香港民航處
Civil Aviation Department Hong Kong

Annual Report 2010/11 年度報告

致力保障
Maintaining **safety** in Aviation
航空安全

我們的理想
Our Vision

致力於安全及有效率的航空系統

Committed to a Safe and Efficient Air Transport System

我們的使命
Our Mission

- 奠定香港作為國際及區域頂尖航空中心的地位
- 維持有效法律制度，以實施根據適用國際民航公約制訂的相關條文
- 借助先進航空導航系統科技，推動航空業發展
- 確保航空交通管理服務及系統建立高水平的安全標準，並能達到和維持相關標準
- 在香港飛行情報區內維持既安全、快捷又秩序井然的航空交通
- 在香港飛行情報區內提供航空資訊服務及警報服務
- 香港搜救區內飛機出現緊急情況和發生意外時，協調搜索和救援行動
- 制訂和貫徹執行機場安全及航空保安標準
- 確保香港註冊的飛機和以香港為基地的航空公司符合既定的適航及運作標準
- 確保香港認可的飛機維修機構符合國際標準
- 確保香港註冊的空勤人員和飛機維修工程師符合國際標準
- 制訂策略並積極採取措施，確保所有航機運作符合相關可承受的安全水平，盡量減低航空安全風險
- 監察航空公司有否遵守雙邊民用航空運輸協定
- 制訂有效措施以減少飛機噪音對社區的影響
- 以公正持平方式進行意外調查，確定肇事原因及實況，以保障人命安全和防止同類意外再次發生

- Positioning Hong Kong as a leading centre of international and regional aviation
- Maintaining an effective legal system for the implementation of relevant provisions under applicable civil aviation related international conventions
- Facilitating the growth of aviation through the application of leading edge technology in Air Navigation Systems
- Ensuring that a high standard of safety in the provision of air traffic management services and systems is established, achieved and maintained
- Maintaining a safe, orderly and expeditious flow of air traffic within the Hong Kong Flight Information Region
- Providing aeronautical information service and alerting service within the Hong Kong Flight Information Region
- Coordinating search and rescue operation in the event of aircraft emergencies and accidents within the Hong Kong Search and Rescue Region
- Setting and enforcing aerodrome safety and aviation security standards
- Ensuring compliance with established airworthiness and flight operations standards by Hong Kong registered aircraft and locally based airlines
- Ensuring compliance with international standards by Hong Kong approved aircraft maintenance organisations
- Ensuring compliance with international standards by Hong Kong licensed flight crew and aircraft maintenance engineers
- Developing strategies and implementing proactive measures to minimise safety risks to aviation by ensuring that all operations are conducted in conformity with the respective acceptable levels of safety
- Monitoring compliance by airlines with bi-lateral Air Services Agreements
- Developing workable measures to minimise the impact of aircraft noise on local communities
- Conducting fair and impartial accident investigations to determine the circumstances and causes of accidents with a view to the preservation of life and avoidance of accidents in the future

我們的信念
Our Values

- 安全至上
- 專業精神
- 講求效率
- 嚴守標準
- 誠信可靠

- Utmost concern for safety
- Professionalism
- Efficiency and effectiveness
- Compliance with standards
- Integrity

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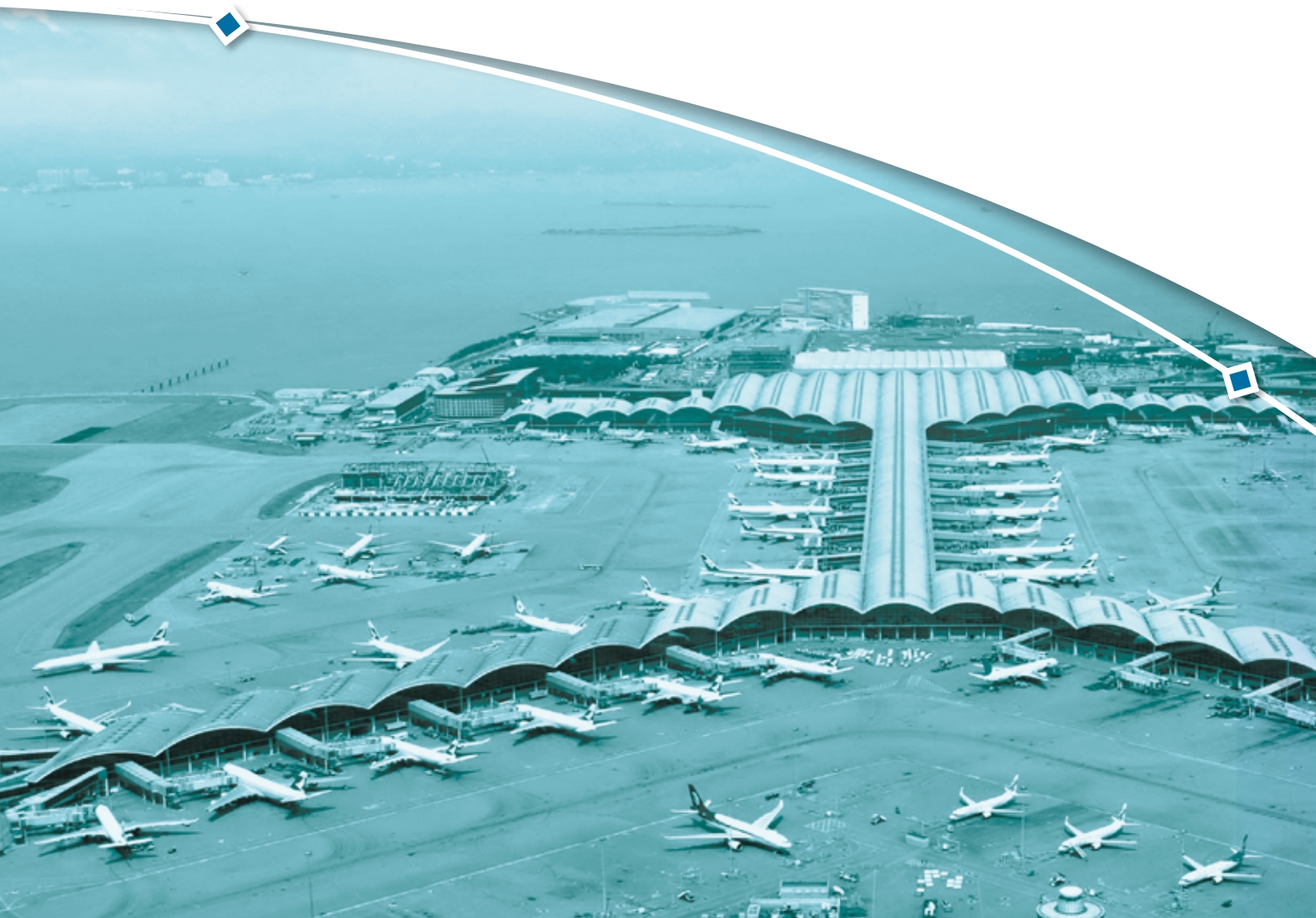
羅崇文太平紳士,AE
Mr Norman Lo Shung-man, JP, AE

民航處處長
Director-General of Civil Aviation

處長報告
Director-General's Review

航空交通增長強勁，反映年內全球經濟顯著復蘇，亦意味同事在工作上面對更多考驗。雖然工作日趨繁重，同事仍不斷努力，致力改善部門的服務。

The robust growth figures was a reflection of the strong rebound of the global economy during the year, but at the same time brought more challenges for our CAD colleagues. With increasing responsibilities, colleagues endeavoured to provide better services.



二零一一年是香港航空業發展一百周年，亦是民航處成立六十五周年。在這別具意義的一年，本處一如既往，提供安全、可靠和有效率的航空系統，竭力鞏固香港作為國際和區域航空樞紐的地位。

Year 2011 marks the centenary of aviation development in Hong Kong and the 65th anniversary of the Civil Aviation Department (CAD). In this milestone year, we continued to provide a safe, reliable and efficient aviation system and contribute our very best to reinforce Hong Kong's status as an international and regional aviation hub.

一九一一年三月十八日，比利時航空先鋒查爾斯·溫德邦駕駛費文雙翼機在沙田的淺灘上起飛，揭開香港航空業發展的序幕。一百年後，香港已發展為區域內的重要航空樞紐。近百家航空公司以現代化飛機，每年接載逾五千萬名乘客往返香港國際機場與全球超過150個目的地。為慶祝本港航空業發展的里程碑，並推廣航空專業，本處聯同業界和其他政府部門，於二零一一年內舉辦一連串以「動力飛行百周年」為主題的活動。圓滿舉辦的活動包括：香港機場管理局於二月至六月舉辦百周年照片展覽，回顧本地航空發展史；三月十七日舉行拉飛機活動，創造兩項健力士世界紀錄；香港郵政於百周年紀念當日發行紀念郵票小型張；以及民航處於百周年紀念當晚舉行慶祝晚宴。其他活動亦會於年內如期展開。我們在慶祝航空先驅成就的同時，不忘繼往開來，承諾致力提升和推動航空業發展，以應付航空運輸與日俱增的需求。

On 18 March 1911, a Belgium aviator, Mr Charles van den Born, ventured to pilot a Farman biplane and took to the sky over the shallow beach in Sha Tin. A hundred years later, Hong Kong has developed to become an important regional aviation hub with modern jet aircraft operated by some 100 airlines carrying more than 50 million passengers per year between Hong Kong International Airport (HKIA) and more than 150 destinations worldwide. To mark this important milestone of aviation development in Hong Kong and to promote the aviation profession, CAD has joined hands with the industry and other government departments in organising a series of activities throughout 2011 under the theme of "Centenary of Powered Flight in Hong Kong". The successfully completed events included a photo exhibition organised by the Airport Authority Hong Kong from February to June to showcase the local aviation history; an Aircraft Pull held on March 17 has successfully set two Guinness World Records; a specially designed stamp sheetlet issued by Hongkong Post on the centenary day; as well as a gala dinner held at the centenary evening. Other activities will be carried out in the year as scheduled. Whilst celebrating the achievement of the aviation predecessors, we reaffirmed our commitments to enhance and promote aviation development so as to meet the need of the increasing demand in air transport.

處長報告 Director-General's Review

拉飛機活動 Aircraft Pull

受惠於全球經濟復蘇，香港國際機場於年內無論在飛機升降量、客運量還是貨運量方面，都創出新高。飛機升降量增加13%至316 349架次；客運量上升10%至50 298 257人次，而貨運量則上升17%至4 167 516公噸。航空交通增長強勁，反映年內全球經濟顯著復蘇，亦意味同事在工作上面對更多考驗。雖然工作日趨繁重，同事仍不斷努力，致力改善部門的服務。成績之一，是由二零一零年六月起，於07L跑道實施新的復飛進場程序。在新程序下，07L跑道的復飛進場航道與07R跑道的離場航道之間保持足夠距離，不論天氣如何，現有兩條平行跑道都可同時運作。因此，即使天氣惡劣，香港國際機場仍能維持較高的跑道升降容量。

Benefitted from the recovery of global economy, Hong Kong International Airport (HKIA) made new records in aircraft movements, passenger and cargo throughput in the report year. There were 316 349 aircraft movements, represented an increase of 13%; the total passenger number reached 50 298 257 while the cargo throughput was 4 167 516 tonnes, represented increases of 10% and 17% respectively. The robust growth figure was a reflection of the strong rebound of the global economy during the year, but at the same time brought more challenges for our CAD colleagues. With increasing responsibilities, colleagues endeavoured to provide better services. One of the initiatives was the new Missed Approach Procedure (MAP) for Runway 07L implemented in June 2010. The procedure provided sufficient divergence between the missed approach track of Runway 07L and the departure track of Runway 07R supporting simultaneous operations on existing two parallel runways under all weather conditions. As a result, high runway capacity at the HKIA could be maintained under poor weather conditions.

其他改善措施包括成立培訓及發展事務辦公室，集中管理部門專業培訓事宜，以提高本處人員的能力，並制定部門的培訓政策。

Other enhancement measures included the establishment of the Training and Development Office with the objectives to centralise management of professional training to enhance staff competence, and formulate departmental training

本處隨後又成立培訓及發展事務委員會，擔當督導培訓及發展事務的職責。為確保有效實施培訓計劃，本處於年內設立培訓資料庫，通過研發電腦程式，利用安全可靠的通用平台，管理部門培訓資料。

policies. The Training and Development Committee (TDC) was also established afterwards for performing a steering role on training and development matters. To ensure effective implementation of training programmes, the department also set up a Training Database by developing a computer programme for administering the departmental training data on a secure common platform.

電腦化計劃亦擴展至航空人員執照考試系統。由二零一零年六月起，空勤人員和飛機維修人員的執照考試均採用電腦化考試系統。這個系統操作簡便，可於考試後即時計算成績，考試安排因而得以改善和簡化。

Computerisation was also extended to aviation personnel licence examination systems. With effect from June 2010, the Paperless Computerised Examination System (PCES) for flight crew and aircraft maintenance licence examinations was implemented. The PCES can generate the examination results immediately after the examinations for the candidates. This user friendly system enhanced and streamlined the examination arrangements.

年內，本處繼續致力維持高水準和穩定可靠的航空交通管制系統，以支援安全和高效率的航空交通服務。經測試並提前採用的通訊、導航及監察/航空交通管理系統構件包括：抵港航機排序系統、電子飛行進程單系統、廣播式自動相關監察系統和飛行計劃衝突提示系統等。本處又積極推行新的資訊科技應用系統，提升電腦網絡和基建設施，以支援本處電子化服務和數碼政府的目標。二零一零年十一月，本處資訊科技管理組憑優質服務獲頒國際標準化組織ISO 9001：2008品質管理體系認證。

During the year, we continued our efforts in maintaining a high standard, stable, reliable and outstanding ATC system to support safe and efficient air traffic services. Trials and early implementation of Communications, Navigation and Surveillance/Air Traffic Management (CNS/ATM) system elements included Arrival Manager System, Electronic Flight Strip System, Automatic Dependent Surveillance-Broadcast (ADS-B), Flight Plan Conflict Advisory System etc. CAD also actively implemented new IT applications and enhanced the computer network and infrastructure to support departmental e-business development and e-government objectives. The IT Management Unit successfully achieved the ISO9001:2008 Quality Management System (QMS) certification in November 2010 on its operations.

Unveiling ceremony for Photo Exhibition of the 100th Anniversary of Aviation Development in Hong Kong.
「香港航空發展百周年照片展覽」揭幕儀式。

處長報告 Director-General's Review

至於興建民航處新總部和更換民航處空管系統的計劃，年內進展良好。新總部各項屋宇裝備、空管系統電纜，以及行人和維修通道的橋接已順利裝設。新總部大樓上蓋工程於二零一一年一月完成，而大樓的幕牆、內部裝修和屋宇裝備工程正全速進行。年內批出三項主要空管系統的合約，包括通訊主幹系統、航空交通管理系統和通訊及記錄系統。餘下四項主要系統的招標工作進展良好，合約將於二零一一年年底前批出。根據建築時間表，整座新總部會在二零一二年第三季落成。至於空管中心大樓，二零一二年第一季便可供安裝和測試新空管系統，以及培訓相關人員。新空管中心預計在二零一三年年底前啓用。

As for the construction of the new CAD headquarters and the replacement of Air Traffic Control System, good progress was made during the year. The bridge connection, fitting all the building services, ATC systems cabling as well as the pedestrian and maintenance passageways were completed successfully. The superstructure of the new headquarters was completed in January 2011, and works on the curtain wall system, internal fitting out, and building services were at full steam. Contracts for three major ATC systems were awarded in the year, covering the Communications Backbone System, Air Traffic Management System (ATMS) and Communications and Recording System (CRS). Tendering work for the remaining four major systems was in good progress, with contracts to be awarded before end 2011. According to the construction schedule, the entire new headquarters will be completed in the third quarter of 2012. For the ATCC building, it will be ready in the first quarter of 2012 for the installation and testing of the replacement ATC systems and training of staff concerned. The new ATCC is planned to be commissioned for operational use by end 2013.

拉飛機參加者大合照
Group photo of Aircraft Pull participants

本處同事在履行本地民航職責之餘，亦積極參與國際和區域民航事務。本處除派員參與國際會議外，兩名首長級人員更繼續出任國際民航組織亞太地區兩個最重要會議的主席，其一是亞太地區航行規劃和實施小組轄下的航空交通管理／航空情報服務／搜尋與拯救分組，其二是東南亞航空交通管理協調小組。二零一零年九月，本人很榮幸獲選為國際民航組織亞太地區航行規劃和實施小組主席，負責推動亞太地區航行計劃，務使得以持續、連貫發展和實施。此外，又肩負監督成員國維護民航安全、遵守規定和促進效率的重任。民航處配合航行規劃和實施小組的精神，積極促進亞太地區成員國之間的合作和協調，既加強區域航路的設計，又改善空域容量，更支援國際民航組織推動亞太地區發展暢通完善的空域運作。

Other than local services, CAD colleagues also participated actively in international and regional civil aviation affairs. Besides joining international conferences, two of our directorate grade officers continued to take up chairmanship in the two most important meetings of the ICAO Asia Pacific Region, which were the Air Traffic Management/ Aeronautical Information Services/ Search and Rescue Sub-Group (ATM/AIS/SAR Sub-group) of the Asia Pacific Air Navigation Planning and Implementation Group (APANPIRG) and South-East Asia Air Traffic Management Coordination Group (SEACG). I was also honoured to be elected as the Chairperson of the APANPIRG in September 2010 to take charge of ensuring continuous and coherent planning, development and implementation of the Asia Pacific Regional Air Navigation Plan and overseeing state members' observance of safety, regularity and efficiency on civil aviation. In line with the spirit of APANPIRG, CAD has actively promoted the cooperation and harmonisation amongst ICAO member states in the region, enhancing design of regional air routes, optimising airspace capacity and supporting ICAO in putting forward seamless air transport operations in the region.

回顧二零一零至一一年度，民航處的工作艱巨、繁重，各同事表現超卓，盡忠職守，發揮專業精神，本人衷心感謝。此外，業界伙伴一直對本處鼎力支持，通力合作，協力維持安全高效的航空運輸系統，本人謹此致謝。

2010/11 was a challenging and busy year for CAD, I wish to express my heartfelt gratitude to my fellow colleagues for their outstanding performance, dedication and professionalism. I would also like to thank our industry partners for their cooperation and unfailing support for maintaining a safe and efficient aviation transport system.

展望未來，香港航空業發展將踏進新紀元，工作必會更為艱巨。民航處全體人員定當悉力以赴，精益求精，竭力鞏固香港作為國際和區域航空樞紐的地位。

Looking ahead, we shall be entering the new centenary of aviation development in Hong Kong. Certainly there will be more challenges ahead, but as in the past, our staff will continue to perform with high level of efficiency and strive to consolidate Hong Kong's status as an international and regional aviation hub.

民航處處長
羅崇文

Mr Norman Lo Shung-man
Director-General of Civil Aviation

圖片於航空交通控制塔模擬機內拍攝。
The photo was taken inside the Air Traffic Control Tower Simulator.

1. 民航處處長
Director-General of Civil Aviation

羅崇文太平紳士 , AE
Mr Norman Lo Shung-man, JP, AE

2. 民航處副處長
Deputy Director-General of Civil Aviation

梁汝強太平紳士
Mr Leung Yu-keung, JP

3. 助理處長 (航班事務)
Assistant Director-General (Air Services)

郭桂源太平紳士
Mr Stephen Kwok Kwai-yuen, JP

4. 助理處長 (機場標準)
Assistant Director-General (Airport Standards)

伍崇正太平紳士
Mr Colman Ng Shung-ching, JP

5. 助理處長 (飛行標準)
Assistant Director-General (Flight Standards)

譚禮漢太平紳士
Mr Anthony Tam Lai-hon, JP

6. 助理處長 (航空交通管理)
Assistant Director-General
(Air Traffic Management)

王炳輝先生
Mr Wong Ping-fai

7. 助理處長 (航空交通工程及標準)
Assistant Director-General
(Air Traffic Engineering and Standards)

李天柱先生
Mr Simon Li Tin-chui

8. 助理處長 (計劃)
Assistant Director-General (Project)

林偉珊女士
Miss Priscilla Lam Wai-shan

9. 部門秘書
Departmental Secretary

周禮強先生
Mr Albert Chow Lai-keung

10. 總庫務會計師
Chief Treasury Accountant

張吳曼娥女士
Mrs Helen Cheung Ng Man-ngo

組織圖 Organisation Chart

大事紀要 Calendar of Events

2010

四月二十三日 April 23

批出通訊主幹合約。
The contract of Communications Backbone (CB) was awarded.

六月三日 June 3

香港國際機場北跑道實施性能導航進場程序。
Implementation of Performance Based Navigation (PBN) Approach Procedures to the North Runway at HKIA.

07L 跑道實施新的復飛程序。
Implementation of new Missed Approach Procedure (MAP) for Runway 07L.

六月二十八日 June 28

民航處採用電腦化考試系統進行飛行員及飛機維修人員執照考試。
The Paperless Computerised Examination System (PCES) was implemented for flight crew and aircraft maintenance licensing examinations.

七月一日 July 1

抵港航機排序系統正式投入服務。
Arrival Manager (AMAN) System declared for operational use.

九月二日 September 2

控制塔模擬機投入服務，為航空交通管制員提供機場景象仿真度極高的控制塔模擬環境，作培訓用途。
The Control Tower Simulator was ready for service to provide a simulated aerodrome control tower environment with realistic simulation of airport scenery for the training of air traffic controllers.

九月九日 September 9

處長羅崇文當選國際民航組織亞太空中航行規劃和實施地區小組主席。
Director-General of Civil Aviation, Mr Norman Lo, was elected as the Chairperson of the ICAO Asia Pacific Air Navigation Planning and Implementation Regional Group.

十月三十一日
October 31

香港國際機場雙跑道運作容量增至每小時 60 班。

The declared runway capacity for dual runway operations increased to 60 movements per hour.

十一月九日
November 9

航空交通管理部的航空情報服務再度取得國際標準化組織 ISO 9001:2008 品質管理體系標準認證。

Air Traffic Management Division's Quality Management System on Aeronautical Information Services was re-certificated to ISO 9001:2008 accreditation.

十二月二十四日
December 24

用作收集及分析全球定位系統數據的監察系統開始正式運作，為在香港國際機場測試及實施以陸基增強系統作衛星導航着陸預先做好準備。

A Global Position System (GPS) Monitoring System was put into operational use for collecting and analysing data from GPS to pave the way for the trial and implementation of satellite-based navigation landing using Ground Based Augmentation System (GBAS) in the Hong Kong International Airport (HKIA).

十一月七日至十七日
November 7 - 17

民航處代表參加由機管局組織的異物碎片偵察系統考察及機場考察團，前往三個裝有該系統的主要機場考察。

CAD representatives participated in a FOD Detection Systems Study Tour and airport visits organised by the AAHK on FOD detection systems commissioned at three major airports in the World.

十一月十一日
November 11

資訊科技管理組成功就資訊科技服務取得 ISO 9001：2008 品質管理體系認證。

Achieving ISO9001:2008 Quality Management System (QMS) certification by IT Management Unit (ITMU) for its operations.

大事紀要 Calendar of Events

2011

一月十五日
January 15

發展局局長批出高度限制的豁免，容許於青山、飛鵝山及南丫島新建的三座公眾數碼電視發射站，不受《1997 年香港機場 (障礙管制)(第 2 號) 令》訂明的高度限制所規限。

Secretary for Development granted exemptions from the height restrictions specified under the Hong Kong Airport (Control of Obstructions) (No. 2) Order 1997 for three new public digital television broadcast transmitters erected at Castle Peak, Kowloon Peak and the Lamma Island.

二月二日
February 2

批出航空交通管理系統合約。

The contract of Air Traffic Management System (ATMS) was awarded.

二月十八日
February 18

批出通訊及記錄系統合約。

The contract of Communications and Recording System (CRS) was awarded.

三月一日
March 1

臨時備用控制塔投入服務，於更換航空交通管制系統期間支援機場控制塔的運作。

A Temporary Backup Tower was ready for service to support the operations of the aerodrome control tower during the replacement of ATC system.

三月九日至十日
March 9 - 10

民航處與法國航空意外調查局合辦意外 / 事故調查研討會。

CAD co-orgnised an Accident / Incident Investigation Seminar with the Bureau d'Enquêtes et d'Analyses pour la sécurité de l'aviation civile (BEA) of France.

三月十八日
March 18

香港航空業發展一百周年慶祝晚宴成功舉行。
A gala dinner was held to mark the centenary of aviation development in Hong Kong.

三月二十七日
March 27

香港國際機場雙跑道運作容量增至每小時 61 班。
The declared runway capacity for dual runway operations increased to 61 movements per hour.

