香港民航處
Civil Aviation Department Hong Kong

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香港民航處 Civil Aviation Department Hong Kong

二零一一年至二零一二年年度報告 2011-2012 Annual Report

民航處
CIVIL AVIATION DEPARTMENT

Annual Report 2011-2012
年度報告

致力保障航空安全
Maintaining Safety in Aviation

我們的理想
Our Vision

致力於安全、有效率及可持續發展的航空運輸系統

Committed to a Safe, Efficient and Sustainable 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

- 安全可靠
- 快捷高效
- 嚴守標準
- 專業誠信
- 團隊精神
- 持續發展

- Safety and security
- Efficiency and effectiveness
- Compliance with standards
- Professionalism and integrity
- Teamwork
- Sustainable development

目錄 Content

處長報告
Director-General's Review

羅崇文太平紳士, AE,
Médaille de l'Aéronautique
民航處處長

Mr Norman Shung-man LO, JP, AE,
Médaille de l'Aéronautique
Director-General of Civil Aviation

二零一一/一二年度，民航處各項工作進展理想，成績令人鼓舞。本處人員一如既往，盡忠職守，繼續為公眾和航空業界，提供優質高效的服務。

I am pleased to report that the Civil Aviation Department (CAD) has made encouraging progress in various areas in the year 2011/12, with our dedicated staff continuing to provide efficient and quality services to the public and the aviation community.

年內，香港國際機場雙跑道每小時的運作容量，由二零一一年三月的61班，遞增至二零一二年三月的63班。最令人振奮的是，香港國際機場於年內有三項民航交通指標均刷新紀錄。本處負責航空交通管制的同事，於二零一二年一月二十日共處理航班升降1 057架次，刷新單日航班升降數目的最高紀錄。此外，本處年內處理的航班升降量多達339 133架次，客運量高達5 390萬人次。兩者均屬新高，與上一年度比較，增幅皆為7%左右。不過，由於環球經濟氣候不明朗，全年貨運量下跌6%，減至390萬公噸，但航空貨運市場在下半年度已見復蘇跡象。

有鑑於航空運輸服務需求日增，我們藉一連串改善空域和航空交通管理系統的措施，致力提高運作效率。本處繼續與國家民用航空局和澳門民航局攜手合作，改善珠江三角洲地區的空域管理。經過三方共同努力，珠海終端區空域調整方案於二零一一年四月七日順利實施。同年九月二十二日，在香港與廣州空域之間增設一個新的空管移交點，名為「LANDA」。這些加強空域管理和改善航線的措施，大大精簡了香港國際機場範圍的空管處理流程。

During the year, the declared hourly capacity for dual runway operations at the Hong Kong International Airport (HKIA) had progressively increased from 61 aircraft movements in March 2011 to 63 in March 2012. It was most gratifying to learn that new records in three categories of traffic figures were attained at the HKIA. A total of 1 057 flight movements were handled by our Air Traffic Control (ATC) colleagues at the HKIA on January 20, 2012, setting yet another new record of flight movements on a single day. During the report year, the CAD handled a total of 339 133 aircraft movements with passenger throughput reaching 53.9 million - both being new records, representing an increase of about 7% as compared with those of the previous year. Owing to the uncertainties of the global economy, our annual cargo throughput had dropped by 6% to 3.9 million tonnes. There were however encouraging signs of recovery in the air cargo market towards the latter part of the report period.

In view of the increasing demand for air transport services, we endeavored to improve our operational efficiency through a series of enhancement to the airspace and air traffic management system. The Department continued to work hand-in-hand with the Civil Aviation Administration of China and the Macao Civil Aviation Authority to improve airspace management in the Pearl River Delta region. With concerted efforts by all parties concerned, the revised Zhuhai Terminal Area and a new ATC handover point, LANDA, between Hong Kong and Guangzhou airspace were successfully implemented on April 7 and September 22, 2011 respectively. These airspace and route improvement measures had significantly reduced the complexity of ATC handling in the vicinity of the HKIA.

此外，我們於二零一一年四月七日順利重組香港南面飛行情報區空域及相關航線。重組範圍包括增設一個中部區域雷達管制扇區，以減輕其他管制扇區的工作量；增設新航線，把過境與抵港航機分流；以及增設新的等待空域，讓抵港航機的序列更有效率，並提高管理交通流量的整體能力。相關空域和航線重組後，香港飛行情報區空域內的運作安全防禦機制更為穩健。

Besides, we successfully restructured the southern Hong Kong Flight Information Region and the associated air routes on April 7, 2011. Changes included the establishment of a new area radar control sector to alleviate the workload of other control positions, implementation of new air routes to segregate overflying traffic from arrivals to Hong Kong, and the establishment of additional holding patterns that enabled more efficient arrival sequencing and improved overall capability on air traffic flow management. The airspace and route restructuring had resulted in a more robust operational safety defence mechanism within the Hong Kong Flight Information Region.

本地航空公司的擴展計劃，促進航空業不斷發展。年內，本地航空公司紛紛擴充機隊，香港民用航空器登記冊共新增29架航空器。香港航空公務機管理有限公司於二零一一年十一月獲本處簽發航空運輸企業經營許可證後，本地持有航空經營許可證的公司增至十家。

The growth of the industry was underpinned by the expansion plans of the local airlines. During the year, the local airlines expanded their fleets with a total of 29 aircraft added to the Hong Kong Civil Aircraft Register. Hong Kong Airlines Corporate Jet Management Limited was issued an Air Operator's Certificate (AOC) in November 2011 making the total number of Hong Kong AOC holders to ten.

為使航班時刻分配的工作更具成效，我們於二零一一年七月推出網上協調系統。該系統為航空公司提供實時航班時刻資料，已登記的使用者可即時申請、更改和查看航班時刻。

To facilitate effective processing of slot allocations, an Online Coordination System was launched in July 2011 to provide real time information on runway slot availability to aircraft operators and enabled registered users to add, edit and view slot allocations.

興建民航處新總部和更換航空交通管制系統的計劃進度良好。新總部大樓主體工程於二零一一年一月完成，平頂儀式於同年七月十一日舉行。整座新總部預計會在二零一二年第三季落成。

The construction of the new CAD Headquarters and the replacement of ATC systems were making good progress. The superstructure of the new headquarters was completed in January 2011 and the topping-out ceremony was held on July 11, 2011. The new headquarters is expected to be completed by the third quarter of 2012.

至於更換航空交通管制系統的計劃，15個主要系統的合約已全部批出，各個系統並於二零一二年一月開始在民航處新總部大樓安裝。新空管中心預計在二零一四年啓用。

On the ATC systems replacement project, contracts for all 15 major systems have been awarded and the installation of ATC systems in the new CAD Headquarters commenced in January 2012. The new ATCC is planned to be commissioned for operational use in 2014.

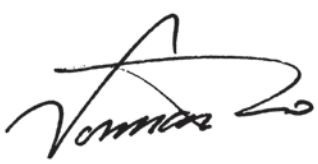
年內，本處全體同事與業界伙伴緊密合作，協力維持並提升航空系統的安全標準。各位同事和業界人士鼎力支持，推動航空服務維持最高水準，本人謹此衷心感謝。

Throughout the year, CAD colleagues have been working in close collaboration with our industry partners in ensuring and enhancing safety standards of our aviation system. I would like to express my heartfelt appreciation to all aviation personnel for their unfailing support and contribution to maintain the highest standard of aviation services in Hong Kong.

民航處遷至新總部後，可集中在同一地點為業界提供周全的服務，各項嶄新設施亦象徵本處銳意支持香港民航業持續發展。除了善用資源和提升運作效率外，我們更可為業界和公眾提供更完善的服務。民航處將與業界衷誠合作，進一步鞏固香港作為區域和國際航空中心的地位。

Upon relocation to the new CAD Headquarters, we will be able to provide one-stop services to our industry partners. Our new facilities also symbolise our commitment to support the sustainable development of civil aviation in Hong Kong. Apart from optimised resource utilisation and enhancement in operational efficiency, we will be able to provide more efficient services to the industry and the general public. Together with our industry partners, we will further consolidate Hong Kong's position as a major regional and international aviation centre.

民航處處長
羅崇文



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

圖片攝於民航處新總部大樓。
The photo was taken at the new CAD Headquarters.

1. 部門秘書
Departmental Secretary
周禮強先生
Mr Albert Lai-keung CHOW

2. 助理處長 (航空交通管理)
Assistant Director-General
(Air Traffic Management)
王炳輝太平紳士
Mr Ping-fai WONG, JP

3. 民航處副處長
Deputy Director-General of Civil Aviation
梁汝強太平紳士
Mr Yu-keung LEUNG, JP

4. 助理處長 (航班事務)
Assistant Director-General (Air Services)
林偉珊女士
Miss Priscilla Wai-shan LAM

5. 民航處處長
Director-General of Civil Aviation
羅崇文太平紳士, AE
Mr Norman Shung-man LO, JP, AE

6. 總庫務會計師
Chief Treasury Accountant
張吳曼娥女士
Mrs Helen Man-ngo CHEUNG NG

7. 助理處長 (計劃)
Assistant Director-General (Project)
譚禮漢太平紳士
Mr Anthony Lai-hon TAM, JP

8. 助理處長 (機場標準)
Assistant Director-General (Airport Standards)
伍崇正太平紳士
Mr Colman Shung-ching NG, JP

9. 助理處長 (飛行標準)
Assistant Director-General (Flight Standards)
廖志勇機長
Captain Victor Chi-yung LIU

10. 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 Tin-chui LI

組織圖
Organisation Chart

民航處處長
Director-General of Civil Aviation

羅崇文太平紳士, AE, Médaille de l'Aéronautique
Mr Norman Shung-man LO, JP, AE, Médaille de l'Aéronautique

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

梁汝強太平紳士
Mr Yu-keung LEUNG, JP

航班事務部
Air Services Division

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

林偉珊女士
Miss Priscilla Wai-shan LAM

飛行標準及適航部
Flight Standards and Airworthiness Division

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

廖志勇機長
Captain Victor Chi-yung LIU

機場安全標準部
Airport Standards Division

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

伍崇正太平紳士
Mr Colman Shung-ching NG, JP

航空交通管理部
Air Traffic Management Division

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

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

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 Tin-chui LI

民航處新總部計劃組
CAD Project Team

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

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Mr Anthony Lai-hon TAM, JP

財務部
Finance Division

總庫務會計師
Chief Treasury Accountant

張吳曼娥女士
Mrs Helen Man-ngo CHEUNG NG

行政部
Administration Division

部門秘書
Departmental Secretary

周禮強先生
Mr Albert Lai-keung CHOW

*** 意外調查部 Accident Investigation Division**
副總意外調查主任 Deputy Chief Inspector of Accidents

意外調查

* 民航處處長亦是總意外調查主任。意外調查部只在有需要時才運作，屆時會從其他分部抽調經特別訓練人員作支援。

Accident Investigation

* The Director-General of Civil Aviation is also Chief Inspector of Accidents. The Accident Investigation Division is mobilised only when required by drawing specially trained staff from other Divisions.

大事紀要
Calendar of Events

2011

四月七日
April 7

重組香港南面飛行情報區的空域結構。

New airspace structure in the southern part of the Hong Kong Flight Information Region (HKFIR) implemented.

七月十一日
July 11

舉行民航處新總部大樓平頂儀式。

The Topping-out Ceremony of the new CAD Headquarters was held.

九月十六日
September 16

批出航空交通服務數據管理系統合約。

The contract of Air Traffic Services Data Management System was awarded.

九月二十二日
September 22

香港與廣州飛行情報區之間增設一個新移交點。

New air traffic control handover point between Hong Kong and Guangzhou Flight Information Regions was implemented.

九月二十八日
September 28

批准港龍航空有限公司和牛津航空學院開辦多機組飛行員執照(飛機)的第一階段試驗培訓課程，對象為港龍航空的飛行學員。這個訓練課程根據國際民航組織最新的發牌制度和着重才能的訓練概念而制訂。

Approval was granted to Hong Kong Dragon Airlines and Oxford Aviation Academy to conduct the first phase of a Trial Multi-crew Pilots Licence (Aeroplanes) Course for the airline's cadet pilots. The course was developed based on the ICAO new licensing regime and competency based training concept.

十月十日
October 10

參與亞洲和太平洋地區第一次「亞太地區區域航空安全小組」會議。197名與會者來自33個國家或地區，在會上共同促進協調區內安全監察事宜。

Participated in the first meeting of the Regional Aviation Safety Group - Asia and Pacific Region with 197 participants from 33 states/ administrations to promote better coordination on safety oversight matters in the region.

十月二十六日
October 26

香港國際機場推出抵港航班容量通報計劃。

A Capacity Notification Scheme for flights arriving at the Hong Kong International Airport (HKIA) was launched.

十月三十日
October 30

香港國際機場雙跑道運作容量增至每小時62班。

The declared runway capacity for dual runway operations at the HKIA increased to 62 movements per hour.

十月三十一日
October 31

批出技術支援及附屬系統合約。

The contract of Ancillary and Technical Support Systems was awarded.

十一月四日
November 4

簽發航空運輸企業經營許可證予香港航空公務機管理有限公司。

Issued an Air Operator's Certificate to Hong Kong Airlines Corporate Jet Management Limited.

十二月九日
December 9

批出航空資訊管理系統合約。

The contract of Aeronautical Information Management System was awarded.

大事紀要
Calendar of Events

一月九日
January 9

在民航處新總部大樓展開安裝新一代航空交通管制系統的工作。

Installation of new generation of air traffic control system in the new CAD Headquarters commenced.

一月十三日
January 13

批出航空訊息轉送系統合約。

The contract of Aeronautical Messaging System was awarded.

一月二十日
January 20

單日航班升降數目高達1 057架次，刷新香港國際機場的最高紀錄。當日是農曆十二月廿七日，是春節假期前夕。

On the Friday before the Chinese New Year, a total of 1 057 flights were handled at the HKIA, setting a new daily record.

一月二十七日
January 27

批准本地公務機航空公司使用Flight Safety Training International於香港新設置的灣流G550飛行模擬器，培訓和考核飛行員。

Approved Hong Kong business jet operators to use Flight Safety Training International's newly installed Gulfstream G550 simulator in Hong Kong for flight crew training and testing.

2012

二月九日
February 9

香港國際機場實施性能導航固定半徑轉向噪音消減標準儀表離場程序。

New performance-based navigation noise mitigating standard instrument departure procedures utilising radius-to-fix turn implemented at the HKIA.

三月二十五日
March 25

香港國際機場雙跑道運作容量增至每小時63班。

The declared runway capacity for dual runway operations at the HKIA increased to 63 movements per hour.

航空交通統計
Air Traffic Statistics

過往五年國際民航交通概況
Five-Year Civil International Air Traffic

(二零零七年四月至二零一二年三月) (April 2007 – March 2012)

財政年度 Fiscal Year	飛機升降次數 Aircraft Movement: 升降次數 Movement	飛機升降次數 Aircraft Movement: 升跌百分比 % Change	乘客 Passenger: 人次 Number	乘客 Passenger: 升跌百分比 % Change	商業貨物 Commercial Cargo: 公噸 Tonnes	商業貨物 Commercial Cargo: 升跌百分比 % Change
2007-2008	299 609	6%	47 433 535	8%	3 809 177	7%
2008-2009	296 179	-1%	46 328 005	-2%	3 426 614	-10%
2009-2010	280 221	-5%	45 764 431	-1%	3 576 923	4%
2010-2011	316 354	13%	50 298 535	10%	4 167 549	17%
2011-2012	**339 133**	**7%**	**53 859 537**	**7%**	**3 923 295**	**-6%**

過往五年航空交通管理部處理的航班總數
Five-Year Total Flights Handled by the Air Traffic Management Division

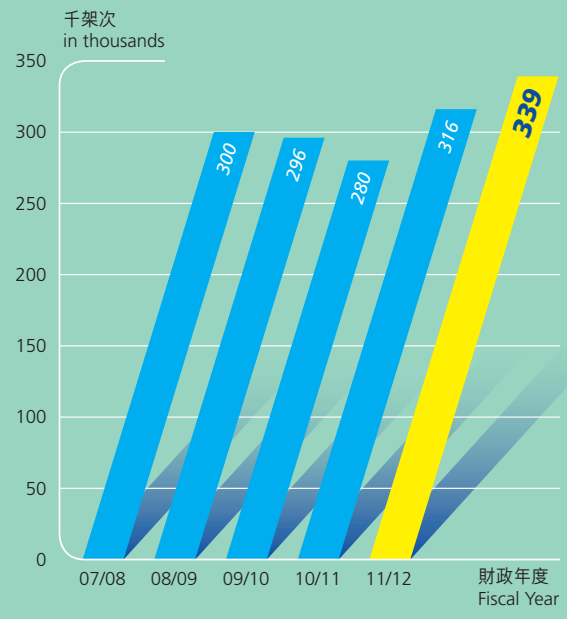
(二零零七年四月至二零一二年三月) (April 2007 – March 2012)

財政年度 Fiscal Year	航班總數* Flights Handled*	升跌百分比(比上年) % Change (from last year)
2007-2008	461 693	5%
2008-2009	445 089	-4%
2009-2010	427 181	-4%
2010-2011	485 153	14%
2011-2012	**531 438**	**10%**

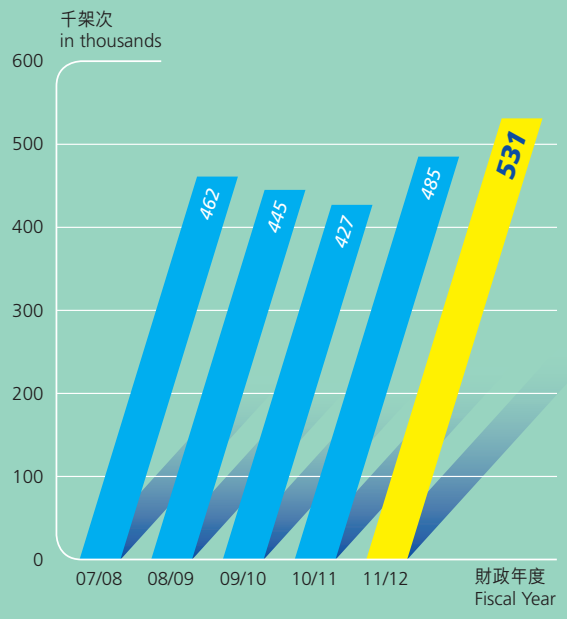
* 「航班總數」乃由香港民航處航空交通管理部每年所處理的班機數目。其中包括：
(1) 在香港國際機場升降的國際及本地航班；
(2) 所有飛越香港飛行情報區而不在本港升降的航班；及
(3) 由航空交通管理部處理進出澳門國際機場的航班。

* [Flights Handled] is the total number of aircraft handled by the Air Traffic Management Division of the 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; and
(3) flights landing and departing the Macao International Airport handled by the Air Traffic Management Division.

