kong Aeronautical Information Publication (http://www.hkatc.gov.hk/HK_AIP/AIP/GEN/HK_GEN1_5.pdf) and the applicable Aeronautical Information Circular(s) issued by the Director-General of Civil Aviation, Hong Kong (DGCA);
(ii) there is/are valid authorization(s)/operation approval(s) issued by the State of the Operator/Registry concerning the above flight operations; and
(iii) the aircraft mentioned in Part B and C above are in compliance with ICAO Annex 16 Volume I Chapter 3 noise standard or equivalent.

(2) I undertake to produce the relevant authorization(s)/operation approval(s), noise certificate and documentary proof of compliance to the DGCA upon request.

(3) I understand that it is an offence under the law in Hong Kong if any declaration or information provided in this form is false.

E. Signature

Signature _____ Date (DD/MM/YYYY) _____

Form DCA 43 (03/2014) P.2 of 2

Figure 4-2: Safety Assessment Form

Use of Electronic Version of Air Navigation Services Regulatory Documents

Electronic version of various air navigation services regulatory documents is available at the Air Traffic Management Standards Office (ATMSO) website, which is a CAD intranet website that is readily available through colleagues' desktop computers. Latest versions of the documents are posted onto the website so that the need for keeping paper copies could be reduced to a minimum.

Electronics Submission/Approval

Use of Electronic Flight Bags

Starting from late 2013, upon the fulfillment of safety related requirements, most document records, manuals and licenses that used to be carried on board aircraft or submitted to CAD in paper form, can be provided through electronic means.

This practice greatly replaces and reduces paper-based references found in the carry-on flight bag in the past, including various operations manuals, maps and navigational charts. With the use of electronic flight bags which bring the technological advances of computer information delivery to the airplanes, flight crews can perform different management tasks more efficiently with less paper.

Application for Guided Tour of Aviation Education Path

Application for group bookings for our guided tour of the Aviation Education Path can be made by downloading the application form from our website and submitting it by electronic means. This practice contributes to the paper saving of the Department.

Electronic Flight Strip System

For a long time, paper flight progress strips had been used to facilitate air traffic control operations in the control tower at the HKIA. As a step to enhance operation efficiency and environmental friendliness, the paper strips have been replaced since December 2012 by the Electronic Flight Strip System (EFSS), which displays flight data on a screen and allows data management by electronic means. EFSS helps reducing paper usage. It is estimated that during 2014, more than 980,000 paper strips (equivalent to about 81,700 sheets of A4 size paper) have been saved.