三月三十一日
March 31

單日航班升降數目錄得 983 航機升降架次，刷新了最高紀錄。
A total of 983 flights were handled at the Hong Kong International Airport setting a new daily record.

三月十七日
March 17

民航處與業界機構合辦拉飛機活動以慶祝香港航空業發展一百周年，並成功創造兩項健力士世界紀錄。
CAD organised an aircraft pull event with the industry in celebration of the 100th anniversary of aviation development in Hong Kong. Two new Guinness World Records were successfully created in the event.

三月十七日
March 17

民航處與歐洲航空安全局簽署有關合作審批補充型號合格證的工作。
CAD and European Aviation Safety Agency signed the Working Arrangement on Cooperation in Supplemental Type Certification activities.

航空交通統計 Air Traffic Statistics

過往五財政年度國際民航交通概況
Civil International Air Traffic in the past 5 Fiscal Years

(二零零六年四月至二零一一年三月)(April 2006 — March 2011)

飛機升降次數 Aircraft Movement

財政年度 Fiscal Year	升降次數 Movement	升跌百分比 % Change
2006-2007	282 944	5%
2007-2008	299 609	6%
2008-2009	296 179	-1%
2009-2010	280 218	-5%
2010-2011	**316 349**	**13%**

乘客 Passenger

財政年度 Fiscal Year	人次 Number	升跌百分比 % Change
2006-2007	43 864 609	8%
2007-2008	47 433 535	8%
2008-2009	46 328 005	-2%
2009-2010	45 764 431	-1%
2010-2011	**50 298 257**	**10%**

商業貨物 Commercial Cargo

財政年度 Fiscal Year	公噸 Tonnes	升跌百分比 % Change
2006-2007	3 575 482	3%
2007-2008	3 809 177	7%
2008-2009	3 426 614	-10%
2009-2010	3 576 659	4%
2010-2011	**4 167 516**	**17%**

過往五財政年度航空交通管理部處理的航班總數
Total Flights Handled by the Air Traffic Management Division in the past 5 Fiscal Years

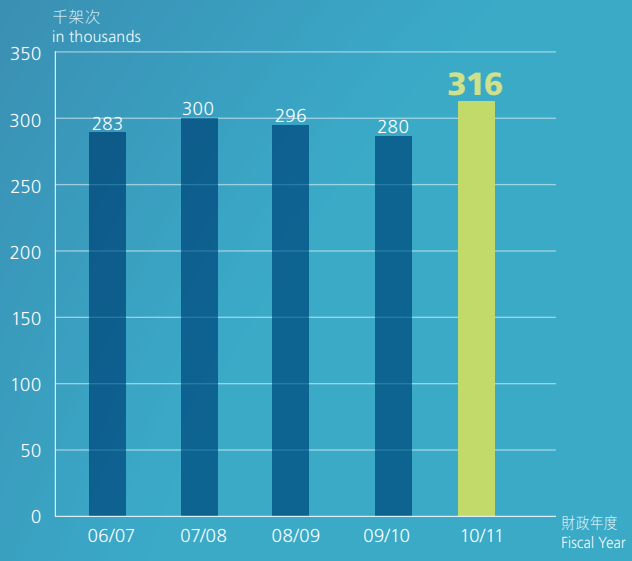
(二零零六年四月至二零一一年三月) (April 2006 – March 2011)

財政年度 Fiscal Year	航班總數* Flights Handled*	升跌百分比(比上年) % Change (from last year)
2006-2007	437 805	6%
2007-2008	461 693	5%
2008-2009	445 089	-4%
2009-2010	427 181	-4%
2010-2011	**485 153**	**14%**

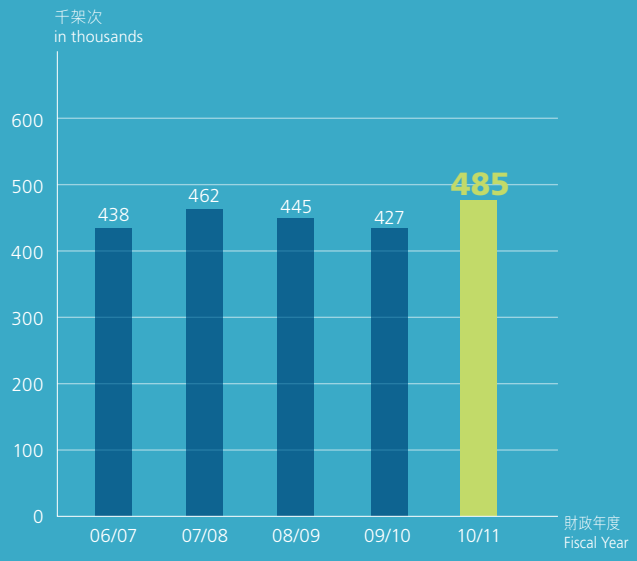
* [Flights Handled] is the total number of aircraft handled by the Air Traffic Management Division of CAD in the year. It includes:
(1) international and local aircraft movements at the Hong Kong International Airport;
(2) flights transiting the Hong Kong Flight Information Region not landing Hong Kong;
(3) flights landing and departing Macao International Airport handled by the Air Traffic Management Division.

* 「航班總數」乃由香港民航處航空交通管理部每年所處理的班機數目。其中包括：
(1) 在香港國際機場升降的國際及本地航班；
(2) 所有飛越香港飛行情報區而不在本港升降的航班；
(3) 由航空交通管理部處理進出澳門國際機場的航班。

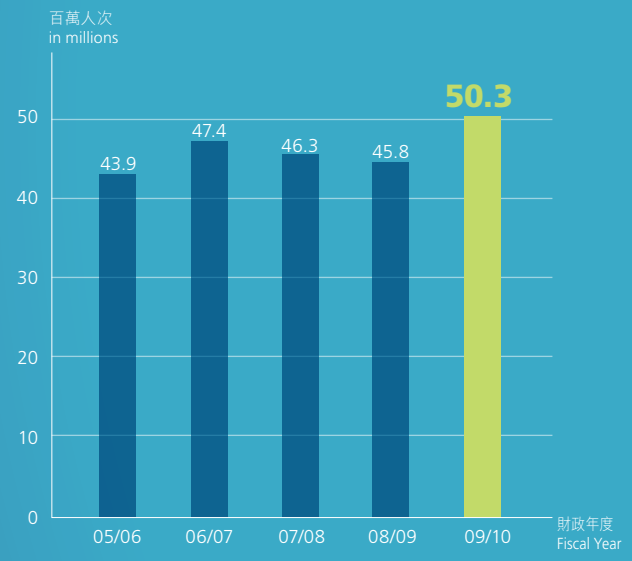
香港國際機場過往五財政年度航機升降次數
Aircraft Movement at the Hong Kong International Airport in the past 5 Fiscal Years



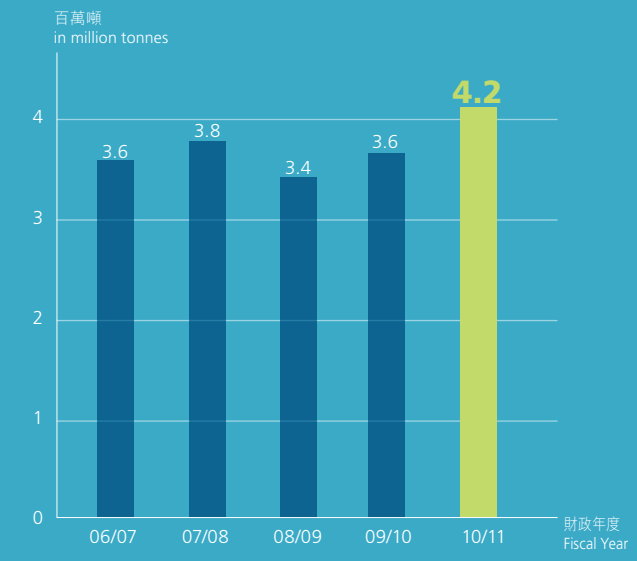
過往五財政年度航空交通管理部處理的航班總數
Total Flights Handled by the Air Traffic Management Division in the past 5 Fiscal Years



香港國際機場過往五財政年度客運量
Five-Year Passenger Traffic at the Hong Kong International Airport



香港國際機場過往五財政年度貨運量
Five-Year Cargo Traffic at the Hong Kong International Airport



航空交通管理
Air Traffic Management

航空交通管理部負責在國際民用航空組織(國際民航組織)指定的香港飛行情報區內，提供航空導航服務，包括航空交通服務、通訊、導航及監察服務、飛行情報服務、航空電訊服務，以及搜索和救援(搜救)服務。

The Air Traffic Management Division (ATMD) is responsible for the provision of air navigation services, including air traffic services, Communications, Navigation, Surveillance services, aeronautical information services and search and rescue services within the Hong Kong Flight Information Region (FIR) as assigned by the International Civil Aviation Organization (ICAO).

航空交通管理 Air Traffic Management

航空交通運作

本財政年度內，本部共處理 317 860 架次在香港國際機場升降的國際及本地航班，並為167 293 架次飛越香港飛行情報區，以及36 533 架次進出澳門國際機場的航班，提供航空交通管制服務。與上一年度比較，在香港國際機場升降的航班數目大幅增加12.95%，而飛越香港的航班則增加14.76%。航空交通增長強勁，反映年內全球經濟顯著復蘇。

跑道升降容量

隨着航空交通管理和空域管理不斷優化，香港國際機場雙跑道運作容量，由二零一零年三月每小時59班遞增至二零一零年十月每小時60班，在二零一一年三月再遞增至每小時61班。

空管主任執照考試和覆核

為維持高水準的航空交通管制(空管)運作，本部的訓練及安全組每年安排舉行航空交通管制主任(空管主任)的各類空管執照考試。就塔台管制、進場管制和區域管制這三個空管組別進行的考試共有140次。此外，本部亦向考核合格的人員頒發助理管制員證書、空管氣象記錄員證書、導師證書和搜救證書。年內，本部開設了一個負責流量控制的空管職位，運用嶄新的電腦化抵港航機排序系統，管理抵達香港國際機場的航班次序。本年度共有65名空管主任獲頒發流量控制證書。

AIR TRAFFIC OPERATIONS

During the financial year, ATMD handled a total of 317 860 international and local aircraft movements at the Hong Kong International Airport (HKIA). In addition, the Division handled 167 293 flights overflying the Hong Kong FIR, (including 36 533 flights into and out of the Macao International Airport). Compared to the previous year, the number of aircraft movements at the HKIA and overflights increased significantly by 12.95 per cent and 14.76 per cent respectively. The robust growth in traffic movement was a reflection of the strong rebound of the global economy during the year.

Runway Capacity

With our continuous enhancements to air traffic and airspace management, the declared capacity for dual runway operations at HKIA was progressively increased from 59 movements per hour in March 2010 to 60 movements per hour in October 2010, and 61 movements in March 2011.

Annual Examinations and Revalidations on ATCO Ratings

To maintain a high standard in ATC operations, the Training and Safety Section of ATMD carried out annual practical examinations on air traffic control (ATC) ratings held by Air Traffic Control Officers (ATCOs). A total of 140 practical examinations were conducted in the three air traffic control streams - Aerodrome, Approach, and Area Control. In addition, ATMD also issued Assistant Controller Certificates, ATC Meteorological Reporter Certificates, Instructor Certificates, Search and Rescue Certificates to our officers who have attained their respective qualifications. In the year, a new Flow Control position was introduced in ATC operations to manage flight arrival order at HKIA using the new computerized Arrival Manager System, with a total of 65 Flow Control Certificates issued to ATCOs.

香港國際機場雙跑道運作容量在二零一一年三月遞增至每小時61班。
The declared capacity for dual runway operations at HKIA was progressively increased to 61 movements in March 2011.

招聘及培訓
航空交通管制人員

招聘及培訓見習航空交通管制主任

為應付預期的航空交通增長及中長期的人事升遷需求，空管人員的招聘和培訓工作必須審慎規劃管理。由於本地就業市場欠缺符合所需資歷的空管主任，一般而言，民航處會在本地招聘見習空管主任，經過所需的專門培訓後，再擢升為空管主任。合資格的申請人須通過一連串甄選步驟，包括才能測驗筆試、工作性格測驗及面試，最後在評估中心接受更深入的認知能力測試及性格評估。見習空管主任由入職至可全面執行各項空管工作，須接受嚴格訓練，過程周密。各階段的訓練單元必須周詳規劃，讓見習空管主任可達到既定的表現進展基準。為符合簽發空管主任執照的條件，各訓練單元內容均包括課堂講座，以及在空管運作模擬機內進行的實習訓練。只有通過這兩個階段訓練的見習空管主任，才可在導師督導下，處理「實況」航空交通，學習所需的技能，從而達到獲發空管執照的水平，並能獨立工作。

RECRUITMENT AND TRAINING OF AIR TRAFFIC CONTROL STAFF

Recruitment and Training of Student Air Traffic Control Officers

The recruitment and training of ATC staff has to be carefully planned and managed to meet anticipated air traffic growth, and also the medium to long term manpower succession needs. As qualified ATCOs are not readily available in the local job market, potential ATCOs are normally recruited locally as Student Air Traffic Control Officers (SATCOs) to receive the necessary specialised training. Suitable candidates will go through a series of screening steps – written aptitude test, occupational personality quiz and interview. The shortlisted candidates will then attend an "Assessment Centre" for a more in-depth assessment on cognitive ability and personality traits. SATCOs receive intensive training from entry until the attainment of full performance status. This is a comprehensive process requiring carefully staged training modules to match the established performance development benchmarks. To fulfil ATCO licensing requirements, each module involves lectures in classrooms and practical training in an ATC operational simulator. Only when SATCOs have passed these two stages of training can they progress onto handling "live" traffic under the guidance of an instructor so as to attain the skill level required to and operate independently receive an ATC rating.

控制塔台為航機提供二十四小時的航空交通管制服務。
The Air Traffic Control Tower provides round-the-clock air traffic control services to aircraft operating at the airport.

航空交通管理 Air Traffic Management

培訓一名見習空管主任成為全面合資格的管制員，以擔任二級空管主任職位，一般需時五年。其間，該名見習空管主任會分階段接受專業培訓，以取得多項不同範疇的空管資歷。

The training of a SATCO to become a fully qualified controller at the rank of ATCO II normally takes around five years. During the period, the officer will be given professional training in stages to acquire qualifications in various ATC disciplines.

為加深公眾和求職人士對空管行業的認識，年內，民航處在大學舉辦就業講座，並定期安排學生參觀部門的空管設施。

To enable the public and potential applicants to understand our ATC profession better, CAD held career talks in universities and arranged regular students visits to our ATC facilities throughout the year.

截至二零一一年三月三十一日，在職的空管主任有273人，航空交通事務員則有103人。

As of March 31, 2011, the strength of Air Traffic Control Officers and Air Traffic Flight Services Officers was 273 and 103 respectively.

其他職級的空管培訓

ATC Training for Other Ranks

職員培訓是航空交通管理部的重點任務之一。年內，本部持續舉辦多項課程及在職訓練活動。

Staff development constitutes one of the major tasks for ATMD. Courses of instruction and on-the-job training activities continued to be intensive throughout the year.

培訓見習空管主任成為合資格的管制員，以擔任二級空管主任職位，一般需時五年。
The training of a SATCO to become a fully qualified controller at the rank of ATCO II normally takes around five years.

年內，本部共舉辦了42項空管培訓課程，受訓人員從中取得多項專業資格，並獲發55項空管執照；又為73名在職空管主任舉辦塔台管制複修課程，以確保他們一旦面對突發情況，如航機遇到惡劣天氣或其他緊急事故

In the year, a total of 42 ATC training courses were conducted, leading to the issuance of 55 ATC ratings and the attainment of various professional ATC qualifications. An aerodrome control refresher training course was conducted for our 73 qualified ATCOs to ensure their competency in responding to unusual circumstances, such as poor weather operations and aircraft emergencies, are

等，都能應付自如。此外，本部又安排24名見習空管主任往海外修讀基本空管課程和接受私人飛機駕駛執照飛行訓練，以配合他們的工作發展。這類海外培訓活動的目的，是增進受訓人的航空知識、促進個人發展並豐富他們有關空管運作的閱歷。年內，本部亦揀選了多名較資深的空管主任接受不同範疇的進階培訓，包括安全管理系統、新式飛機操作、搜救、空管事故調查、飛機意外調查、安全審查、飛行程序設計、指導技巧及人力資源管理，開拓他們的眼界，以承擔專責職務，以至責任更重的管理和監督職務。

maintained to the required standards. As part of their career development, 24 SATCOs were arranged to attend overseas courses on basic air traffic control with Private Pilot Licence (PPL) flying training. These overseas training activities are designed to enhance their aviation knowledge, to accelerate personal development, and to broaden their exposure to ATC operations. In addition, more senior ATCOs were selected in the year to attend advanced training on Safety Management Systems, Operations of Modern Aircraft, Search and Rescue, ATC Incident Investigation, Aircraft Accident Investigation, Safety Audits, Flight Procedures Design, Instructional Techniques and Human Resources Management in order to enable them to expand their horizon, undertake specialised duties, as well as management and supervisory duties at a higher level.

其他培訓

除了已安排的內部空管培訓和有關處理飛機緊急事故的複修課程外，本部亦與民航訓練中心合辦航空交通管理概論課程，讓業界伙伴和市民深入了解航空交通管理工作。這課程已舉辦多年，深受歡迎。

Other Training Offered

Apart from the programmed in-house ATC training and refresher courses on handling of aircraft emergency situations, ATMD also conducted an Air Traffic Management Introductory Course in conjunction with the Civil Aviation Training Centre for industry partners and the public for a better appreciation of air traffic management functions. The course is conducted regularly and has been well received.

航空交通控制中心
Air Traffic Control Centre

航空交通管理 Air Traffic Management

航空交通控制中心及塔台
Air Traffic Control Centre and Tower

新航空交通管制程序

NEW AIR TRAFFIC CONTROL PROCEDURES

香港國際機場北跑道實施性能導航進場程序

「需要授權的所需導航性能進場程序」經試行運作後，反應良好，遂於二零一零年六月三日在香港國際機場07L跑道和25R跑道實施。新程序利用衞星導航和現代航機內置的先進導航設備，為現有儀表進場程序提供額外備用程序。相比於另一種現有的備用程序，即需要飛機逐級下降之「甚高頻全向無線電信標進場程序」，「需要授權的所需導航性能進場程序」讓飛機可持續下降，有助減輕飛行員在飛機進場時的工作量，從而進一步提高飛行安全水平。

Implementation of Performance Based Navigation Approach Procedures to the North Runway at the Hong Kong International Airport (HKIA)

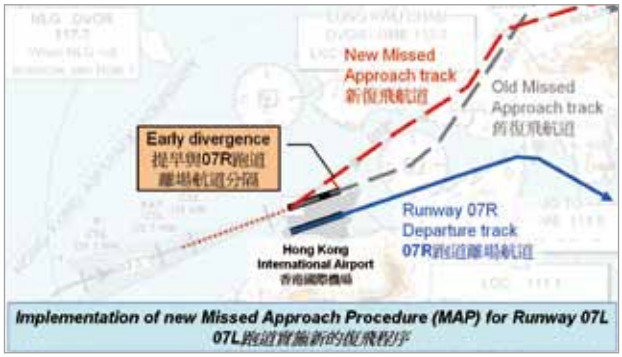
After receiving positive feedback from trial operations, the Required Navigation Performance Authorisation Required Approach (RNP AR APCH) procedures for Runway 07L and Runway 25R were implemented at the HKIA on June 3, 2010. The new procedures made use of satellite navigation and the state-of-the-art navigation equipment on board modern aircraft and offered additional backup to the existing instrument approach procedures. Comparing with the other existing backup procedure i.e. the VOR Approach procedure, which required aircraft to descend in "steps", the RNP AR APCH procedures allow a continuous descent and help reduce pilot workload during the approach. Flight safety is therefore further enhanced.

07L跑道實施新的復飛程序

從二零一零年六月三日起，07L跑道實施了新的復飛程序。新程序增加了07L跑道復飛航道與07R跑道離場航道之間的分隔距離，使現有兩條平行跑道在任何天氣情況下都可同時運作。因此，即使天氣惡劣，香港國際機場仍能維持着高跑道升降容量。

Implementation of new Missed Approach Procedure (MAP) for Runway 07L

The new MAP for Runway 07L was also implemented on June 3, 2010. The procedure provides sufficient divergence between the missed approach track of Runway 07L and the departure track of Runway 07R supporting simultaneous operations on existing two parallel runways under all weather conditions. As a result, high runway capacity at the HKIA can be maintained under poor weather conditions.



Implementation of new Missed Approach Procedure (MAP) for Runway 07L
07L跑道實施新的復飛程序

Implementation of Performance Based Navigation Approach Procedures to the North Runway (Runway 07L) at HKIA
香港國際機場北跑道(07L跑道)實施性能導航進場程序

Implementation of Performance Based Navigation Approach Procedures to the North Runway (Runway 25R) at HKIA
香港國際機場北跑道(25R跑道)實施性能導航進場程序

抵港航機排序系統

抵港航機排序系統經試行運作後，成效令人滿意，遂於二零一零年七月一日正式運作。抵港航機排序系統向航空交通管制員提供抵港航機序列建議，有助提高抵港航機準點的效率，以及更有效運用空域。抵港航機排序系統現已成為為香港國際機場抵港航機編定進場序列的主要工具。

Arrival Manager System

After satisfactory operational trial, the Arrival Manager (AMAN) System was put into operational use on July 1, 2010. The AMAN System is a sequencing tool providing advice to air traffic controllers that will enhance on-time performance of arrivals and efficient use of airspace. The System has become the primary tool in managing the arrival sequence into the HKIA.

修訂低能見度程序

考慮到近年已實施多項優化措施，包括設置先進場面活動引導和控制系統，以及增建出口滑行道，香港國際機場自二零一一年一月十三日起，縮減能見度降低時抵港航機之間的建議間距，致使在低能見度情況下的航空交通運作效率得以提升。

Revised Low Visibility Procedure

Taking into account enhancement measures introduced during recent years including the availability of the Advanced Surface Movement Guidance and Control System (A-SMGCS) and additional exit taxiways, the recommended spacing between arriving flights under low visibility conditions at the HKIA has been reduced since January 13, 2011. Consequently, the air traffic operational efficiency during low visibility conditions has improved.

航空交通管理 Air Traffic Management

珠江三角洲(珠三角)地區航空交通管理計劃

年內，香港民航處、國家民用航空局與澳門民航局組成的三方工作組，繼續進行已編定的珠三角地區空域優化工作。為提升珠三角航空交通處理效率，三方工作組建議調整珠海終端區空域，以及在香港與珠海空域之間增設一個新移交點。其後，香港和內地的空域及飛行程序專家合作，利用香港民航處的快速模擬器評估及核實以上各項建議的成效。評估結果顯示，珠海終端區空域調整方案和新移交點，均可達到提升珠三角地區空管處理效率之目的。對於這個結論，香港和內地人員皆表贊同。珠海終端區空域調整方案將於二零一一年四月實施，而新移交點亦於二零一一年九月啟用。

AIR TRAFFIC MANAGEMENT PLAN FOR THE PEARL RIVER DELTA (PRD) REGION

The Tripartite Working Group (TWG) formed by the Hong Kong CAD, the Civil Aviation Administration of China, and the Macao Civil Aviation Authority continued with the scheduled airspace enhancement work in the PRD Region during the year. To enhance the PRD air traffic handling efficiency, the TWG proposed a revised Zhuhai terminal airspace and a new transfer point between Hong Kong and Zhuhai airspace. An airspace and flight procedures evaluation using Hong Kong CAD's Fast Time Simulator was subsequently conducted jointly by airspace and flight procedure experts from the Mainland and Hong Kong to validate the efficiency of the revised Zhuhai terminal airspace together with related flight procedure and the new transfer point. Both CAD and Mainland officials agreed that the results indicated the revised Zhuhai terminal airspace and the new transfer point would meet the objective of enhancing the ATC handling efficiency in the PRD Region. The revised Zhuhai terminal airspace is planned to be implemented in April 2011. The new transfer point will be implemented in September 2011.

航空電訊服務

年內，本部改善航空電訊網絡及航空交通訊息處理系統，加入特設功能，以便航空公司用戶可經互聯網提交電子飛行計劃書和檢索飛行前通報。航空氣象廣播服務方面，本部為航機提供合共214 940份氣象報告。至於固定航空通訊服務，該部航空通訊組處理的訊息合共達34 535 389 個，較去年增加9.6%。

AERONAUTICAL TELECOMMUNICATIONS SERVICES

During the year, the Aeronautical Telecommunication Network and ATS Message Handling System (ATN/AMHS) were enhanced with customized features to enable airline users to file electronic flight plans and retrieve pre-flight information bulletins online. The Aeronautical Broadcast Service provided a total of 214 940 weather messages to aircraft in flight. As regards Aeronautical Fixed Service, the total number of messages handled by the Telecommunications Unit of ATMD, as compared with last year, has increased by 9.6 per cent to 34 535 389.