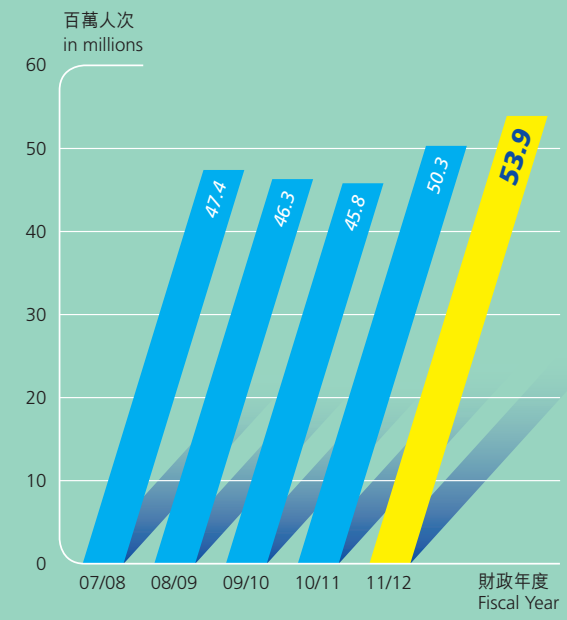
香港國際機場過往五年航機升降次數
Five-Year Aircraft Movement at the Hong Kong International Airport



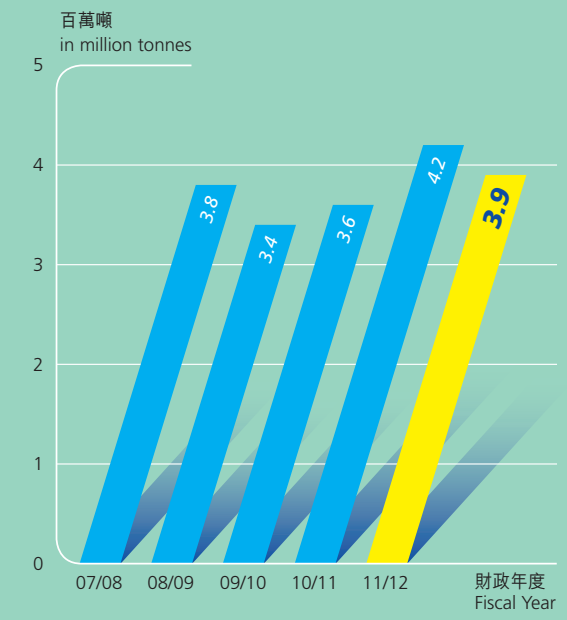
過往五年航空交通管理部處理的航班總數
Five-Year Total Flights Handled by the Air Traffic Management Division



香港國際機場過往五年客運量
Five-Year Passenger Traffic at the Hong Kong International Airport



香港國際機場過往五年貨運量
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，航空電訊服務，以及搜索和救援服務。

The Air Traffic Management Division (ATMD) is responsible for the provision of air navigation services, including air traffic services, communications, navigation, surveillance (CNS) services, aeronautical telecommunication services and search and rescue services within the Hong Kong Flight Information Region (HKFIR) as assigned by the ICAO.

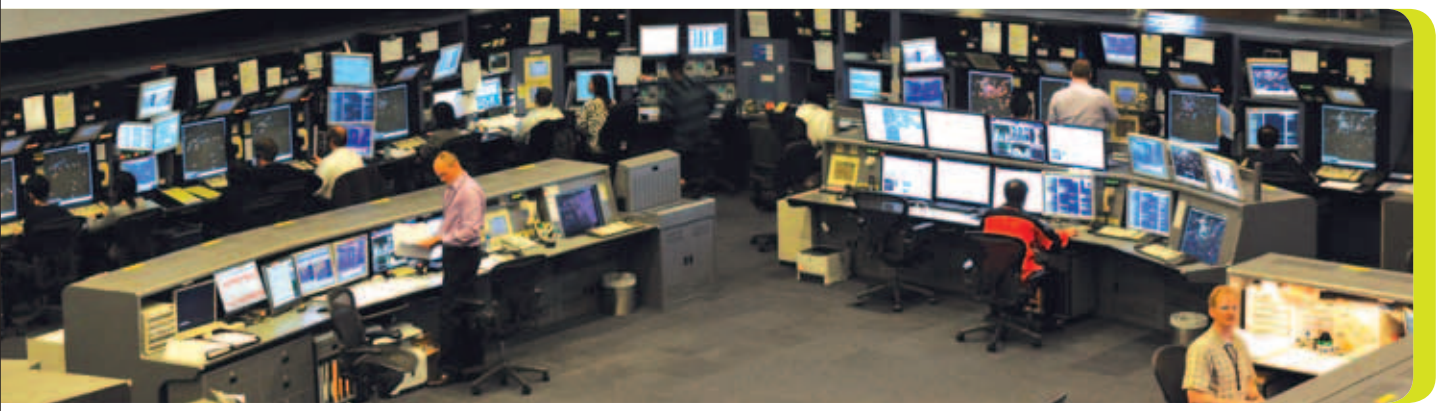
航空交通管理
Air Traffic Management

航空交通運作

本財政年度內，航空交通管理部處理了339 481架次在香港國際機場升降的國際及本地航班，並為190 458架次飛越香港飛行情報區的航班（當中包括39 797架次進出澳門國際機場的航班），提供航空交通管制（空管）服務。與上一年度比較，在香港國際機場升降的航班數目顯著增加6.8%，而飛越香港的航班數目亦大幅增加13.85%。

AIR TRAFFIC OPERATIONS

During the financial year, ATMD handled 339 481 international and local aircraft movements at the HKIA. In addition, the Division handled 190 458 flights overflying the HKFIR (including 39 797 flights into and out of the Macao International Airport). Compared with the previous year, the number of aircraft movements at the HKIA and overflights increased at a phenomenal rate of 6.8% and 13.85% respectively.



航空交通管制中心。
Air Traffic Control Centre.

跑道升降容量

隨着空域和航空交通管理改善措施的推行，香港國際機場雙跑道每小時的運作容量，由二零一一年三月的61班遞增至二零一一年十月的62班，在二零一二年三月再遞增至63班。香港國際機場更於二零一二年一月二十日錄得1 057架次航班升降，刷新單日航班升降數目的最高紀錄。

Runway Capacity

With the introduction of enhancement measures in airspace and air traffic management, the declared capacity per hour for dual runway operations at the HKIA progressively increased from 61 movements in March 2011 to 62 movements in October 2011, and 63 movements in March 2012. 1 057 movements were handled at the HKIA on January 20, 2012, setting a new daily flight movement record.

航空交通管制主任執照考試和覆核

為維持高水準的空管運作，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。年內，就塔台管制、進場管制和區域管制三個空管組別進行的考試共有188次。此外，本部亦向經考核及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、搜索和救援（搜救）證書和流量管制證書。

Annual Examinations and Revalidations of Air Traffic Control Officer Ratings

To maintain a high standard in air traffic control (ATC) operations, the Training and Safety Section of ATMD carried out annual practical examinations on ATC ratings held by Air Traffic Control Officers (ATCOs). In the year, a total of 188 practical examinations were conducted in the three ATC streams – Aerodrome Control, Approach Control and Area Control. In addition, ATMD also issued Assistant Controller Certificates, ATC Meteorological Reporter Certificates, Instructor Certificates, Search and Rescue Certificates and Flow Control Certificates to officers who had attained their respective qualifications.

招聘和培訓空管人員

招聘和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人手需求，空管人員的招聘和培訓工作必須審慎規劃，嚴謹管理。由於本地就業市場欠缺具備所需資歷的空管主任，一般而言，民航處會招聘見習航空交通管制主任（見習空管主任），經過專門培訓後，再擢升成為空管主任。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。經初步選出的申請人會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全面取得專業資格，必須接受嚴格訓練，過程周密。培訓計劃各階段的訓練單元必須周詳規劃，確保見習空管主任的表現可達到既定的進展基準。為符合簽發空管主任執照的要求，各訓練單元內容均包括課堂學習，以及利用空管雷達模擬器或控制塔模擬機進行的模擬訓練。只有通過這兩階段訓練的考核，受訓人員才可在合資格的導師督導下，處理「實況」航空交通，熟習所需技能。受訓人員須再通過另一次最終的「實況」考核，才准獨立工作。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。

RECRUITMENT AND TRAINING OF ATC STAFF

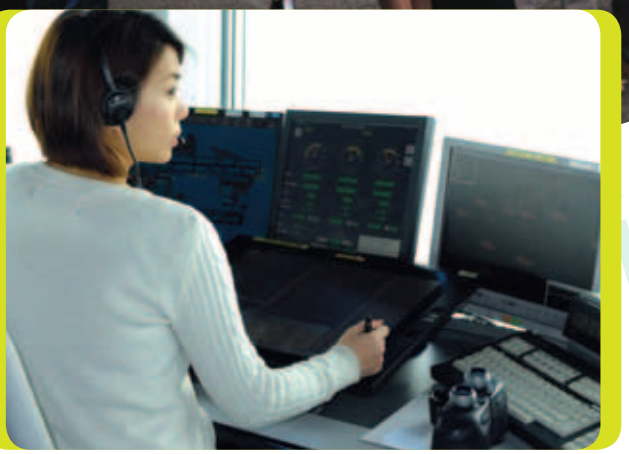
Recruitment and Training of Student Air Traffic Control Officers

The recruitment and training of ATC staff has to be carefully planned and managed to meet anticipated air traffic growth and manpower needs. As qualified ATCOs are not readily available in the local job market, ATCOs are normally recruited as Student Air Traffic Control Officers (SATCOs) to receive specialised training for progression to ATCOs. Suitable candidates will go through a series of screening steps - written aptitude test, occupational personality quiz and interview. 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 professional qualifications. The training programme is a comprehensive process requiring carefully staged training modules to match the established performance development benchmarks. To fulfil ATCO licensing requirements, each module involves classroom lectures and practical training in the ATC Radar Simulator or Aerodrome Simulator. Only when trainees have passed these two training stages can they progress on to handle "live" traffic under the guidance of qualified on the job training instructors to consolidate the necessary skills. After passing the final validation check, the officer will then be allowed to operate independently. The training of a SATCO to become a fully qualified controller at the rank of ATCO II normally takes around five years.

航空交通管理部在香港飛行情報區內，提供航空導航服務。
ATMD is responsible for the provision of air navigation services in the HKFIR.

本部同事在航空交通控制塔模擬機接受訓練。
Divisional staff receiving training at the Air Traffic Control Tower Simulator.

見習空管主任到海外接受飛行訓練。
SATCOs attended flying training overseas.



一名空管主任在航空交通控制塔當值。
An ATCO staff working at the Air Traffic Control Tower.

年內，有24名見習空管主任到海外修讀基本空管課程和接受飛行訓練。海外培訓旨在增進受訓人員對空管程序、氣象、雷達操作、飛行原理等方面的航空知識，以及促進個人發展，擴闊他們對空管運作的閱歷。

為加深公眾和求職人士對空管行業的認識，年內，民航處舉辦就業講座，並定期安排學生參觀本處的設施。

截至二零一二年三月三十一日，空管主任的編制有279人，航空交通事務員則有107人。

其他職級的空管培訓

提供空管培訓是航空交通管理部的重點任務之一。本部在年內持續舉辦多項培訓課程及在職培訓。

Within the year, 24 SATCOs attended basic ATC courses and flying training overseas. The overseas training is to enhance their aviation knowledge in ATC procedures, meteorology, radar operations, principles of flight, and facilitate personal development as well as broaden exposure to various aspects of ATC operations.

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

As at March 31, 2012, the Air Traffic Control Officer and Air Traffic Flight Services Officer establishment numbered at 279 and 107 respectively.

ATC Training for Other Ranks

Provision of ATC training is one of the major tasks of ATMD. Training courses and on-the-job training activities were conducted intensively throughout the year.

年內，本部舉辦了43項空管培訓課程，受訓人員從中取得多項專業資格，獲發42項空管執照；又為76名在職進場管制主任及73名區域管制主任舉辦雷達管制複修課程，以確保他們在面對突發情況時，例如航機遇到惡劣天氣或其他緊急事故等，都能應付裕如。此外，本部亦挑選了多名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、安全審計、飛行程序設計、教學技巧及人力資源管理等方面的培訓，開拓他們的眼界，使他們勝任更專門的職務，以及承擔管理和督導責任。

During the year, 43 ATC training courses were conducted, leading to the issuance of 42 ATC ratings and the attainment of various professional ATC qualifications. Radar control refresher training courses were conducted for 76 Approach Control and 73 Area Control controllers respectively. The refresher training aims to ensure controllers' competency in responding to unusual circumstances, such as poor weather operations and aircraft emergencies. In addition, senior ATCOs were selected 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, etc. to broaden their horizon, and enable them to undertake more specialised duties as well as taking on management and supervisory responsibilities.

其他培訓

Other Training Offered

除了安排內部空管培訓課程外，本部亦與香港民航訓練中心定期合辦航空交通管理概論課程，讓業界伙伴和市民更深入了解空管工作。課程舉辦經年，一直深受歡迎。

Apart from the programmed in-house ATC training courses, ATMD also conducted an Air Traffic Management Introductory Course in conjunction with the Hong Kong 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.

新的空管程序

NEW ATC PROCEDURES

實施性能導航固定半徑轉向噪音消減標準儀表離場程序

Implementation of Performance-Based Navigation (PBN) Noise Mitigating Standard Instrument Departure (SID) Procedure Utilising Radius-to-Fix (RF) Turn

為改善飛機於07號跑道起飛後飛行路線的準確度和縮小飛機噪音影響的範圍，香港國際機場於二零一二年二月九日，在PORPA及ROVER轉向點實施新的性能導航固定半徑轉向噪音消減標準儀表離場程序。新離場程序運用現代飛機內置的先進導航設備，確保飛行精準。飛機在使用其他離場程序時，轉向航迹會受風向影響而出現偏差。若飛機使用新離場程序轉向，即以固定的半徑轉向，則在不同風向下亦能飛出一致、準確度極高的航迹。因此，新離場程序可縮小飛機噪音影響的範圍，減低航道附近民居受到的整體噪音滋擾。

To improve flight track keeping accuracy and reduce the noise footprint of aircraft departing from Runway 07, new PBN noise mitigating SID procedures utilising RF turn at turn points PORPA and ROVER were successfully implemented on February 9, 2012. The new SID procedures make use of state-of-the-art on-board equipment of modern aircraft to achieve accurate navigation. Whilst the flight paths of aircraft using other departure procedures may vary over the turn points under different wind conditions, aircraft utilising the RF SIDs would turn with a fix radius, thereby achieving accurate flight paths consistently irrespective of ambient wind conditions. As a result, the noise footprint of aircraft flying the RF SIDs would be more confined thus minimising the overall noise disturbance to residents living near the flight path.

香港南面飛行情報區空域結構重組

香港南面飛行情報區空域及相關航線，已於二零一一年四月七日重組。這次空域重組包括增設一個中部區域雷達管制扇區，以分擔其他區域雷達管制扇區的工作量；增設新航線以分流過境及抵港航機；以及增設新的等待空域。空域重組後大大提升了整體的空管運作效率。

Airspace Restructure in the Southern Hong Kong FIR

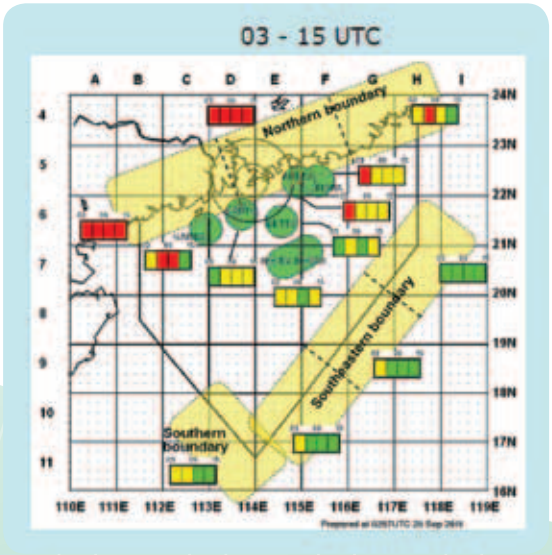
The southern HKFIR and the associated air routes were successfully restructured on April 7, 2011. Changes included the establishment of a new area radar sector to share the workload of other radar control sectors, implementation of new air routes to segregate overflights with Hong Kong arrivals and the establishment of new holding patterns. The restructure greatly enhanced overall ATC operation efficiency.

香港國際機場抵港航班容量通報計劃

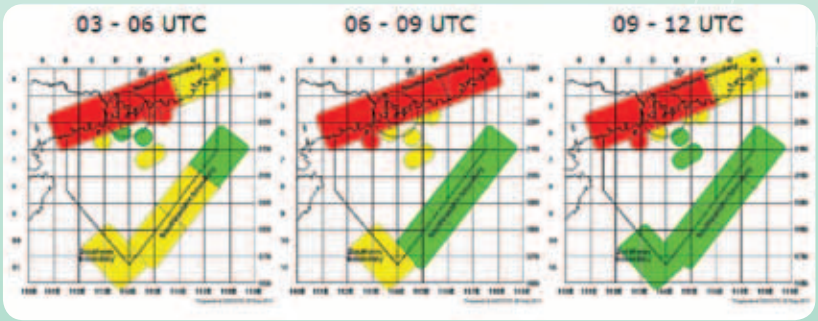
為進一步提升香港飛行情報區內的空管運作順暢，本部於二零一一年十月二十六日，推出抵港航班容量通報計劃，讓航空公司和鄰近地區的空管中心預早掌握香港國際機場的抵港航班容量資料。

Capacity Notification Scheme for Arrivals at the HKIA

To further enhance ATC operations within the HKFIR, ATMD launched the Capacity Notification Scheme on October 26, 2011 to provide early notification of projected arrival acceptance capacity at the HKIA to airline operators and neighbouring ATC centres.