Figure 4-3: Traditional paper flight progress strips

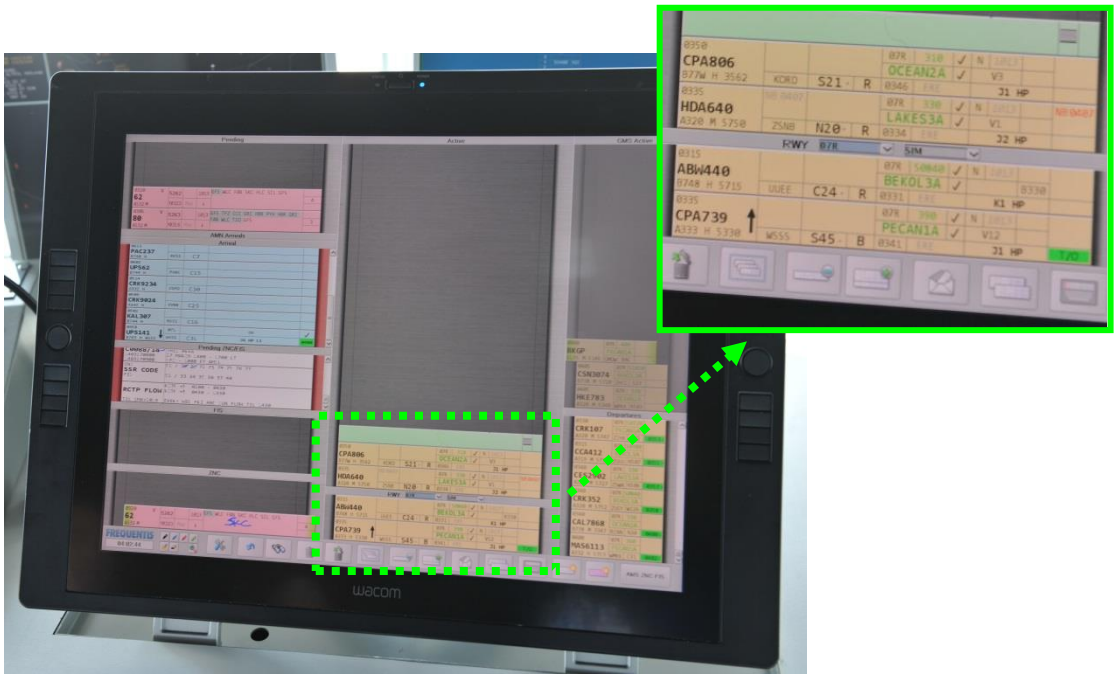

Figure 4-4: EFSS display

Online Promulgation of Divisional Reference Documents

The Air Traffic Management Division (ATMD) of CAD has launched a divisional secured website, named as the ATMD Information Dissemination Website. Initially, the website was used to disseminate roster information to colleagues through the internet. Subsequently in December 2014, the function of the website was extended to house and disseminate training materials, aiming to replace the traditional means of distributing paper handouts.

In order to reap further environmental benefits, CAD also initiated a project to make use of the website to provide online access to divisional reference documents including relevant updates that used to be stored in and disseminated by CD-ROMs. The new initiative will be implemented on a trial basis in the first quarter of 2015. Upon successful implementation, the website will become an official publication platform for the divisional reference documents and the distribution of CD-ROMs to colleagues would be discontinued. As a result, it is anticipated that considerable amount of CDs could be saved. CAD would endeavour to explore feasibility to expand the scope of this website for promulgation of more divisional documents.

Chapter 5 – Green Housekeeping

CAD has implemented a number of green housekeeping measures in daily office operations to encourage energy conservation, paper conservation, waste collection and recycling, proper disposal of environmentally hazardous waste, green procurement and environmental awareness among all staff.

Energy Conservation

Daily Energy Saving Measures in Housekeeping

CAD adopts the following measures in order to minimize the consumption of energy in our daily office operations –

- Follow the Government recommended summer air conditioning setting of 25.5°C and use electric fans to improve air circulation and provide better staff comfort if necessary

- Switch off any air conditioning, interior lights, exterior lights, decorative lights, elevators, escalators, digital signage system, video wall, etc. when not in use

- Fine-tune the external lighting on-off hours periodically to optimise against seasonal changes in light/dark hours

- Lifts, escalators, air conditioning and lighting at CAD operate from 7:30 a.m. to 6:30 p.m. during working days. Reduce the number of lifts in operation during non-peak office hours and after normal office hour

- Staff are encouraged to use staircases instead of lifts

- Energy-saving timer devices are installed in most share-used printers and photocopiers to prevent the consumption of electricity in standby mode during non-office hours

- During security patrol outside office hours, lights are checked to ensure that they are switched off if not in use

- Notices are displayed in all meeting rooms to remind users to switch off all electrical appliances before leaving

- Solar films are installed in strategic locations to reduce sunlight and heat

Figure 5-1: (Left) Energy-saving timer devices connected to the photocopiers and (Right) an energy-saving timer device

Figure 5-2: A notice reminding staff to turn off the electrical appliances before leaving

Figure 5-3: An example of a solar film shielding the office area affected by sunlight

Electricity Consumption of CAD Buildings

Electricity consumption of our government buildings in financial year (FY) 2013-14 and FY 2014-15 is tabulated below:

	Electricity consumption (kWh)	**Electricity consumption under comparable operating conditions (kWh)**
FY 2013-14 (baseline)	26,590,970	Not applicable
FY 2014-15	27,090,851 (+1.9%)	27,103,123 (+1.9%)

As set out above, the change in electricity consumption of our government buildings from FY 2013-14 to FY 2014-15 was +1.9%, taking into consideration of the increase in various indoor activities. For example, in FY 2014-15, we recorded a total of about 360 visits attended by approximately 15,000 visitors, which represented a growth of about 52% in the number of visits and 161% in the number of visitors when compared with the figures in FY2013-14. There was also a more intensive use of the auditorium in holding various conferences in CAD Headquarters including the 51st Conference of Directors General of Civil Aviation attended by more than 270 overseas delegates, recording an 8% increase in FY 2014-15. As such, the electricity consumption has increased slightly accordingly.