安全管理系統

航空交通管理部作為航空導航服務機構，致力確保航空交通服務達到最高安全水平，並不斷提升服務質素。本部與航空交通管理標準組就安全管理系統各方面緊密合作，務求符合國際民航組織的最新標準及監管規定。為管理和監察安全表現，本部每季編製安全表現目標及指標報告，提交航空交通管理標準組審閱。此外，為確保不斷改善安全管理系統，航

SAFETY MANAGEMENT SYSTEM (SMS)

ATMD, as an Air Navigation Service Provider (ANSP), is committed to ensuring the highest safety standards and continuously enhances the quality of air traffic services. In this respect, ATMD works closely with the Air Traffic Management Standards Office (ATMSO) on various aspects of Safety Management System (SMS) in compliance with the latest ICAO Standards and Regulatory requirements. Reports on Safety Performance Targets and Safety Performance Indicators were compiled and submitted to ATMSO on a quarterly basis for safety performance management and monitoring. To ensure continuous improvement

空交通管理部就各個主要職能範疇進行四次內部安全審查。在推廣安全文化方面，本部舉行三個「安全風險評估推動者」培訓課程，加強執行安全風險評估人員的知識及技能。訓練組亦向參加內部培訓課程的學員簡介安全管理系統，以便在學員入職初期便灌輸安全管理概念。

of SMS, ATMD conducted four internal audits on different key functional areas. In the promotion of safety culture, ATMD conducted three training courses on "Facilitators for Safety Risk Assessment" to strengthen the knowledge and skill of staff in discharging safety risk assessment duties. The Training Unit also provided SMS briefings to trainees attending internal training courses to instil the concept of safety management at the very beginning of their career.

搜索和救援服務

SEARCH AND RESCUE (SAR) SERVICES

年內，本部舉辦了兩個培訓課程，共有16名空管主任取得搜救資格。為掌握搜救服務的最新國際發展，航空交通管理部與區域搜救機關和國際搜救機關保持密切聯繫，又繼續參加有關搜救的國際民航組織會議及其他研討會。

During the year, two training courses were conducted and a total of 16 ATCOs attained the SAR qualification. To keep abreast of latest global development on SAR services, ATMD maintained close liaison with regional and international SAR authorities, and continued to participate in ICAO meetings and other forums concerning SAR.

海外空管會議和研討會

OVERSEAS ATC MEETINGS AND CONFERENCES

年內，本部繼續積極參與海外會議和研討會，包括由國際民航組織、其他航空機關和民用航空導航服務組織舉辦的會議和研討會，在亞太區以至全球交流和促進航空交通管理的發展並推動合作。

During the year, the Division continues to participate actively in overseas meetings and conferences to exchange and contribute to air traffic management development and cooperation in the Asia-Pacific Region and globally. These include meetings, seminars, and conferences organised by ICAO, other aviation authorities, and the Civil Air Navigation Services Organisation (CANSO).

出席國際民航組織亞太空中航行規劃和實施地區小組年度會議的香港代表團。
The Hong Kong delegation to the ICAO APANPIRG meeting.

航空交通工程及標準部
Air Traffic Engineering and Standards Division

航空交通工程及標準部負責設計、規劃、統籌和提供空管系統、雷達、導航儀器和通訊設備，並監管香港空中航行服務(包括進行航空事故調查)，簽發空管主任執照及相關級別。年內，本部成立培訓及發展事務辦公室，統籌部門的培訓事宜。

The Air Traffic Engineering and Standards Division (AESD) is responsible for the design, planning, coordination, and provision of ATC systems, radar, navigational aids, and communication facilities for Hong Kong ATC operations. The Division is also responsible for regulating Hong Kong air navigation services including conducting incident investigation, and issuing air traffic controller licences and the associated air traffic control ratings. During the year, the Training and Development Office was established under the Division to coordinate training and development matters within the Department.

航空交通工程及標準部 Air Traffic Engineering and Standards Division

航空交通工程及標準

年內，本部繼續致力維持高水準、穩定可靠及優秀的空管系統，以支援安全及高效率的航空交通服務。新空管中心空管系統的招標工作和民航處新總部大樓資訊及通訊科技設施的採購工作，進展良好。

衞星通訊、導航及監察／航空交通管理系統的發展計劃現正穩步推展，以便早日發揮系統的功能，提升空管運作效率及飛行安全。經測試並提前採用的新系統包括抵港航機排序系統、電子飛行進程單系統、廣播式自動相關監察和飛行計劃衝突提示系統等。

本部繼續積極推行新的資訊科技應用系統，提升電腦網絡和基建設施，以支援本處電子化服務和數碼政府的目標。二零一零年十一月，本部資訊科技管理組憑優質服務成功獲頒國際標準化組織ISO 9001：2008品質管理體系認證。

更換航空交通管制系統

為應付航空交通預期的增長需求、航空業的擴展和保持香港作為國際及區域航空中心的地位，民航處於二零零七年五月獲得撥款，把現有系統更換為高效能及配備最新功能的空管系統，以提升香港飛行情報區內航空交通服務的效率。

年內，已批出三項主要空管系統的合約，包括通訊主幹系統、航空交通管理系統和通訊及記錄系統。餘下四項主要系統的招標工作進展良好，合約將於二零一一年年底前批出。

Air Traffic Engineering and Standards

During the year, the Division continued its efforts in maintaining a high standard, stable, reliable and outstanding ATC system to support safe and efficient air traffic services. Good progress was made in the tendering of ATC system for the new ATC Centre and the procurement of Information & Communication Technology (ICT) facilities for the new CAD Headquarters Building.

Progressive achievement was made on the Satellite-based Communications, Navigation and Surveillance/Air Traffic Management (CNS/ATM) Systems Project to reap early operational benefits for enhanced ATC operational efficiency and flight safety. Trials and early implementation of new CNS/ATM system elements included Arrival Manager System, Electronic Flight Strip System, Automatic Dependent Surveillance-Broadcast (ADS-B), Flight Plan Conflict Advisory System etc.

The Division also carried on to actively implement new information technology applications and enhance the computer network and infrastructure to support departmental e-business development and e-government objectives. The IT Management Unit (ITMU) successfully achieved the ISO9001:2008 Quality Management System (QMS) certification in November 2010 on its operations.

Replacement of Air Traffic Control System

To cope with the projected air traffic growth and expansion of aviation industry, and to maintain Hong Kong's position as a centre of international and regional aviation, funding approval was obtained in May 2007 to replace the existing ATC system with higher capacity and the latest functionalities so as to enhance efficiency in the provision of air traffic services in the Hong Kong Flight Information Region (FIR).

During the year, contracts for three major ATC systems were awarded covering the Communications Backbone System, Air Traffic Management System (ATMS) and Communications and Recording System (CRS). Tendering work for the remaining four major systems was in good progress, with contracts to be awarded before end 2011.

二零一一年二月，本處舉行了航空交通管理系統和通訊及記錄系統的工程項目啟動會議，而系統詳細設計的審核會於二零一一年四月展開。民航處航站安裝通訊主幹系統設備的工程，亦於二零一一年三月展開。

The project kick-off meetings for ATMS and CRS were conducted in February 2011, with detailed design review of the systems to commence in April 2011. The installation of Communications Backbone equipment at the CAD outstations was commenced in March 2011.

1 2

1. *本部職員參觀國泰航空公司的運作中心。*
   AESD staff visit the Operations Centre of Cathay Pacific Airways.
2. *二零一一年二月二十八日與航空交通管理系統承建商舉行工程項目啟動會議。*
   The Project Kick-off meeting with Contractor of Air Traffic Management System (ATMS) was held on February 28, 2011.

更換通訊、導航及監察系統

用於空管運作的現有通訊、導航及監察系統使用年期快將屆滿，本部正制訂更換策略。為維持安全可靠並具效率和成效的空管服務，更換策略會顧及飛機裝備的技術發展，以及衛星通訊、導航及監察系統的使用日增的情況。此外，本部將於二零一一年四月，聯同國際航空運輸協會，向該會會員進行問卷調查，以協助制訂更換系統的策略。

Replacement of Communications, Navigation and Surveillance Systems

As the existing Communications, Navigation and Surveillance (CNS) Systems for ATC are approaching the end of their usable lives, a replacement strategy is being developed which will take into account the technological advancement in aircraft equipage and increasing utilization of Satellite-based Communications, Navigation and Surveillance Systems in order to ensure the continued provision of safe, reliable, efficient and effective ATC service. In addition, the Division will conduct jointly with the International Air Transport Association (IATA) in April 2011 a survey to its members so as to help formulate the replacement strategy of the systems.

更新資訊及通訊科技系統

運作復原設施、自動用戶電腦數據備份設施及存儲區域網絡三份合約已於本年度批出。新設施投入運作前，會在二零一一至一二年度測試其加強資訊科技服務和保護數據的功能。採購民航處新總部大樓資訊及通訊科技設施的餘下招標工作，亦將於二零一一至一二年度分階段展開。

Updating of Information & Communication Technologies (ICT) Systems

Contracts for Disaster Recovery Facility, Automated User Computer Data Backup Facility and Storage Area Network (SAN) were awarded in the year. Testing of the new IT facilities for enhanced IT serviceability and data protection will commence in 2011-12 prior to putting into operational use. The remaining tenders for procurement of ICT equipment for the new CAD Headquarters Building will be rolled out in phases in 2011-12.

航空交通工程及標準部 Air Traffic Engineering and Standards Division

持續發展安全管理系統以支援穩妥的通訊、導航及監察和重要屋宇設施

為不斷發展和加強現有安全管理系統，本部自二零一零年六月起展開工作項目，消除本部安全程序與安全管理系統規管要求的差距，直至二零一一年三月底完成了95%的工作。優化安全管理系統文件的工作大部分完成，例如編製「航空交通工程及標準部安全趨勢研究程序」。本部亦投放大量資源推廣安全訊息，包括定期出版《航空交通工程安全忠告》期刊發放安全資訊，舉辦推廣安全工作坊，以提高員工的安全意識並交流所汲取的安全經驗。

為維持本部的安全管理系統並不斷改善其適用範疇，本部於二零一零年十一月設立「航空交通工程及標準部安全管理系統檢討會議」，以確保本部高層管理人員定期檢討系統各項事宜。年內，本部亦與航空交通管理標準組(本部的監管當局)和航空交通管理部(提供空中航行服務的對口)定期舉行會議和進行安全複檢工作，確保以具成效和高效率方式執行對通訊、導航及監察服務的安全管理。

Ongoing Development of the Safety Management System (SMS) in Support of Provision of Safe CNS and Critical Building Services

To continuously develop and enhance the existing SMS, the Division has by end March 2011 completed 95% of the work items commenced since June 2010 in bridging the gaps identified between the implemented safety processes and the SMS regulatory requirements. Whilst much of the work in terms of optimisation of SMS documentation was completed, such as the AESD Procedures for Safety Trend Study, substantial efforts were expanded in respect of safety promotion, which included amongst others the regular issuance of safety periodical "Air Traffic Engineering Safety Advisory" for dissemination of safety information, and the conduct of safety promotion workshops to raise staff safety awareness and share safety lessons learnt.

In order to sustain our SMS, as well as to aim at continuous improvement to the framework, the "AESD SMS Review Meeting" was established in November 2010 to ensure regular reviews of the SMS by senior management of the Division. During the report year, the Division maintained regular contacts with our regulatory authority – ATMSO, and ANSP counterpart – ATMD, through meetings and safety review activities so as to ensure effective and efficient SMS approach to safety management in the provision of CNS services.

本部舉辦「安全工作坊」以提高員工的安全意識，分享有關航空安全的經驗。
Safety promotion workshop was organised to raise staff safety awareness and share aviation safety lessons learnt.

衞星通訊、導航及監察/航空交通管理系統

為符合國際民航組織就衞星通訊、導航及監察/航空交通管理系統所訂的全球和地區實施計劃，本部繼續研究系統的最新發展，並詳細測試系統各個構件。有關系統的技術和運作測試均取得良好進展。為了早日發揮系統的功能，部分技術成熟的系統構件已投入服務，藉此提升和優化香港空管服務的水平。這些系統構件包括數據化自動航站情報服務、數據化遠航氣象情報服務、飛前放行指示數據鏈路服務、先進場面活動引導和控制系統、香港與曼谷和澳門之間的航空電訊網、與澳門的航空交通服務訊息處理系統，以及與三亞的空中交通服務設施間數據通訊。

飛前放行指示雙向數據鏈路服務

飛前放行指示數據鏈路服務自二零零八年起提供雙向傳輸，運作情況令人滿意。截至二零一一年三月底，服務使用率由70%逐步增至72%，使用服務的航空公司數目由44家增至58家。預計未來數年，會有更多航機使用這項服務，以提升空管人員與飛行員的通訊效率。

航空電訊網及航空交通服務訊息處理系統

香港作為航空電訊網及航空交通服務訊息處理中樞，配合國際民航組織亞太地區航空電訊網及航空交通服務訊息處理系統實施計劃，在二零零九年七月啟用高容效航空交通服務訊息處理系統。

SATELLITE-BASED COMMUNICATIONS, NAVIGATION AND SURVEILLANCE/AIR TRAFFIC MANAGEMENT (CNS/ATM) SYSTEMS

To comply with the Global and Regional Implementation Plans of the ICAO for the Satellite-based CNS/ATM systems, studies on the latest CNS/ATM development and detailed investigation on various elements of the CNS/ATM systems continued. Satisfactory progress was achieved on relevant technical and operational system trials. To reap the benefits of early CNS/ATM applications, some mature CNS/ATM system elements such as Digital-Automatic Terminal Information Service (D-ATIS), Digital-Meteorological Information for Aircraft in Flight (D-VOLMET) service, Pre-Departure Clearance (PDC) datalink service, Advanced Surface Movement Guidance and Control System (A-SMGCS), Aeronautical Telecommunication Network (ATN) connecting Hong Kong with Bangkok and Macao, ATS Message Handling System (AMHS) service with Macao, and Air Traffic Services Interfacility Data Communication (AIDC) with Sanya have been put into operational use which enhanced and upgraded the ATC services of Hong Kong.

Pre-Departure Clearance Two-way Datalink Service

The Pre-Departure Clearance (PDC) Datalink Service is in satisfactory two-way operation since 2008. The utilisation rate increased modestly from 70% to 72% and the number of participating airlines also increased from 44 to 58 as at end of March 2011. It is anticipated that more aircraft will use the service to grasp the benefit of efficient communications between ATC staff and pilots in the coming years.

Aeronautical Telecommunication Network and ATS Message Handling System

In accordance with ICAO Asia-Pacific Regional Aeronautical Telecommunication Network (ATN) and ATS Message Handling System (AMHS) Implementation Plan, with Hong Kong being an ATN and AMHS backbone site, a high capacity AMHS was commissioned in July 2009.

航空交通工程及標準部 Air Traffic Engineering and Standards Division

與澳門進行的新系統相容測試和運作測試順利完成後，香港與澳門的航空交通服務訊息處理系統和航空電訊網在二零零九年十二月二十九日投入運作。港澳兩地是亞太區內首對城市使用航空電訊網，提供全面的航空訊息處理服務。本處現正安排在二零一一年和二零一二年，再分階段與北京、台北、東京、馬尼拉和其他鄰近地區的航空交通電訊中心進行測試。

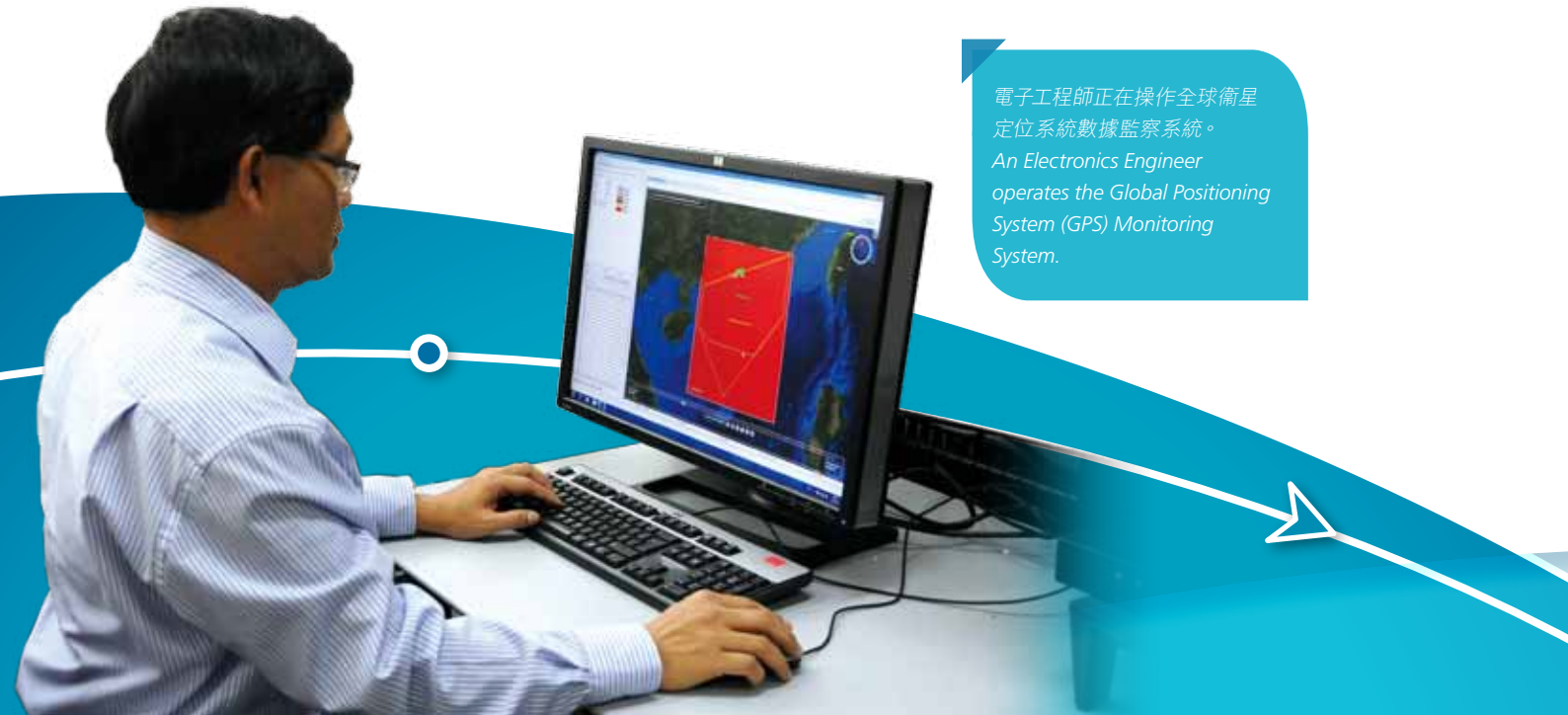
After satisfactory completion of interoperability tests and operational trials of the new system with Macao, the new AMHS and ATN circuit between Hong Kong and Macao was put into operation on December 29, 2009, marking the first city-pair in the Asia and Pacific Regions that provides a full aeronautical message handling service over ATN. Further tests and trials with Beijing, Taibei, Tokyo, Manila and other adjacent ATS authorities are being arranged in 2011-2012.

先進場面活動引導和控制系統

Advanced Surface Movement Guidance and Control System

先進場面活動引導和控制系統在二零零九年四月一日投入運作後，加強了對飛行區內航機升降和車輛進出情況的監察。該系統設有衝突和「跑道入侵」警告功能，可提高機場的空管安全和效率。為了發揮系統的最大功能，本處與香港機場管理局商定，由二零一零年十二月三十日起，強制規定進入或越過現用跑道的車輛須安裝車輛應答機。此外，本處安裝了一套應答機自我測試設備，以助檢查應答機的操作狀況。為持續提升先進場面活動引導和控制系統的性能，本處正與系統供應商洽商採購一套附加維修支援增值服務的測試及評估系統。

Since the operational use of the Advanced Surface Movement Guidance and Control System (A-SMGCS) on April 1, 2009, the system had provided enhanced surveillance of aircraft and vehicle movements on the airfield, with availability of conflict and runway incursion alerting functions for added air traffic control safety and efficiency in the airport. To achieve the maximum benefits of the system, CAD arranged with Airport Authority Hong Kong to implement mandate of vehicles entering or crossing active runways to be equipped with vehicle locators (Veelo) effective from December 30, 2010. A Veelo self-testing facility was installed by CAD to facilitate self-checking on operational status of the Veelo. As continuous enhancement in the performance of A-SMGCS, CAD is arranging with the equipment supplier to procure a test and evaluation system with enhanced maintenance support service.



電子工程師正在操作全球衞星定位系統數據監察系統。
An Electronics Engineer operates the Global Positioning System (GPS) Monitoring System.

廣播式自動相關監察

為準備在短期內實施廣播式自動相關監察，本處採購了一套廣播式自動相關監察顯示系統，以便監察和評估系統所接收到的訊號覆蓋範圍和位置的準確程度。現時，由西沙群島和香港國際機場現有的廣播式自動相關監察地面站發出的訊號，均會傳送至該顯示系統。此外，本處正安排在香港選定的地點設置多個廣播式自動相關監察地面站。為進行測試和評估，這些地面站所發出的訊號亦會傳送至廣播式自動相關監察顯示系統。另一方面，本處正與政府飛行服務隊安排，為飛行服務隊的直升機裝設廣播式自動相關監察機載設備，然後進行飛行測試，藉此評估廣播式自動相關監察訊號在本港低空範圍的覆蓋情況。

Automatic Dependent Surveillance – Broadcast

To prepare for planned implementation of Automatic Dependent Surveillance – Broadcast (ADS-B) in the near future, CAD procured an ADS-B Display System to facilitate monitoring and evaluation of coverage and position accuracy of ADS-B signals. ADS-B signals from Xisha Island and existing ADS-B ground stations within the Hong Kong International Airport (HKIA) are currently provided to the ADS-B Display System. Besides, ADS-B signals from ADS-B ground stations to be deployed in selected site in Hong Kong will also be input to the ADS-B Display System for trial and evaluation purpose. CAD is also arranging with the Government Flying Service (GFS) to equip ADS-B avionics in the GFS helicopter for conducting flight trials to assess ADS-B signal coverage at low level within the Hong Kong territories.

在國際民航組織廣播式自動相關監察東南亞地區工作小組第六次會議期間，本處倡議加強各飛行情報區之間在強制裝設廣播式自動相關監察機載設備和空管程序方面的協調合作，以便在二零一三年年底前，在新加坡與香港之間的M771和L642航路實施廣播式自動相關監察。

During the 6th meeting of the ADS-B Southeast Asia Work Group (ADS-B SEA WG), CAD initiated to strengthen collaboration among FIRs on harmonization of avionics mandate and ATC procedures for implementation of ADS-B by end 2013 along air traffic routes M771 and L642 between Singapore and Hong Kong.

抵港航機排序系統

採購抵港航機排序系統，旨在提高準時抵港的航機數目，更善用空域，以及為管制人員提供自動化服務。系統通過運作評估和完成優化後，在二零零九年六月二十三日開始試行運作。由於試行運作結果令人滿意，系統在二零一零年七月一日啟用。系統功能在二零一零年十二月十日進一步提升，以便在惡劣天氣情況下編定最佳的抵港航機序列。這項功能預定在二零一一年年中啟用。

Arrival Manager System

The Arrival Manager (AMAN) System was procured to help achieve more on-time arrivals, more efficient use of airspace and automated service to controllers. Following successful operational evaluation and system enhancement, the system was put into operational trial since June 23, 2009. With satisfactory trial results, the system was put into operational use on July 1, 2010. Further upgrade of the system to enable optimisation of aircraft arrival sequencing during adverse weather conditions was completed on December 10, 2010. The weather mode was planned for use in mid 2011.