香港天文台提供予民航處作空管用途的天氣資料。
Meteorological information provided by HKO to CAD for supporting air traffic control operations.



民航處與香港天文台合作，年內在空管中心設置新設施和儀器，包括網絡視像會議設備、重要對流天氣監察及預測系統等，向空管人員顯示未來12小時機場終端扇區的天氣預報。這些氣象資料及空管運作參數繼而會輸入由本部研發的「抵港航班容量計算機」軟件，以計算香港國際機場未來八小時的抵港航班容量。容量通報訊息會由本部以電郵形式，每天兩次定時發送到相關機構，包括台北區域管制中心、日本福岡航空交通管理中心、機管局以及各航空公司。在向業界伙伴提供有用的飛行資訊方面，事實證明新通報計劃成效卓著。

Through the collaboration between the CAD and Hong Kong Observatory (HKO), new facilities and equipment were installed in the Air Traffic Control Centre within the year. The new equipment included web-based video conference facility and the Significant Convection Monitoring and Forecast System that can present terminal weather forecast for the next 12 hours to ATC. The meteorology information as well as ATC operational parameters are then fed into an in-house developed software called "Arrival Capacity Calculator", which derives the Arrival Acceptance Rate of the HKIA for the next eight hours. A capacity notification message would then be compiled and despatched by ATC twice a day via email to involved stake holders including Taipei Area Control Centre, Fukuoka Air Traffic Management Centre, AAHK and airline operators. The new scheme proved to be very effective for sharing aeronautical information with our operation partners.

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珠三角地區空管規劃與實施三方工作組，繼續研究和實施改善措施，以進一步優化珠三角地區的空域設計和空中交通管理。

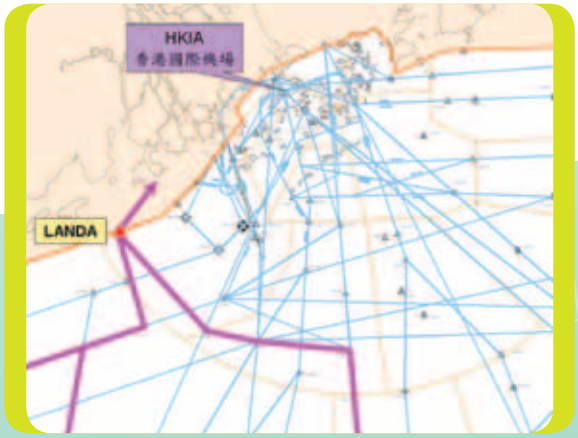
香港民航處與國家民用航空局共同努力，先後在二零一一年四月七日優化珠海終端區，以及在同年九月二十二日在香港與廣州空域間增設一個新的空管移交點，稱為「LANDA」。新增的移交點及相關航線，大大減低香港國際機場附近最繁忙空域要處理的航空交通複雜程度，進一步提升珠三角地區的航空交通管理效率。

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

During the year, the PRD Air Traffic Management Planning and Implementation Tripartite Working Group formed by the Hong Kong CAD, the Civil Aviation Administration of China (CAAC), and the Macao Civil Aviation Authority continued to study and implement enhancement measures to further rationalise the airspace design and air traffic management in the PRD region.

With concerted efforts between Hong Kong CAD and the CAAC, the revised Zhuhai Terminal Area and a new ATC handover point between Hong Kong and Guangzhou airspace were successfully implemented on April 7, 2011 and September 22, 2011 respectively. The new handover point, named LANDA, and its associated routes significantly reduced the complexity of air traffic handling in the busiest airspace sector around the HKIA, further enhancing air traffic management efficiency in the PRD region.

珠三角地區空管規劃與實施三方工作組定期舉行會議。
The PRD Air Traffic Management Planning and Implementation Tripartite Working Group holds meetings regularly.



香港與廣州空域新增的移交點「LANDA」。
The new handover point "LANDA" between Hong Kong and Guangzhou airspace.

電訊服務

隨着航班架次增長強勁，本部航空通訊組年內處理的訊息量顯著上升。通過固定航空通訊服務處理的訊息達38 238 351個，較上一年度增加10.7%。在航空氣象廣播服務方面，年內為飛行中的航機提供的天氣訊息合共336 161個，較上一年度增加1%。

TELECOMMUNICATIONS SERVICES

As a result of robust growth in flight movements in the year, the total number of messages handled by the Telecommunications Unit of the Division increased significantly. On Aeronautical Fixed Service, 38 238 351 messages were handled in the year. This represented an increase of 10.7% as compared with last year. On Aeronautical Broadcast Service, the total number of weather messages broadcast to aircraft in flight increased by 1% to 336 161.

安全管理系統

本部致力推行安全管理系統，以期全面提升安全表現。為此，本部根據國際民航組織的條文和民航處的監管規定，積極推行安全風險管理和安全保證。在對航空交通管理系統、儀器和程序作出重大變動前，本部會先進行安全風險評估和採取緩解措施。此外，本部定期進行安全評估和審查，以確保各個主要職能範疇內的所有層面都符合安全管理系統的要求。年內，本部進行了四次內部安全審計。

SAFETY MANAGEMENT SYSTEM

The Division endeavours to enhance the overall safety performance through effective implementation of Safety Management System (SMS). This is accomplished by proactive application of safety risk management and safety assurance in compliance with ICAO provisions and CAD regulatory requirements. Safety risk assessments are conducted and mitigation processes introduced before any significant changes to the air traffic management systems, equipment and procedures can be implemented. In addition, regular safety assessments and safety surveys are conducted to ensure the compliance of SMS principles at all levels in every major functional area. Four internal audits were carried out during the report period.

本部持續為員工提供安全管理系統訓練，以加深他們對安全管理的認識，並充分掌握安全管理系統的操作技巧。年內，本部邀請了歐洲一家培訓機構在香港舉行兩個安全風險評估培訓課程，一個供前線員工參加，另一個供管理層人員參加。

On-going SMS training is provided to staff to enhance their understanding of safety management and skills in performing SMS related activities. In this connection, an external training service provider from Europe was engaged to conduct two training courses locally on Safety Risk Assessment, one for working level staff while the other for management level staff.

搜索和救援服務

年內，共有16名空管主任完成搜救培訓課程，取得搜救資格。所有已取得搜救資格的空管主任亦完成了一次書面練習，以重溫搜救知識。此外，本部繼續派員參與機場和飛機緊急事故演習及相關會議。

SEARCH AND RESCUE (SAR) SERVICES

Within the year, 16 ATCOs completed SAR training and obtained their SAR qualifications. All SAR qualified ATCOs also finished a paper exercise to refresh their SAR knowledge. Besides, the division continued to participate in the airport and aircraft emergency drills and associated meetings.

海外空管會議和研討會

年內，航空交通管理部繼續積極參與由國際民航組織、民用航空導航服務組織及其他航空機關舉辦的海外會議和研討會，藉此交流和推動合作，促進亞太區以至全球航空交通管理的持續發展。

OVERSEAS ATC MEETINGS AND CONFERENCES

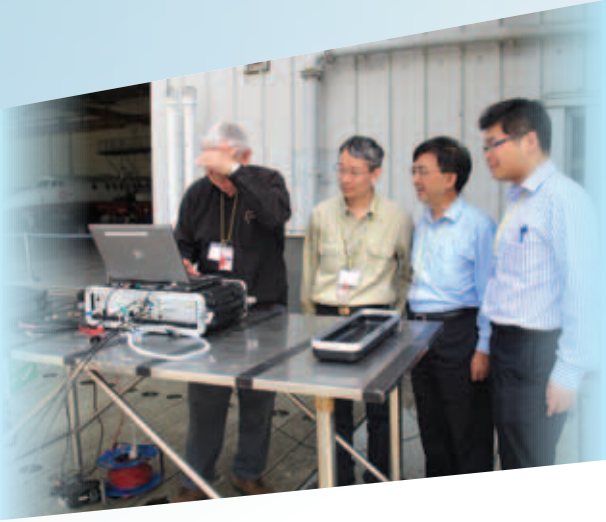
During the year, the Division continued to actively participate in overseas meetings, seminars and conferences organised by the ICAO, Civil Air Navigation Services Organisation and other aviation authorities to exchange views and foster cooperation with our international counterparts. This active networking process contributed to the continuous development of air traffic management regionally and globally.

控制塔台為航機提供全日24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.

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

航空交通工程及標準部負責設計、規劃、統籌和提供航空交通管制(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)，以及簽發航空交通管制員執照及相關級別。

The Air Traffic Engineering and Standards Division (AESD) is responsible for the design, planning, coordination, and provision of air traffic control (ATC) systems, radars, navigational aids, communication facilities, regulating Hong Kong air navigation services including conducting incident investigation, and issuing air traffic controller licences and the associated ATC ratings.



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

航空交通工程及標準

年內，航空交通工程及標準部繼續全力維持高水準、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。民航處新總部的空管系統、資訊及通訊科技設施的採購工作已大致完成。新系統的安裝工作亦已展開，進展良好。

我們亦致力促進環保，提供由本部資訊科技管理組特別研發的電子工具，推動節約用紙。各項相關措施已略見成效。

更換空管系統

為應付航空交通的預期增長需求、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，把現有系統更換為配備最新功能兼且處理能力更高的空管系統，以提升香港飛行情報區的航空交通服務效率。

各主要空管系統及相關訓練設施的合約已全部批出。年內，本部與供應商審視了各主要系統的詳細設計，並於二零一二年一月開始在民航處新總部安裝新一代的空管系統。

Air Traffic Engineering and Standards

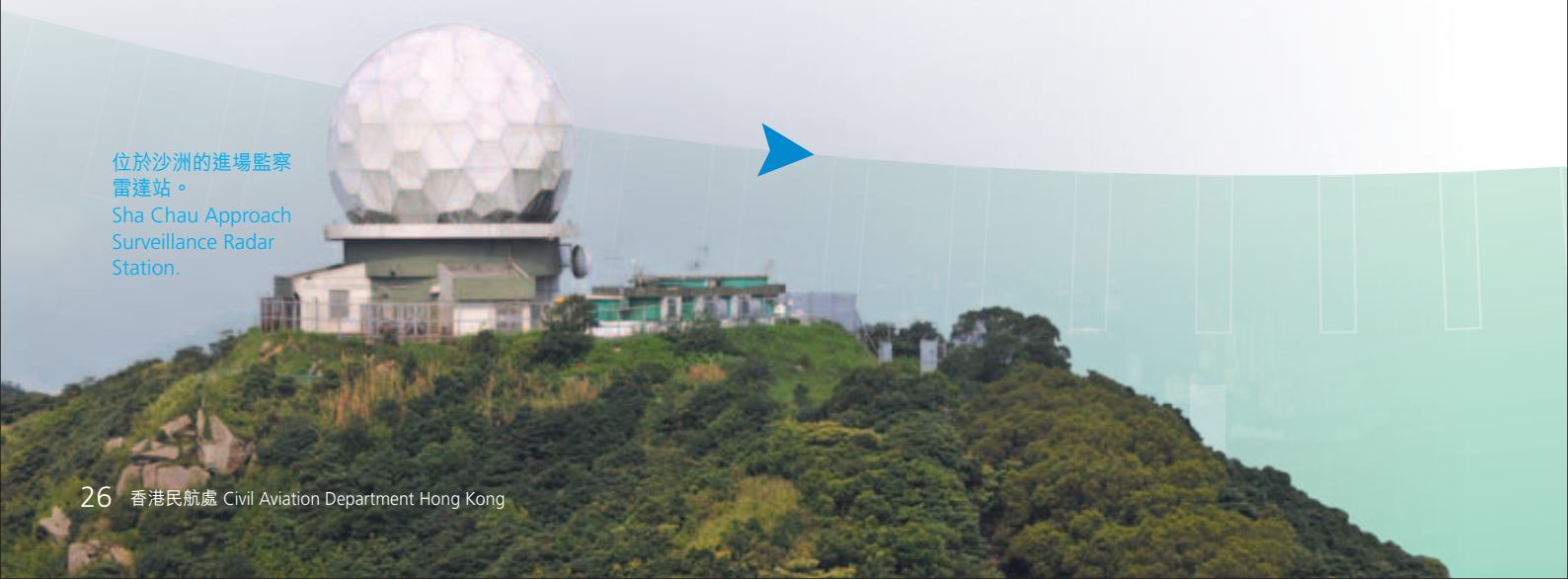
During the year, the Division continued its efforts in maintaining a high standard, stable, reliable and outstanding ATC system to support safe and efficient air traffic services. Procurement of the ATC systems, information and communication technology (ICT) facilities for the new CAD Headquarters were substantially completed and installation of new systems has commenced with satisfactory progress.

Initiatives for migration towards a greener office were implemented with encouraging initial results through the promotion of paper-saving work habits and customised electronic tools developed by the Division's Information Technology Management Unit (ITMU).

Replacement of ATC System

To cope with the projected air traffic growth and the expansion of the 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 HKFIR.

Contracts for all major ATC systems and related training facilities were awarded. During the year, the Division reviewed the detailed design of each major system with the contractor, and commenced the installation of the new generation of ATC system in the new CAD Headquarters starting from January 2012.



位於沙洲的進場監察雷達站。
Sha Chau Approach Surveillance Radar Station.

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，制訂策略時會顧及飛機裝備的技術發展，以及衞星通訊、導航及監察系統使用日增的情況。本部於二零一一年四月向國際航空運輸協會進行問卷調查，以取得各航空公司對更換策略的整體意見。根據調查結果，民航處制訂了一套更換策略，並於二零一一年八月舉行的區域專家小組會議中獲得國際航空運輸協會的支持。隨後，民航處領導的通訊、導航及監察/航空交通管理系統委員會，亦於同年九月認可該更換策略。本部現正進行全面的市場調查，以確立更換系統的時間表、時段和方法，以期盡量減少對航空交通運作的影響。

Replacement of Communications, Navigation and Surveillance Systems

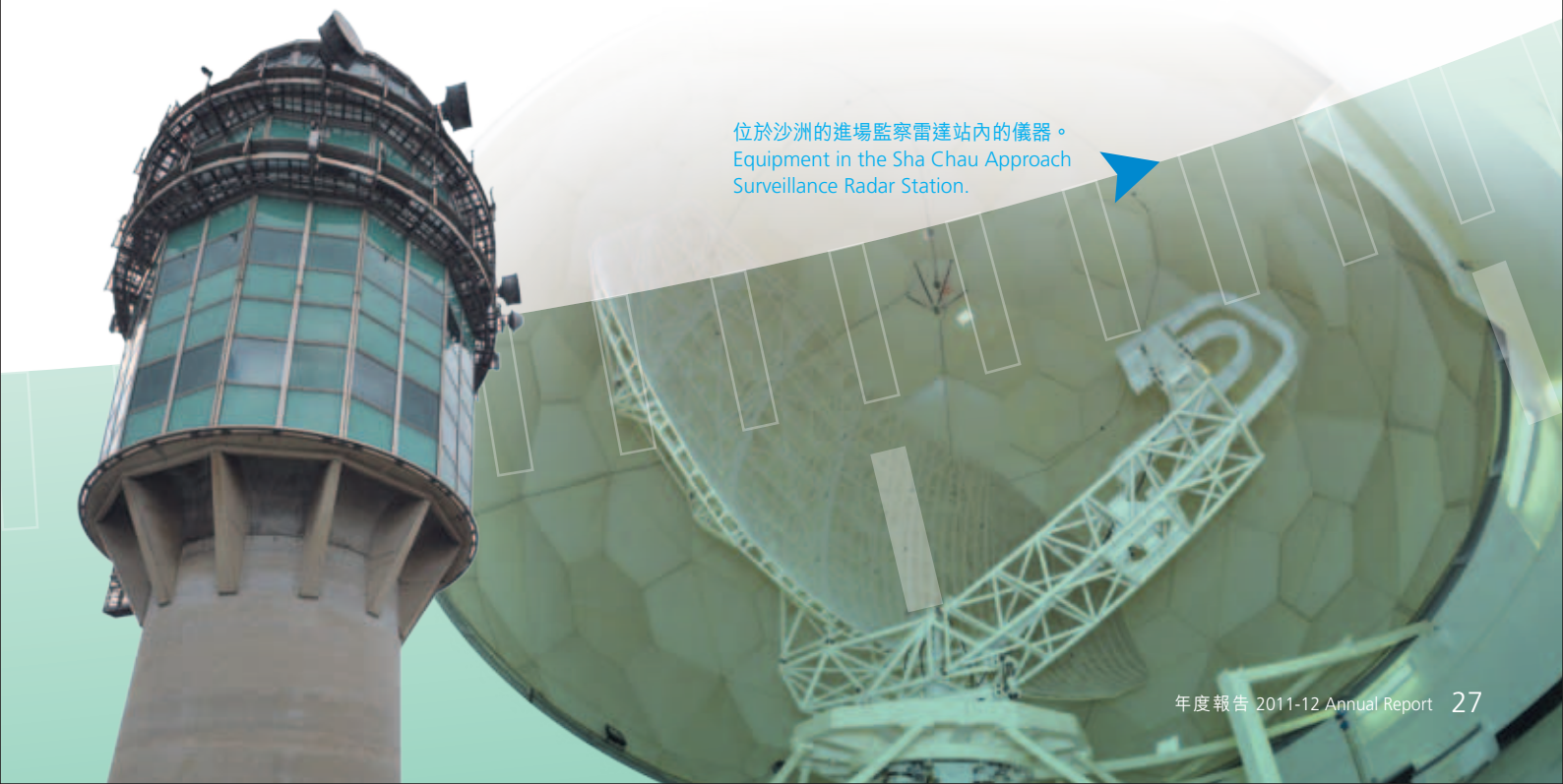
As the existing communications, navigation and surveillance (CNS) systems for ATC are approaching the end of their usable lives, a replacement strategy is being developed. It will take into account the technological advancement in aircraft equipage and increase the utilisation of satellite-based CNS systems in order to ensure the continued provision of safe, reliable, efficient and effective ATC service. The Division has conducted a survey with the International Air Transport Association (IATA) in April 2011 to seek airlines' collective view on the proposed replacement strategy. Based on the survey results, a replacement strategy was formulated and subsequently supported by the IATA at its Regional Group Meeting in August 2011, and similarly endorsed by the CAD CNS/Air Traffic Management Committee at its meeting in September 2011. A comprehensive market survey is in progress to firm up the timeframe, period and methodology on the CNS system replacement plan with a view to minimising disruption to ATC operations.