Installation of Blinds in Atrium of CAD Headquarters

Sunlight could be a natural light source for offices, but there are times when the sun is overpowering, resulting in glare, brightness, heat gain, and fading of flooring and furniture. Accumulated heat from direct sunlight is a major burden on air conditioning system. Motorised-blinds have been installed at the atrium of CAD Headquarters in November 2014 which provide a shield against direct sunlight. It was estimated that motorised-blinds could result in energy savings for the affected area in air conditioning up to 30% per year.

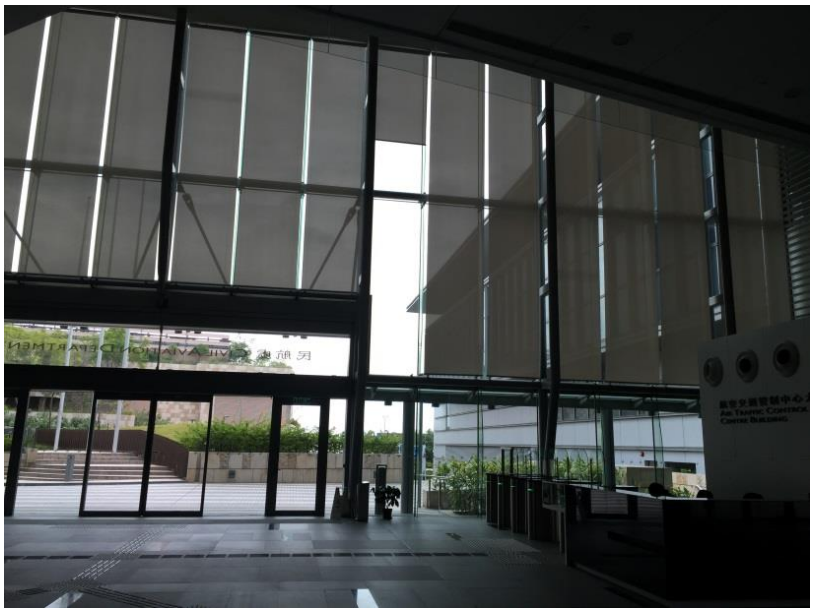

Figure 5-4: Motorised-blind has been installed at the atrium of CAD Headquarters

Raise the Temperature of Equipment Rooms

In CAD, the air conditioning requirement of equipment rooms was reviewed and subsequently we raised the room temperature from 23°C to 25°C since October 2014. Observable saving would be obtained by end 2015.

Reduce Lighting in CAD Headquarters

Non-essential lightings have been reduced in CAD Headquarters. Lighting in lobby, atrium and public walkway has been reduced by approximately 75%, by de-lamping twin-tubes fluorescent lamp to single tube in office corridors. A total of 289 tubes were removed. Emergency lighting for open areas is maintained.

Figure 5-5: Lighting at atrium of CAD

Paper Conservation

The paper consumption in 2014 is 6,196 reams, representing a decrease of about 22.8% as against 2013. The significant reduction is contributed by the Department's efficient implementation and promulgation of daily paper saving measures as detailed in the next section.

Daily Paper Saving Measures in Housekeeping

We promote the "4-R principle" in paper conservation.

Reduce

- Minimize paper usage by encouraging staff to use both sides of paper for printing and photocopying, as well as to circulate one copy of document to relevant staff rather than to make a separate copy for each staff

- Minimize paper usage by making use of the electronic means (e.g. communicating by E-mails, posting and circulating notices/circulars through digital signage system and CAD electronic bulletin board, etc.)

Reuse

- Reuse envelopes and loose minutes jackets. Collection boxes for used envelopes are available to promote reuse.

- Use blank side of used paper for photocopying, printing and drafting

Replace

- Use recycled paper instead of plain paper

Recycle

- Waste paper is collected for recycling

Waste Collection and Recycling

Recycling Bins to Collect Waste Paper, Plastic Bottles and Aluminium Cans

We collect waste paper, used plastic bottles and aluminium cans for recycling. Recycling bins are placed in common areas to facilitate disposal by staff or visitors. The materials collected are delivered on a regular basis to designated operators for recycling. The table below showed the amount of recyclables collected in 2014.