航空交通工程及標準部 Air Traffic Engineering and Standards Division

為國際民航組織新飛行計劃和航空交通服務訊息格式而設的前置處理器

國際民航組織有關飛行計劃和航空交通服務訊息格式的新規定將於二零一二年十一月十五日實施，本部現正進行所需的系統提升工作，以作配合。在整個系統在二零一三年年底完全更換前，本部會開發兩台前置處理器，把新飛行計劃和航空交通服務訊息格式轉換為現有格式，使現有的航空資料庫和飛行數據處理系統得以繼續處理這些數據。飛行數據處理系統的前置處理器合約已在二零一零年六月二十五日批出，而航空資料庫的合約則在七月十三日批出。系統交付和測試預定在二零一一年年底開始進行。

Front End Processing Systems for New ICAO Flight Plan and Messages

In order to meet the new requirements on ICAO Flight Plan and ATS messages format by November 15, 2012, necessary system enhancements were being made. Prior to a complete system replacement by end 2013, two Front End Processors (FEP) are being developed to convert NEW Flight Plan and ATS Messages into the PRESENT formats so that the existing Aeronautical Information Database (AIDB) and Flight Data Processing (FDPS) systems can continue to handle these messages. Contracts were awarded on June 25, 2010 and July 13, 2010 respectively for FEP of FDPS and AIDB. Delivery and testing would commence in late 2011.

陸基增強系統

陸基增強系統能支援香港國際機場採用基於性能的導航，以應付全球對善用空域的需求。陸基增強系統提高全球衞星導航系統的準確程度，藉此優化其覆蓋範圍內飛機進場、着陸、起飛和地面運作等程序。為準備在香港國際機場進行陸基增強系統測試，本部會研究電離層對陸基增強系統性能的影響和系統選址事宜。為此，本部在二零一零年十二月二十四日採用監察系統，收集全球衞星導航系統數據作電離層研究用途，並預定在二零一一年年底前完成系統選址研究工作。

Ground Based Augmentation System

Ground Based Augmentation System (GBAS) will support the implementation of Performance Based Navigation (PBN) for addressing the global demands on efficient use of airspace capacity. It augments the accuracy of the Global Navigation Satellite System (GNSS) and so supports optimisation of procedures for approach, landing, departure, and surface operations within its area of coverage. To pave way for GBAS trials at the HKIA, a study of ionospheric effect on GBAS performance and the siting of GBAS will be conducted. To this end, a monitoring system was put into operational use on December 24, 2010 to collect GNSS data for ionospheric study. Completion of study on the siting of GBAS is planned for end 2011.

飛行計劃衝突提示系統

飛行計劃衝突提示系統的研發工作完成後，自二零一零年十一月起在航空交通管制中心進行系統運作測試。系統啟用後，當飛越香港空域的飛機可能出現中期(五至二十分鐘)衝突時，管制人員即可獲得提示，藉此加強空管運作安全。

Flight Plan Conflict Advisory System

The development of the Flight Plan Conflict Advisory System (FiPCAS), which will help enhance safety to ATC operations by providing alerts to controllers when medium term (5 to 20 minutes) potential conflicts exist between aircraft flying over the Hong Kong airspace, has been completed and installed in the Air Traffic Control Centre for operational trial since November 2010.

同事於航空交通控制塔測試電子飛行進程單系統。
Electronic Flight Strip System is under trial in the Air Traffic Control Tower.

電子飛行進程單系統

為協助新空管中心及控制塔順利改以無紙方式運作，本部計劃讓香港國際機場控制塔人員使用電子飛行進程單試行系統。該試行系統已在二零一零年年底裝妥，現正進行驗收測試。控制塔人員會在二零一一年第三季開始接受相關培訓。

Electronic Flight Strip System

To facilitate a smooth transition to electronic flight strip environment in the new ATC Centre and tower, a trial Electronic Flight Strip System (EFSS) was planned for operational use by Tower Controllers at the HKIA. The installation of the trial EFSS was completed in late 2010, with acceptance testing in progress. Training of Tower Controllers has been scheduled to commence in Q3 2011.

優化通訊、導航、監察及航空交通管理系統的維修安排

為加強空中航行服務，本部採用以風險為本的模式，改善通訊、導航、監察及航空交通管理系統的現行維修安排。本部檢視現行維修安排後，採用新的管理模式，分析現有及新設系統的設備狀況和性能，務求迅速回應系統維修要求，從而提升系統運作效率和服務水平。本部已制訂綜合計劃，就民航處現有的通訊、導航及監察／航空交通管理系統、電機及機械系統、屋宇設備和電子裝置制訂和實施積極的維修措施。

Enhanced Maintenance on Communications, Navigation, Surveillance and Air Traffic Management Systems

With a view to strengthening the provision of air navigation services, the Division adopts a risk-based approach to enhance the existing maintenance practice on CNS/ATM systems. Current maintenance practices have been reviewed and new approach has been adopted to analyse equipment conditions and system performance of both existing and new CNS/ATM Systems with a view to providing faster response to the maintenance issues and hence enhancing operational efficiency and service availability. A comprehensive scheme was established to formulate and implement various proactive maintenance initiatives for the existing CAD CNS/ATM systems, electrical and mechanical systems, building services facilities and electronics installation.

航空交通工程及標準部 Air Traffic Engineering and Standards Division

先進協同決策

先進協同決策制度，通過實時交換本地和區內的航空運作情報，讓有關各方更能掌握實際情況，簡化工作流程，不論在運作、財政抑或環境方面，都能為航空業各方帶來巨大效益。為配合本港發展和推行先進協同決策，本處到訪歐洲多個主要國際航空樞紐實地考察，並為機場管理局、航空公司和地勤服務代理人等主要機場持份者的管理和運作人員，舉辦協同決策工作坊和研討會，以發布先進協同決策的新概念。本處正安排與業界進行技術及運作測試，讓先進協同決策制度為香港國際機場帶來效益。

Advanced Collaborative Decision Making

Advanced Collaborative Decision Making (Adv-CDM) is a system that will bring significant operational, financial and environmental benefits to all aviation stakeholders through improved situational awareness and streamlined workflows by real-time sharing of operational information in local and regional regime. To facilitate the development and implementation of Adv-CDM in Hong Kong, the Department conducted fact finding visits to major international hubs in Europe, and organised workshop and seminars for management and operation staff of major airport stakeholders such as Airport Authority, airlines, ground handling agents to promulgate the new concept. Technical and operation trials are being arranged to realise the potential benefits of Adv-CDM at HKIA.

航空交通管理標準組

航空交通管理標準組負責確保本港提供的空中航行服務達到並維持在所訂的最高安全水平。

安全監督工作

為持續監察航空安全，航空交通管理標準組在二零一零年對航空交通管理部和航空交通工程及標準部進行了兩次審查和35次安全檢查。審查範圍涵蓋服務提供者遵行安全管理系統規定的情況，重點核實安全風險管理的實施成效。對航空交通管理部進行的檢查範疇包括：航空交通管理工作的運作、程序、培訓和考試，安全管理系統的實施，空管設備/ 系統，安全事故調查，以及安全建議的跟進行動。經檢查的設施包括航空交通管制中心、控制塔、航空情報中心、備用航空交通管制中心和控制塔、培訓組、雷達模擬系統及控制塔模擬系統。此外，航空交通管理標準組定期監察各個空中航行服務範疇，例如通訊、導航及監察(包括航空通訊網中心)、航空氣象服務、搜索及救援服務、空中航行服務程序—航空器運行和航空情報服務(包括繪製航圖)。

AIR TRAFFIC MANAGEMENT STANDARDS OFFICE (ATMSO)

The ATMSO is responsible to ensure that a high standard of safety is set, achieved, and maintained in the provision of air navigation services (ANS) in Hong Kong.

Safety Oversight Activities

For ongoing safety regulatory surveillance, ATMSO conducted a total of 2 audits and 35 safety inspections on ATMD and AESD in 2010. The audits covered the regulatory compliance of the service provider's Safety Management System with focus on the effective implementation of safety risk management elements. The inspections on ATMD included ATM activities in operations, procedures, training, examinations, SMS implementation, ATC equipment/ systems, safety occurrences investigations, and safety recommendations follow-up actions. Facilities inspections took place in the Air Traffic Control Centre (ATCC), Control Tower, Aeronautical Information Centre, Backup ATCC & Tower, Training Unit, Radar Simulator and Aerodrome Simulator. Regulatory inspections on CNS (including the aeronautical network centre), Meterological Service (MET), Search and Rescue (SAR), Procedures for Air Navigation Services – Aircraft Operations (PANS-OPS) and Aeronautical Information Services (AIS) (including aeronautical charting) domains of the ANS were also performed.

1 2

1. *本部同事參加運用「Bowtie分析方法」進行安全風險管理的培訓班。*
   Training class on using Bowtie Methodology for Safety Risk Management.

2. *航空交通管理標準組為航空交通管理部人員舉辦空中航行服務安全監督工作坊，推廣安全意識。*
   ATMSO promotes safety awareness to ATMD staff through ANS Safety Oversight Workshop.

定期監察航空交通工程及標準部在開發安全管理系統方面的進展，並按情況提供意見和建議，是航空交通管理標準組在本年度內的重點工作。

Regulatory oversight of the development of SMS in the AESD, providing advice and recommendations as appropriate, formed a key activity of ATMSO during the year.

航空交通管理標準組根據調查航空交通事故指引(《CAD 636》文件)的標準程序，聯同航空交通管理部的調查人員參與所有空管事故的初步調查，然後決定事故應交由航空交通管理部進行內部調查抑或按既定指引進行聯合調查。

As per standard procedures in the Guidance for Air Traffic Incident Investigation (CAD636), ATMSO participates in the preliminary investigations of all ATC incidents jointly with ATMD investigators. A decision will then be made as to whether an internal investigation will be conducted by ATMD or a Joint Investigation in accordance with established provisions is required.

所有安全事故的資料和數據，均會收集並儲存在事故報告資料庫系統內，以供進行安全趨勢研究。航空交通安全評核委員會每半年召開會議，檢討航空交通事故及其他安全事故。委員會成員包括飛行標準及適航部、航空交通管理標準組和航空交通管理部的代表，以及本地主要航空公司和政府飛行服務隊的航空安全代表。此外，航空交通管理標準組負責監察事故後相關調查報告所提出安全建議的執行情況。

Information and data on these safety occurrences are captured and stored in the Occurrence Report Database (ORDB) system for safety trend studies. Review on ATC incidents and other safety occurrences was conducted half-yearly in the Air Traffic Safety Assessment Committee (ATSAC), which comprised representatives from the Flight Standards and Airworthiness Division, ATMSO, ATMD, flight safety personnel of major local airline operators and the Government Flying Service. Furthermore, the ATMSO monitored the progress of post-incident follow-up actions on the recommendations put forward in the investigation reports.

為求有系統地加強安全監察措施，服務提供者必須訂立安全表現指標及條理分明的行動方案，以達到安全表現目標。

To enhance safety monitoring measures with a systematic approach, the service provider was required to establish safety performance indicators together with structured action plans to achieve safety performance targets.

航空交通工程及標準部 Air Traffic Engineering and Standards Division

文件編製

航空交通管理標準組定期檢討和更新現有規管文件，確保內容準確、有效和符合現況。該組按需要發出《空中航行服務資料通告》，提醒空中航行服務提供者留意相關安全事項及簽發執照的規定。

Documentations

The ATMSO conducted regular reviews and updates on existing regulatory documents to ensure that they remain accurate, valid and up-to-date. Air Navigation Services Information Notices (ANSIN) were promulgated as required to draw the attention of the ANSP to relevant safety issues and licensing requirements.

空管主任執照

航空交通管理標準組的重要職責之一，是根據國際民航組織《附件1》的標準，規管空管主任執照簽發制度。年內，該組共處理17份空管主任執照申請、53份首次簽發及52份續發空管執照級別申請，以及32份首次簽發及100份續發合格證書申請。此外，該組亦按照《簽發航空人員執照 — 香港航空交通管制主任》(《CAD744》文件)處理1份首次簽發及4份續發空管認可考官證書申請，以及21份英語能力證書申請。航空交通管理部舉辦的各項空管培訓課程，均須接受規管審批。

ATC Personnel Licensing

One of the important functions of the ATMSO is to administer the air traffic controller licensing scheme in accordance with the standards stipulated in ICAO Annex 1. During the report period, the Office processed 17 applications for air traffic controller licences, 53 initial awards and 52 renewals of ATC ratings, 32 initial awards and 100 renewals of Certificates of Competency. An application for the initial award and four renewals of ATC Approved Examiner Certificates, as well as 21 applications for English Language Proficiency Certificates were also processed as per Personnel Licensing – Hong Kong Air Traffic Controllers (CAD744). All training courses conducted by ATMD for acquiring ATC ratings are subject to a regulatory approval process.

安全推廣工作

為加強空中航行服務提供者的安全意識，航空交通管理標準組為航空交通工程及標準部人員舉辦三場簡介會，介紹處理審查及體系安全概念，又為航空交通管理部人員舉辦六場空中航行服務安全監督工作坊，以及為電子工程師和航空交通管制主任開辦兩個培訓班，介紹採用「Bowtie分析方法」(Bowtie Methodology)進行安全風險管理。此外，民航處內聯網亦定期發布規管資訊和安全管理資料，方便空中航行服務人員查閱。

Safety Promotion Activities

To promote safety awareness within ANSP, the ATMSO conducted three presentations on managing audits and concepts of system safety to AESD staff, six workshops on ANS safety oversight to ATMD staff, two training classes on safety risk management using the Bowtie Methodology to electronics engineers and air traffic control officers. In addition, regulatory information and safety management materials were published regularly on an intranet website for convenient access by all ANS staff.

培訓及發展

培訓及發展事務辦公室

二零一零年十月四日，民航處成立培訓及發展事務辦公室，目的是加強民航處人員整體的關鍵才能，培訓本處人員掌握新技能，提倡持續學習的精神，從而提高工作表現和效率。培訓及發展事務辦公室的主要職責，是集中管理部門專業培訓事宜，以提升本處人員能力，並就事業發展和人力資源規劃，制定部門的培訓政策和方案。

培訓及發展事務委員會

培訓及發展事務辦公室成立後不久，培訓及發展事務委員會於二零一一年一月二十六日成立，擔當督導培訓及發展事務的職責。各分部代表於當日舉行首次會議，協定各項培訓方案及活動。

TRAINING AND DEVELOPMENT

Training and Development Office

With the objectives to strengthen the overall core competencies of CAD staff, to equip staff with new skills and to promote continuous learning among staff in order to enhance work performance and efficiency, the Training and Development Office (TDO) was set up in the Department since October 4, 2010. The main responsibilities tasked with TDO are the centralised management of professional training to enhance staff competence, and the formulation of departmental training policies and programmes for career development and human resources planning.

Training and Development Committee

Soon after the establishment of TDO, the Training and Development Committee (TDC) that takes a steering role on training and development matters, was formed on January 26, 2011. Divisional representatives convened the first committee meeting on the same day, to discuss and agree upon various training programmes and activities.

本部職員定期檢查柏架山航路監察雷達站的儀器。
AESD staff inspects equipment in Mount Parker RSR Station regularly.

本部職員檢查太平山無線電站內的通訊系統。
AESD staff inspects communication systems in Victoria Peak Communication Station.

航空交通工程及標準部 Air Traffic Engineering and Standards Division

培訓及發展事務委員會於二零一一年一月二十六日舉行首次會議。
First Meeting of Training and Development Committee on January 26,2011.

培訓資料庫

為確保有效實施以能力為本的培訓計劃，民航處決定研發電腦程式，利用安全可靠的通用平台，管理部門培訓資料。新應用程式方便管理人員掌握同事的上課記錄，並因應航空業發展和培訓需要，規劃培訓方案。

Training Database

To ensure effective implementation of training programmes that take into account the competence-based approach, the department decided to develop a computer programme for administering the departmental training data on a secure common platform. The new application would support the management team to easily keep track of the attendance records and plan for staff training according to the industry growth and training needs.

資訊科技管理

資訊科技管理組有效實施新的資訊科技措施和落實數碼政府的目標，對各分部的日常業務流暢運作，持續發揮重要作用。年內，資訊科技管理組完成五項大型資訊科技計劃，以加強資訊科技服務和支援：

(一) 推行國際標準化組織ISO 9001: 2008品質管理體系，妥善編製文件、定期檢討和有效分配資源，為部門提供專業和符合業界標準的優質資訊科技服務。

(二) 根據民航處新總部的資訊及通訊科技計劃，協助推行試驗運作復原設施、自動用戶電腦數據備份設施和存儲區域網絡數據存儲系統。

IT MANAGEMENT

The Information Technology Management Unit (ITMU) continued to play a very important role to support day-to-day business operations of various divisions, through effective implementation of new IT initiatives and e-government objectives. During the year, the ITMU completed five major IT projects for betterment of IT services and support:-

(i) Implementation of Quality Management System ISO9001:2008 for providing the professional and industrial standard of quality IT services to the Department with proper documentation, periodical improvement review and effective resource allocation.

(ii) Assisted in the implementation of a pilot Disaster Recovery Facility, an Automatic User Computer Data Backup Facility and a SAN data storage system under the new CAD HQs ICT project.

(三) 二零一零年十月，電腦蠕蟲“Stuxnet”對全球電腦系統造成破壞，資訊科技管理組因而重訂並實施更嚴格的保安設施及上報途徑，以便妥善處理資訊科技保安事故。

(iii) In the light of the incidents caused by Major Computer Worm “Stuxnet” around the world in October 2010, ITMU has redefined and implemented enhanced IT security measurement and formalized the escalation channels for proper handling of any IT security incident.

(四) 提升黑莓(Blackberry)服務，例如實時接收立法會會議廣播，和縮短電郵傳遞時間。

(iv) Implementation of enhanced Blackberry services, such as real-time broadcast of LegCo meeting and shortened email delivery time.

(五) 互聯網基礎設施採用傳統保安設計和設定，另加第二代應用防火牆，加強民航處網站的保安。

(v) Implementation of Secured Website infrastructure using both traditional security design and settings, and the add-on 2nd generation application firewall for enhanced security protection to CAD websites

資訊科技管理組榮獲國際標準化組織ISO 9001：2008品質管理體系證書頒發典禮。
IT Management Unit ISO 9001:2008 Certification Presentation Ceremony.

飛行標準及適航
Flight Standards and Airworthiness

飛行標準及適航部負責簽發航空運輸企業經營許可證(航空經營許可證),以及在發出許可證後監察所有持證公司的運作,確保這些公司遵守國際民航組織所訂定的標準和建議措施。

The Flight Standards and Airworthiness Division is responsible for the grant of Air Operator's Certificate (AOC) and the subsequent monitoring of all AOC holders to ensure their compliance with the Standards and Recommended Practices of the ICAO.

飛行標準及適航 Flight Standards and Airworthiness

本部的其他職責包括簽發空勤人員及飛機維修執照，監察在香港登記的飛機的適航標準和維修水平，監督飛機維修機構、輕型飛機和直升機運作，監察外國航空公司在香港國際機場的運作，調查飛機意外和事故，以及分析安全數據。

Other functions of the Division include the issue of flight crew and aircraft maintenance licences, monitoring of airworthiness and maintenance standards of aircraft registered in Hong Kong, supervision of aircraft maintenance organisations, supervision of light aircraft and helicopter operations, surveillance of foreign airline operators' operations at the Hong Kong International Airport, investigation of aircraft accidents and incidents, and safety data analysis.

飛行標準組

FLIGHT STANDARDS OFFICE

簽發和續發航空經營許可證

Issue and Renewal of AOC

截至二零一一年三月三十一日，共有九家航空公司持有香港航空經營許可證，計為：

As at March 31, 2011, there were nine Hong Kong AOC holders and they were:

香港華民航空有限公司(華民航空)	AHK Air Hong Kong Limited (AHK)
國泰航空有限公司(國泰航空)	Cathay Pacific Airways Limited (CPA)
直升機服務(香港)有限公司	Heliservices (Hong Kong) Limited (HEL)
香港航空有限公司(香港航空)	Hong Kong Airlines Limited (CRK)
港龍航空有限公司(港龍航空)	Hong Kong Dragon Airlines Limited (HDA)
香港快運航空有限公司(香港快運)	Hong Kong Express Airways Limited (HKE)
香港商用飛機有限公司(香港商用飛機)	Metrojet Limited (MTJ)
空中快線有限公司(空中快線)	Sky Shuttle Helicopters Limited (HHK)
TAG Aviation Asia Limited (TBJ)	TAG Aviation Asia Limited (TBJ)

飛行標準組人員檢查本地航空經營許可證持證公司提交的文件。
Officers of Flight Standards Office inspect documents submitted by Hong Kong AOC holders.

年內，本部通過全面的巡查和審查，繼續監察本地航空經營許可證持證公司的安全表現和營運標準。飛行標準組巡查人員執行了98次飛行檢查，並對航空經營許可證持證公司作出共280次其他巡查，包括外站巡查、檢查運作記錄、視察訓練情況和審批核准考核人員。本部亦按照檢查程序，評審和視察本港航空公司位於海外和香港的43台飛行模擬器，並重新簽發使用許可。此外，本部負責監察政府飛行服務隊的直升機和定翼機運作。

During the year, the safety performance and operating standards of Hong Kong AOC holders were monitored through a comprehensive programme of inspections and audits. In addition to 98 flight operations inspections, the Inspectorate staff of the Flight Standards Office had conducted a total of 280 AOC inspections including station inspections, operational records inspections, training inspections and approval of authorised examiners. The 43 flight simulators, located worldwide and in Hong Kong, used by local airlines were evaluated, inspected and re-approved for use in accordance with the inspection procedures. The Division was also tasked with the responsibility of monitoring the helicopter and fixed-wing aircraft operations of the Government Flying Service (GFS).

交付航空器

Delivery of Aircraft

隨着香港航空業持續增長，本地航空公司紛紛擴充機隊。年內，香港民用航空器登記冊共新增27架航空器，詳情如下：

As the Hong Kong aviation industry continued to grow, local airlines expanded their fleets and a total of 27 aircraft were added to the Hong Kong Civil Aircraft Register in the period as follows:

國泰航空 CPA	兩架空中巴士A330型和三架波音B777型 Two Airbus 330 and three Boeing 777
香港航空 CRK	五架空中巴士A330型、兩架空中巴士A330型貨機、一架波音B737型和兩架波音B737型貨機 Five Airbus 330, two Airbus 330 Freighters, One Boeing 737 and two Boeing 737 Freighters
港龍航空 HDA	兩架空中巴士A320型 Two Airbus 320
香港快運 HKE	一架波音B737型 One Boeing 737
香港商用飛機 MTJ	一架龐巴迪CL605型、一架波音B737 BBJ型、一架灣流GIV型和一架灣流G450型 One Bombardier CL605, one Boeing 737BBJ, one Gulfstream GIV and one Gulfstream G450
TBJ	一架龐巴迪CL605型 One Bombardier CL605
私人航空器營運者 Private aircraft operators	一架龐巴迪BD700型、一架灣流G450型和兩架灣流G550型 One Bombardier BD700, one Gulfstream G450 and two Gulfstream G550

飛行標準及適航 Flight Standards and Airworthiness

適航事務組

適航事務組監察所有在香港登記飛機的維修和適航標準。適航事務組的適航主任經驗豐富，定期審查本港航空公司在香港、內地和海外的飛行站，定期審查認可的維修和設計/生產機構，以及在香港、內地、中東、印度、亞洲其他地方、歐洲和北美洲各地城市檢查飛機，以持續監察航空經營許可證、維修和設計/生產機構的認可，以及為在香港登記的飛機簽發或續發適航證。

AIRWORTHINESS OFFICE

The Airworthiness Office monitored the maintenance and airworthiness standards of all Hong Kong registered aircraft. With a team of experienced Airworthiness Officers, the Office carried out routine AOC line station audits, approved maintenance and design/production organisation audits, and aircraft surveys locally in Hong Kong as well as other cities in the Mainland, Asia, Middle East, India, Europe and North America, for the purpose of continual monitoring of AOC, approval of maintenance and design/production organisation, and the issue and renewal of Certificates of Airworthiness for Hong Kong registered aircraft.

飛機維修

適航事務組繼續通過機庫檢查、公司運作審查及產品審查，定期監察所有香港認可的飛機維修及飛機部件維修機構。截至二零一一年三月三十一日，共有24家公司獲發香港認可維修機構的資格。適航事務組通過持續審查和定期視察，監察多家主要維修公司，包括香港飛機工程有限公司、香港航空發動機維修服務有限公司及廈門太古飛機工程有限公司。

Aircraft Maintenance

The Airworthiness Office continued to monitor all Hong Kong approved aircraft and aircraft component maintenance organisations regularly through hangar surveys, company audits and product audits. As at March 31, 2011, there were 24 approved maintenance organisations holding Hong Kong approvals. Major maintenance companies, including Hong Kong Aircraft Engineering Company Limited (HAECO), Hong Kong Aero Engine Services Limited (HAESL), and Taikoo (Xiamen) Aircraft Engineering Company Limited (TAECO), are regulated through rolling audits and regular visits.