更新資訊及通訊科技系統

作為資訊科技業務持續運作計劃的一部分，本部已於年內如期完成應急伺服器、自動化用戶電腦數據備份和網絡儲存設施的測試工作。民航處新總部新的資訊及通訊科技設備的採購和測試工作亦進展順利，為本處各辦公室在二零一二年年底遷往新總部作好準備。

Updating ICT Systems

As part of the IT business continuity plan, the Division completed the testing of contingency servers, automated user computer data backup and network-based storage facilities during the year as scheduled. Procurement and testing of new ICT equipment for the new CAD Headquarters are also in smooth progress. These pave the way for relocating various offices of the CAD to its new headquarters in late 2012.



位於沙洲的進場監察雷達站內的儀器。
Equipment in the Sha Chau Approach Surveillance Radar Station.

持續發展安全管理系統，以支援穩妥的通訊、導航及監察設備和重要的屋宇設施

為不斷發展和加強現有的安全管理系統，本部自二零一零年六月起展開工作項目，找出並消除實際安全程序與安全管理系統規管要求之間的差距。所有工作已於二零一一年五月完成，當中包括就下述三個項目引入新程序並加以定期檢討：(一) 技術安全事故報告和調查；(二) 定期安全趨勢研究；以及 (三) 收發安全資訊電子平台的管理。

另外，由於設立新的航空交通管制中心 (空管中心) 和更換空管系統預計會涉及安全風險管理工作，為未雨綢繆，本部已加強檢討安全風險評估機制，並改善培訓工作。

《空中航行服務安全管理系統手冊》訂明關於外間服務供應商的政策。本部按照既定政策，確保外間服務供應商(包括維修服務)達到相關的安全標準。為此，本部已加強監察外間服務供應商實施和發展安全管理系統的情況。

年內，本部一直致力於推廣安全意識，採取的措施包括根據「專業人員培訓及技能保證計劃」，為員工提供安全管理系統方面的培訓。

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

To continuously develop and enhance the existing Safety Management System (SMS), the Division had, by May 2011, completed all work items commenced since June 2010 in bridging the gaps identified between the implemented safety processes and the SMS regulatory requirements. These included implementation and regular review of new procedures for (i) Technical Safety Occurrence reporting and investigation; (ii) periodic safety trend study; and (iii) administration and control of various electronic platforms for collection/dissemination of safety information.

In addition, in preparation for the expected safety risk management activities arising from the new Air Traffic Control Centre (ATCC)/ Replacement of ATC System Project, efforts were made in enhancing safety risk assessments review and training.

Policies on external services providers are stipulated in the Air Navigation Service SMS Manual. In this regard, the Division had strengthened its supervision of SMS built up by external services providers which also offer maintenance services.

Throughout the year, the Division had maintained its momentum in safety promotion. Initiatives included SMS training activities conducted as per our Professional Staff Training and Competency Assurance Schemes.

二零一二年一月九日，民航處人員於新空管中心出席新空管系統安裝工程的啟動儀式。
On January 9, 2012, staff members attended the launching ceremony for the installation of the new ATC system at the new Air Traffic Control Centre.

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「全球和地區性實施計劃」，本部已開發八個這類系統，進展良好：

(一) 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。截至二零一二年三月底，服務使用率由72%逐步增至76%，使用服務的航空公司則由58家增至66家。預計未來數年會有更多航機使用這項服務，空管人員與飛行員的通訊效率將得以提升。

(二) 航空電訊網及航空交通服務訊息處理系統

為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，香港與澳門之間的航空交通服務訊息處理系統和航空電訊網已在二零零九年十二月二十九日投入運作。在二零一二及二零一三年，本部會安排與北京和曼谷開展更多測試，亦會與東京、馬尼拉、台北和其他鄰近地區的航空交通電訊當局進行更多測試，以配合該等地區未來的設備更換計劃。

(三) 先進場面活動引導和控制系統

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，有效加強監察飛行區內航機和車輛移動的情況。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。民航處已經與系統供應商洽購一套測試及評估系統，以持續提升先進場面活動引導和控制系統的性能。預計該測試及評估系統於二零一二年四月完成安裝後，可以加強先進場面活動引導和控制系統的保養支援。

SATELLITE-BASED CNS/ATM SYSTEMS

To comply with the Global and Regional Implementation Plans of the ICAO for the satellite-based CNS/ATM (air traffic management) systems, the Division had made good progress on the development of eight CNS/ATM systems as highlighted below:-

(i) Pre-Departure Clearance Two-way Datalink Service

The Pre-Departure Clearance Datalink Service has been in satisfactory two-way operation since 2008. The utilisation rate increased modestly from 72% to 76% and the number of participating airlines also increased from 58 to 66 as at the end of March 2012. It is anticipated that more aircraft will use the service to grasp the benefit of efficient communication between ATC staff and pilots in the coming years.

(ii) Aeronautical Telecommunication Network and Air Traffic Service Message Handling System

In accordance with the ICAO Asia-Pacific Regional Aeronautical Telecommunication Network (ATN) and Air Traffic Service Message Handling System (AMHS) Implementation Plan, the new AMHS and ATN circuit between Hong Kong and Macao was put into operation on December 29, 2009. Further tests and trials with Beijing and Bangkok are being arranged in 2012-2013. More tests will be conducted with Tokyo, Manila, Taipei and other adjacent air traffic service authorities to match with their system replacement roadmaps in the coming years.

(iii) Advanced Surface Movement Guidance and Control System

Since the Advanced Surface Movement Guidance and Control System (A-SMGCS) had commenced operation on April 1, 2009, the system provided enhanced surveillance of aircraft and vehicle movements on the airfield, with conflict and runway incursion alerting functions available for added ATC safety and efficiency in the airport. As continuous efforts to enhance the performance of A-SMGCS, the CAD has arranged with the equipment supplier for provision of a test and an evaluation system. It is expected that the test and evaluation system will be installed in April 2012 to enhance the maintenance support service for A-SMGCS.

(四) 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，民航處選定香港的若干偏遠地點設置地面站，監察已裝設廣播式自動相關監察機載設備的飛機，並把訊號傳送至相應的顯示系統，以供測試和評估。為了解L642和M771航路的航機裝設廣播式自動相關監察機載設備的情況，民航處在二零一二年三月展開研究，分析在該兩條航路飛行的飛機所發出的數據。結果顯示大約79%的航機可發射清晰可用的相關訊號。另一方面，民航處在政府飛行服務隊的一架直升機設置了廣播式自動相關監察應答機，並進行飛行測試，評估監察訊號在本港低空範圍的覆蓋情況，結果同樣令人滿意。

(iv) Automatic Dependent Surveillance – Broadcast

To prepare for planned implementation of Automatic Dependent Surveillance-Broadcast (ADS-B) in the near future, the CAD has installed ground stations at selected remote sites in Hong Kong to detect ADS-B equipped aircraft and provide signals to the ADS-B display system for trial and evaluation purpose. To evaluate ADS-B equipage for aircraft along airways L642 and M771, the CAD initiated a study to analyse ADS-B data broadcast from aircraft flying along these two airways in March 2012. The result revealed that about 79% of aircraft could transmit ADS-B message with useable signal quality. The CAD also arranged with the Government Flying Service (GFS) to mount an ADS-B transponder on a GFS helicopter and performed flight trials to assess ADS-B signal coverage at low level within the Hong Kong territories. The results were satisfactory.

在亞太地區民航局局長第48次會議和廣播式自動相關監察系統東南亞及孟加拉灣分區工作小組第七次會議期間，民航處繼續大力推動，加強協調在亞太地區實施廣播式自動相關監察系統，並展開亞太地區實施計劃的草擬工作。

At the 48th Conference of Directors General of Civil Aviation and at the 7th ADS-B Southeast Asia/Bay of Bengal Work Group meetings, the CAD continued to drive for strengthening a harmonised ADS-B implementation and initiated development of a Regional ADS-B Implementation Plan for the Asia and Pacific regions.

在太平山上裝設的甚高頻通訊儀器。
Very High Frequency communication equipment installed on Victoria Peak.

(五) 抵港航機排序系統

本部採購抵港航機排序系統，以提升航班準時抵港率，善用空域，並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。系統功能其後在二零一一年九月及二零一二年三月獲得提升，以便在惡劣天氣下編訂最佳的抵港航機序列並改進系統操作效率。系統功能在二零一二年年中會進一步優化，以改善處理復飛航機序列。

(v) Arrival Manager System

The Arrival Manager (AMAN) System was procured to help achieve higher on-time arrival rate, 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. Upgrades of the system to enable optimisation of aircraft arrival sequencing during adverse weather conditions and to enhance system performance were completed in September 2011 and March 2012 respectively. Further upgrade of the system to improve the handling of missed approach flights is scheduled in mid-2012.

(六) 為國際民航組織新飛行計劃書和航空交通服務訊息格式而設的前置處理器

國際民航組織將於二零一二年十一月十五日就飛行計劃書和航空交通服務訊息格式實施新規定。因此，民航處已早於二零一一年十月完成為現有的航空資料庫和飛行數據處理系統開發並設置前置處理系統。本部依循國際民航組織所訂共分三期的實施計劃——內部測試已於二零一二年三月完成，與其他空中航行服務提供者安排的互相測試將會在二零一二年四月展開，並於二零一二年七月起，則會與空域使用者作進一步測試。

(vi) Front End Processing Systems for New ICAO Flight Plan and Messages

In order to meet the new requirements on the ICAO flight plan and air traffic service messages format by November 15, 2012, the in-house development of two front end processors for the existing Aeronautical Information Database (AIDB) and Flight Data Processing System (FDPS) was completed successfully in October 2011. The Division adhered to the ICAO three-phase implementation plan -- the internal testing was completed in March 2012, and testings with other air navigation service providers (ANSPs) will commence in April 2012. Further testing with airspace users will be arranged from July 2012 onwards.

民航處與政府飛行服務隊展開飛行試驗，以評估使用「廣播式自動相關監察」進行低空監察的覆蓋情況。
The CAD launched flight trials with the GFS to assess low-level surveillance coverage using ADS-B.

(七) 陸基增強系統

陸基增強系統能支援香港國際機場採用性能導航，以回應全球對善用空域的訴求。陸基增強系統提高全球衞星導航系統的準確程度，使在覆蓋範圍內飛機的進場、著陸、起飛和地面運作等程序更為精確。為準備在香港國際機場測試陸基增強系統，本部已於二零一一年年底完成系統選址的研究工作，並通過國際民航組織會議與周邊地區合作，開始共同研究位於亞太地區上空的電離層對陸基增強系統性能的影響。

(vii) Ground-Based Augmentation System

Ground-Based Augmentation System (GBAS) will support the implementation of Performance-Based Navigation for addressing global demands on efficient use of airspace capacity. It augments the accuracy of the Global Navigation Satellite System and supports optimisation of procedures for precision approach, landing, departure and surface operations within its area of coverage. To pave the way for GBAS trials at the HKIA, the Division completed a GBAS siting study in late 2011 and worked with neighbouring states through ICAO meetings to commence a study of ionospheric effect on the performance of GBAS in the Asia and Pacific regions.

(八) 電子飛行進程單系統

為協助新空管中心及航空交通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系統。年內已完成系統測試及控制塔人員的相關培訓，並將於二零一二年四月開始操作評估。

(viii) Electronic Flight Strip System

To facilitate a smooth transition to the electronic flight strip environment in the new ATCC and the Air Traffic Control Tower, an electronic flight strip system (EFSS) was planned for operational use by tower controllers at the HKIA. Testing for the EFSS and training of tower controllers were completed during the year. Operational evaluation of the EFSS will commence in April 2012.

優化通訊、導航及監察和航空交通管理系統的維修安排

為加強空中航行服務，本部採用風險為本模式，改善通訊、導航及監察/航空交通管理系統的現行維修安排。本部聯同維修服務供應商檢視現行維修安排，逐步採用新的管理模式，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質素。本部年內制訂綜合維修計劃及維修措施，涵蓋現有的通訊、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。這些維修計劃及措施已按時實施和完成。

Enhanced Maintenance on CNS and ATM 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 were reviewed with maintenance service providers. A new approach is progressively adopted to analyse equipment conditions and system performance of both existing and new CNS/ATM systems for providing faster response to maintenance issues, hence enhancing operational efficiency and service quality. Comprehensive maintenance schemes and maintenance initiatives for the existing CNS/ATM systems, electrical and mechanical systems, building services facilities and electronics installation were satisfactorily implemented and completed within this year.

先進協同決策

香港國際機場以至珠江三角洲各個機場，均已認同先進協同決策制度有助改善航機進場及周轉程序，從而提升機場持份者的運作效率。為配合本港發展和推行先進協同決策制度，本處主導開發試行系統，並在二零一一年十二月底完成初步驗收。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 recognised as one of the strategic drivers in the HKIA as well as airports in the Pearl River Delta region to enhance flight arrival and turnaround processes and hence operational efficiency of various airport stakeholders. To facilitate the development and implementation of Adv-CDM in Hong Kong, the Department took the lead in the development of the Adv-CDM Trial Platform which was commissioned in late December 2011. Technical and operation trials are being arranged to realise the potential benefits of Adv-CDM at the HKIA.

民航處與機電工程署簽訂新服務水平協議，委託該署為本處新總部的機電和屋宇裝備系統，提供營運和保養服務。
The CAD signed a new Service Level Agreement with the Electrical and Mechanical Services Department (EMSD) to commission the EMSD to provide operations and maintenance services on electrical and mechanical and building services systems for the new CAD Headquarters.

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年內為航空交通管理部與航空交通工程及標準部進行了兩次審計及32次安全檢查。審計內容包括查核服務提供者有否遵守安全管理系統的規管要求，重點是審查安全政策/目標與安全促進元素的實施成效。檢查範圍包括航空交通管理的運作、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。檢查人員亦檢查了多個設施和工作單位，包括空管中心、控制塔、航空情報中心、備用空管中心和控制塔、培訓組、雷達模擬系統及控制塔模擬系統。此外，又檢查了空中航行服務的其他領域，例如通訊、導航及監察（包括航空網絡中心）、航空氣象服務、搜索和救援服務、空中航行服務程序—航空器運行和航空資訊服務（包括繪製航圖）。

年內，航空交通管理標準組的一項重點工作，是監管航空交通工程及標準部開展安全管理系統的進程，為這套系統的監管認可做好準備。

航空交通管理標準組的職責之一，是聯同航空交通管理部的調查人員，就所有空管事故進行初步調查，然後再按既定指引，確定調查的形式。

航空交通安全評核委員會每半年召開會議，檢討空管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。航空交通管理標準組繼續負責監察事故後調查報告所提出的安全建議，跟進執行進展和成效。

AIR TRAFFIC MANAGEMENT STANDARDS OFFICE (ATMSO)

The ATMSO is responsible for ensuring that a high standard of safety is set, achieved and maintained in the provision of air navigation services in Hong Kong.

Safety Oversight Activities

For ongoing safety regulatory surveillance, ATMSO conducted two audits and 32 safety inspections on the Air Traffic Management Division (ATMD) and AESD in 2011-12. The audits covered the regulatory compliance of the service providers' SMS with a focus on the effective implementation of safety policy/objectives and safety promotion elements. The inspections included ATM activities in operations, procedures, training, examinations, SMS implementation, ATC equipment/systems, safety occurrences investigations, and follow-up actions arising from safety recommendations. Facilities visited by the inspectors included the ATCC, the Control Tower, Aeronautical Information Centre, Backup ATCC and Backup Tower, Training Unit, radar simulator and aerodrome simulator. Inspections on CNS (including the Aeronautical Network Centre), meteorological information, search and rescue, Procedures for Air Navigation Services – Aircraft Operations and Aeronautical Information Services (including aeronautical charting) domains of air navigation services were also conducted.

Oversight of the development of SMS in AESD was a key activity of ATMSO during the year in connection with the preparatory work for the regulatory acceptance of AESD SMS.

As part of its duties, ATMSO participated in the preliminary investigations of all ATC incidents jointly with ATMD investigators. A decision would then be made as to the form of investigation to be conducted in accordance with established provisions.

Review on ATC incidents and other safety occurrences was conducted half-yearly in the Air Traffic Safety Assessment Committee, which comprised representatives from the Flight Standards and Airworthiness Division, ATMSO, ATMD, flight safety personnel of major local airline operators and the GFS. ATMSO continued to monitor the progress and effectiveness of post-incident follow-up actions on the recommendations put forward in the investigation reports.

為客觀和有系統地加強安全監察措施，空中航行服務提供者必須訂立安全表現指標和完善的實行計劃，以達到航空交通管理標準組所認可的安全表現目標。

To enhance safety monitoring measures with a systematic and objective-based approach, the ANSP was required to establish safety performance indicators together with structured action plans to achieve safety performance targets as agreed by the ATMSO.

文件編製

Documentations

航空交通管理標準組定期覆檢和更新現有規管文件，確保內容準確、有效和符合現況。年內共發出五份有關安全事項和空中交通管制執照規定要求的《空中導航服務資訊公告》。

The ATMSO conducted regular reviews and updates on existing regulatory documents to ensure that they remain accurate, valid and up-to-date. Five Air Navigation Services Information Notices were promulgated in this year on relevant safety issues and ATC licensing requirements.