Recyclables	Amount Collected (kg)
Waste Paper	2,828
Plastic	12
Metal	12

Figure 5-6: Recycling bins in CAD Headquarters

Food Waste Decomposition System

Food waste is one of the major solid wastes in Hong Kong. Reduction of food waste is therefore crucial for minimizing the load of landfills. To work towards this goal, a food waste decomposition system had been installed in CAD Headquarters and in operation since the commissioning of CAD Headquarters in late 2012.

During the decomposition process, the food waste is converted by enzyme into liquid, part of which is used as a natural fertilizer for the vegetation at CAD Headquarters and the remaining is discharged as an effluent. In 2014, we collected about 2.9 tonnes of food waste, mainly from our staff canteen.

Figure 5-7: The food waste decomposition system in CAD Headquarters

Collection of Rain Water Recycling for Irrigation

Rain water and air-conditioning condensate water is recycled for the irrigation system installed at CAD Headquarters.

Buildings of CAD Headquarters	Facilities Building	Office Building	Air Traffic Control Building
Annual Irrigation Consumption (L)	5,297,907	1,670,897	2,810,338
Annual Recycled Water Collection Catered for Irrigation (L)	503,300	640,695	838,395
Percentage of Saving	9.5%	38.3%	29.8%

Water Saving Measures

Fresh water is a precious natural resource. We encourage our staff to actively reduce their water consumption by the following –

- Bottled water is not provided during internal meetings
- Notices are posted in pantries to remind colleagues to save water

Figure 5-8: A notice reminding colleagues to preserve water resources

Reduction and Collection of Waste in Canteen

There is a staff canteen at CAD Headquarters. It produces a certain amount of waste during its daily operation. While the food waste collected is discharged into the food waste decomposition system for minimizing the waste volume, other solid wastes are minimized through the following means –

- Encourage customers to request a smaller portion of rice, thus reducing the chance of creating food waste

- Paper packages for re-usable chopsticks were no longer in use

Figure 5-9: The CAD staff canteen encourages customers to request a smaller portion of rice to minimize wastage

Bring Your Own Cup

We encourage colleagues to bring their own cups when attending meetings, in order to minimize the waste generated from paper cups.

Reduction of Procurement of Newspapers

We have also reviewed the quantities of newspapers ordered, and have reduced the number of copies by approximately 11% in 2014. Since May 2014, newspaper cuttings were circulated by electronic means instead of hardcopies. It is estimated that about 46,000 sheets of paper can be saved per year.

Green Procurement

CAD follows the guidelines as set out in the Government's green procurement policy and avoids procuring single-use disposable items. We purchase items that are durable, energy-efficient and recyclable. Below are some examples of green procurement measures implemented in our Department:

- Procure equipment such as operation equipment, fluorescent tubes, photocopiers and printers that have obtained an energy label

- Choose green products such as refillable ball pens, mechanical pencils and recyclable laser printer cartridges

- Review the operational need against monthly supply items regularly, particularly for those items with expiry dates

- Avoid using items that are environmentally unfriendly, for example, correction fluid and batteries containing mercury

Figure 5-10: Example of equipment that has obtained an energy label

During procurement of goods, we recommend the following environmentally friendly measures to the suppliers for their preparation of quotation documents and performing the contract in the future:

- All documents are recommended to be printed on both sides and on recycled paper. Paper that exceeds 80 gsm should be avoided

- Use of plastic laminates, glossy covers or double covers should be avoided as far as possible

- Single line spacing is recommended and excessive space in the margins and in between paragraphs should be avoided

- The use of packaging material should be minimized

- If the goods are to be packed in a carton box, the carton box made from 100% recovered fibre is preferred, provided that it is strong enough for storage, stacking and transit

Training and Communication

Green Tips to all CAD Staff

A Green Corner has been made available in the CAD electronic bulletin board, where staff members can easily access relevant guidelines and green tips, such as circulars and pamphlets on energy saving measures, and waste avoidance practices in office. The related information will be recirculated to staff regularly.

Environmental Management Committee and Green Managers

An Environmental Management Committee, chaired by the Departmental Green Manager, was established to recommend environmental goals, policy objectives and targets to promote environmentally responsible management within the Department. The Committee, comprising members from all divisions of the Department, would meet regularly to consider green initiatives, promote staff awareness, monitor and report on the implementation of green measures. A green manager was nominated from each division to coordinate and oversee green management issues of the respective division.