飛機維修訓練

截至二零一一年三月三十一日，本港和內地共有五家維修訓練機構獲發《香港航空要求—147》許可證，可以舉辦與維修香港登記飛機有關的基本訓練及飛機型號訓練課程。

Aircraft Maintenance Training

As at March 31, 2011, there were a total of five HKAR-147 Aircraft Maintenance Training Organisations located in Hong Kong and the Mainland which were approved to provide basic and aircraft type training for the maintenance of Hong Kong registered aircraft.

飛機和相關產品/零件的設計與生產

截至二零一一年三月三十一日，內地共有四家設計和生產機構獲發《香港航空要求—21》許可證，可以審定飛機相關產品/零件，包括設計和生產。

Design and Production of Aircraft and Related Products/Parts

As at March 31, 2011, there were a total of four HKAR-21 Design and Production Organisations located in the Mainland approved by the Department to provide certification of aircraft related products/parts including their design and production.

1 2 3

1. *民航處人員與本地航空經營許可證持證公司負責人開會檢討其提交的文件。*
CAD officers give a debriefing to HK AOC holder on its submitted flight documents.

2-3. *適航事務組人員於航機內進行檢查。*
Airworthiness Officers conduct inspections in aircraft.

適航事務組統計數字

(二零一零年四月一日至二零一一年三月三十一日)

Airworthiness Office Statistics

(between April 1, 2010 and March 31, 2011)

簽發適航證 Certificate of Airworthiness Issued	續發適航證 Certificate of Airworthiness Renewed	審定重大改裝 Major Modification Approved	認可飛機維修機構 Approved Aircraft Maintenance Organisations	認可飛機維修訓練機構 Approved Aircraft Maintenance Training Organisations	認可設計和生產機構 Approved Design and Production Organisations
27	221	5	24	5	4

飛行標準及適航 Flight Standards and Airworthiness

航空人員執照事務組

電腦化考試系統

由二零一零年六月二十八日起，空勤人員和飛機維修的執照考試採用電腦化考試系統。採用該系統前，執照考試都以筆試形式進行。採用電腦化考試系統後，考生利用連接電腦系統的終端機應考，考試完成後由系統即時計算成績。這個系統操作簡便，令考試安排更有效率。

空勤人員執照

二零一零至一一年度，航空人員執照事務組(執照事務組)處理了共3 350份申請，包括首次及續期簽發空勤人員執照、加簽和覆檢等級、英語能力認證，以及轉換海外空勤人員執照為香港執照。執照事務組亦舉行了2 977次空勤人員執照考試，其中有1 695次在香港舉行，其餘1 282次則是由本處人員根據《CAD 509–許可審定計劃》批准在海外舉行和監考。此外，執照事務組向香港空勤人員執照或航空交通管制執照持有人／申請人簽發了共4 124份體檢合格證明書。

飛機維修執照

截至二零一一年三月三十一日，執照事務組處理了920份有關首次簽發飛機維修執照、執照續期或加簽飛機型號等級的申請。年內，該組及香港飛機工程有限公司設於將軍澳的認可考試中心，舉辦了涉及共5 688份試卷的考試。

PERSONNEL LICENSING OFFICE

Paperless Computerised Examination System

With effect from June 28, 2010, the Paperless Computerised Examination System (PCES) for flight crew and aircraft maintenance licensing examinations was implemented. Before the implementation, the examinations were conducted in paper mode. With the PCES, each candidate would be assigned with a computer terminal for sitting an examination delivered via a computerised system. At the end of the examination, the PCES generates the examination results instantaneously for the candidates. This user friendly system has also enhanced the efficiency in examination arrangements.

Flight Crew Licensing

During 2010-11, the Personnel Licensing Office (PELO) handled a total of 3 350 applications including initial issue and renewal of flight crew licences, inclusions and revalidation of ratings, language proficiency endorsements and conversion of foreign flight crew licences into Hong Kong licences. Of the 2 977 CAD flight crew licensing written examinations, 1 695 were held locally in Hong Kong while 1 282 overseas examinations were conducted and invigilated by the CAD under CAD 509 Approval. 4 124 medical certificates were issued to Hong Kong flight crew licence or air traffic controller's licence holders/applicants.

Aircraft Maintenance Licensing

As at March 31, 2011, the PELO processed 920 applications for initial licence issue, renewal or inclusion of aircraft type rating endorsements in aircraft maintenance licences. During the report period, a total of 5 688 examinations were conducted at the PELO and the authorised examination centre at HAECO in Tseung Kwan O.

航空人員執照事務組簽發的空勤人員執照及飛機維修執照。
The flight crew licences and aircraft maintenance licences issued by the Personnel Licensing Office.

飛行安全組

飛行安全組繼續對香港航空經營許可證持證公司實施安全監察計劃。計劃的主要目的，是利用風險管理模式編排和統籌各項審查工作。

該組收集和分析業界根據強制呈報事故計劃所提交的數據及其他安全數據。年內，該組亦協助檢討意外調查法例，以確保法例與國際民航組織訂定的標準和建議措施相符。

FLIGHT SAFETY OFFICE

The Flight Safety Office continued to implement the surveillance programme for the safety oversight of Hong Kong AOC holders. The key purpose of the programme is to apply a risk management approach to the scheduling and coordination of inspection activities.

Mandatory Occurrence Reporting (MOR) data reported by the industries under the MOR Scheme and other safety data had been collected for safety data analysis. During the year, support had also been provided to the review of accident investigation related legislation to ensure it is on par with the Standards and Recommended Practices of the ICAO.

協調本地空域使用者

為加強航空安全，由本地空域使用者組成的香港非控制區飛行安全小組繼續定期召開會議，協調香港空域使用者之間的安全事宜。這些本地空域使用者包括定翼機機構和旋翼機機構(政府飛行服務隊、中國人民解放軍駐香港部隊、空中快線、直升機服務(香港)有限公司、香港飛行總會)、香港滑翔傘協會，以及個別私人航空器擁有人。

COORDINATION WITH LOCAL AIRSPACE USERS

To promote flight safety, the Hong Kong Sector Flight Safety Committee comprising local airspace users continued to meet regularly to discuss issues to enhance safety and coordination in the local airspace. These local airspace users include fixed-wing operators and rotary wing operators (the GFS, the Hong Kong Garrison of the People's Liberation Army (PLA), HHK, HEL and the Hong Kong Aviation Club (HKAC)) as well as the Hong Kong Paragliding Association and private aircraft owners.

執照事務組處理簽發空勤人員執照、加簽和覆檢等級等申請。
PELO handles applications of initial issue and renewal of flight crew licences, inclusions and revalidation of ratings etc.

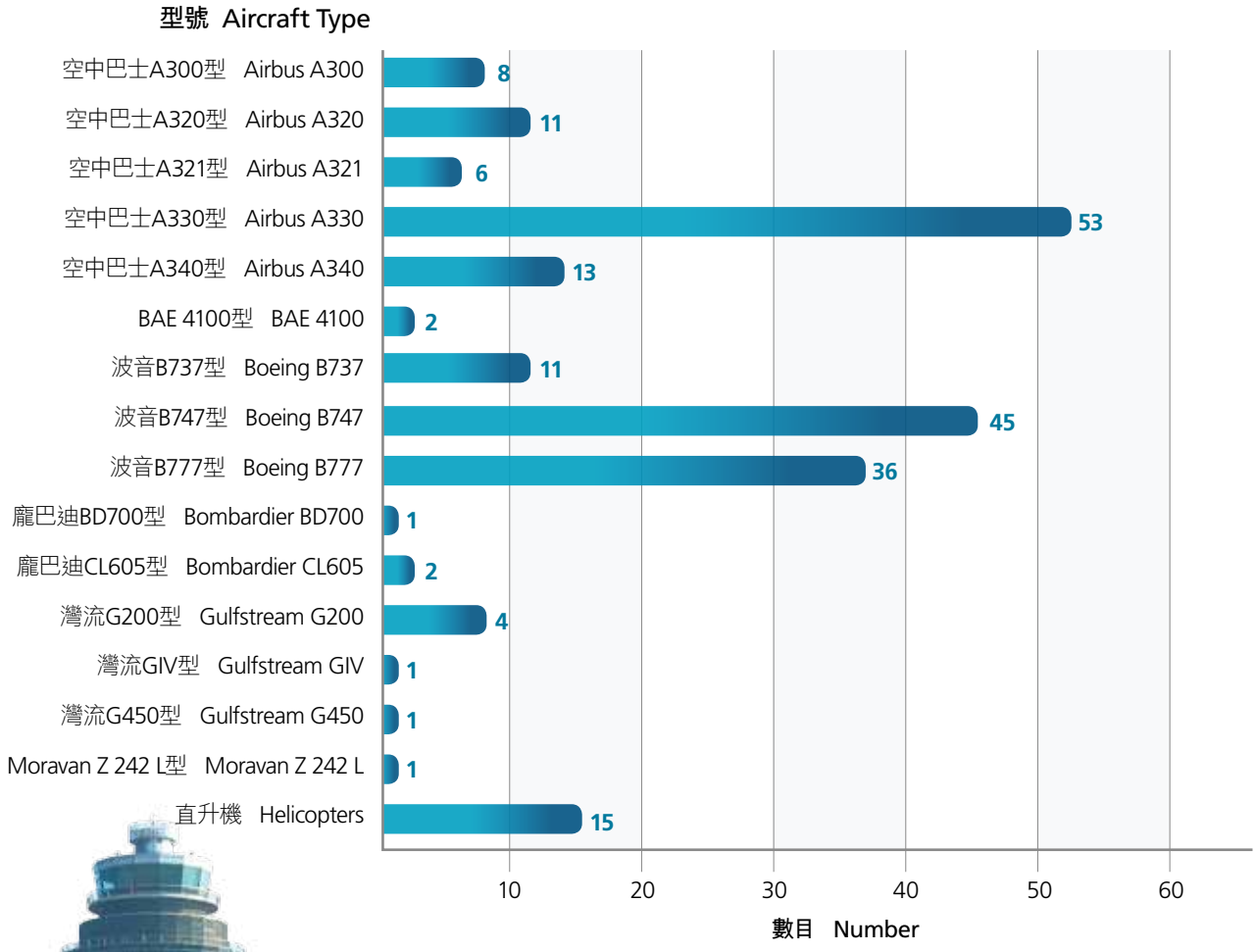
飛行標準及適航 Flight Standards and Airworthiness

飛機登記

年內，香港民用航空器登記冊共新增27架航空器，同期另有兩架空中巴士A330型、一架波音B737型、一架波音B737型貨機、一架波音B747型和一架波音B747型貨機取消登記。截至二零一一年三月三十一日，香港民用航空器登記冊上共有246架民用航空器，當中210架由香港航空經營許可證持證公司和政府飛行服務隊所擁有，詳情如下：

AIRCRAFT REGISTER

During the year, a total of 27 aircraft were put on the Hong Kong Civil Aircraft Register. In the same period, two Airbus 330, one Boeing 737, one Boeing 737 Freighter, one Boeing 747 and one Boeing 747 Freighter were removed from the Register. As at March 31, 2011, the total number of civil aircraft in the Hong Kong Civil Aircraft Register was 246. Of which 210 were registered under Hong Kong AOC holders and the GFS as follows:



截至二零一一年三月三十一日，香港民用航空器登記冊上共有246架民用航空器。
As at March 31, 2011, the total number of civil aircraft in the Hong Kong Civil Aircraft Register was 246.

持續訓練巡查人員

為確保巡查人員的專業知識和能力與時並進，本部安排人員接受各項飛行運作及適航事宜的訓練，包括個別飛機型號、飛行模擬器評審、審查技巧，以至安全管理訓練。此外，他們亦參與國際和地區會議、研討會及工作組會議，與國際專家交流，切磋經驗及良好實務。這些國際會議包括國際民航組織有關基於性能導航的會議/ 研討會，空中巴士、波音、ARJ21型飛機的合格審定及維修審查委員會工作組會議，飛行記錄器及數據與廣播式自動相關監察系統和意外調查研討會等。

CONTINUOUS TRAINING FOR INSPECTING STAFF

To maintain the technical knowledge and competence of officers in pace with the latest aviation development, the Division arranged a wide spectrum of training for the officers on flight operations and airworthiness matters. These included training on specific aircraft types, simulator evaluation, auditing techniques as well as on safety management. In addition, officers participated in international and regional conferences, seminars and working group meetings to exchange and share experiences and best practices with the international experts. These international events included the ICAO conference/seminar on Performance Based Navigation; the Airbus, Boeing and ARJ 21 working group meetings on Certification and Maintenance Review Board; the Flight Recorder & Data and Automatic Dependent Surveillance Broadcast; and accident investigation seminar.

本部人員進行直升機檢查。
An FSAD officer conducts helicopter inspection.

年內，飛行標準組巡查人員執行了98次飛行檢查。
During the year, inspectorate staff of the Flight Standards Office conducted 98 flight operations inspections.

飛行標準及適航 Flight Standards and Airworthiness

意外調查

民航處是本港的飛機意外調查當局，負責調查於香港發生的飛機意外及嚴重事故。這些調查由受過訓練的意外調查主任，根據國際民航組織附件13的標準和建議措施而進行，目的是確定發生事故的情況及因由，以免事故再次發生。

年內，民航處公布一份調查報告，當中涉及一架Robinson R22型直升機撞向宋皇臺道香港飛行總會毗鄰停車場的旅遊車。事發於二零零九年五月一日，直升機在意外中損毀。另外，仍在調查的意外及嚴重事故如下：

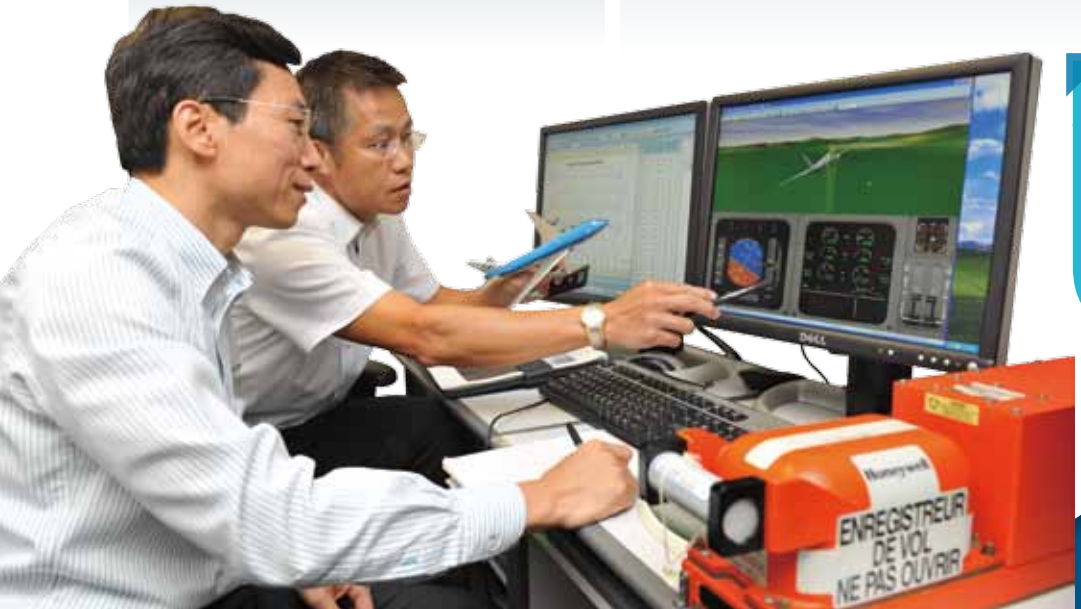
- 二零一零年四月十三日，一架屬國泰航空公司的空中巴士A330型飛機因兩台發動機出現控制問題，於香港國際機場緊急降落。一名乘客在疏散期間嚴重受傷。
- 二零一零年七月三日，一架屬亞太航空的阿古斯塔威斯特蘭AW139型號直升機，在上環空中快線直升機場起飛後不久，尾槳脫落，在維多利亞港水面迫降。機上機組人員和乘客全部獲救。

ACCIDENT INVESTIGATION

The Department is also the aircraft accidents investigation authority for any aircraft accidents and serious incidents occurred in Hong Kong. These investigations are carried out by trained Inspectors of Accidents in line with the ICAO Annex 13 Standards and Recommended Practices with the purpose of determining the circumstances and causes of the occurrences to prevent recurrence in future.

During the year, CAD published the Report on the investigation of a Robinson R22 helicopter crashed into a coach at the parking lot adjacent to the Hong Kong Aviation Club in Sung Wong Toi Road. The accident happened on May 1, 2009 and the helicopter was damaged. In addition, the following accidents and serious incidents were under investigation:

- On April 13, 2010, an Airbus 330 aircraft operated by Cathay Pacific Airways conducted an emergency landing at the Hong Kong International Airport due to control problem on both engines. One passenger suffered serious injury during the evacuation.
- On July 3, 2010, an Agusta Westland AW139 helicopter of East Asia Airlines from Macao experienced a loss of tail rotors shortly after takeoff from the Sky Shuttle Heliport in Sheung Wan and ditched in the Victoria Harbour. All crew and passengers onboard were rescued.



意外調查主任調查於香港發生的飛機意外及嚴重事故。
Inspectors of Accidents carry out investigations for any aircraft accidents and serious incidents occurred in Hong Kong.

- 二零一零年十一月二十六日，一架屬芬蘭航空公司並於芬蘭登記的空中巴士A340型飛機，試圖在香港國際機場滑行道起飛。事件中無人受傷，亦無財物損毀。
- 二零一零年十二月二十七日，一架屬政府飛行服務隊的歐洲直升機公司AS332 L2型超級美洲豹直升機，在執行滅火任務期間一台發動機失效，於城門水塘水面迫降。機上所有機組人員安全撤離。
- 二零一一年一月三日，一架屬直升機服務(香港)有限公司的Aerospatiale SA315B LAMA型直升機，在粉嶺為中華電力有限公司執行吊運工作。鄰近架空高壓電纜的位置突然起火，導致地面兩名工人受傷。直升機結構並無損毀。

- On November 26, 2010, an Airbus 340 aircraft registered in Finland and operated by Finnair attempted to take off from a taxiway in the Hong Kong International Airport. There was no injury or property damage.
- On December 27, 2010, a Eurocopter AS332 L2 Super Puma helicopter of Government Flying Service ditched in Shing Mun Reservoir due to failure of an engine during a fire-fighting operation. All crew members evacuated safely.
- On January 3, 2011, an Aerospatiale SA315B LAMA helicopter of Heliservices (Hong Kong) Limited conducting an underslung load operation for the China Light and Power Limited in Fanling. A flash of fire occurred adjacent to the overhead high voltage electricity power cables, injuring two workers on the ground. There was no structural damage to the helicopter.

所有調查報告，包括初步報告，均已上載民航處網頁 (http://www.cad.gov.hk/chinese/reports.html) 。

All the investigation reports, including the preliminary reports, are published in CAD's website (http://www.cad.gov.hk/english/reports.html).

空勤人員和飛機維修的執照考試已採用電腦化考試系統。
The Paperless Computerised Examination System (PCES) for flight crew and aircraft maintenance licensing examinations had been implemented.


HONG KONG

機場安全標準
Airport Standards

機場安全標準部負責監管機場安全、航空保安、障礙物管制和空運危險品的工作。根據由本部執行的發牌程序，香港機場管理局(機管局)獲授權營運香港國際機場。本部亦負責監察直升機場的運作安全及保安水平，並肩負協調機場簡化手續的任務。

The Airport Standards Division is responsible for the regulatory functions in respect of airport safety, aviation security, control of obstructions and the safe transport of dangerous goods by air. The Airport Authority Hong Kong (AAHK) is authorised to operate the HKIA through a licensing mechanism administered by the Division. The Division also monitors the safety and security of heliport operations and assumes the role in coordinating airport facilitation.

機場安全標準 Airport Standards

機場安全

簽發機場牌照

機場安全標準部繼續執行對機管局的安全監督，以確保該局的表現符合《機場牌照發牌規定文件》內的規定。本部並根據國際民航組織的最新要求，於年內兩次修訂該規定文件。

為確保香港國際機場持續符合機場牌照發牌規定，本部在年內進行14次審計和136次巡察，範圍包括飛行區內的臨時及定期日常維修工程、道面狀況、目視助航設備、其他飛機運作所需設施、安全管理系統的實施、緊急應變計劃、機場救援及滅火服務，以及由機管局與地勤服務公司為飛機提供的地面支援服務。本部亦參與機管局對機場特許經營公司進行的審計，並監察機管局對飛機地面事故的調查工作，確保相關各方採取適當改善措施，以防止同類事故再發生。

AIRPORT SAFETY

Aerodrome Licensing

The Division continued to exercise safety oversight on the performance of the AAHK to ensure compliance with the aerodrome licensing requirements stipulated in the Aerodrome Licensing Requirements Document. The document was regularly updated by the Division to incorporate the latest ICAO requirements and two amendments were made during the year for such purpose.

To ensure the HKIA's continued compliance with the aerodrome licensing requirements, the Division carried out 14 audits and 136 inspections during the year covering both ad hoc and scheduled airside routine maintenance works, condition of airfield pavements, visual aids, and other facilities required for aircraft operations, implementation of Safety Management System (SMS), emergency planning, airport rescue and fire fighting services, as well as aircraft ground operations provided by the AAHK and relevant ground handling agents. The Division also participated in the airfield franchisee audits carried out by the AAHK and exercised oversight on the investigation of aircraft ground incidents conducted by the AAHK to ensure that appropriate remedial measures had been taken by relevant parties to prevent recurrence.

機場安全標準部人員監察機場的新消防車實地測試。
APSD officers monitor the on-site test of a new fire engine of the Airport.

此外，本部密切監察機管局進行的大型維修計劃，以確保香港國際機場持續符合發牌規定。年內進行的維修計劃包括二零一零年九月完成的四條主要滑行道刨鋪工程，以及預計於二零一一年六月竣工的北跑道刨鋪工程。為了盡量減少機場運作在施工期間所受到的影響，本部與機管局保持密切聯絡以了解工程進度，並且不時巡查上述刨鋪工程。

Besides, the Division also closely monitored the large-scale maintenance projects undertaken by the AAHK to ensure the continued compliance by the HKIA with the licensing requirements. Such projects included the pavement resurfacing project for four major taxiways which was completed in September 2010 and the North Runway resurfacing works scheduled to be completed in June 2011. To ensure that disruptions to normal airport operations were kept to the minimum while these works were going on, this Division liaised closely with the AAHK to keep track of the progress and conducted inspections from time to time on these resurfacing works.

機管局於年內展開多項改善工程，以應付新需求及／或進一步提升機場運作的安全及效率。工程之一是在一個廊前客運停機位加建一條登機橋，以便連接空中巴士A380型飛機的上層客艙。新設施於二零一零年七月啓用後，成為香港國際機場首個配備三條登機橋供乘客上落A380型飛機的停機位。為確保停機位安全運作，本部除了監察機管局為該三條登機橋制訂的操作程序外，亦監察該局如何發布該套程序讓登機橋操作員遵守。

Several enhancement projects were launched by the AAHK during the year to meet new demand and/or to further enhance the safety and efficiency of airport operations. One such project was the installation of an additional airbridge at a frontal passenger aircraft parking stand for serving the upper deck of Airbus A380 aircraft. The new facility was commissioned in July 2010 and became the first parking stand at the HKIA equipped with three airbridges to facilitate passenger embarkation/disembarkation to/from A380 aircraft. To ensure the safe operation of the parking bay under the new setting, the Division oversaw the AAHK in the development of a dedicated procedure for the 3-airbridge operation and the promulgation of such procedure to the airbridge operators for compliance.

另一項新的改善工程是南跑道的引出滑行道重新命名工程。經本處各部與機管局及相關單位周詳規劃和徹底討論後，工程於二零一一年三月起分階段展開，預計於二零一二年四月完成。由於工程複雜，本部密切監察其進度以確保各階段工程平穩過渡，順利推行。

Another new enhancement project was the renaming of some exit taxiways associated with the South Runway. Such works commenced in March 2011 after careful planning and thorough discussions among the various Divisions, AAHK and other relevant stakeholders. The project involved several phases of works and scheduled to be completed in April 2012. In view of the complexity of these works, the Division closely monitored the progress to ensure a smooth transition and successful implementation of the project.

二零一零年七月，E15號停機位的登機橋改善工程竣工，登機橋可直接連接A380型飛機上層客艙。
With the completion of airbridge enhancement works at stand E15 in July 2010, the upper deck of A380 aircraft can now be directly served by an airbridge.