空管主任執照

ATC Personnel Licensing

航空交通管理標準組的一項重要職責是根據國際民航組織附件1的標準，執行空管主任執照簽發制度。年內，該組共處理20宗空管主任執照申請、29宗首次簽發及13宗續發空管執照級別申請，以及40宗首次簽發及181宗續發合格證書申請。此外，又處理了七宗首次簽發及一宗續發空管認可考官證書申請，以及20宗英語能力證書申請。

One of the important functions of ATMSO is to administer the ATC licensing scheme in accordance with the standards in ICAO Annex 1. During the report period, the Office processed 20 applications for ATC licences, 29 initial awards and 13 renewals of ATC ratings, 40 initial awards and 181 renewals of Certificates of Competency. Seven applications for the initial award and one renewal of ATC Approved Examiner Certificates, as well as 20 applications for English Language Proficiency Certificates were also processed.

在簽發空管主任執照方面，航空交通管理標準組為航空交通管理部的高級空管主任舉行認可考官培訓課程。五名一級/二級空管主任在合資格考官的督導下，完成培訓課程及所需的考試，於二零一一年考獲空管認可考官證書。

In connection with personnel licensing requirements, ATMSO conducted an Approved Examiner Training Course for senior Air Traffic Control Officers (ATCOs) of ATMD. Upon completion of the training course and after conducting the required number of examinations under the supervision of qualified examiners, five ATCO I/II successfully acquired their Approved Examiner Certificates in 2011.

根據國際民航組織和《1995年飛航（香港）令》的規定，航空交通管理部獲批准成為認可的航空交通管理培訓組織，可為空中交通管制員提供培訓。航空交通管理部舉辦的空管培訓課程，必須依據國際民航組織附件1的規定開辦，並須接受航空交通管理標準組監管。

In accordance with the ICAO's and Air Navigation (Hong Kong) Order 1995's requirements, approval was given to ATMD as an approved training organisation for conducting training for air traffic controllers. ATC training conducted by ATMD shall be run pursuant to stipulations in ICAO Annex 1 and subject to regulatory oversight of ATMSO.

安全推廣工作

Safety Promotion Activities

為進一步推廣安全監督和安全管理概念，航空交通管理標準組於二零一一年五月至八月期間，舉辦為期六日的空中導航服務安全規例課程，學員來自民航處多個分部。

For wider promulgation of safety oversight and safety management concepts, ATMSO conducted a six-day course on Safety Regulation of Air Navigation Services during May to August 2011 with participants from various CAD divisions.

航空交通管理標準組與本處轄下的香港民航訓練中心攜手合作，為本地和區內的航空機構籌辦規管航空交通管理和安全監督的培訓課程。本課程將視乎航空業界的反應，在適當的時機推出。

此外，航空交通管理標準組亦定期於本處內聯網發布規管資訊及安全管理資料，方便空中航行服務人員查閱。

In association with the CAD's Civil Aviation Training Centre, ATMSO had also prepared an ATM Regulatory and Safety Oversight Training Course for the local and regional aviation communities. The course would be presented depending on the availability of training slot and general response of the aviation communities.

In addition, regulatory information and safety management materials were published regularly on the intranet for convenient access by all air navigation services staff.

精確著陸導向設備提供準確的方向指示及下降指引訊號，協助航機安全降落。
Precision landing aid provides accurate azimuth and descent guidance signals to facilitate safe landing of aircraft.

下滑道天線提供準確的下降指引訊號，引導航機降落。
The Glide Path antenna provides precise descent guidance signals for safe landing of aircraft.

培訓及發展

培訓及發展事務辦公室

民航處成立培訓及發展事務辦公室，目的是強化整體的培訓機制，按照部門既定的培訓政策和方案，編寫《培訓及發展事務手冊》，闡明培訓藍圖的細節。該辦公室因應各分部人員的特定職務要求，制訂以能力為本的培訓項目。此外，該辦公室更致力開發不同的進修途徑，推動自學文化，鼓勵本處人員自我增值。

TRAINING AND DEVELOPMENT

Training and Development Office

The Training and Development Office (TDO) was set up for strengthening the entire training mechanism in the Department. With the Training and Development Exposition, details for every bit of the training mind map, in line with departmental training policies and programmes so established, are prescribed. Competency-based training needs are arranged for officers working in various divisions that carry out specific duties. In addition, various channels are being developed to promote self-learning culture for officers to better equip themselves.

培訓資料庫

新研發的電腦程式在二零一二年年初建立，利用安全可靠的通用平台，管理部門培訓資料。新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。為使新程式得以在航空交通工程及標準部順利試行，培訓及發展事務辦公室先在二零一一年五月依據本部各專業同事的關鍵才能，與各組代表一同制訂初步所需的培訓項目。

Training Database

A new computer application for administering departmental training data on a secure common platform was set up in early 2012 to support the management team to easily keep track of attendance records and plans for staff training according to industry growth and training needs. To pave the way for the pilot trial run in the Division, an initial set of training needs was developed jointly with representatives from respective sections in May 2011 for every AESD professional staff according to their core competencies.

下一代航空專業人員計劃

為確保有足夠合資格的專業人員操作、管理和維修未來的國際航空運輸系統，國際民航組織轄下的「下一代航空專業人員計劃」工作組推出一連串相應措施，其中一項是規範涉及操作、維修和安裝通訊、導航及監察/航空交通管理系統的技術人員所需的培訓和能力。這個以能力為本的新培訓模式，包括基本培訓、資格培訓、系統/設備等級訓練、持續培訓和發展培訓五個程度。隨着培訓指南於二零一一年年初正式出版，培訓及發展事務辦公室即與相關持份者緊密合作，務求為負責維修通訊、導航及監察/航空交通管理系統的技術人員，重整現時所接受的培訓。深入分析現時的訓練做法與新模式的差距後，培訓及發展事務辦公室成立了專責小組，以便在二零一三年年底或之前彌補不足之處。

New Generation Aviation Professionals (NGAP) Initiatives

To ensure that there will be a sufficient number of qualified and competent professionals available for the operation, management and maintenance of the future air transport system, the ICAO Next Generation Aviation Professionals Task Force launched a series of corresponding initiatives, one of which was to standardise the training and competencies of technical personnel involved in the operation, maintenance and installation of the CNS/ATM system. The progression of the new competency-based training model consists of five levels, namely Basic Training, Qualification Training, System/Equipment Rating Training, Continuation Training and Development Training. With the training manual formally published in early 2011, the TDO had been working closely with relevant stakeholders to revamp the existing training of the technical personnel maintaining our CNS/ATM system. After conducting a thorough gap analysis of the existing training practice against the new model, a special team was then formed to address the deficiencies identified by the end of 2013.

新入職人員的啟導課程

為了使新同事熟習民航處的運作，培訓及發展事務辦公室為本處的新入職專業職系人員舉辦度身訂造的啟導課程。年內，承各方通力合作，兩輪啟導課程順利完成，當中共有11位新同事參加。在為期三日的課程中，新同事不但可以了解本處各個分部的具體職能，亦可藉此機會認識其他辦公室的同事。參加者反應熱烈，認為課程達到他們的期望。在採納各方面的意見後，培訓及發展事務辦公室會相應改善啟導課程，以便日後繼續舉辦，讓專業職系所有新入職人員參加。

Orientation Programmes for New Recruits

To facilitate the new recruits to familiarise themselves with departmental operations in a more systematic manner, the TDO has tailor-made a structural orientation programme for professional grade officers joining the Department. Through concerted efforts, two rounds of orientation programme were smoothly conducted during the year for a total of 11 new colleagues. From the three-day programme, the participants not only appreciated specific functions of each CAD division, but were also offered an opportunity to cultivate a network with colleagues working in other CAD offices. With positive and encouraging feedback from the participants, the orientation programme would be fine-tuned and offered to all new professional grade officers.

培訓及發展事務辦公室為本處相關人員舉辦採購和承包商管理課程。
The TDO organised a Procurement and Contractor Management course for officers who will handle such procedures.

資訊科技管理

「電子政府」的數碼策略致力發展資訊及通訊科技，建設香港為國際數碼城市。藉妥善實施此策略及各項新的資訊及通訊科技措施，資訊科技管理組繼續擔當重任，支援各分部的日常運作。年內，資訊科技管理組完成五項大型資訊科技計劃，以加強服務和支援：

(一) 為配合無紙化和「電子政府」的環保發展目標，推行多項資訊科技應用系統和內部應用程式，減少對手寫筆記、報告和各種紙質文件的需求，估計減幅每年多達五萬頁。

(二) 「電子訊息顯示系統」項目的開發和實施。公眾可以使用民航處新總部的多重觸控顯示器和登上互聯網，獲得最新的航空消息及本處資訊。「電子訊息顯示系統」亦可以提高公眾對航空知識、科技、教育及發展等方面的興趣。預計系統將於二零一三年年初推出。

(三) 擴充電子考試系統。為配合香港經濟發展所帶動的航空交通增長，系統容量會提高以應付機組人員和維修人員考試的需求。擴充計劃將於二零一三年年初完成。

(四) 改善民航處網站，為公眾提供無障礙的網頁服務。殘疾人士，包括視障、肢體殘障、聽障和有認知障礙的人士，將更容易使用本處網站。民航處新網站將於二零一三年年初啟用。

(五) 二零一二年年初，民航處總部內新設的十千兆資訊及通訊科技網絡與現有的民航處網絡完成整合。至於其他的資訊及通訊科技基礎設施的安裝工作，目前正在陸續進行。

IT MANAGEMENT

The ITMU continued to play a very important role to support day-to-day operations of various divisions through effective implementation of new IT initiatives and e-Government strategy on the development of ICT for building on Hong Kong's position as a world digital city. During the year, there were five major IT projects in various stages of completion for the betterment of IT services and support:

(i) Implementation of various IT applications and in-house application for paperless initiative and alignment with e-Government objective for Green initiative – it is estimated that the demand for hand-written notes, reports and various paper document can be reduced by 50 000 pages per year through the project.

(ii) System development and implementation of the Electronic Information Display System (e-IDS) – e-IDS is a system designed to provide up-to-date aviation news and the CAD's information to the general public via multi-touch displays at the new CAD Headquarters and on the Internet. It also aims at arousing public interest in aviation knowledge, technology, education and development etc. The system is planned for commission in early 2013.

(iii) Expansion of the electronic examination system – the system will provide more capacity for flight crew and maintenance crew examinations to cope with the growth of air traffic derived from Hong Kong's economic development. The expansion is planned to be completed by early 2013.

(iv) Enhancement of the CAD's website – it will provide better accessibility for the general public with disabilities, including visual, physical, hearing and cognitive impairment. The new CAD website is planned to be implemented by early 2013.

(v) Integration of a new ten-gigabit ICT network at the new CAD Headquarters with the existing CADNET was completed in early 2012. Other ICT infrastructure installation projects are on-going.


AirBridgeCargo
HAECO

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 HKIA, 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

香港航空公務機管理有限公司（香港商務航空）於二零一一年十一月四日獲民航處簽發航空經營許可證後，本地持有航空經營許可證的公司增至十家，計為：

Subsequent to the issue of AOC by the CAD to Hong Kong Airlines Corporate Jet Management Limited on November 4, 2011, the number of Hong Kong AOC holders increased to ten 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)
香港航空公務機管理有限公司（香港商務航空）	Hong Kong Airlines Corporate Jet Management Limited (HKJ)
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)

年內，飛行標準組對航空經營許可證持證公司巡查共339次。
During the year, the Flight Standards Office carried out 339 AOC inspections.

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149次飛行及機艙安全檢查，並對航空經營許可證持證公司作出共339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50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 149 flight operations and cabin safety inspections, the Inspectorate staff of the Flight Standards Office had conducted a total of 339 AOC inspections including station inspections, operational records inspections, training inspections and approval of authorised examiners. The 50 flight simulators, located worldwide and in Hong Kong and used by local airlines, were evaluated, inspected and reapproved 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).

新設的多機組飛行員執照（飛機）培訓課程

二零一一年九月二十八日，飛行標準組批准港龍航空和牛津航空學院開辦多機組飛行員執照（飛機）的第一階段試驗培訓課程，對象為港龍航空的飛行學員。培訓課程根據國際民航組織最新的發牌制度和着重才能的訓練概念而制訂，受訓學員共有12人。

New Multi-crew Pilots Licence (Aeroplanes) Course

On September 28, 2011, the Flight Standards Office granted the approval to HDA and Oxford Aviation Academy to conduct the first phase of a Trial Multi-crew Pilots Licence (Aeroplanes) Course for the airlines' cadet pilots. The course was developed based on the ICAO new licensing regime and competency based training concept. A total of 12 cadets had joined the training programme.

適航事務組人員檢查航機，監察維修和適航標準。
The Airworthiness Office conducts inspections to monitor maintenance and airworthiness standards of aircraft.

本部人員正檢查直升機。
An FSAD officer inspecting a helicopter.

新成立的飛行模擬器營運公司

Flight Safety Training International (FSI)於二零一二年起，在香港為區內的商務飛機營運者培訓飛行員。為配合本地營運者的培訓需要，飛行標準組審核FSI在本港的設施及其灣流G550型飛行模擬器的標準，並於二零一二年一月二十七日，核准該飛行模擬器用作培訓和測試本地飛行員。

New Flight Simulator Operator

In 2012, Flight Safety Training International (FSI) began to provide flight crew training service in Hong Kong for business jet operators in the region. To facilitate Hong Kong operators' training needs, the Flight Standards Office examined the standards of FSI's facilities in Hong Kong and their Gulfstream G550 simulator. The simulator was subsequently approved for Hong Kong flight crew's training and checking on January 27, 2012.

交付航空器

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29架航空器，詳情如下：

Delivery of Aircraft

As the Hong Kong aviation industry continued to grow, local airlines expanded their fleets and a total of 29 aircraft were added to the Hong Kong Civil Aircraft Register in the period as follows:

國泰航空 CPA	三架空中巴士A330型、五架波音B747型貨機和七架波音B777型 Three Airbus 330, five Boeing 747 freighters and seven Boeing 777
香港航空 CRK	三架空中巴士A330型、一架空中巴士A330型貨機和一架空中巴士A320型 Three Airbus 330, one Airbus 330 freighter, and one Airbus A320
港龍航空 HDA	兩架空中巴士A320型 Two Airbus 320
香港商務航空 HKJ	一架灣流G550型 One Gulfstream G550
香港商用飛機 MTJ	一架Cessna 560XL型 One Cessna 560XL
TBJ	一架龐巴迪CL605型和兩架龐巴迪BD700型 One Bombardier CL605 and two Bombardier BD700
私人航空器營運者 Private aircraft operators	一架龐巴迪BD700型和一架灣流G550型 One Bombardier BD700, and one Gulfstream G550

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，又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。

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。截至二零一二年三月三十一日，共有26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和廈門太古飛機工程有限公司。

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 cities in the Mainland, Middle East, India, other parts of Asia, 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.

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, 2012, there were 26 approved maintenance organisations holding Hong Kong approvals. Major maintenance companies, including Hong Kong Aircraft Engineering Company Limited (HAECO), Hong Kong Aero Engine Services Limited, and Taikoo (Xiamen) Aircraft Engineering Company Limited, are regulated through rolling audits and regular visits.

年內，香港民用航空器登記冊新增29架航空器。
Twenty nine aircraft were put on the Hong Kong Civil Aircraft Register during the year.

飛機維修訓練

截至二零一二年三月三十一日，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, 2012, 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

截至二零一二年三月三十一日，共有八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, 2012, a total of eight HKAR-21 Design and Production Organisations were approved by the Department to provide certification of aircraft related products/parts including their design and production.

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。
Flight crew licences and aircraft maintenance licences issued by the Personnel Licensing Office.

航空人員執照事務組的考試室。
Examination Room at the Personnel Licensing Office.

適航事務組統計數字
(二零一一年四月一日至二零一二年三月三十一日)

Airworthiness Office Statistics
(between April 1, 2011 and March 31, 2012)

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
29	240	12	26	5	8

航空人員執照事務組

空勤人員執照

二零一一至一二年度，航空人員執照事務組共處理2 726份申請，當中包括首次及續期簽發空勤人員執照、簽發飛機及儀表等級、英語能力認證和轉換海外執照為香港執照。執照事務組亦舉行了4 702次空勤人員執照考試，其中有1 227次在香港舉行。為配合業界對海外培訓及考試的需求，民航處核准了澳洲和英國的飛行培訓機構，及分別在兩地監察3 091次及384次空勤人員執照考試。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/申請人簽發共4 263份體檢合格證明書。

PERSONNEL LICENSING OFFICE

Flight Crew Licensing

During 2011-12, the Personnel Licensing Office (PELO) processed a total of 2 726 applications, including initial grant and renewal of flight crew licences, aircraft and instrument ratings, language proficiency endorsements and conversion of foreign flight crew licences into Hong Kong licences. Of the total 4 702 CAD flight crew licensing written examinations, 1 227 were conducted locally in Hong Kong. To meet industry demand for conducting trainings and examinations overseas, the CAD approved flying training organisations overseas and invigilated 3 091 examinations in Australia and 384 examinations in the United Kingdom. In addition, 4 263 medical certificates were issued to holders/applicants of Hong Kong flight crew licence or air traffic controller's licence.

二零一一年十一月三日，民航處向香港飛機工程有限公司發出《香港航空要求－21》的設計機構及生產機構許可證。
HKAR-21 Design Organisation Approval and HKAR-21 Production Organisation Approval were issued to HAECO on November 3, 2011.

飛機維修執照

截至二零一二年三月三十一日，執照事務組共處理882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5 321份試卷的考試。

Aircraft Maintenance Licensing

As at March 31, 2012, the PELO processed 882 applications for initial licence issue, renewal or inclusion of aircraft type rating endorsements in aircraft maintenance licences. During the report period, a total of 5 321 examinations were conducted at the PELO and the authorised examination centre at HAECO in Tseung Kwan O.

適航事務組通過機庫檢查、公司運作審查及產品審查，定期監察相關機構。
The Airworthiness Office monitors relevant organisations through hangar surveys, company audits and product audits.

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。

年內，飛行安全組從航空業界接獲536宗強制性事故報告。該組與各航空公司、維修機構、機場營運人和航空交通服務提供者保持緊密聯繫，調查和跟進所有強制性事故報告，務求改善航空安全，防止事故再度發生。

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）有限公司和香港飛行總會）、香港滑翔傘協會，以及個別私人航空器擁有人。

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.