Training

To ensure a good understanding and compliance to departmental green policies and practices among new recruits, starting from 2014 we have included a section on green management in orientation programme for them.

Recognition in Environmental Management

Indoor Air Quality

We support the commitments under the Clean Air Charter. As mentioned in the previous chapters, we have been implementing measures to reduce emissions from our daily operation.

The Indoor Air Quality (IAQ) of CAD premises is assessed annually to monitor the situation. In 2014, the CAD Headquarters and Air Traffic Control Centre and Control Tower Cabin of Air Traffic Control Complex and Tower (ATCX/TWR) obtained the "Excellent Class" of the IAQ Certificate, while the remaining of ATCX/TWR and Backup Air Traffic Control Complex (BATCX) were awarded the "Good Class" IAQ Certificate.

環境保護署
ENVIRONMENTAL PROTECTION DEPARTMENT

Indoor Air Quality Certificate
(Excellent Class)
室內空氣質素檢定證書《卓越級》

Valid period 有效日期: 11 April 2014 to 到 10 April 2015

I hereby certify that the indoor air quality of the following location(s) has fully complied with the Excellent Class of the Indoor Air Quality Objectives.
本人證明下列地點的室內空氣質素完全符合「卓越級」室內空氣質素指標。

Name of building 建築物名稱: 民航處總部 Civil Aviation Department Headquarters
Address 地址: 1 Tung Fai Road, Hong Kong International Airport, Lantau, Hong Kong 香港大嶼山香港國際機場東輝路 1 號
Certified location(s) 已檢定地點: Entire Headquarters 整個總部

Approved HKIAS IAQ Signatory 香港認可處核準室內空氣質素簽署人員
Name 姓名: Yeung Siu On
IAQ Certificate Issuing Body 室內空氣質素證書簽發機構: PIT Limited
Signature 簽署:
Date of issue 簽發日期: 18 June 2014
Certificate No. 證書編號: 3387100201406(2013)

Organisation Chop 機構印鑑

(This certificate is issued based on the results of the HKIAS endorsed inspection report no. IR(A)1406/00007) (此證書是根據香港檢驗機構認可計劃檢驗報告編號 IR(A)1406/00007 所得之結果發出)

Indoor Air Quality Certification Scheme for Offices and Public Places
辦公室及公眾場所室內空氣質素檢定計劃

Indoor Air Quality Information Centre
室內空氣質素資訊中心

環境保護署
ENVIRONMENTAL PROTECTION DEPARTMENT

Indoor Air Quality Certificate
(Excellent Class)
室內空氣質素檢定證書《卓越級》

Valid period 有效日期: 27 August 2014 to 到 26 August 2015

I hereby certify that the indoor air quality of the following location(s) has fully complied with the Excellent Class of the Indoor Air Quality Objectives.
本人證明下列地點的室內空氣質素完全符合「卓越級」室內空氣質素指標。

Name of building 建築物名稱: 航空交通管制大樓 Air Traffic Control Complex
Address 地址: 1 Control Tower Road, HKIA, Lantau Island, Hong Kong 香港大嶼山香港國際機場管制塔路 1 號
Certified location(s) 已檢定地點: 6/F Air Traffic Control Centre and T4/F Air Traffic Control Tower 6 樓航空交通管制中心及 T4 樓航空交通管制塔台

Approved HKIAS IAQ Signatory 香港認可處核準室內空氣質素簽署人員
Name 姓名: Yeung Siu On
IAQ Certificate Issuing Body 室內空氣質素證書簽發機構: PIT Limited
Signature 簽署:
Date of issue 簽發日期: 27 August 2014
Certificate No. 證書編號: 3709100201408(2014)

Organisation Chop 機構印鑑

(This certificate is issued based on the results of the HKIAS endorsed inspection report no. IR(A)1407/00002) (此證書是根據香港檢驗機構認可計劃檢驗報告編號 IR(A)1407/00002 所得之結果發出)

Indoor Air Quality Certification Scheme for Offices and Public Places
辦公室及公眾場所室內空氣質素檢定計劃

Indoor Air Quality Information Centre
室內空氣質素資訊中心

Figure 5-11: The CAD Headquarters and Air Traffic Control Centre and Control Tower Cabin of ATCX/TWR obtained the "Excellent Class" IAQ Certificate in 2014