機場安全標準 Airport Standards

除新項目外，本部繼續監察香港國際機場其他已展開並進行中的改善工程，當中包括南跑道及相關滑行道飛行區地面燈號系統改善工程。這項工程於二零零九年三月展開，二零一零年八月完成。本部除於工程策劃和施工期間向機管局提供意見外，在改善工程完成後，亦通過與機管局的協調會議和定期巡察，監察新設施的性能及狀態，以確保新設備完全符合機場牌照發牌規定。

The Division also exercised oversight on other ongoing enhancement projects at the HKIA. One such project was enhancement works on the Airfield Ground Lighting (AGL) System for the South Runway and the associated taxiways. This project commenced in March 2009 and was completed in August 2010. Apart from providing comments to the AAHK during the planning and construction stages of the project, this Division also monitored the performance and condition of the new facilities after their completion through coordination meetings with the AAHK as well as through regular inspections to ensure that these new facilities fully comply with the licensing requirements.

另一項目是機管局為提升機場運作安全及效率而進行的飛行區地面燈號系統採用發光二極管燈可行性研究。該項目於二零一零年五月在選定滑行道使用發光二極管燈，展開為期一年的測試，並預計於二零一一年四月結束。測試期間，本部一直監察詳情並向機管局提供意見。

Another ongoing enhancement project at the HKIA was the initiative by the AAHK to explore the feasibility of introducing LED lights to the AGL System with an aim to further improve the safety and efficiency of airport operations. A one-year feasibility study of applying such lights to selected taxiways had been conducted by the AAHK since May 2010 and the study is scheduled to be completed in April 2011. The Division had been monitoring the feasibility study and provided feedback to the AAHK during the period of the study.

至於機場的未來發展，本部聯同航空交通管理部參與機管局主持的委員會或工作小組，就機場中場範圍基建的未來發展、擬建的西面新停機坪，以及《香港國際機場2030規劃大綱》研究提出意見，以確保這些項目完成後，飛行區運作繼續保持安全順暢。本部亦就機管局改善香港國際機場飛行區安全的新措施，例如統一機場禁區道路地面標記，以及於機場行車道與飛機滑行道交界處設置警示燈，提出意見。

To ensure safe and smooth aircraft operations for the future airport operations, the Division in collaboration with the Air Traffic Management Division participated in various committees or working groups convened by the AAHK to provide inputs and comments on the future airfield infrastructure development at the mid-field area, the proposed New West Apron and the Airport Master Plan 2030 study. The Division also provided comments to the AAHK on their new initiatives to improve airfield safety such as standardization of airside road ground markings and provision of vehicle warning lights at vehicular crossings of taxiways/taxilanes at the HKIA.

機場安全標準部人員正量度滑行道中線與相鄰停機坪邊線的距離。
APSD officers are measuring the distance between the taxiway centreline and its adjacent parking stand boundary.

為測試緊急應變程序，以及加強機場營運者與相關應變單位處理飛機意外的協調能力，機場和直升機場營運者於年內進行多次演習。二零一零年十一月十日午夜，上環空中快線直升機場舉行了緊急應變演習。演習模擬直升機於停機坪粗猛着陸後機上多名乘客受傷的飛機意外。本部除了觀察模擬演習外，亦參與直升機場營運者演習後的檢討會議，交流日常運作經驗及從演習中汲取的經驗。本部又提出意見及建議，讓直升機場營運者及相關應變單位跟進。

For the purpose of testing the emergency response procedures and enhancing the coordination between the aerodrome operators and the relevant responding parties in dealing with aircraft accidents, a number of drills and exercises were conducted by both the airport and heliport operators throughout the year. One such exercise was a heliport emergency drill conducted at midnight on November 10, 2010 at the Sky Shuttle Heliport located at Sheung Wan, Hong Kong. The exercise simulated an aircraft accident during which a helicopter encountered a heavy landing onto the helipad with passengers injured in the cabin. The Division observed the exercise and participated in the review meeting convened by the heliport operator after the exercise to share the operational experience and lessons learnt from the exercise. The Division also provided comments and recommendations for follow up by the heliport operator and the relevant responding parties.

年內，機管局根據本部訂定的發牌規定，於香港國際機場舉行多次類似演習。由於機場的通用航空營運不斷增加，二零一零年九月三日，機管局在機場的商用航空中心，進行通用航空飛機意外救援演習。另外，在同年十一月十九日，機管局一如往年舉行年度大型飛機意外救援演習。是次演習在南跑道近K4滑行道進行，模擬飛機與跑道上的車輛相撞，以測試機管局與應變單位的協調。參與這兩項演習的應變單位包括相關政府部門和航空公司。本部全程監察該兩項演習從籌備至完成各階段，並提出意見及建議，讓機管局及相關應變單位跟進。

Similar drills and exercises were conducted at the HKIA throughout the year in accordance with the licensing requirements stipulated by the Division. In light of the increase in general aviation operations at the airport, the AAHK conducted a general aviation aircraft crash exercise at the Business Aviation Centre at the HKIA on September 3, 2010. Furthermore, as in previous years, the AAHK conducted an annual full-scale aircraft crash exercise, this time on the South Runway near Taxiway K4 on November 19, 2010, to test the coordination between the AAHK and the responding parties in dealing with a simulated collision between an aircraft and a vehicle on the runway. Different responding parties including relevant government departments and airlines took part in these two exercises. This Division oversaw the preparation and conduct of both exercises starting from their planning until their completion and provided comments and recommendations for follow up by the AAHK and the relevant responding parties.

本部同事在通用航空飛機意外救援演習期間監察家屬接待中心的運作。
A divisional colleague monitors the operation of the Family Reception Centre during the crash exercise of general aviation aircraft.

二零一零年十一月舉行直升機場緊急演習。
A heliport emergency drill was conducted in November 2010.

機場安全標準部人員檢測繫留氣球的運作場地，確保其符合安全標準。
An APSD officer inspects a captive balloon site so as to confirm the set-up is up to safety standards.

安全監督

直升機場的運作及發展

機場安全標準部繼續監察直升機場的運作安全，並就規劃和設計香港會議展覽中心擬建的區內直升機場，以及發展跨境直升機場，提供意見。

管制障礙物

本部審核多項建築和發展計劃及可行性研究，並提供意見，確保各項目符合機場高度限制及其他航空安全的要求。年內，經本部審核的主要項目，在香港國際機場範圍以外的有港珠澳大橋香港口岸、港珠澳大橋香港接線、位於果洲群島海面及南丫島以西海面的風力發電場，以及廣深港高速鐵路。在香港國際機場範圍內的主要項目則包括國泰航空空運貨站、商用航空中心飛機維修庫擴建部分及一號客運大樓東大堂擴建部分。

本部建議就數碼地面電視計劃設於青山、飛鵝山及南丫島的數碼電視發射站，永久豁免機場高度限制。發展局局長其後根據這項建議，於二零一一年一月十五日批出永久豁免。

SAFETY REGULATION

Heliport Operations and Development

The Division continued to monitor the safety of heliport operations and to provide advice on the planning and design of the proposed domestic heliport at the Hong Kong Convention and Exhibition Centre as well as on the development of cross-boundary heliports.

Control of Obstructions

The Division assessed and provided advice on various building and development projects and feasibility studies to ensure their compliance with the Airport Height Restrictions (AHR) and other applicable aviation safety requirements. The major projects and studies outside the HKIA assessed during the year included the Hong Kong-Zhuhai-Macao Bridge – Boundary Crossing Facilities, the Hong Kong-Zhuhai-Macao Bridge – Hong Kong Link Road, the wind farms at the Ninepins and the waters west of Lamma Island and the Guangzhou-Shenzhen-Hong Kong Express Rail Link. The major projects within the HKIA assessed included the Cathay Pacific Cargo Terminal, the Business Aviation Centre maintenance hangar expansion and the Passenger Terminal One East Hall expansion.

Following the Division's recommendation for the issue of permanent exemptions from the Airport Height Restrictions (AHR) for the new transmitter stations at Castle Peak, Kowloon Peak and the Lamma Island under the Digital Terrestrial Television Project, the Secretary for Development granted the concerned exemptions on January 15, 2011.

為確保航空安全不受危害，本部繼續監察各激光、探射燈及煙花表演，如「幻彩詠香江」燈光匯演、國慶及農曆新年煙花匯演等，以及大廈外牆的燈光，尤其是有照明的廣告招牌，並提供意見。

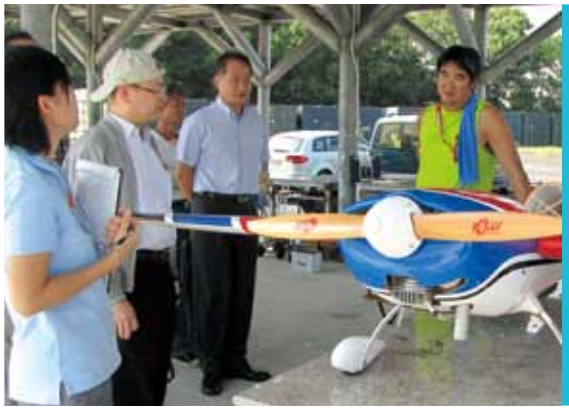
To ensure that aviation safety would not be compromised, the Division continued to monitor and provided advice on the use of laser, search lights and fireworks displays at different shows such as the "Symphony of Lights" show, and the National Day and New Year Fireworks Displays, and other lighting displays at building façades, especially illuminated advertisement signs.

年內，本部共批准93宗機場高度限制臨時豁免的申請，以方便建築工程進行，以及在機場島附近的海事運作。

This year, the Division issued 93 temporary AHR exemptions to facilitate construction works in the territory and vessel operations in the vicinity of the airport island.

本部得到海事處通力協助，繼續防止船隻駛進機場島附近的海上限制區，以免影響航機及無線電導航儀器的運作。年內，海事處共提出兩宗非法闖入限制區的檢控。

With the assistance of the Marine Department, the Division continued to ensure the integrity of the Marine Exclusion Zones (MEZs) established in the vicinity of the airport island to safeguard the operation of aircraft and radio navigational aids. During the year, two prosecutions against illegal entry into the MEZs were instituted by the Marine Department.



本處人員在元朗大棠的模型飛機飛行場地，視察重量超過7公斤但不超過20公斤的模型飛機的飛行運作。
CAD officers conduct an inspection on the flying operation of model aircraft weighing more than 7 kg and up to 20 kg in the model aircraft flying site at Tai Tong, Yuen Long.

一般飛行活動

General Aviation Activities

本部繼續規管飛行康樂活動，包括滑翔傘、氣球、風箏、模型飛機等活動，確保這些活動在符合飛行安全法例的情況下進行，並且不會影響民航飛機的運作。

The Division continued to monitor the safety of recreational aviation activities, including paragliding, balloon flights, kite flying and model aircraft flying to ensure that these activities were conducted in compliance with the applicable aviation safety regulations and would not affect civil aircraft operations.

經詳細評估和實地視察後，本部於二零一零年十月續發為期三年的豁免予香港機械模型會，容許該會在元朗大棠的模型飛機飛行場地，放飛重量超過7公斤但不超過20公斤的模型飛機。

After a detailed assessment and site inspection by the Division, the exemption granted to the Hong Kong Model Engineering Club for flying of model aircraft weighing more than 7 kg and up to 20 kg in the Club's model aircraft flying site at Tai Tong, Yuen Long was renewed for another three years in October 2010.

機場安全標準 Airport Standards

近年，航空科技不斷發展，無人駕駛飛機(無人機)系統在民航應用方面，例如空中監察、高空攝影及搜索拯救，不斷增加。二零一零年十二月，本處在轄下網頁發布了無人機系統的安全操作規定及限制，以及網上申請表和相關指引，供擬在本港操作無人機系統的人士遵守。

With the advent of aviation technology in recent years, there are a growing number of civilian applications of unmanned aircraft systems (UAS) e.g. aerial surveillance, photography and search and rescue. Guidelines on the requirements and restrictions on safe operation of UAS, and an online application form and associated guidelines were published in CAD webpage in December 2010 for the public to follow should they wish to operate UAS in Hong Kong.

飛行禁區

本處根據《飛航(飛行禁制)令》訂立飛行禁區，避免香港迪士尼樂園受到滋擾。本處在年內批出一次豁免，讓必須在飛行禁區內進行的直升機空中吊運工程得以進行。

Flight Prohibition Area

A Flight Prohibition Area has been established under the Air Navigation (Flight Prohibition) Order for the purpose of avoiding disturbance to the Hong Kong Disneyland. One exemption was granted during the year to facilitate essential helicopter aerial lifting works to/from the area.

運載危險物品

本部的危險品事務組繼續根據國際民航組織和本地法例的規定，監管空運危險品。航空公司必須符合該組訂定的安全標準，才會獲發許可證，運載危險品進出或飛越香港。此外，該組定期和突擊巡查空運貨站、貨運代理人及付運人，藉此持續監察托運危險品的安全水平。年內，本處共處理三宗簽發空運危險品許可證申請及38宗許可證續期申請。截至二零一一年三月底，共有77家航空公司獲准運載危險品進出或飛越香港。

CARRIAGE OF DANGEROUS GOODS

The Dangerous Goods Office of the Division continued to enforce the ICAO and local legal requirements on the safe transport of dangerous goods by air. Through a dangerous goods permission system, airlines must satisfy all pertinent safety requirements before they are permitted to carry dangerous goods to, from or over Hong Kong. In addition, the Dangerous Goods Office has been monitoring the safety standards of dangerous goods operations at the air cargo terminals, air freight forwarders and air cargo shippers by regular and ad hoc inspections. During the year, 3 new and 38 renewal applications for dangerous goods permissions were processed. At the end of March 2011, a total of 77 airlines were permitted to carry dangerous goods onboard their aircraft flying to, from or over Hong Kong.

危險品事務組人員於機場檢視危險品資訊展示區。
An officer of Dangerous Goods Office checks the dangerous goods information display area in the airport.

安全空運鋰電池的新宣傳單張。
The new leaflet promoting the Safe Transport of Lithium Batteries by Air.

發布安全規定

危險品事務組繼續利用教育和宣傳活動發布安全規定，提高安全空運危險品的意識。年內，本處共發出四份危險品通告，提供在貨物和乘客行李中運載危險品的指引，及有關空運業人員的危險品訓練規定。二零一一年三月，危險品事務組舉辦經驗交流會，與航空公司、貨運站營運商及貨運代理公司的代表，檢視一些空運危險品事故和討論預防措施。另外，為了宣傳安全運載鋰電池，本處在年內設計了一份資料單張。

Promulgation of Safety Requirements

The Dangerous Goods Office continued to promulgate safety requirements and promote the safe transport of dangerous goods by air through education and publicity. During the year, four Dangerous Goods Advisory Circulars had been issued on topics related to the carriage of dangerous goods in cargo, passenger baggage, as well as on the dangerous goods training requirements for air cargo personnel. In March 2011, the Dangerous Goods Office held an experience sharing session with representatives from airlines, cargo terminal operators and freight forwarders to review some dangerous goods occurrences and discuss preventive measures. To promote the safe transport of lithium batteries, an information leaflet was prepared for publication.

法例

二零一零年十一月，國際民航組織頒布多項安全空運危險品的新條文。為使本地法例與國際民航組織的最新規定一致，危險品事務組開始進行修例工作，包括諮詢業界的意見。諮詢工作已於二零一一年年初完成。

Legislation

The ICAO promulgated various new provisions on the safe transport of dangerous goods by air in November 2010. To align our legislation with the latest requirements of ICAO, the Dangerous Goods Office had initiated a legislative amendment exercise. Consultation with the industry was completed in early 2011 as part of the exercise.

與國際民航組織和外地航空當局聯繫

為掌握危險品規定的最新發展，危險品事務組定期派員參加國際會議和工作坊。年內，該組人員以中國代表團顧問身分，於二零一零年十一月，到阿布扎比參加國際民航組織危險品專家組工作組會議。此外，危險品事務組與英國、美國、澳洲、加拿大的民航當局定期聯絡，交流經驗和資訊。二零一零年八月，該組人員參加中國民用航空局舉辦的研討會，交流本處特別批准空運時使用壓縮氧氣維持水生動物生命的經驗，以及討論規管危險品托運人的事宜。

Liaison with ICAO and Overseas Authorities

The Dangerous Goods Office regularly participated in dangerous goods conferences and workshops to keep track of the international developments. During the year, staff of the Dangerous Goods Office joined the Chinese Delegation, in the capacity of advisors, to attend the ICAO's Dangerous Goods Panel Working Group Meeting held in Abu Dhabi in November 2010. The Dangerous Goods Office also maintained regular contacts with other civil aviation authorities in Australia, Canada, United Kingdom and United States of America for experience and information sharing. In August 2010, the Dangerous Goods Office participated in a seminar conducted by the Civil Aviation Administration of China to share our experience in handling applications for special approval for utilizing compressed oxygen to provide life support for aquatic animals during air transport and to discuss issues on the regulation of dangerous goods consignors.

機場安全標準 Airport Standards

本處人員以中國代表團顧問身分，到阿布扎比參加國際民航組織危險品專家組工作組會議。
A CAD Officer attends an ICAO Dangerous Goods Panel Working Group Meeting in Abu Dhabi in the capacity of advisor to the Chinese delegation.

危險品事故

年內發生的危險品事故，主要涉及未經申報的危險品。為免類似事件重演，危險品事務組調查所有事故，並向本地航空貨運公司和外國航空當局發布有用的調查結果。

Dangerous Goods Incidents

The incidents occurred during the year were mainly related to undeclared dangerous goods. The Dangerous Goods Office launched investigations into all these incidents with an aim to prevent recurrence. Useful findings were disseminated to local air cargo operators and foreign aviation authorities.

航空保安

加強保安措施

自二零零九年十二月二十五日，西北航空公司編號253由阿姆斯特丹飛往底特律的航機發生企圖恐怖襲擊事件後，美國國土安全部隨即加強飛往美國客機的保安檢查。為配合美國要求，民航處和航空公司繼續執行相應措施，加強航空公司在香港國際機場對飛往美國航機的保安檢查。

因應中國民用航空局的要求，二零一零年五月至十月上海世界博覽會舉行期間，本部聯絡相關各方，加強香港飛往內地航機的保安措施，尤其是飛往上海的航機。

二零一零年十月，英國和杜拜機場先後發現從也門空運往芝加哥的打印機碳粉盒暗藏爆炸裝置，本部遂與相關各方協調，自二零一零年年底起推行額外預防措施，保障空運貨物的安全。

AVIATION SECURITY

Enhanced Security Measures

Since the attempted terrorist attack on the Northwest Airlines flight 253 from Amsterdam to Detroit on December 25, 2009, the US Department of Homeland Security initiated enhanced security measures on all passenger flights bound for destinations in the United States. In connection with this, CAD continued to work with aircraft operators to facilitate their implementation of enhanced security measures for all passenger flights bound for the United States at the HKIA.

During the Shanghai World Expo period from May 2010 to October 2010, in response to a request from the Civil Aviation Administration of China (CAAC), the Division liaised with relevant parties to enhance security measures for flights to the Mainland China, especially for those bound for Shanghai.

Since the discovery of explosive devices hidden inside printer toner cartridges at the UK and Dubai airports in freight consignments from Yemen to Chicago in October 2010, the Division coordinated with relevant parties to implement additional precautionary security measures to safeguard air cargo security in end 2010.

本處人員監察香港國際機場行李處理系統的保安安排。
A divisional officer monitors the security arrangement of HKIA's Baggage Handling System.

對香港國際機場營運者的保安監察

通過審計和檢查，機場安全標準部確保機管局及香港國際機場營運者，包括租戶禁區營運者、航空公司和航機膳食及物品供應商，符合香港航空保安計劃的規定。

年內，本部根據《航空保安條例》處理三宗禁區指定個案，以配合一號客運大樓禁區內寄艙行李篩查室、海天客運碼頭和香港空運貨站有限公司速遞中心的重新配置工程。本部人員在禁區指定生效前實地視察，確保進出禁區有足夠的保障措施管制。

Security Oversight of Operators at HKIA

The Division ensured that AAHK and the operators at the HKIA, including the tenant restricted area operators, aircraft operators and aircraft catering supplies and stores operators, complied with the requirements in the Hong Kong Aviation Security Programme through audits and inspections.

During the year, the Division processed three designations of restricted area under the Aviation Security Ordinance. These designations were made to cater for the reconfigurations of Hold Baggage Screening Room located within the airport restricted area of Passenger Terminal 1, SkyPier and Hactl Express Centre. Officers of the Division conducted inspections prior to the commencement of the operations of the designations to ensure that sufficient protection was provided for controlling access to the restricted areas.

空運貨物保安

自二零零零年三月起，香港實行管制代理人制度，以符合國際民航組織的空運貨物保安標準。根據這制度，每一個向民航處登記為管制代理人的貨運代理，必須為空運貨物實施保安管制措施，並檢查指定類別的貨物。機場安全標準部持續檢查已登記的管制代理人，確保他們遵守規定。截至二零一一年三月三十一日，本處登記冊上共有1 403名管制代理人。為完善管制代理人制度，本部與空運業界組成工作小組，研究措施加強供應鏈的保安。

Air Cargo Security

Hong Kong has implemented a Regulated Agent Regime (RAR) since March 2000 to comply with the ICAO cargo security standards. Under the RAR, a cargo agent registered as a Regulated Agent with the Department is required to provide security control measures on consignments of air cargo and apply screening on prescribed sources of air cargo. The Division continued to monitor the compliance of the Regulated Agents with the requirements of the RAR through inspections. As of March 31, 2011, there were 1 403 Regulated Agents registered with the Department. With a view to enhancing the RAR, the Division set up a working group which comprised representatives of the air cargo industry to identify measures for securing the supply chain.

難受管束乘客

為針對民航機上難受管束或擾亂秩序的乘客的行為，香港在二零零五年制訂《航空保安(修訂)條例》，對上述行為施加刑事制裁。年內，根據該條例檢控成功的個案有一宗。

Unruly Passengers

To fight against unruly or disruptive behaviour committed by passengers on board civil aircraft, the Aviation Security (Amendment) Ordinance was enacted in 2005 to impose penalties on such offences. During the reporting period, there was one case of successful prosecution under the Ordinance.

機場安全標準 Airport Standards

簡化手續

機場安全標準部參與機場簡化手續委員會，監察《國際民用航空公約》附件9(簡化手續)所訂的標準和建議措施在香港國際機場實施的情況。年內，本部向香港登記航空公司的機組人員發出2 527張新空勤人員證書和續發12 171張空勤人員證書。

Facilitation

Through the participation in the Airport Facilitation Committee, the Division monitored the implementation of the Standards and Recommended Practices of the ICAO Annex 9 on Facilitation at the HKIA. During the reporting period, 2 527 new Crew Member Certificates (CMCs) and 12 171 renewed CMCs were issued to the crew members of Hong Kong registered aircraft operators.

國際事務

INTERNATIONAL ACTIVITIES

國際民航組織亞洲太平洋區互助航空保安計劃

香港自二零零四年起參加國際民航組織亞洲太平洋區互助航空保安計劃。計劃成立的目的，是協助參與計劃成員符合《國際民用航空公約》附件9和附件17所訂的航空保安標準和建議措施，並加強他們的航空保安能力。二零一零年四月，本部派員出席在印尼峇里舉行的保安計劃第七次主導委員會會議，並代表上屆主席香港民航處處長移交主席一職予印尼民航處處長。

ICAO Cooperative Aviation Security Programme – Asia Pacific (CASP-AP)

Since 2004, Hong Kong has joined the ICAO CASP-AP which was established by the ICAO. The ICAO CASP-AP aims at assisting States and administrations in the Asia Pacific Region to comply with the ICAO Standards and Recommended Practices for aviation security in Annexes 9 and 17, and enhance their aviation security capabilities. The Division attended the Seventh Steering Committee Meeting of the Programme held in Bali, Indonesia in April 2010, and on behalf of the Director-General of Civil Aviation, handed over the Chairmanship of the last Steering Committee Meeting to the Director-General of Civil Aviation of Indonesia.

民航事務主任在香港國際機場監察航空公司為乘客辦理登機手續。
An operations officer monitors airline's passenger check-in procedure at HKIA.

民航事務主任在香港國際機場登機閘口監察航空公司的保安安排。
An operations officer monitors the security arrangement of airlines at HKIA's departure gate.

亞太經濟合作組織

機場安全標準部自二零零零年起，經常代表中國香港參與亞太經濟合作組織運輸工作組航空保安小組。成立航空保安小組的目的，是提高各成員國和地區的航空保安水平。年內，本部繼續協助航空保安小組制訂航空保安指引。

Asia Pacific Economic Cooperation (APEC)

Since 2000, the Division has frequently represented Hong Kong, China to participate in the Aviation Security Sub-Group (ASG) of the APEC Transportation Working Group (TWG) which was established with the objective of enhancing the security standards of member economies. The Division continued to provide support to the ASG in the development of guidelines in aviation security.