During the year, the Flight Safety Office received 536 Mandatory Occurrence Reporting (MOR) from the industry. Through close liaison with airline operators, maintenance organisations, aerodrome operator and air traffic service provider, all MORs were investigated for the purpose of enhancing aviation safety and preventing recurrence.

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 coordinate safety issues 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, HHK, HEL and the Hong Kong Aviation Club) as well as the Hong Kong Paragliding Association and private aircraft owners.

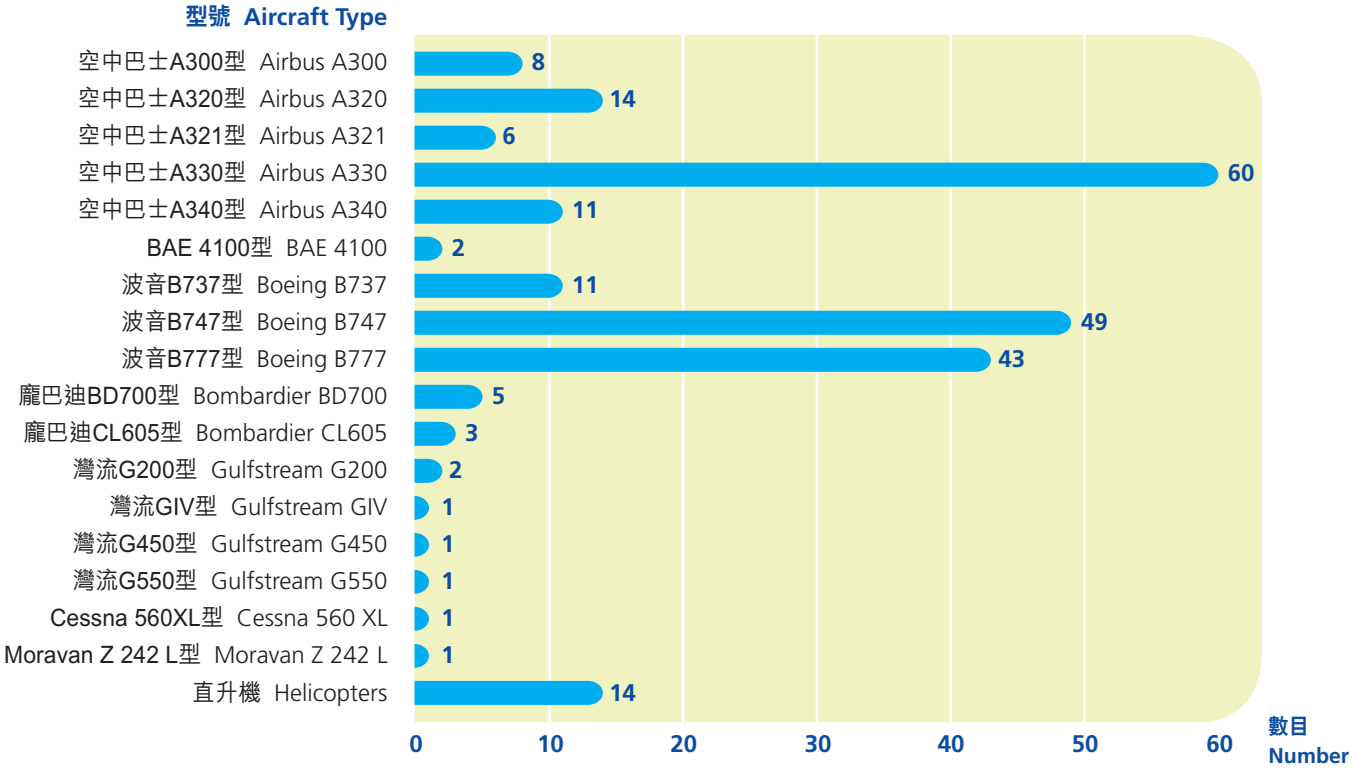
適航事務組人員檢查航機，監察維修和適航標準。
The Airworthiness Office conducts inspections to monitor maintenance and airworthiness standards of aircraft.

飛機登記

年內，香港民用航空器登記冊共新增29架航空器，同期另有四架空中巴士A340型、一架灣流G200型和一架歐洲直升機公司EC120型取消登記。截至二零一二年三月三十一日，香港民用航空器登記冊上共有269架民用航空器，當中233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 29 aircraft were put on the Hong Kong Civil Aircraft Register. In the same period, four Airbus 340, one Gulfstream G200 and one Eurocopter EC120 were removed from the Register. As at March 31, 2012, the total number of civil aircraft in the Hong Kong Civil Aircraft Register was 269, of which 233 were registered under Hong Kong AOC holders and the GFS as follows:



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、歐洲航空安全局旋翼機座談會、空中巴士的合格審定及維修審查委員會工作組會議，以及飛行記錄器及其海上搜索、廣播式自動相關監察系統和意外調查的研討會等。

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 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 international experts. These international events included the ICAO conference/seminar on Performance-Based Navigation; EASA Rotorcraft Symposium; Airbus working group meetings on Certification and Maintenance Review Board; seminars on flight recorders and their sea search, Automatic Dependent Surveillance Broadcast and accident investigation.

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。調查工作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。

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.

年內，本處公布一份嚴重事故調查報告，涉及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。報告提出共六項安全建議。另外，仍在調查的意外如下：

- 二零一零年四月十三日，一架屬國泰航空的空中巴士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。

- 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。

所有調查報告，包括初步報告及意外調查公報，均已上載民航處網頁(www.cad.gov.hk/chinese/reports.html)。

During the year, the CAD published the report on the investigation of a serious incident involving an Airbus 340 aircraft registered in Finland and operated by Finnair that attempted to take off from a taxiway in the HKIA. The incident happened on November 26, 2010 and there was no injury or property damage. A total of six safety recommendations were made in the Report. In addition, the following accidents were under investigation:

- On April 13, 2010, an Airbus 330 aircraft operated by CPA conducted an emergency landing at the HKIA 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.

- On December 27, 2010, a Eurocopter AS332 L2 Super Puma helicopter of the GFS ditched in Shing Mun Reservoir due to failure of an engine during a fire-fighting operation. All crew members left the helicopter safely.

- On January 3, 2011, an Aerospatiale SA315B LAMA helicopter of HEL conducted 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.

All the investigation reports, including the preliminary reports and accident bulletins, are published on the CAD's website (www.cad.gov.hk/english/reports.html).

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機制，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 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.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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》的規定。

為確保香港國際機場持續符合機場牌照發牌規定，本部在年內進行了14次審計和128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、飛機運作所需的其他設施、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，以防同類事故重演。

為提升機場的安全水平，機管局於年內成立「機場安全特別小組」。小組舉辦各式各樣的活動，例如人為因素培訓課程，以及與各機構合辦安全培訓課程及安全意識活動。本部密切監督該小組的工作，並就如何提升相關活動的成效，提出建議。

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.

To ensure the HKIA's continued compliance with the aerodrome licensing requirements, the Division carried out 14 audits and 128 inspections during the year covering both ad hoc and scheduled airside routine maintenance works, conditions of airfield pavements, visual aids, other facilities required for aircraft operations, implementation of the Safety Management System, 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.

An Airfield Safety Taskforce was established by the AAHK during the year to enhance the safety level of the HKIA. Various programmes such as human factors training, joint safety training and safety awareness campaign were launched by the Taskforce. The Division closely monitored the work of the Taskforce and provided recommendations to improve the effectiveness of the programmes.

最新的波音747-8F型貨機於二零一一年十月首次降落香港國際機場。
October 2011 marked the first occasion that the new B747-8F landed at the HKIA.

年內，機管局推行數項大型維修計劃。其中，北跑道刨鋪工程於二零一一年一月展開，於同年六月竣工，而第二期的主要滑行道刨鋪工程於二零一一年十一月展開，預計在二零一二年六月完成。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，監察工程進度，並且不時巡查上述刨鋪工程。

Several large-scale airfield maintenance projects were undertaken by the AAHK during the year. The North Runway resurfacing works commenced in January 2011 and was completed in June 2011. The second phase of the major taxiway resurfacing programme commenced in November 2011 and was scheduled for completion in June 2012. To ensure that disruptions to normal airport operations were kept to the minimum while these works were going on, the Division liaised closely with the AAHK to monitor the progress and conducted inspections from time to time on these resurfacing works.

機管局於年內亦展開多項改善工程，以應付新需求及/或進一步提升機場運作的安全及效率。其中一項工程旨在提升香港國際機場處理A380型飛機的能力。機管局為一個廊前客運停機位進行改善工程，提升飛機目視停靠引導系統並加長登機橋，以便A380型飛機靠泊。改善工程已於二零一一年五月竣工。在該停機位重新投入服務前，本部聯同機管局實地檢查，以審核各項設施的性能水平。此外，機管局於二零一二年一月在另一個A380廊前客運停機位開展加建第三條登機橋的前期預備工作，預計整項改建工程將於二零一二年年底完成。機管局亦計劃為現時設有兩條登機橋的另一個廊前客運停機位，改建其中一條登機橋，以便直接與A380型飛機上層客艙接合，從而增設一個A380型飛機的廊前客運停機位。這項改建工程預計在二零一三年年中完成。本部將持續監察上述改善工程，以確保新設施完全符合機場發牌規定。

A number of enhancement projects were also 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 to further enhance the efficiency in handling A380 aircraft at the HKIA. Improvement works were carried out at one of the A380 frontal passenger stands to upgrade the aircraft parking aid system and airbridge extension. Such improvement works were completed in May 2011 and the Division conducted a joint inspection with the AAHK to check the performance of the facilities before putting the parking bay into operation. Besides, the preliminary works for the installation of a third airbridge at another A380 frontal passenger stand had also commenced in January 2012 and the target completion date was late 2012. The AAHK also planned to provide one more A380 frontal passenger stand by reconfiguring one of the two existing airbridges at the stand so that it could dock directly to the upper deck of A380. The target completion of this project was mid-2013. The Division will continue to monitor the upgrading works to ensure that these new facilities will fully comply with the licensing requirements.

年內進行的另一項改善工程是改建四個貨機停機位，以供B747-8F型貨機停泊。本部仔細審批機管局提交的改建工程建議書，並實地監察施工情況。這些經改建的停機位於二零一二年一月中啟用後，本部實地巡查B747-8F型貨機的停泊與地面服務流程，確保運作安全。

Another enhancement project carried out during the year was the modification of four cargo stands for the parking of B747-8F aircraft. The Division carefully vetted the modification proposal submitted by the AAHK and monitored the actual modification works. Upon the commissioning of these modified stands in mid-January 2012, the Division conducted inspections on the parking and servicing of B747-8F aircraft at these bays to ensure safe operation.

N66停機位的飛機目視停靠引導系統已經提升，並包含A380型飛機的靠泊資料。
The Aircraft Parking Aid system at Bay N66 is upgraded to incorporate A380 aircraft's docking information.

二零一一年十月，香港國際機場特別舉行儀式，歡迎全球商用首航的波音787型飛機。
A ceremony was held in October 2011 at the HKIA to welcome the world's first B787 commercial flight.

除此之外，本部亦積極參與南跑道引出滑行道重新命名的工程。經本部與持份者周詳規劃和深入討論後，工程於二零一一年三月起分七個階段展開。由於工程複雜，本部密切監察改建工程的進度，以確保各階段工程平穩過渡，順利推行。該項工程預計於二零一二年四月完成。

The Division was also actively involved in the South Runway exit taxiways renaming project. Such works commenced in March 2011 after careful planning and thorough discussions among various stakeholders. The project was carried out in seven phases. In view of the complexity of these works, the Division closely monitored the progress of the modification work to ensure a smooth transition and successful implementation. The whole project was scheduled for completion in April 2012.

機管局在選定滑行道試用發光二極管燈作為地面燈號系統的一年期可行性研究，已於二零一一年四月完成。至於旨在探測壞燈的功能測試亦已於二零一二年三月底完成，測試結果理想。本部一直密切監察可行性研究的進展，不時向機管局提供意見及建議。

The one-year feasibility study on the use of LED lights for selected taxiways conducted by the AAHK was completed in April 2011. Trials to test the lamp failure detection functionality were conducted at the end of March 2012 and the result was satisfactory. The Division closely monitored the progress of the feasibility study and provided comments and recommendations to the AAHK during the period.

為確保機場運作安全順暢，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，就機場中場範圍發展計劃、西停機坪發展計劃，以及《香港國際機場2030規劃大綱》提供意見。隨着機場中場範圍發展計劃於二零一一年年底展開，本部密切監察該計劃的前期工程，確保機場安全運作，不受影響。

To ensure safe and smooth 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 Midfield development project, the West Apron development project and the HKIA Master Plan 2030 study. The Midfield development project commenced construction at the end of 2011 and the Division closely monitored the advance works of the project to ensure that safety of airfield operations would not be compromised.

在本年度的飛機事故演習中，各參與單位於消防指揮船上操練直升機救援程序，以及把生還者送上岸上接受診治。
Helicopter winching drill on the deck of a Fire Command Boat, and transport of survivors ashore for medical treatment during this year's Annual Crash Exercise.

為測試緊急應變程序，以及加強機場各個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了多次演習，包括於二零一一年十一月十六日午夜，在上環空中快線直升機場舉行緊急應變演習。該演習模擬直升機起飛後不久引擎出現故障，必須在西面直升機坪緊急降落，過程中有乘客受傷。本部參與演習前的預備會議及實地視察，並觀察整個緊急演習，其後提出了多項意見及建議，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 16, 2011 at the Sky Shuttle Heliport located in Sheung Wan. The exercise simulated an aircraft accident during which a helicopter encountered engine failure soon after take-off and needed to conduct emergency landing on the western helipad which resulted in passenger injury in the cabin. The Division participated in the preparation meetings and site visits and observed the exercise. The Division also provided comments and recommendations for follow-up by the heliport operator and relevant responding parties after the completion of the emergency exercise.

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緊急應變演習。本部一直參與籌劃，並定期視察這些演習。其中一次是在二零一一年十一月二十四日舉行的年度大型飛機意外救援演習。是次演習模擬多個危機狀況，包括飛機於北跑道以東海面墜毀，引擎跌落在停機坪上，引致陸上工作人員受傷，並造成陸地交通中斷。不同應變單位，包括機管局、相關政府部門和航空公司參與演習，以測試緊急程序和應變能力，包括在海上救援時從機內疏散乘客和機組人員，以及處理臨時交通改道安排。從籌備至完成演習，本部監察各階段的運作，並提出意見及建議，讓機管局及相關應變單位跟進，以進一步改善緊急程序和應變能力。

Similar drills and exercises were conducted at the HKIA by the AAHK throughout the year in accordance with the licensing requirements stipulated by the Division. The Division participated in the planning and conducted regular inspections on these drills and exercises. One of them was the full-scale annual aircraft crash exercise conducted on November 24, 2011. The exercise simulated multiple scenarios including the ditching of an aircraft at the sea area east of the North Runway and one of its engines was detached, causing ground injury at a parking stand and land traffic disruption. Different responding parties, including the AAHK, relevant government departments and the participating airline, took part in the exercise to test the emergency procedures and responses in evacuating passengers and the crew from the aircraft ditched into the sea and handling ad hoc traffic diversion arrangement. The Division oversaw the preparation and operation of the exercise starting from planning until completion and provided comments and recommendations for the AAHK and relevant responding parties to further enhance their emergency procedures and responses.

香港國際機場的中場範圍發展計劃現已展開。圖為機管局於一條滑行道上進行滑行道接駁前期工程。
The HKIA's Midfield development has now commenced. Picture shows taxiway tie-in works on one of the taxiways.

機場安全標準部人員巡察停機坪照明燈維修工作。
APSD officers inspect high mast lights maintenance works at the apron.

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和研究，在香港國際機場範圍以外的有港珠澳大橋香港口岸的填海工程、港珠澳大橋香港接線、廣深港高速鐵路、位於青衣島西南面的十號貨櫃碼頭、屯門赤鱲角接線，以及東涌餘下發展計劃。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、香港國際機場中場範圍發展計劃及西停機坪發展計劃。在機管局擬備《香港國際機場2030規劃大綱》時，本部亦就擴建機場後的機場高度限制及相關海上限制區積極提供意見，以確保航道安全。

為確保航空安全不受危害，本部繼續監察各類激光、探射燈及煙花表演，如「幻彩詠香江」燈光匯演、國慶及新年煙花匯演等，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。

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 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 Reclamation Works, the Hong Kong-Zhuhai-Macao Bridge – Hong Kong Link Road, the Guangzhou-Shenzhen-Hong Kong Express Rail Link, Container Terminal 10 at Southwest Tsing Yi, the Tuen Mun-Chek Lap Kok Link and the Remaining Development in Tung Chung. The major projects within the HKIA assessed included the Cathay Pacific Cargo Terminal, the HKIA's Midfield development project and the West Apron development project. Besides, when the HKIA Master Plan 2030 was being prepared by the AAHK, the Division provided advice on AHR and the associated Marine Exclusion Zones (MEZs) for an expanded airport system in order to ensure aviation safety along the flight paths.

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

在環球貿易廣場加入「幻彩詠香江」的表演前，本處視察其激光測試情況。
Prior to joining the "Symphony of Lights" show, the CAD inspects the laser testing at the International Commerce Centre.

年內，本部共批准了61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。至於港珠澳大橋香港口岸的填海工程，自二零一二年年初，共批准了五宗機場高度限制臨時豁免的申請。

This year, the Division issued 61 temporary AHR exemptions to facilitate construction works in the territory and vessel operations in the vicinity of the airport island. For the Hong Kong-Zhuhai-Macao Bridge – Boundary Crossing Facilities Reclamation Works, five temporary AHR exemptions were issued to facilitate the works since the beginning of 2012.

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，以免干擾航機及無線電導航儀器運作。年內，海事處針對非法闖入限制區，共提出六次檢控。

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

一般飛行活動

General Aviation Activities

本部繼續規管康樂飛行活動，包括滑翔傘、氣球、風箏、模型飛機、無人駕駛飛機系統等活動，確保這些活動在符合飛行安全規例的情況下進行，而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, model aircraft flying and unmanned aircraft systems to ensure that these activities were conducted in compliance with applicable aviation safety regulations and would not affect civil aircraft operations.