環境保護署
ENVIRONMENTAL PROTECTION DEPARTMENT

Indoor Air Quality Certificate
(Good Class)
室內空氣質素檢定證書《良好級》

Valid period 有效日期: 28 July 2014 to 到 27 July 2015

I hereby certify that the indoor air quality of the following location(s) has fully complied with the Good Class of the Indoor Air Quality Objectives.
本人證明下列地點的室內空氣質素完全符合「良好級」室內空氣質素指標。

Name of building 建築物名稱: 航空交通管制大樓 Air Traffic Control Complex
Address 地址: 1 Control Tower Road, HKIA, Lantau Island, Hong Kong 香港大嶼山香港國際機場管制塔路 1 號
Certified location(s) 已檢定地點: Whole Building 全幢

Approved HKIAS IAQ Signatory 香港認可處核準室內空氣質素簽署人員
Name 姓名: Yeung Siu On
IAQ Certificate Issuing Body 室內空氣質素證書簽發機構: PIT Limited
Signature 簽署:
Date of issue 簽發日期: 05 August 2014
Certificate No. 證書編號: 3026100201408(2010)

Organisation Chop 機構印鑑

(This certificate is issued based on the results of the HKIAS endorsed inspection report no. IR(A)1407/00037)
(此證書是根據香港檢驗機構認可計劃檢驗報告編號 IR(A)1407/00037 所得之結果發出)

Indoor Air Quality Certification Scheme for Offices and Public Places
辦公室及公眾場所室內空氣質素檢定計劃

Indoor Air Quality Information Centre
室內空氣質素資訊中心

環境保護署
ENVIRONMENTAL PROTECTION DEPARTMENT

Indoor Air Quality Certificate
(Good Class)
室內空氣質素檢定證書《良好級》

Valid period 有效日期: 28 July 2014 to 到 27 July 2015

I hereby certify that the indoor air quality of the following location(s) has fully complied with the Good Class of the Indoor Air Quality Objectives.
本人證明下列地點的室內空氣質素完全符合「良好級」室內空氣質素指標。

Name of building 建築物名稱: 備用航空交通管制大樓 Back-up Air Traffic Control Complex
Address 地址: 25 Chung Cheung Road, HKIA, Lantau Island, Hong Kong 香港大嶼山香港國際機場中翔路 25 號
Certified location(s) 已檢定地點: Whole Building 全幢

Approved HKIAS IAQ Signatory 香港認可處核準室內空氣質素簽署人員
Name 姓名: Yeung Siu On
IAQ Certificate Issuing Body 室內空氣質素證書簽發機構: PIT Limited
Signature 簽署:
Date of issue 簽發日期: 18 July 2014
Certificate No. 證書編號: 3108100201407(2012)

Organisation Chop 機構印鑑

(This certificate is issued based on the results of the HKIAS endorsed inspection report no. IR(A)1407/00028)
(此證書是根據香港檢驗機構認可計劃檢驗報告編號 IR(A)1407/00028 所得之結果發出)

Indoor Air Quality Certification Scheme for Offices and Public Places
辦公室及公眾場所室內空氣質素檢定計劃

Indoor Air Quality Information Centre
室內空氣質素資訊中心

Figure 5-12: The ATCX/TWR and BATCX were awarded the "Good Class" IAQ Certificate in 2014

Green Plus Recognition Award 2014

We have participated in the Green Plus Recognition Award 2014 organised by China Lights and Power Hong Kong Limited. The CAD Headquarters were given the Gold Award under the Bank and Office category. We will further explore more green initiatives and strive for continuous improvement.

Figure 5-13: CAD was given the Gold Award under the Bank and Office category in the Green Plus Recognition Award 2014 organised by CLP Hong Kong Limited

Views and Suggestions

CAD Environmental Report in the previous years can be found in the CAD website (http://www.cad.gov.hk/english/er_report.html). We welcome comments and feedback from readers so that we could identify ways for improvements. You can provide your views and suggestions to us by the following means:

General Enquiry

Address	: Civil Aviation Department Civil Aviation Department Headquarters, 1 Tung Fai Road, Hong Kong International Airport, Lantau, Hong Kong
Contact no.	: 2910 6355
Fax	: 2910 6351
Email	: enquiry@cad.gov.hk
Website	: www.cad.gov.hk