亞太區航空保安監管機構主管會議

二零一零年四月，本部參加由新加坡主辦的亞太區航空保安監管機構主管第一次會議。是次會議得到國際民航組織和亞太區各地代表大力支持，各地代表交流了航空保安經驗和最佳實務作業，並就加強國際間的協作交換意見。會議讓亞太區的航空保安專家聚首一堂，相互交流最新的航空保安經驗和意見，深具成效，因此本部會參加下一次的會議。

Asia Pacific Heads of Aviation Security Regulators Meeting

The Division attended the First Asia Pacific Heads of Aviation Security Regulators Meeting hosted by Singapore in April 2010. The meeting was well supported by ICAO and delegates in the Asia Pacific Region. Delegates shared their experience and best practices, and exchanged views on enhancing international collaboration on aviation security issues in the meeting. The Division considered the meeting a useful forum to gather aviation security experts in the Asia Pacific Region together for experience sharing and exchange of views on current aviation security related issues, and will continue to attend the next Asia Pacific Heads of Aviation Security Regulators Meeting.

2010年《北京公約》和2010年《北京議定書》

二零一零年八月三十日至九月十日，本部人員聯同保安局和律政司代表，參加國際民航組織在北京舉行的航空保安外交會議。會議通過《制止與國際民用航空有關的非法行為的公約》(簡稱2010年《北京公約》)及《制止非法劫持航空器公約的補充議定書》(簡稱2010年《北京議定書》)。兩條條約的內容，包括把使用民用航空器作為武器、使用危險物料攻擊航空器或其他地面目標，以及非法運載生物、化學和核武器列為罪行。條約具體訂明，任何人指揮和組織屬條約所訂罪行亦要負上刑事責任。此外，條約亦訂明，若威脅實施條約所訂罪行而情況顯示威脅可信時，亦會引致刑事責任。

2010 Beijing Convention and 2010 Beijing Protocol

From August 30 to September 10, 2010, officers from the Division together with representatives from Security Bureau and Department of Justice attended the ICAO Diplomatic Conference on Aviation Security in Beijing. The Conference adopted the Convention on the Suppression of Unlawful Acts Relating to International Civil Aviation (2010 Beijing Convention) and the Protocol Supplementary to the Convention for the Suppression of Unlawful Seizure of Aircraft (2010 Beijing Protocol). The two treaties criminalise, inter alia, the act of using civil aircraft as a weapon, and of using dangerous materials to attack aircraft or other targets on the ground and the unlawful transport of biological, chemical and nuclear weapons. Criminal liability of directors and organisers of an offence under the treaties is specifically covered. Making a threat to commit an offence under the treaties may also trigger criminal liability, when the circumstances indicate that the threat is credible.

航班事務
Air Services

航班事務部由航班事務組和技術行政組這兩個分組組成。

The Air Services Division is composed of two sections: the Air Services Section and the Technical Administration Section.


B-LNY
Hong Kong Airlines
空航港香

航班事務 Air Services

航班事務組負責監察航空公司有否遵守規管定期航班服務的民用航空運輸安排，以及監管不定期航班服務。該組並為運輸及房屋局提供資料，在民用航空運輸談判時參考，另外又為空運牌照局提供資料，以助牌照局考慮本地航空公司提出的空運牌照申請。此外，該組負責檢討民航法例和提出修訂建議，以及與國際組織，特別是國際民用航空組織(國際民航組織)和亞太經濟合作組織(亞太經合組織)商討航空事務和活動。

The Air Services Section monitors compliance by airlines with the air services arrangements which govern scheduled air services and regulates non-scheduled air services. It provides information to the Transport and Housing Bureau for air services negotiations and to the Air Transport Licensing Authority for consideration of licence applications by local airlines. It also reviews and proposes changes to civil aviation legislation and liaises with other international organisations, particularly the International Civil Aviation Organization (ICAO) and the Asia-Pacific Economic Cooperation (APEC) on aviation related matters and activities.

技術行政組則負責制訂和實施噪音消減措施，並監察來往香港國際機場航機的飛行路線，以減低飛機噪音對社區的影響。該組亦負責提供航空交通統計數字，統籌部門的工程項目，研究直升機服務需求，促進直升機場的發展，協調航班時間，分配飛機升降時段和監察航空公司航班升降的正點率。

The Technical Administration Section is responsible for developing and implementing noise mitigating measures and monitoring flight tracks of aircraft operating to and from the Hong Kong International Airport (HKIA) with a view to minimising the impact of aircraft noise on the local community. It also provides air traffic statistics, coordinates building projects for the Department, assesses the demand for helicopter services and facilitates the development of heliports. In addition, the Section coordinates airlines' schedules, allocates runway slots and monitors time-keeping performance of airlines.

航空服務

AIR SERVICES

航空交通量增長

Air Traffic Growth

由於環球經濟持續改善，加上內地和本港經濟表現強勁，二零一零至一一年度香港的航空載運量及飛機升降量均刷新歷年紀錄。

With the continual improvement in the global financial situation as well as the strong economic performance of the Mainland and the local industry, Hong Kong had enjoyed a record-breaking year in 2010-11 in traffic throughput and aircraft movements.

二零一零至一一年度香港的航空載運量及飛機升降量均刷新歷年紀錄。
Hong Kong enjoyed a record-breaking year in 2010-11 in traffic throughput and in aircraft movements.

載運量方面，客運量按年上升10%至5 030萬人次，貨運量則按年上升17%至420萬公噸。飛機升降量亦增加13%至316 349架次。

Traffic throughput reached 50.3 million passengers and 4.2 million tonnes of cargo, representing a year-on-year growth of 10% and 17% respectively. Aircraft movements also reached 316 349 movements, with a growth rate of 13%.

截至二零一一年三月底，提供定期往來香港航班服務的航空公司，總數為99家，服務的城市/機場總數維持約150個。航點城市/機場的變動詳見附錄甲。

By the end of March 2011, the number of scheduled airlines serving Hong Kong was 99. The total number of cities/airports served by scheduled services to and from Hong Kong remained at around 150. Details of the changes in these cities/airports are given in Appendix A.

本地航空公司的服務

Services by Local Carriers

年內，國泰航空公司(國泰)先後在二零一零年七月和十月，開辦香港往返莫斯科和東京(羽田)的定期客運航班。截至二零一一年三月底，國泰營辦往返香港的定期航班服務遍及全球60個目的地。

During the year, Cathay Pacific Airways (CPA) launched new scheduled passenger services to Moscow and Tokyo (Haneda) in July and October 2010 respectively. By the end of March 2011, CPA operated scheduled services to 60 destinations worldwide.

國泰繼續接收新的長途客機和貨機，但亦同時停用部分較舊飛機。該公司機隊的飛機數目由126架稍增至127架，包括32架空中巴士A330-300型、15架空中巴士A340-300型、21架波音B747-400型、36架波音B777型客機(其中包括16架波音B777-300ER型長途客機)，以及23架波音B747-400型貨機。

CPA continued to take delivery of long haul passenger aircraft and freighters but at the same time retired some of its older aircraft. The fleet of CPA slightly increased from 126 to 127 aircraft, comprising 32 Airbus A330-300s, 15 Airbus A340-300s, 21 Boeing B747-400s, 36 Boeing B777s (including 16 long-haul Boeing B777-300ERs) and 23 Boeing B747-400 freighters.

截至二零一一年三月底，99家航空公司提供定期往來香港的航班服務，服務的城市/機場總數維持約150個。
By the end of March 2011, the number of scheduled airlines serving Hong Kong was 99. The total number of cities/airports served by scheduled services to and from Hong Kong remained at around 150.

航班事務 Air Services

航班事務部負責處理涉及修訂來往香港客運和貨運定期航班服務的運價申請。
ASD processes tariff filings for carriage of passengers and cargo on scheduled services to and from Hong Kong.

港龍航空公司(港龍)於二零一零年五月開辦往返沖繩的定期客運航班，並於同年九月、十月和十二月先後恢復往返上海(虹橋)、福岡和仙台的定期客運航班。截至二零一一年三月底，港龍定期航班服務遍及30個目的地，包括15個內地城市。該公司機隊的飛機數目為31架，計有11架空中巴士A320-200型、6架空中巴士A321-200型和14架空中巴士A330-300型客機。

The Hong Kong Dragon Airlines Limited (HDA) commenced scheduled passenger services to Okinawa in May 2010 and reinstated its services to Shanghai (Hongqiao), Fukuoka and Sendai in September, October and December 2010 respectively. By the end of March 2011, HDA operated scheduled services to 30 destinations, including 15 cities in the Mainland with a fleet of 31 passenger aircraft, comprising 11 Airbus A320-200s , 6 Airbus A321-200s and 14 Airbus A330-300s.

香港華民航空有限公司(華民)繼續經營亞洲區貨運航班服務。截至二零一一年三月底，華民以八架空中巴士A300-600型貨機和兩架租用的波音B727型貨機，經營往返亞洲11個目的地的定期航班服務。

AHK Air Hong Kong Limited (AHK) continued to operate its all-cargo services in Asia. By the end of March 2011, AHK operated scheduled services to 11 destinations in Asia with eight Airbus A300-600 freighters and two leased B727 freighters.

香港航空有限公司(香港航空)繼續擴展區內服務，開辦定期客運航班往返東京(成田)、北京、曼谷、莫斯科、上海(虹橋和浦東)、登巴薩、新加坡和長沙，但亦先後停辦往返昆明、海口和杭州的航線。貨運服務方面，香港航空開辦往返曼谷、鄭州、河內、上海(浦東)、新加坡、天津和廈門的航線。截至二零一一年三月底，香港航空的機隊包括三架波音B737-800型客機、五架空中巴士A330-200型客機、兩架空中巴士A330型貨機和兩架波音B737型貨機，經營往返17個目的地的定期航班服務。

Hong Kong Airlines Limited (CRK) continued to expand its regional services. CRK launched scheduled passenger services to Tokyo (Narita), Beijing, Bangkok, Moscow, Shanghai (Hongqiao and Pudong), Denpasar, Singapore and Changsha while suspended services to Kunming, Haikou and Hangzhou. For all-cargo services, CRK commenced services to Bangkok, Zhengzhou, Hanoi, Shanghai (Pudong), Singapore, Tianjin and Xiamen. By the end of March 2011, CRK operated scheduled services to 17 destinations with three Boeing B737-800s, five Airbus A330-200s, two A330 freighters and two B737 freighters.

本部協調航班時間，分配飛機升降時段和監察航空公司航班升降的正點率。
The Division coordinates airlines' schedules, allocates runway slots and monitors time-keeping performance of airlines.

香港快運航空有限公司(香港快運)繼續重組區內定期客運航班服務，年內開辦往返大阪的航線，但停辦往返上海(浦東)和登巴薩的航線。截至二零一一年三月底，香港快運的機隊包括五架波音B737-800型飛機，定期航班服務遍及11個目的地。

Hong Kong Express Airways Limited (HKE) continued to restructure its regional scheduled passenger services and commenced services to Osaka but suspended services to Shanghai (Pudong) and Denpasar. By the end of March 2011, HKE operated scheduled services to 11 destinations with five Boeing B737-800s.

香港商用飛機有限公司以四架灣流G200型、一架灣流G450型、一架灣流GIV型、一架波音737 BBJ型和一架龐巴迪CL605型飛機，經營來往亞洲多個目的地的不定期客運航班。

Metrojet Limited operated four Gulfstream G200s, one Gulfstream G450, one Gulfstream GIV, one Boeing 737 BBJ and one Bombardier CL605 for non-scheduled passenger services to destinations in Asia.

空中快線直升機有限公司以兩架阿古斯塔威斯特蘭AW139型直升機，提供來往香港與澳門之間的不定期客運服務。

Sky Shuttle Helicopters Limited continued to operate non-scheduled passenger services between Hong Kong and Macao with two AgustaWestland AW139 helicopters.

直升機服務(香港)有限公司繼續以一架麥唐納道格拉斯MD500E型、一架歐洲直升機公司AS355N型及四架Aerospatiale SA315B型直升機，在本地提供客運包機和空中作業服務。

Heliservices (Hong Kong) Limited continued to operate one McDonnell Douglas MD500E, one Eurocopter AS355N and four Aerospatiale SA315B helicopters for local passenger charters and aerial work.

TAG Aviation Asia Limited以一架龐巴迪CL605型和兩架龐巴迪BD700型飛機，經營區內不定期客運服務。

TAG Aviation Asia Limited operated one Bombardier CL605 and two Bombardier BD700s for regional non-scheduled passenger services.

航班事務 Air Services

非本地航空公司的服務

定期客運服務方面，大陸密克羅尼西亞航空公司於二零一零年四月恢復開辦往來關島與香港的航班服務。該公司與美國大陸航空公司合併後，美國大陸航空公司於同年十二月接管其服務。俄羅斯全祿航空公司於二零一零年七月恢復開辦往來莫斯科與香港的航班，但於同年十二月停辦。春秋航空公司於二零一零年九月及十二月，先後開辦往返上海(浦東)與香港及往返石家莊與香港的航班服務。濟州航空公司於二零一零年十月，開辦往返仁川與香港的航班服務。吉祥航空公司於二零一零年十二月，開辦往返上海(浦東)與香港的航班服務。印尼亞洲航空公司於二零一一年一月開辦往返棉蘭與香港的航班服務。菲律賓東南亞洲航空公司於二零一一年三月開辦往返克拉克與香港的航班服務。二零一一年一月，曼達拉航空公司停辦定期客運服務。

定期貨運航班服務方面，阿提哈德航空公司於二零一零年十月，開辦往返阿布扎比與香港的貨運服務。

年內，本處合共簽發143張經營許可證予航空公司，以供營辦往來香港的定期航班服務，並處理約4 400宗更改定期航班服務的申請，以及簽發1 167張經營來往香港包機服務的許可證。

Services by Non-Hong Kong Carriers

For scheduled passenger services, Continental Micronesia resumed its services between Guam and Hong Kong in April 2010 but its services were taken over by Continental Air Lines in December 2010 after the two airlines had merged; Transaero Airlines resumed its services between Moscow and Hong Kong in July 2010 and suspended services in December 2010; Spring Airlines commenced its services between Shanghai (Pudong) and Hong Kong in September 2010, and between Shijiazhuang and Hong Kong in December 2010; Jeju Air commenced services between Incheon and Hong Kong in October 2010; Juneyao Airlines launched its services between Shanghai (Pudong) and Hong Kong in December 2010; Indonesia Air Asia commenced services between Medan and Hong Kong in January 2011 and Southeast Asian Airlines between Clark and Hong Kong in March 2011. Mandala Airlines suspended its services in January 2011.

For scheduled all-cargo services, Etihad Airways commenced services between Abu Dhabi and Hong Kong in October 2010.

During the year, the Department issued 143 operating permits to airlines for operation of scheduled services to Hong Kong and processed around 4 400 applications for changes to the schedules. A total of 1 167 permits were also issued for the operation of charter services to and from Hong Kong.

航班事務組負責檢討民航法例和提出修訂建議。
Air Services Section reviews and proposes changes to civil aviation legislation.

運價

年內，本處共處理1 022宗涉及修訂來往香港客運和貨運定期航班服務的運價申請(不包括燃油附加費的申請)。客運票價雖有輕微調整，但大致保持穩定。年內，本處批准航空公司繼續收取客運和貨運燃油附加費，以彌補部分因油價波動而增加的營運成本。客運燃油附加費每月審批一次。年內，本處共處理1 259宗燃油附加費的申請，並在本處網站公布核准的燃油附加費。

TARIFFS

During the year, the Department processed 1 022 tariff filings (filings concerning fuel surcharges not included) for carriage of passengers and cargo on scheduled services to and from Hong Kong. Notwithstanding some minor adjustments, the passenger fares remained steady over the period. Airlines were allowed to continue levying passenger and cargo fuel surcharges to partially recover the increase in operational costs due to fluctuations in aviation fuel prices. The passenger fuel surcharges were reviewed on a monthly basis. In the year, the Department processed 1 259 filings on adjustment of fuel surcharges. The approved fuel surcharges were published in the Department's website.

國際民航組織的活動

為遵行《基本法》的規定，保持香港國際和區域航空中心的地位，以及方便履行國際民航組織區域航行程序所定職責，本處繼續積極參與國際民航組織的活動。年內，本處代表以中華人民共和國代表團成員身分，出席四次只限國家參加的國際民航組織會議，並以「中國香港」的名義，參加30次並非以國家為單位的國際民航組織會議。以上34次會議的詳情見附錄乙。此外，本處與國際民航組織往來的函件共有326份，主要就民航技術事宜提供意見及資料。

為加強與國際民航組織的聯繫，本處自二零零五年五月開始借調一名人員，到中國常駐國際民航組織理事會代表處工作。

ACTIVITIES OF THE INTERNATIONAL CIVIL AVIATION ORGANIZATION

To maintain the status of Hong Kong as a centre of international and regional civil aviation in accordance with the provisions of the Basic Law, and to facilitate the discharge of its responsibilities under the regional air navigation procedures of ICAO, the Department continued to participate actively in the activities of ICAO. During the year, representatives of the Department attended four ICAO meetings which were limited to States as part of the delegation of the People's Republic of China, and 30 ICAO meetings which were not so limited, using the name "Hong Kong, China". Details of these 34 meetings are provided in Appendix B. The Department also exchanged 326 letters with ICAO. The majority of these letters involved comments and information on technical matters related to civil aviation.

To strengthen the liaison with ICAO, an arrangement has been made since May 2005 for an officer of the Department to be seconded to the Office of the Representative of China on the Council of ICAO.

航班協調辦公室分配機場航班升降時段予所有本地及外地航空公司。
HKSCO allocates arrival and departure slots at HKIA to all local and overseas aircraft operators.
legislation.

本處人員收集飛機噪音數據。
CAD officer collects aircraft noise data.

本處繼續監察跨境直升機服務設施的長遠發展。
The Division continues to monitor the long-term development of facilities for cross-boundary helicopter services.

亞太經濟合作組織的活動

本處繼續以「中國香港」的名義，支持亞太經合組織的民航活動和措施。年內，本處因應亞太經合組織的26項要求，提供民航技術事宜的意見及資料。

ACTIVITIES OF ASIA PACIFIC ECONOMIC COOPERATION

The Department continued to support aviation related activities and initiatives of APEC using the name "Hong Kong, China". During the year, the Department handled 26 requests relating to APEC, which involved provision of comments and information on technical matters related to civil aviation.

飛機噪音管理

本處繼續致力執行一系列噪音消減措施，以減低飛機進出香港國際機場時噪音對航道下和附近居民的影響。

為減低飛機噪音對沙田、荃灣、葵涌、青衣等人口稠密地區居民的滋擾，在符合風向和安全的情況下，由午夜十二時至早上七時飛抵香港國際機場的航機，須從機場西南面經海上降落。另外，為減低飛機噪音對九龍及港島北地區的影響，在符合運作要求和安全的情況下，由晚上十一時至早上七時向東北起飛的航機，須經西博寮海峽離港。本處亦根據顧問研究結果，檢討上述離場程序，以減低飛機噪音對馬灣地區的影響。

此外，情況許可的話，本處鼓勵在晚上十一時至早上七時從東北進場飛越將軍澳、西貢和馬鞍山的航機，採用持續降落模式運作。採用這種降落模式的航機會由較高的高度開始下降，並在開始進場時使用較低動力和產生較少阻力的狀況飛行，以減少途經這些地區時所產生的噪音。

AIRCRAFT NOISE MANAGEMENT

The Department continued its effort to minimise the impact of aircraft noise on residents under and in the vicinity of the flight paths to and from the Hong Kong International Airport (HKIA) through a series of noise mitigating measures.

To avoid causing noise disturbance to residents in the highly populated areas such as Sha Tin, Tsuen Wan, Kwai Chung and Tsing Yi, aircraft arriving at the HKIA between midnight and 7 a.m. were required to land from the southwest over water, subject to acceptable wind direction and safety consideration. To keep areas in Kowloon and the northern Hong Kong Island away from the noise impact, aircraft taking off to the northeast between 11 p.m. and 7 a.m. were required to depart via the West Lamma Channel, subject to acceptable operational and safety considerations. This procedure was also reviewed in the light of the findings of a consultancy study with a view to minimising the noise impact on Ma Wan.

Furthermore, aircraft which overflew Tseung Kwan O, Sai Kung and Ma On Shan on approach to the HKIA from the northeast between 11 p.m. and 7 a.m. were encouraged to adopt the Continuous Descent Approach (CDA) procedures wherever practicable. Aircraft on CDA procedures would fly at higher altitudes and in a lower power and lower drag configuration during the commencement of the approach which as a result, would help reduce aircraft noise impact in these areas.

本處繼續利用飛機噪音及航迹監察電腦系統，監察飛機進出香港國際機場時航道附近地區的噪音情況。該系統由16個室外噪音監察站和一台電腦組成。系統把雷達記錄的飛行航迹資料，與噪音監察站記錄的飛機噪音數據相互比較。而本處會定期檢討和更新室外噪音監察站的數目及位置。本處利用該系統監察消減噪音措施的實施情況，以及調查飛機噪音投訴。年內，本處接獲和調查的飛機噪音投訴有370宗。

The Department continued to monitor aircraft noise in the vicinity of the flight paths for aircraft operating to and from the HKIA with the aid of a computer-based Aircraft Noise and Flight Track Monitoring System (ANFTMS). The system comprises 16 outdoor noise monitoring terminals and a computer to correlate the flight tracks recorded from the radars with the noise recorded at the noise terminals, the number and location of which are under regular review and updating. With the system, the Department was able to monitor the implementation of the noise mitigation measures and conduct investigation on noise complaints. During the year, 370 complaints were received and investigated.

航班協調

SCHEDULE COORDINATION

香港機場航班協調辦公室自二零零八年成立以來，根據《國際航空運輸協會全球航班協調指南》，採用中立、公開、公平的協調機制，務求善用機場的有限資源。

Since the establishment of the Hong Kong Schedule Coordination Office (HKSCO) in 2008, the HKSCO has adopted a neutral, transparent and non-discriminatory schedule coordination mechanism in accordance with the International Air Transport Association (IATA) Worldwide Scheduling Guidelines (WSG) to ensure the efficient utilisation of scarce airport resources.

年內，航班協調辦公室共處理了323 000宗機場航班升降時段申請。為使分配時段的工作更具效率和成效，航班協調辦公室正研發網上協調系統，即時提供最新資料供營運者提交或更改申請。該系統預計在二零一一至一二年度推出。

During the year, the HKSCO processed 323 000 applications for arrival and departure slots at HKIA. To facilitate the efficient and effective processing of slot allocations, an Online Coordination System to provide instant updates for operators to submit or adjust their slot applications was being developed for implementation in 2011-12.

直升機場的發展

HELIPORT DEVELOPMENT

本處繼續監察跨境直升機服務設施的長遠發展。有關啓德發展區內擬建跨境直升機場的規劃，本處與其他政府部門緊密合作，並已開始規劃相關輔助設施。

The Department continued to monitor the long-term development of facilities for cross-boundary helicopter services. On the planning of the proposed cross-boundary heliport within the Kai Tak Development Area, the Department worked closely with other Government departments and planning work on the supporting facilities had already commenced.

支援本地商業直升機服務的設施方面，香港會議展覽中心附近的永久政府直升機坪，興建工程繼續進行，預計於二零一二年年初建成。該直升機坪主要供政府飛行服務隊使用，但亦可與本地商業直升機公司共用。

For the facilities to support domestic commercial helicopter services, construction work of the proposed permanent government helipad near the Hong Kong Convention and Exhibition Centre continued and is expected to be completed in early 2012. Although primarily intended to serve the operations of the Government Flying Service, the helipad will also be able to facilitate domestic commercial helicopter operations on share-use basis.