經本部詳細評估和實地視察，本處於二零一一年十二月簽發豁免書予香港航空青年團，容許該團在將軍澳堆填區第二/三期，放飛重量界乎7至20公斤的模型飛機。

After conducting detailed assessment and site inspection, an exemption was granted to the Hong Kong Air Cadet Corps in December 2011 for the flying of model aircraft weighing between 7kg and 20kg in the Tseung Kwan O Stage II/III Landfill.

香港航空青年團獲得本處審核和同意，在將軍澳設立場地，放飛重量介乎7至20公斤的模型飛機。
A flying site assessed by the CAD and operated by the Hong Kong Air Cadet Corps in Tseung Kwan O for flying model aircraft weighing between 7 kg and 20 kg.

本部同事巡察載人氣球的安全裝置。
A divisional colleague conducting a site inspection of a passenger balloon.

新設計的危險品認知宣傳海報。
The new dangerous goods awareness poster.

運載危險物品

機場安全標準部轄下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。危險品事務組訂立了危險品許可證制度，航空公司必須符合相關的安全規定，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，藉此持續監察託運危險品的安全水平。年內，危險品事務訂共處理四宗簽發空運危險品許可證申請及36宗許可證續期申請。截至二零一二年三月底，共有73家航空公司獲准運載危險品進出或飛越香港。

發布安全規定

危險品事務組繼續通過教育和宣傳活動發布安全規定，提高空運危險品的安全意識。年內，危險品事務組設計了全新的危險品認知海報並派發予航空公司、開辦危險品培訓課程的機構、貨運站營運者及貨運物流代理商，以加強業界人士對隱藏危險品的認識。

法例

為使本地兩套相關法例與國際民航組織最新的安全空運危險品規定一致，年內展開了修例工作。經修訂的法例在二零一二年一月一日生效。

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，於二零一一年四月到美國參加國際民航組織危險品專家組工作組會議，同年十月又到加拿大參加危險品專家組會議。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。

CARRIAGE OF DANGEROUS GOODS

The Dangerous Goods Office of the Division continued to enforce ICAO and local legal requirements on the safe transport of dangerous goods by air. Through a dangerous goods permission system established by the Dangerous Goods Office, airlines must satisfy all pertinent safety requirements before they are permitted to carry dangerous goods to, from or over Hong Kong. In addition, the 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, four new and 36 renewal applications for dangerous goods permissions were processed. At the end of March 2012, a total of 73 airlines were permitted to carry dangerous goods onboard their aircraft flying to, from or over Hong Kong.

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, a new dangerous goods awareness poster was produced and distributed to airlines, dangerous goods training organisations, cargo terminal operators and freight forwarders to strengthen industry awareness on hidden dangerous goods.

Legislation

During the year, an amendment exercise was conducted to align the two sets of local legislation with the latest requirements of the ICAO for the safe transport of dangerous goods by air. The amendments came into effect on January 1, 2012.

Liaison with ICAO and Overseas Authorities

The Dangerous Goods Office regularly participates in dangerous goods conferences and workshops to keep track of 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 the United States of America (USA) in April 2011 and the Dangerous Goods Panel meeting held in Canada in October 2011. The Dangerous Goods Office also maintained regular contacts with other civil aviation authorities in the United Kingdom, USA, Australia and Canada for experience and information sharing.

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，並向在香港營運的航空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 aircraft operators in Hong Kong and foreign aviation authorities.

航空保安

AVIATION SECURITY

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的各個營運者，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》處理五宗禁區指定個案，其中一宗是把海天客運碼頭內某些地方劃為機場禁區。其餘四宗個案配合亞洲空運中心有限公司、香港空運貨站有限公司和地勤設備工程有限公司的租戶禁區重新配置工程。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管制措施保障。

Security Oversight of Operators at the HKIA

The Division ensured that the AAHK and the operators at the HKIA, including 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 report period, the Division processed five designations of restricted areas under the Aviation Security Ordinance. One of the designations was to demarcate certain areas within the SkyPier as airport restricted area. The other four designations were made for the reconfigurations at tenant restricted areas of Asia Airfreight Terminal Company Limited, Hong Kong Air Cargo Terminals Limited, and Ground Support Engineering Limited. Officers of the Division conducted inspections prior to the commencement 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，以遵行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。本部持續檢查已登記的管制代理人，確保他們遵守規定。截至二零一二年三月三十一日，本處登記冊上共有1 346名管制代理人。為不斷優化管制代理人制度，本部與空運業界的代表組成工作小組，繼續研究措施以加強供應鏈的保安。

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 (RA) 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 RAs with the requirements of the RAR through inspections. As at March 31, 2012, there were 1 346 RAs registered with the Department. With a view to continually enhancing the RAR, the Division set up a working group which comprises representatives of the air cargo industry to identify measures for securing the supply chain.

難受管束人士的行為

為針對民航機上難受管束或擾亂秩序的人士的行為，香港於二零零五年制定《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共有九宗。

Unruly Behaviour

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

簡化手續

機場安全標準部藉着參與機場簡化手續委員會，監察國際民航組織附件9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2 240張新空勤人員證書和續發45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 at the HKIA. During the year, 2 240 new Crew Member Certificates (CMCs) and 45 renewed CMCs were issued to the crew members of Hong Kong registered aircraft operators.

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，美國隨即加強飛往美國客機的保安檢查。為配合美國的要求，本部和航空公司繼續保持聯繫，加強所有飛往美國客機的保安措施。

二零一零年十月，位於英國和阿拉伯聯合酋長國的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。其後，本部繼續與相關各方協調，加強保安措施，保障空運貨物安全。

Enhanced Security Measures

After the attempted terrorist attack on the Northwest Airlines flight 253 from Amsterdam to Detroit on December 25, 2009, USA initiated enhanced security measures on all passenger flights bound for destinations in USA. To comply with USA's requirements, the Division continued to communicate with the aircraft operators to facilitate their implementation of enhanced security measures for all passenger flights bound for USA.

After the discovery of explosive devices hidden inside printer toner cartridges at the airports in the United Kingdom and the United Arab Emirates within freight consignments from Yemen to Chicago in October 2010, the Division continued to coordinate with relevant parties on the implementation of additional security measures to safeguard air cargo security.

二零一二年一月，國際民航組織就推行《國際民航組織航空保安宣言》，召開航空保安地區會議，審視國際民航組織大會第37屆會議之後的現行航空保安活動和日後的相關活動。
In January 2012, the ICAO convened a Regional Aviation Security Conference on the Implementation of the ICAO Declaration on Aviation Security to review present and planned aviation security activities since the conclusion of the 37th Session of the ICAO Assembly.

國際事務

國際民航組織亞太區互助航空保安計劃

由二零零四年起，中國香港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，是協助參與計劃的成員遵行國際民航組織附件9和附件17所訂的航空保安標準和建議措施，並加強航空保安能力。二零一一年六月，機場安全標準部派員出席在印度新德里舉行的保安計劃第八次主導委員會會議。

國際民航組織航空保安地區會議

二零一二年一月，國際民航組織在馬來西亞吉隆坡召開航空保安地區會議，以推行《國際民航組織航空保安宣言》。本部派員出席會議，向與會人士闡述香港落實《航空保安宣言》的工作進展。會議最後通過聯合聲明，重申各締約國承諾履行《航空保安宣言》。

亞太區經濟合作組織（亞太經合組織）

自二零零零年起，機場安全標準部不時代表中國香港，參與亞太經合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。本部繼續協助航空保安小組制訂航空保安指引。

INTERNATIONAL ACTIVITIES

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

Since 2004, Hong Kong, China has joined the CASP-AP established by the ICAO. The ICAO CASP-AP aims at assisting states and administrations in the Asia Pacific region to comply with the standards and recommended practices for aviation security in ICAO Annexes 9 and 17, and to enhance their competence in aviation security. The Division attended the Eighth Steering Committee Meeting of the Programme held in New Delhi, India in June 2011.

ICAO Regional Aviation Security Conference

The ICAO convened a Regional Aviation Security Conference in Kuala Lumpur, Malaysia in January 2012 to promote the implementation of the ICAO Declaration on Aviation Security. The Division attended the conference and presented to the participating delegates on the progress of the work undertaken by Hong Kong in implementing the Declaration on Aviation Security. At the end of the conference, a Joint Statement was adopted to reaffirm the contracting states' commitments in fulfilling the Declaration.

Asia-Pacific Economic Cooperation (APEC)

Since 2000, from time to time the Division has represented Hong Kong, China to participate in the Aviation Security Sub-Group (ASG) of the APEC Transportation Working Group, 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.

航班事務
Air Services

航班事務部負責監察航空公司的航班服務，就本地航空公司的空運牌照申請及民用航空運輸談判向有關當局提供資料，處理有關民航立法事宜，提供航空交通統計及預測數字以計劃增添航空交通管制設施，以及制訂和執行飛機噪音消減措施。

The Air Services Division is responsible for monitoring the air services provided by airlines, providing information to the relevant authorities regarding air transport licence applications by local airlines and for air services negotiations, handling civil aviation legislative matters, producing air traffic statistics and forecasts to facilitate planning of additional air traffic control facilities, and developing and implementing noise mitigating measures.

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，特別是國際民航組織和亞太區經濟合作組織（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 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的航機的飛行路線，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、評估直升機服務需求、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 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.

今年度新增11個航點，提供來往香港的定期航班服務。
This year, 11 new points are added for scheduled services to and from Hong Kong.

二零一一至一二年度的客運量及飛機升降量皆錄得7%增長。
In the year 2011-12, both passenger throughput and aircraft movements increased by 7%.

航空服務

航空交通量增長

二零一一至一二年度的載運量方面，客運量比去年上升7%至5 390萬人次，飛機升降量亦增加7%至339 133架次。在不明朗的環球經濟氣候影響下，貨運量則按年下跌6%，減至390萬公噸。

截至二零一二年三月底，提供定期往來香港航班服務的航空公司，總數為102家，服務的城市/機場總數維持約160個。航點城市/機場的變動情況詳見附錄甲。

本地航空公司的服務

年內，國泰航空公司（國泰）先後在二零一一年六月和九月，開辦香港往返阿布扎比和芝加哥的定期客運航班。截至二零一二年三月底，國泰營辦往返香港的定期航班服務遍及全球66個目的地。

港龍航空公司（港龍）於二零一一年二月停辦往返仙台的定期客運航班。截至二零一二年三月底，港龍定期航班服務遍及29個目的地，包括15個內地城市。

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，並於二零一二年二月開辦往返胡志明市的定期貨運航班。截至二零一二年三月底，華民經營往返亞洲12個目的地的定期航班服務。

香港航空有限公司（香港航空）繼續擴展區內服務網絡，開辦定期客運航班往返成都、重慶、海口、高雄、倫敦、南京、布吉和台北，但亦先後停辦往返莫斯科、杭州和昆明的航線。貨運服務方面，香港航空開辦往返寧波、大阪、石家莊和台北的航線，但停辦往返鄭州的航線。截至二零一二年三月底，香港航空經營往返24個目的地的定期航班服務。

AIR SERVICES

Air Traffic Growth

Traffic throughput in the year 2011-12 reached 53.9 million passengers with a growth rate of 7%. Aircraft movements also reached 339 133 movements, with a growth rate of 7%. Due to uncertain global economic climate, cargo throughput dropped to 3.9 million tonnes, representing a year-on-year decline of 6%.

By the end of March 2012, the number of scheduled airlines serving Hong Kong was 102. The total number of cities/airports served by scheduled services to and from Hong Kong remained at around 160. Details of the changes in these cities/airports are given in Appendix A.

Services by Local Carriers

During the year, Cathay Pacific Airways (CPA) launched new scheduled passenger services to Abu Dhabi and Chicago in June and September 2011 respectively. By the end of March 2012, CPA operated scheduled services to 66 destinations worldwide.

The Hong Kong Dragon Airlines Limited (HDA) suspended scheduled passenger services to Sendai in February 2011. By the end of March 2012, HDA operated scheduled services to 29 destinations, including 15 cities in the Mainland.

AHK Air Hong Kong Limited (AHK) continued to operate its all-cargo services in Asia and launched scheduled all-cargo services to Ho Chi Minh City in February 2012. By the end of March 2012, AHK operated scheduled services to 12 destinations in Asia.

Hong Kong Airlines Limited (CRK) continued to expand its regional services. CRK launched scheduled passenger services to Chengdu, Chongqing, Haikou, Kaohsiung, London, Nanjing, Phuket and Taipei but suspended services to Moscow, Hangzhou and Kunming. For all-cargo services, CRK commenced services to Ningbo, Osaka, Shijiazhuang and Taipei but suspended services to Zhengzhou. By the end of March 2012, CRK operated scheduled services to 24 destinations.

航班事務 Air Services

香港快運航空有限公司（香港快運）繼續擴展區內定期客運航班服務，年內開辦往返長沙、海口、昆明、南寧、西安和首爾的航線，但停辦往返馬尼拉的航線。截至二零一二年三月底，香港快運的定期航班服務遍及13個目的地。	Hong Kong Express Airways Limited (HKE) continued to expand its regional scheduled passenger services and commenced services to Changsha, Haikou, Kunming, Nanning, Xian and Seoul but suspended services to Manila. By the end of March 2012, HKE operated scheduled services to 13 destinations.
香港商用飛機有限公司經營來往亞洲多個目的地的不定期客運航班。	Metrojet Limited operated non-scheduled passenger services to destinations in Asia.
空中快線直升機有限公司繼續經營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.
直升機服務（香港）有限公司繼續在本地提供客運包機和空中作業服務。	Heliservices (Hong Kong) Limited continued to operate local passenger charters and aerial work.
TAG Aviation Asia Limited經營區內不定期客運服務。	TAG Aviation Asia Limited operated regional non-scheduled passenger services.
香港航空公務機管理有限公司於二零一一年年底投入服務，經營區內不定期客運服務。	Hong Kong Airlines Corporate Jet Management Limited commenced operation at the end of 2011 for regional non-scheduled passenger services.

非本地航空公司的服務

定期客運服務方面，二零一一年四月，美佳航空開辦往來馬累與香港和往來甘島與香港的航班服務；二零一一年五月，釜山航空開辦往來釜山與香港的航班服務；二零一一年六月，蒙古航空開辦往來烏蘭巴托與香港的航班服務；二零一一年七月，天津航空和菲律賓飛鷹航空分別開辦往來天津與香港和往來宿霧與香港的航班服務；二零一一年十月，符拉迪沃斯托克航空和真航空分別開辦往來海參威與香港和往來首爾與香港的航班服務；二零一一年十一月，西伯利亞航空開辦往來海參威與香港的航班服務；二零一二年一月，深圳航空開辦往來晉江與香港的航班服務。

定期貨運航空服務方面，二零一一年八月，Nordic Global Airlines開辦往來赫爾辛基與香港的服務；二零一一年十月，Silk Way Airlines開辦往來巴庫與香港的服務。

年內，有11家航空公司停辦往返香港的定期航班服務，計有：DeccanCargo（二零一一年五月）；東海航空和上海國際貨運航空（二零一一年六月）；翡翠國際貨運航空有限責任公司（二零一一年八月）；印尼亞洲航空公司（二零一一年九月）；俄羅斯全祿航空公司（二零一一年十月）；Cargoitalia S.P.A.（二零一一年十二月）；全亞航空和K-Mile Air（二零一二年二月）；翠鳥航空和美國大陸航空公司（與聯合航空公司合併）（二零一二年三月）。

年內，民航處合共簽發145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4 100宗更改定期航班服務的申請，另又簽發984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, Mega Global Air Services launched services from Male and Gan Island in April 2011. Air Busan commenced services from Busan in May 2011. MIAT Mongolian Airlines commenced services from Ulaanbaatar in June 2011. In July 2011, Tianjin Airlines started services from Tianjin and Airphil Express started services from Cebu. In October 2011, Vladivostok Air launched services from Vladivostok and Jin Air launched services from Seoul. In November 2011, Siberia Airlines started services from Vladivostok. Shenzhen Airlines started services from Jinjiang in January 2012.

For scheduled all-cargo services, Nordic Global Airlines started services from Helsinki in August 2011. Silk Way Airlines started services from Baku in October 2011.

During the year, 11 airlines suspended their scheduled services to and from Hong Kong. They are: Deccan Cargo in May 2011; Donghai Airlines and Shanghai Airlines Cargo in June 2011; Jade Cargo International in August 2011; Indonesia AirAsia in September 2011; Transaero Airlines in October 2011; Cargoitalia S.P.A. in December 2011; Aviastar Mandiri and K-Mile Air in February 2012; Kingfisher Airlines and Continental Airlines (merged with United Airlines) in March 2012.

During the year, the Department issued 145 operating permits to airlines for operation of scheduled services to Hong Kong and processed around 4 100 applications for changes to the schedules. A total of 984 permits were also issued for the operation of charter services to and from Hong Kong.

年內，民航處處理約4 100宗更改定期航班服務的申請，以及簽發984張經營來往香港包機服務的許可證。
During the year, the Department processed around 4 100 applications for changes to the schedules and issued 984 permits for the operation of charter services to and from Hong Kong.

運價

年內，民航處共處理1 323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1 603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 1 323 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 1 603 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，民航處繼續積極參與國際民航組織的活動。年內，民航處代表以中華人民共和國代表團成員身分，出席六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27次並非以國家為單位的國際民航組織會議。以上33次會議的詳情見附錄乙。此外，民航處與國際民航組織往來的函件共有380份，主要就民航技術事宜提供意見及資料。

ACTIVITIES OF THE ICAO

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 the ICAO, the Department continued to participate actively in the ICAO's activities. During the year, representatives of the Department attended six ICAO meetings which were limited to states as part of the delegation of the People's Republic of China, and 27 ICAO meetings which were not so limited, using the name "Hong Kong, China". Details of these 33 meetings are provided in Appendix B. The Department also exchanged 380 letters with the ICAO. The majority of these letters involved comments and information on technical matters related to civil aviation.

本處年內共處理1 323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。
The Department in the year processed 1 323 tariff filings for carriage of passengers and cargo on scheduled 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。
The Air Services Section reviews and proposes changes to civil aviation legislation.