附錄甲

截至二零一一年三月來往香港的定期航班服務的城市/ 機場變動情況
(與二零一零年三月比較)

新增航點

新航點	經營者
北海	四川航空公司
波士頓	聯合航空公司
清州	大韓航空公司
峴港	越南航空公司
丹佛	聯合航空公司
底特律	達美航空公司
關島	美國大陸航空公司
亨茨維爾	亞特拉斯航空公司
印第安納波利斯	聯邦快遞
棉蘭	印尼亞洲航空公司
奧斯陸	英國航空公司
仙台	港龍航空公司
上海(虹橋)	港龍航空公司、香港航空公司、中國東方航空公司和上海航空公司
特里凡得琅	沙特阿拉伯航空公司
東京(羽田)	國泰航空公司、全日空航空公司和日本航空公司
華盛頓	聯合航空公司
無錫	中國東方航空公司
徐州	上海航空公司
鹽城	中國東方航空公司

刪減航點

刪除航點	前經營者
安卡拉	漢莎貨運航空公司
雅典	漢莎貨運航空公司
登巴薩	香港快運航空公司
海口	香港航空公司
呼和浩特	中國南方航空公司
西雅圖	達美航空公司
上海(浦東)	香港快運航空公司

Appendix A

Changes in Cities/Airports Served by Scheduled Services to and from Hong Kong as at March 2011 (compared with March 2010)

(a) Additions

New Points Operated By
1. Beihai by Sichuan Airlines
2. Boston by United Airlines
3. Cheongju by Korean Air
4. Da Nang by Vietnam Airlines
5. Denver by United Airlines
6. Detroit by Delta Air Lines
7. Guam by Continental Air Lines
8. Huntsville by Atlas Air
9. Indianapolis by Federal Express
10. Medan by Indonesia Air Asia
11. Oslo by British Airways
12. Sendai by Hong Kong Dragon Airlines
13. Shanghai (Hongqiao) by Hong Kong Dragon Airlines, Hong Kong Airlines, China Eastern Airlines and Shanghai Airlines
14. Thiruvananthapuram by Saudi Arabian Airlines
15. Tokyo (Haneda) by Cathay Pacific Airways, All Nippon Airways and Japan Airlines
16. Washington by United Airlines
17. Wuxi by China Eastern Airlines
18. Xuzhou by Shanghai Airlines
19. Yancheng by China Eastern Airlines

(b) Deletions

Deleted Points Previously Operated By
1. Ankara by Lufthansa Cargo
2. Athens by Lufthansa Cargo
3. Denpasar by Hong Kong Express
4. Haikou by Hong Kong Airlines
5. Hohhot by China Southern Airlines
6. Seattle by Delta Air Lines
7. Shanghai (Pudong) by Hong Kong Express

附錄乙

民航處代表在二零一零年四月至二零一一年三月出席的國際民航組織會議

	會議名稱	地點	日期
1.	國際民航組織航空與氣候變化“邁向可持續”討論會	加拿大蒙特利爾	二零一零年四月十一日至十四日
2.	互助發展運作安全和持續適航計劃北亞區主導委員會第十次會議	中國北京	二零一零年四月十三日至十五日
3.	亞太地區互助航空保安計劃主導委員會第七次會議	印尼峇里	二零一零年四月二十七日至二十八日
4.	亞太地區飛行程序計劃主導委員會第一次會議	中國北京	二零一零年五月十一日至十二日
5.	防止傳染病經航空交通散播合作安排計劃主導委員會第四次會議	馬來西亞吉隆坡	二零一零年五月二十四日
6.	東南亞未來航空導航系統實施小組第10次會議暨東南亞航空交通管制協調小組第17次會議	新加坡	二零一零年五月二十四日至二十七日
7.	航空電訊網實施協調小組第五次會議	馬來西亞吉隆坡	二零一零年五月三十一日至六月四日
8.	國際民航組織航空情報服務 — 航空情報管理實施專責小組第五次會議	中國北京	二零一零年六月二十五日至二十六日
9.	亞太地區航行規劃和實施小組轄下航空交通服務、航空情報服務和搜尋與援救分組第20次會議	新加坡	二零一零年七月五日至九日
10.	亞太地區航行規劃和實施小組轄下通訊/導航/監察及氣象分組第14次會議	印尼雅加達	二零一零年七月十九日至二十二日
11.	地區空域安全監察諮詢小組第13次會議	泰國曼谷	二零一零年八月二日至五日
12.	廣播式自動相關監察系統實施專責小組第九次會議	印尼雅加達	二零一零年八月十六日至十九日
13.	亞太地區飛行計劃及航空交通服務訊息實施專責小組第三次會議	泰國曼谷	二零一零年八月二十三日至二十四日
14.	東南亞航道檢討專責小組第三次會議	泰國曼谷	二零一零年八月二十四日至二十七日
15.	外交會議以便通過： 1) 修正經1988年議定書修正的《關於制止危害民用航空安全的非法行為的公約》(簡稱1971年《蒙特利爾公約》)的議定書；以及2) 修正《關於制止非法劫持航空器的公約》(簡稱1970年《海牙公約》)的議定書	中國北京	二零一零年八月三十日至九月十日
16.	基於性能導航專責小組第七次會議	泰國曼谷	二零一零年九月一日至三日
17.	亞太地區航行規劃和實施小組第21次會議	泰國曼谷	二零一零年九月六日至十日
18.	航空電訊網實施協調小組工作組第八次會議	新西蘭基督城	二零一零年九月二十八日至十月一日

Appendix B

ICAO Conferences and Meetings Attended by Representatives of the Department between April 2010 and March 2011 :

	Name of Conference or Meeting	Venue	Dates
1.	ICAO Colloquium on Aviation and Climate Change "En route to sustainability"	Montreal, Canada	April 11 - 14, 2010
2.	10th Meeting of Co-operative Development of Operational Safety and Continuing Airworthiness Programme - North Asia Project Steering Committee	Beijing, China	April 13 - 15, 2010
3.	7th Steering Committee Meeting of the Co-operative Aviation Security Programme - Asia Pacific	Bali, Indonesia	April 27 - 28, 2010
4.	1st Steering Committee Meeting of the Asia Pacific Flight Procedure Programme	Beijing, China	May 11 - 12, 2010
5.	4th Steering Committee Meeting of the Co-operative Arrangement for the Prevention of Spread of Communicable Disease through Air Travel	Kuala Lumpur Malaysia	May 24, 2010
6.	10th Meeting of the Future Air Navigation System Implementation Team for Southeast Asia cum 17th Meeting of the Southeast Asia Air Traffic Services Coordination Group	Singapore	May 24 - 27, 2010
7.	5th Meeting of Aeronautical Telecommunication Network Implementation Coordination Group	Kuala Lumpur, Malaysia	May 31 - June 4, 2010
8.	5th Meeting of ICAO Aeronautical Information Services - Aeronautical Information Management Implementation Task Force	Beijing, China	June 25 - 26, 2010
9.	20th Meeting of the Air Traffic Services, Aeronautical Information Services, Search and Rescue Sub-Group of the Asia Pacific Air Navigation Planning and Implementation Regional Group	Singapore	July 5 - 9, 2010
10.	14th Meeting of the Communications/ Navigation/ Surveillance and Meteorology Sub-Group of the Asia Pacific Air Navigation Planning and Implementation Regional Group	Jakarta, Indonesia	July 19 - 22, 2010
11.	13th Meeting of the Regional Airspace Safety Monitoring Advisory Group	Bangkok, Thailand	August 2 - 5, 2010
12.	9th Meeting of Automatic Dependent Surveillance-Broadcast Implementation Task Force	Jakarta, Indonesia	August 16 - 19, 2010
13.	3rd Meeting of the Asia Pacific Flight Plan and Air Traffic Services Messages Implementation Task Force	Bangkok, Thailand	August 23 - 24, 2010
14.	3rd Meeting of the Southeast Asia Route Review Task Force	Bangkok, Thailand	August 24 - 27, 2010
15.	Diplomatic Conference to adopt: 1) the Protocol to Amend the Convention for the Suppression of Unlawful Acts against the Safety of Civil Aviation (the Montreal Convention of 1971) as amended by the Protocol of 1988; and 2) the Protocol to Amend the Convention for the Suppression of Unlawful Seizure of Aircraft (the Hague Convention of 1970)	Beijing, China	August 30 - September 10, 2010
16.	7th Meeting of the Performance Based Navigation Task Force	Bangkok, Thailand	September 1 - 3, 2010
17.	21st Meeting of the Asia Pacific Air Navigation Planning and Implementation Regional Group	Bangkok, Thailand	September 6 - 10, 2010
18.	8th Working Group Meeting of Aeronautical Telecommunication Network Implementation Coordination Group Working Group	Christchurch, New Zealand	September 28 - October 1, 2010

附錄乙 (續)

	會議名稱	地點	日期
19.	國際民航組織大會第37屆會議	加拿大蒙特利爾	二零一零年九月二十八日至十月八日
20.	亞太地區民航局局長第47次會議	中國澳門	二零一零年十月二十五日至二十九日
21.	國際民航組織2010年危險品專家組工作組會議	阿拉伯聯合酋長國 阿布扎比	二零一零年十一月七日至十一日
22.	東南亞航道檢討專責小組第四次會議	泰國曼谷	二零一零年十一月二十二日至二十六日
23.	互助發展運作安全和持續適航計劃 東南亞區主導委員會第12次會議	菲律賓馬尼拉	二零一零年十二月二日至三日
24.	亞太地區航空交通流量管理主導小組第一次會議	日本東京	二零一零年十二月八日至十日
25.	2012年世界無線電通訊大會亞太地區電訊組織 會議籌備小組第四次會議	中國香港	二零一零年十二月十三日至十八日
26.	亞太地區飛行程序計劃主導委員會第二次會議	泰國曼谷	二零一零年十二月十五日至十六日
27.	亞太地區航行規劃和實施小組轄下通訊/導航/ 監察及氣象分組的氣象/航空交通管理專責 小組第二次會議	日本福岡	二零一一年一月二十七日至二十八日
28.	亞洲區航空安全小組第四次會議	泰國曼谷	二零一一年二月二十一日至二十四日
29.	廣播式自動相關監察系統東南亞分區實施 工作小組第六次會議	新加坡	二零一一年二月二十四日至二十五日
30.	東南亞區航空安全小組第12次會議	泰國曼谷	二零一一年二月二十五日
31.	航空情報服務 — 航空情報管理實施專責小組 第六次會議	泰國曼谷	二零一一年三月十五日至十七日
32.	航空保安專家組第22次會議	加拿大蒙特利爾	二零一一年三月二十一日至二十五日
33.	亞太地區航行規劃和實施小組轄下通訊/導航/ 監察及氣象分組的氣象諮詢及警告實施專責 小組第一次會議	泰國曼谷	二零一一年三月二十三日至二十五日
34.	新一代航空專業人才及培訓項目(TRAINAIR PLUS) 區域 會議	韓國仁川	二零一一年三月三十日至四月一日

Appendix B *(continued)*

	Name of Conference or Meeting	Venue	Dates
19.	37th Session of the ICAO Assembly	Montreal, Canada	September 28 - October 8, 2010
20.	47th Conference of Directors General of Civil Aviation, Asia and Pacific Regions	Macao, China	October 25 - 29, 2010
21.	ICAO Dangerous Goods Panel Working Group Meeting 2010	Abu Dhabi, United Arab Emirates	November 7 - 11, 2010
22.	4th Meeting of the Southeast Asia Route Review Task Force	Bangkok, Thailand	November 22 - 26, 2010
23.	12th Steering Committee Meeting of the Co-operative Development of Operational Safety and Continuing Airworthiness Programme - Southeast Asia,	Manila, Philippines	December 2 - 3, 2010
24.	1st Meeting of the Asia Pacific Air Traffic Flow Management Steering Group	Tokyo, Japan	December 8 - 10, 2010
25.	4th Asia Pacific Telecommunity Conference Preparatory Group Meeting for the World Radiocommunication Conference 2012	Hong Kong, China	December 13 - 18, 2010
26.	2nd Steering Committee Meeting of the Asia Pacific Flight Procedure Programme	Bangkok, Thailand	December 15 - 16, 2010
27.	2nd Meeting of Asia Pacific Meteorology / Air Traffic Management Task Force of the Communications/Navigation/Surveillance and Meteorology Sub-Group of the Asia Pacific Air Navigation Planning and Implementation Regional Group	Fukuoka, Japan	January 27 - 28, 2011
28.	4th Asia Regional Aviation Safety Team Meeting	Bangkok, Thailand	February 21 - 24, 2011
29.	6th Meeting of the Southeast Asia Sub-Regional Automatic Dependent Surveillance-Broadcast Implementation Working Group	Singapore	February 24 - 25, 2011
30.	12th Meeting of Southeast Asia Regional Aviation Safety Team	Bangkok, Thailand	February 25, 2011
31.	6th Meeting of the Aeronautical Information Services – Aeronautical Information Management Implementation Task Force	Bangkok, Thailand	March 15 - 17, 2011
32.	22nd Meeting of the Aviation Security Panel	Montreal, Canada	March 21 - 25, 2011
33.	1st Meeting of Asia Pacific Meteorological Advisories and Warnings Implementation Task Force of the Communications/Navigation/Surveillance and Meteorology Sub-Group of the Asia Pacific Air Navigation Planning and Implementation Regional Group	Bangkok, Thailand	March 23 - 25, 2011
34.	Next Generation of Aviation Professionals and TRAINAIR PLUS Regional Conference	Incheon, Republic of Korea	March 30 - April 1, 2011

民航處計劃
The Civil Aviation Department Project

行政長官在二零零六至零七年《施政綱領》提出，更換民航處航空交通管制(空管)系統，並在機場島興建民航處新總部，以鞏固香港在區域航空服務的領導地位，維持航空業的長遠發展。本處為落實這項綱領，展開上述計劃。

In order to reinforce Hong Kong's leading position in regional aviation services and sustain the long-term growth of the industry, the Chief Executive announced in the 2006-07 Policy Agenda an initiative to replace the air traffic control (ATC) system and develop a new CAD Headquarters on the Airport Island. The Civil Aviation Department Project (the CAD Project) was initiated to implement the commitment.

計劃目的為更換現有空管系統，以應付航空交通量預計的增長，並興建民航處新總部，以容納新空管中心及本處各專責分部在同一大樓辦公，從而善用資源和提升效率。

The CAD Project aims to replace the existing ATC system in order to handle the projected growth in air traffic while at the same time develop a new CAD Headquarters to accommodate the new ATC Centre and all CAD functional divisions under one roof to optimise resource utilisation and enhance efficiency.

興建民航處新總部

香港機場管理局董事會撥出位於港龍/中航大廈以北、東輝路兩旁，佔地共約29 800平方米的土地，用以興建本處新總部。

建築工程以「設計及建造」方式進行，優點在於初期地面工程和各階段的詳細內部設計工作可同步進行，從而加快工程進度。

Development of the New CAD Headquarters

A site north of the Dragonair House/CNAC Building on both sides of Tung Fai Road with a combined site area of approximately 29 800 m^2 was allocated by the Board of Directors of the Airport Authority Hong Kong (AAHK) for the construction of the new CAD Headquarters.

A design-and-build (D & B) approach is adopted for the construction of the new CAD Headquarters. Such an approach will have a merit by overlapping the initial ground works and detailed internal design stages, thus enhancing the efficiency of the construction programme.

新總部由三幅用地組成：東輝路以西的設施大樓(用地A)、東輝路以東的空管中心主大樓和辦公及培訓主大樓(用地B)，以及空管中心大樓以北的天線設備區。

The new headquarters will comprise three sites: the Facilities Building will be located to the west of Tung Fai Road (Site-A), the ATCC Building and the Office and Training Building will be located to the east of Tung Fai Road (Site-B), and the Antenna Farm will be located to the north of the ATCC Building.

新總部的建築樓面面積約為65 000平方米，淨作業樓面面積約為22 660平方米，其中約11 000平方米會用作新空管中心及相關設施；3 300平方米用作行政及規管辦公室；8 400平方米用作其他設施。新設施包括中央考試中心、飛機意外調查設施、多用途會議廳、教育徑及圖書館暨資源中心。

The new CAD Headquarters will have a construction floor area in the order of 65 000 m^2 providing a total net floor area of approximately 22 660 m^2. Of the 22 660 m^2, about 11 000 m^2 will be assigned for the new Air Traffic Control centre (ATCC) and its associated facilities, 3 300 m^2 for administration and regulatory offices and 8 400 m^2 for other facilities. New facilities will include centralised examination centre, aircraft accident investigation facilities, multi-purpose auditorium, education path and a library-cum-resource centre.

本處以可持續發展、環保及教育為新總部主要設計主題。各個分部集中於同一地點辦公，可精簡行政文書支援，提高生產力。大樓設計有足夠空間和彈性，供日後擴展，這對應付業界服務需求的長遠增長非常重要。

Sustainability, environmental friendliness, and educational are the main design themes. The co-location of the various divisions will enhance productivity by streamlining administration and clerical support. Adequate space and flexibility for future expansion which are vital to sustain the long-term growth in service demand from the industry are also incorporated into the building design.

新總部達到香港建築環境評估法的最高環保驗證標準，即白金級別，設有多項環保設施/裝置。總部北端天線區會有大片草地，廣種植物，再加上設施大樓地下及一至三樓會栽種茂密草木，新總部地面及樓頂的綠化面積皆超過三成。民航處新總部將會是香港綠化程度最高的建築物之一。

Under the Building Environmental Assessment Method in Hong Kong (HKBEAM), the new headquarters will be certified with the highest platinum rating. It will have environmental-friendly facilities/installations. The large area of lawn and plants at the Antenna Farm on the north end of the site and the lush vegetation on the ground and around level 1 to 3 of the Facilities Building will provide a total of over 30% site area landscaped on ground level and over 30% planted area on the roof. The New CAD Headquarters will be one of the "greenest" building premises in Hong Kong.

民航處計劃 The Civil Aviation Department Project

培訓設施方面，新總部設有演講室、工作室、考試室、多用途會議廳、會議室，可支援各式各樣的會議、研討會及培訓課程。此外，教育徑內有導賞展覽廳、空管中心展覽廊及機場看台，專為提高公眾對航空的興趣而設。圖書館暨資源中心亦可讓民航處與業界伙伴和其他政府機構交流資訊及資源。

With training facilities such as lecture rooms, workshops, examination rooms, multi-purpose auditorium and conference rooms, the new headquarters will be able to support a wide range of conferences, seminars and training courses. An education path consisting of a tour presentation and exhibition area, the ATCC viewing gallery, and an airport viewing deck is specially designed to promote aviation interest among the general public. The library-cum-resource centre will also allow CAD to share information and resources with the industry partners and government counterparts.

計劃進展

Project Progress

計劃雖然規模龐大兼且複雜，但得到民航處全體人員和決策局全力支持，再加上督導委員會領導有方，工作組又同心協力，計劃進展順利平穩。

With the full support from the entire department and the policy bureau and through the capable steer of the Steering Committee and the concerted effort of the Project Team, the project had been making steady progress despite its scale and complexity.

二零零九年五月二十日，香港寶嘉有限公司獲批「設計及建造」合約，並於同日接收工地。建築署、民航處及承建商其後並肩合作，草擬大樓的建築設計圖則並落實定稿。地盤工程如期進行，並於二零零九年十一月二十七日舉行新總部奠基典禮。

The D & B contract was awarded to Dragages Hong Kong Limited on May 20, 2009, and the site was taken over by the contractor on the same day. Thereafter, effective coordination was maintained among Architectural Services Department, Civil Aviation Department and the contractor to prepare and finalise the preliminary architectural layout plan for the building. On-site works had also proceeded as scheduled and the foundation stone laying ceremony was held on November 27, 2009.

各屋宇裝備、空管系統電纜，以及行人和維修通道的橋接於二零一零年十一月二十六日晚上裝設。新總部大樓上蓋工程於二零一一年一月完成，而大樓的幕牆、內部裝修和屋宇裝備工程正全速進行。

The bridge connection, fitting all the building services, ATC systems cabling as well as the pedestrian and maintenance passageways, was erected at the night on November 26, 2010. And the superstructure of the new headquarters was completed in January 2011, and works on the curtain wall system, internal fitting out, and building services were at full steam.

根據建築時間表，整座新總部會在二零一二年第三季落成。至於空管中心大樓及相關設施，二零一二年第一季便可供安裝和測試新空管系統，以及培訓相關人員。新空管中心預計在二零一三年年底前啓用。

According to the construction schedule, the entire new headquarters will be completed in the third quarter of 2012. For the ATCC building and related facilities, they will be ready in the first quarter of 2012 for the installation and testing of the replacement ATC systems and training of staff concerned. The new ATCC is planned to be commissioned by end 2013.

更換空管系統

Replacement of ATC System

新空管系統共涉及14個主要系統、三個訓練設施和各種輔助部件及支援系統。新系統屬於最先進系統，安全功能和運作效率都會提高。設計方面亦同時兼顧系統擴展、互通能力、人類工程學、安全管理和環保等不同範疇。新系統能夠處理預期直至二零二五年在香港飛行情報區內的航班流量。

The replacement ATC system involves a total of 14 major systems, three training facilities and various ancillary components and sub-systems. When commissioned, the new system will be one of the most advanced systems with enhanced safety features and operational efficiency. System expandability, inter-operability, ergonomics, safety management and environmental issues were also taken into consideration in the design. It will be able to handle the projected traffic movements operating in the Hong Kong Flight Information Region up to year 2025.

年內，新系統採購工作與新總部興建工程同步進行。二零一零年一月，控制塔模擬機首份合約批出。本處現正評審航空交通管理系統及主幹網絡標書，其餘項目會在二零一零至一一年度分階段招標。

During the year, the procurement of new systems was progressing simultaneously with the construction of the new CAD Headquarters. The first contract for the Control Tower Simulator was awarded in January 2010. In the meantime, the tender bids for the Air Traffic Management System and Communications Backbone were being evaluated. The rest of the tenders would be rolled out in phases in 2010-2011.

財務 Finance

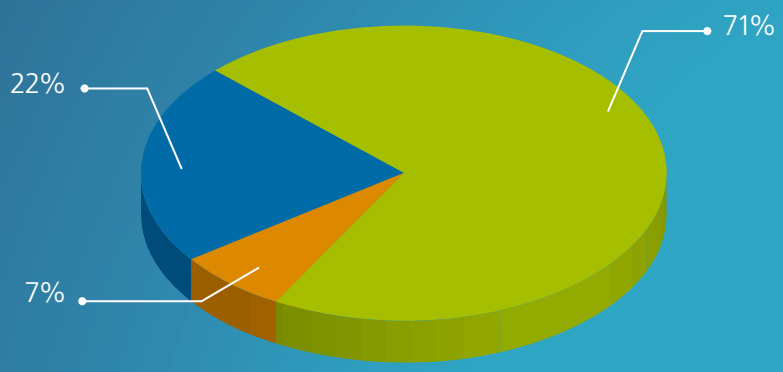
本處收入與開支

本處收入主要源自提供航空交通服務、過境導航服務及簽發牌照予本地航空公司、空勤人員、飛機維修機構、飛機工程師及香港國際機場。二零一零年至二零一一年度，本處的總收入達9.33億元，同期總經營支出(包括政府其他部門提供服務的成本)為10.10億元。年內資本開支達1.35億元，主要項目包括衞星通訊、導航及監察/航空交通管理系統，以及更換航空交通管制系統。本處向來謹慎理財及在精簡的架構下仍維持有效率的運作。

DEPARTMENTAL REVENUE AND EXPENDITURE

The revenue of the Department is mainly derived from the provision of air traffic services, en-route navigation services and licensing of local airlines, aircrews, maintenance organisations, aeronautical engineers and the Hong Kong International Airport. Total revenue in 2010-2011 amounted to $933 million. Total operating expenditure including costs of services provided by other government departments for the same period amounted to $1,010 million. Capital expenditure during the year amounted to $135 million, and major items included Satellite-based Communications, Navigation and Surveillance/Air Traffic Management Systems and Replacement of Air Traffic Control System. The Department exercises prudence in financial management and operates in a lean but efficient manner.

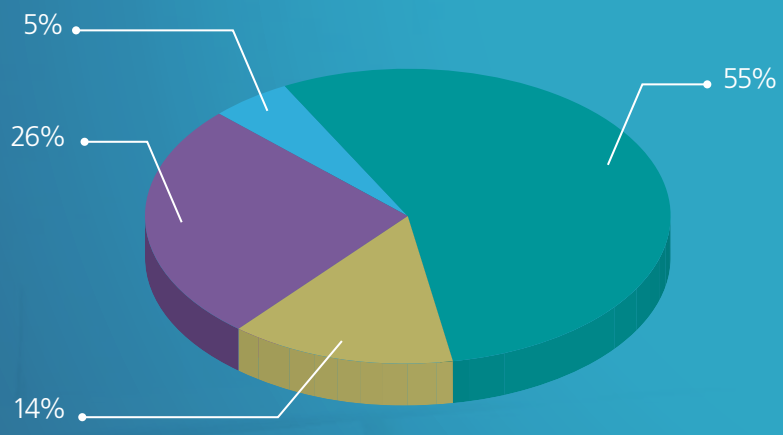
收入分析 Analysis of Revenue (2010-2011)



百萬元$(M)

航空交通 Air Traffic Services	666
過境導航 En-route Navigation Services	201
牌照及其他收費 Licences and Other Fees	66
	933

開支分析 Analysis of Expenditure (2010-2011)



百萬元$(M)

員工支出 Staff	556
經營及行政支出 General Expenses	265
折舊 Depreciation	140
維修 Maintenance	49
	1,010

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