亞太經合組織的活動

民航處繼續以「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，民航處因應亞太經合組織的25項要求，提供民航技術事宜的意見及資料。

空運牌照

根據《空運（航空服務牌照）規例》（第448A章），香港註冊航空公司若希望經營定期航班運載乘客、郵件或貨物，必須先向空運牌照局申請營運牌照。由二零一一年四月一日至二零一二年三月三十一日，航班事務組因應22宗牌照申請，向空運牌照局提供與航班事務相關的資料和統計數字。

飛機噪音管理

為減低飛機進出香港國際機場時所產生的噪音對航道下和附近居民的影響，民航處實施了一系列的噪音消減措施。

為紓減沙田、荃灣、葵涌、青衣等人口稠密地區的飛機噪音，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。

ACTIVITIES OF APEC

The Department continued to support aviation related activities and initiatives of APEC using the name "Hong Kong, China". During the year, the Department handled 25 requests relating to APEC, which involved provision of comments and information on technical matters related to civil aviation.

Air Transport Licensing

In accordance with the Air Transport (Licensing of Air Services) Regulations (Chapter 448A), Hong Kong-registered aircraft operator who wishes to operate scheduled services to carry passengers, mail or cargo must apply to the Air Transport Licensing Authority for a licence for such operation. From April 1, 2011 to March 31, 2012, the Air Services Section had provided the Air Transport Licensing Authority with air services-related information and statistics with regard to 22 licence applications.

AIRCRAFT NOISE MANAGEMENT

With a view to minimising the impact of aircraft noise on residents under and in the vicinity of the flight paths to and from the HKIA, the Department has implemented a series of noise mitigating measures.

To mitigate aircraft noise in highly populated areas such as Sha Tin, Tsuen Wan, Kwai Chung and Tsing Yi, subject to acceptable wind direction and safety consideration, aircraft arriving at the HKIA between midnight and 7 a.m. were required to land from the southwest over water.

技術行政組人員收集飛機噪音數據。
An officer of the Technical Administration Section collects aircraft noise data.

香港註冊航空公司如欲經營定期航班運載乘客、郵件或貨物，須向空運牌照局申請相關的營運牌照。
Hong Kong-registered aircraft operators who wish to operate scheduled services to carry passengers, mail or cargo must apply to the Air Transport Licensing Authority for a licence.

本處代表參加在緬甸仰光舉行的「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13次會議」。
CAD representatives participated at the 13th Steering Committee Meeting of the Co-operative Development of Operational Safety and Continuing Airworthiness Programme – Southeast Asia held in Yangon, Myanmar.

此外，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方起飛的航機，須採用西博寮海峽的航道離港。民航處在二零一二年二月，在上述離場程序加入使用衞星導航技術南轉的方案，以減低飛機噪音對馬灣地區的影響。

In addition, to reduce the impact of aircraft noise in Kowloon and the northern Hong Kong Island, aircraft taking off to the northeast between 11 p.m. and 7 a.m. were required to use the flight path via the West Lamma Channel, subject to acceptable operational and safety considerations. Since February 2012, the Department had enhanced this departure procedure with the satellite navigation technology in the south turn to West Lamma Channel to reduce the noise impact on Ma Wan.

此外，本處建議在情況許可下，於晚上十一時至早上七時，從東北方進場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，在開始進場時使用較低動力並在產生較少阻力的狀態下飛行，藉此減少將軍澳、西貢和馬鞍山等地區的飛機噪音。

Furthermore, aircraft approaching the HKIA from the northeast between 11 p.m. and 7 a.m. were advised 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, thereby reducing aircraft noise impact on districts such as Tseung Kwan O, Sai Kung and Ma On Shan.

民航處繼續利用飛機噪音及航迹監察系統，監察飛機進出香港國際機場時航道附近地區的噪音情況，以及監察噪音消減措施的實施情況。該系統由16個室外噪音監察站和一台中央電腦伺服器組成，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連繫起來。本處在二零一二年二月更新了電腦伺服器的軟硬件，以提高系統的性能。系統收集所得的資料有助本部調查飛機噪音投訴。年內，本部處理了513宗投訴。

The Department continued to monitor aircraft noise in the vicinity of the flight paths to and from the HKIA and the implementation of the noise mitigating measures with the aid of a computer-based Aircraft Noise and Flight Track Monitoring System. The system comprises 16 outdoor noise monitoring terminals and a central computer server to correlate the flight tracks recorded from the radars with the noise recorded by the noise monitoring terminals. To enhance the performance of the system, the Department upgraded the hardware and software of the central computer server in February 2012. The data compiled also assisted the Department to conduct investigation on noise complaints. During the year, the Division handled 513 complaints.

為加強與社區的聯繫，民航處多次派員出席立法會和區議會舉行的會議及其他團體論壇，解釋各項噪音消減措施。

To enhance liaison with the community, the Department attended various meetings organised by the Legislative Council and District Councils, and organisation forums to explain the noise mitigating measures implemented.

航班協調

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發行的《世界航班時刻準則》，採用中立、公開、公平的協調機制，務求善用機場的有限資源。

年內，航班協調辦公室共處理347 000宗機場航班升降時刻申請。為使時刻分配的工作更具效率和成效，網上協調系統已於二零一一年七月開始運作。該系統為航空公司提供實時航班時刻資料，已登記的使用者可即時申請、更改或查看航班時刻。

技術行政組負責研究直升機服務需求，以及促進直升機場的發展。
The Technical Administration Section is responsible for assessing the demand for helicopter services and facilitating the development of heliports.

SCHEDULE COORDINATION

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 IATA Worldwide Slot Guidelines to ensure the efficient utilisation of scarce airport resources.

During the year, the HKSCO processed 347 000 applications for arrival and departure slots at HKIA. To facilitate efficient and effective processing of slot allocations, an Online Coordination System commenced operation in July 2011 to provide real time information on runway slot availability to aircraft operators and enable registered users to add, edit and view slot allocations.

香港會議展覽中心附近的永久政府直升機坪，預計於二零一二年五月建成。
Construction of the proposed permanent government helipad near the Hong Kong Convention and Exhibition Centre is expected to be completed in May 2012.

直升機場的發展

民航處繼續監察跨境直升機服務設施的長遠發展。對於跨境直升機場的規劃，政府認為有需要因應各項考慮因素，重新評估跨境直升機服務的需求，以及位於啟德發展區的跨境直升機場的發展時間表。政府會考慮把已預留的土地，暫時轉作其他臨時用途。

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，預計於二零一二年五月建成。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。

HELIPORT DEVELOPMENT

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, taking into account various considerations, the administration considered it necessary to re-assess the demand for cross-boundary helicopter services and the timeframe for the development of the heliport. The administration will consider developing the reserved site for other temporary use in the meantime.

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 is expected to be completed in May 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

截至二零一二年三月來往香港的定期航班服務的城市/機場變動情況
(與二零一一年三月比較):

新增航點

新航點	*經營者*
1. 東方市	德國貨運航空公司
2. 晉江	深圳航空公司
3. 哈巴羅夫斯克	西伯利亞航空
4. 長灘島	宿霧太平洋航空公司和菲律賓航空公司
5. 倫敦(格域)	香港航空
6. 馬斯喀特	馬田航空公司和阿聯酋航空公司
7. 馬累	美佳航空
8. 第比利斯	英國航空公司
9. 烏蘭巴托	蒙古航空公司
10 海參威	西伯利亞航空和符拉迪沃斯托克航空
11. 宜昌	四川航空公司

刪減航點

刪除的航點	*前經營者*
1. 棉蘭	印尼亞洲航空公司
2. 泗水	加魯達印尼航空
3. 特里凡得琅	沙特阿拉伯航空公司

Appendix A

Changes in Cities/Airports Served by Scheduled Services to and from Hong Kong as at March 2012 (compared with March 2011) :

Additions

New Points	*Operated By*
1. Ciudad del Este	ACG Air Cargo Germany
2. Jinjiang	Shenzhen Airlines
3. Khaborovsk	Siberia Airlines
4. Kalibo	Cebu Pacific Air and Philippine Airlines
5. London (Gatwick)	Hong Kong Airlines
6. Muscat	Martinair and Emirates Airlines
7. Male	Mega Global Air Services
8. Tbilisi	British Airways
9. Ulaanbaatar	MIAT Mongolian Airlines
10. Vladivostok	Siberia Airlines and Vladivostok Air
11. Yichang	Sichuan Airlines

Deletions

Deleted Points	*Previously Operated By*
1. Medan	Indonesia AirAsia
2. Surabaya	Garuda Indonesia
3. Thiruvananthapuram	Saudi Arabian Airlines

附錄乙

民航處代表在二零一一年四月至二零一二年三月出席的國際民航組織會議：

會議名稱	*地點*	*日期*
1. 二零一一年危險品專家組工作組會議	美國大西洋城	二零一一年四月四日至八日
2. 廣播式自動相關監察系統實施專責小組第十次會議	新加坡	二零一一年四月二十六日至二十九日
3. 東南亞未來航空導航系統實施小組第11次會議暨東南亞航空交通管制協調小組第18次會議	泰國曼谷	二零一一年五月三日至六日
4. 性能導航專責小組第八次會議	印度新德里	二零一一年五月十二日至十三日
5. 航空電訊網實施協調小組第六次會議	南韓首爾	二零一一年五月十六日至二十日
6. 亞太地區航行規劃和實施小組轄下架構研究工作組第一次會議	泰國曼谷	二零一一年五月二十三日至二十四日
7. 亞太地區飛行計劃及航空交通服務訊息實施專責小組第四次會議	泰國曼谷	二零一一年五月三十日至六月三日
8. 亞太地區飛行程序計劃第二階段策劃會議	泰國曼谷	二零一一年五月三十一日至六月一日
9. 亞太地區互助航空保安計劃主導委員會第八次會議	印度新德里	二零一一年六月十四日至十五日
10. 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21次會議	泰國曼谷	二零一一年六月二十七日至七月一日
11. 亞太地區空中航行規劃和實施小組轄下通訊/導航/監視及氣象分組第15次會議	泰國曼谷	二零一一年七月二十五日至二十九日
12. 亞太地區無障礙航空交通管理研討會及特別小組會議	泰國曼谷	二零一一年八月十五日至十七日
13. 疲勞風險管理系統專題討論會暨疲勞風險管理系統論壇第三次年度會議	加拿大蒙特利爾	二零一一年八月三十日至九月二日
14. 亞太地區航行規劃和實施小組第22次會議	泰國曼谷	二零一一年九月五日至九日
15. 東南亞航道檢討專責小組第五次會議	泰國曼谷	二零一一年十月三日至五日
16. 亞太地區區域航空安全小組第一次會議	新喀里多尼亞努美阿	二零一一年十月十日至十一日

Appendix B

ICAO Conferences and Meetings Attended by Representatives of the Department between April 2011 and March 2012:

Name of Conference or Meeting	*Venue*	*Dates*
1. Dangerous Goods Panel Working Group Meeting 2011	Atlantic City, United States of America	April 4 - 8, 2011
2. 10th Meeting of Automatic Dependent Surveillance-Broadcast Implementation Task Force	Singapore	April 26 - 29, 2011
3. 11th Meeting of the Future Air Navigation System Implementation Team for Southeast Asia cum 18th Meeting of the Southeast Asia Air Traffic Services Coordination Group	Bangkok, Thailand	May 3 - 6, 2011
4. 8th Meeting of the Performance Based Navigation Task Force	New Delhi, India	May 12 - 13, 2011
5. 6th Meeting of Aeronautical Telecommunication Network Implementation Coordination Group	Seoul, Republic of Korea	May 16 - 20, 2011
6. 1st Meeting of the Contributory Bodies Structure Review Task Force of the Asia Pacific Air Navigation Planning and Implementation Regional Group	Bangkok, Thailand	May 23 - 24, 2011
7. 4th Meeting of the Asia Pacific Flight Plan and Air Traffic Services Messages Implementation Task Force	Bangkok, Thailand	May 30 - June 3, 2011
8. Asia Pacific Flight Procedure Programme Phase II Planning Meeting	Bangkok, Thailand	May 31 - June 1, 2011
9. 8th Steering Committee Meeting of the Co-operative Aviation Security Programme – Asia Pacific	New Delhi, India	June 14 - 15, 2011
10. The 21st 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	Bangkok, Thailand	June 27 - July 1, 2011
11. 15th Meeting of the Communications/ Navigation/ Surveillance and Meteorology Sub-Group of the Asia Pacific Air Navigation Planning and Implementation Regional Group	Bangkok, Thailand	July 25 - 29, 2011
12. Asia Pacific Seamless Air Traffic Management Symposium and Ad-hoc Group Meeting	Bangkok, Thailand	August 15 - 17, 2011
13. Fatigue Risk Management Systems Symposium cum the 3rd Annual Meeting of the Fatigue Risk Management Systems Forum	Montréal, Canada	August 30 - September 2, 2011
14. 22nd Meeting of the Asia Pacific Air Navigation Planning and Implementation Regional Group	Bangkok, Thailand	September 5 - 9, 2011
15. 5th Meeting of the Southeast Asia Route Review Task Force	Bangkok, Thailand	October 3 - 5, 2011
16. 1st Meeting of the Asia and Pacific Regional Aviation Safety Group	Nouméa, New Caledonia	October 10 - 11, 2011

附錄乙（續）

會議名稱	*地點*	*日期*
17. 亞太地區民航局局長第48次會議	新喀里多尼亞努美阿	二零一一年十月十日至十四日
18. 危險品專家組第23次會議	加拿大蒙特利爾	二零一一年十月十一日至二十一日
19. 地區安全監督組織專題討論會	加拿大蒙特利爾	二零一一年十月二十六日至二十八日
20. 防止傳染病經航空交通散播合作安排計劃主導委員會第五次會議	泰國曼谷	二零一一年十一月十四日至十五日
21. 安全管理專家組工作組第一次會議	加拿大蒙特利爾	二零一一年十一月十四日至十八日
22. 廣播式自動相關監察系統東南亞及孟加拉灣分區實施工作小組第七次會議	印度金奈	二零一一年十一月二十八日至三十日
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13次會議	緬甸仰光	二零一一年十一月二十九日至十二月一日
24. 亞太地區航空保安會議	馬來西亞吉隆坡	二零一二年一月十一日至十二日
25. 亞太地區無障礙航空交通管理規劃小組第一次會議	泰國曼谷	二零一二年一月三十一日至二月三日
26. 亞太地區飛行程序計劃主導委員會第三次會議	泰國曼谷	二零一二年二月八日至九日
27. 亞太地區航空安全小組第一次會議暨東南亞區航空安全小組第13次會議	泰國曼谷	二零一二年二月二十日至二十四日
28. 電離層研究專責小組第一次會議	日本東京	二零一二年二月二十七日至二十九日
29. 航空交通流量管理手冊協調小組第一次會議	荷蘭阿姆斯特丹	二零一二年三月五日至八日
30. 航空電訊網實施協調小組第七次會議	泰國清邁	二零一二年三月五日至九日
31. 航空情報服務 — 航空情報管理實施專責小組第七次會議	越南河內	二零一二年三月十三日至十六日
32. 航空保安專家組第23次會議	加拿大蒙特利爾	二零一二年三月二十六日至三十日
33. 性能導航專責小組第九次會議	泰國曼谷	二零一二年三月二十七日至三十日

Name of Conference or Meeting	*Venue*	*Dates*
17. 48th Conference of Directors General of Civil Aviation, Asia and Pacific Regions	Nouméa, New Caledonia	October 10 - 14, 2011
18. 23rd Meeting of the Dangerous Goods Panel	Montréal, Canada	October 11 - 21, 2011
19. Symposium on Regional Safety Oversight Organization	Montréal, Canada	October 26 - 28, 2011
20. 5th Steering Committee Meeting of the Co-operative Arrangement for the Prevention of Spread of Communicable Disease through Air Travel	Bangkok, Thailand	November 14 - 15, 2011
21. 1st Meeting of the Safety Management Panel Working Group	Montréal, Canada	November 14 - 18, 2011
22. 7th Meeting of the Southeast Asia and Bay of Bengal Sub-Regional Automatic Dependent Surveillance- Broadcast Implementation Working Group	Chennai, India	November 28 - 30, 2011
23. 13th Steering Committee Meeting of the Co-operative Development of Operational Safety and Continuing Airworthiness Programme - Southeast Asia	Yangon, Myanmar	November 29 - December 1, 2011
24. Asia Pacific Regional Aviation Security Conference	Kuala Lumpur, Malaysia	January 11 - 12, 2012
25. 1st Meeting of the Asia Pacific Seamless Air Traffic Management Planning Group	Bangkok, Thailand	January 31 - February 3, 2012
26. 3rd Steering Committee Meeting of the Asia Pacific Flight Procedure Programme	Bangkok, Thailand	February 8 - 9, 2012
27. 1st Meeting of the Asia Pacific Regional Aviation Safety Team cum 13th Meeting of Southeast Asia Regional Aviation Safety Team	Bangkok, Thailand	February 20 - 24, 2012
28. 1st Meeting of Ionospheric Studies Task Force	Tokyo, Japan	February 27 - 29, 2012
29. 1st Meeting of the Air Traffic Flow Management Manual Coordinating Team	Amsterdam, Netherlands	March 5 - 8, 2012
30. 7th Meeting of Aeronautical Telecommunication Network Implementation Co-ordination Group	Chiang Mai, Thailand	March 5 - 9, 2012
31. 7th Meeting of the Aeronautical Information Services - Aeronautical Information Management Implementation Task Force	Hanoi, Vietnam	March 13 - 16, 2012
32. 23rd Meeting of the Aviation Security Panel	Montréal, Canada	March 26 - 30, 2012
33. 9th Meeting of the Performance Based Navigation Task Force	Bangkok, Thailand	March 27 - 30, 2012

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 (CAD Project) was initiated to implement the commitment.

民航處計劃
The Civil Aviation Department Project

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，以容納新的航空交通管制中心（空管中心），以及讓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 developing a new CAD Headquarters to accommodate a new Air Traffic Control Centre (ATCC) and all CAD functional divisions under one roof to optimise resource utilisation and enhance efficiency.

興建民航處新總部

Development of the new CAD Headquarters

機管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28 000平方米的土地，用以興建本處新總部。

A site north of the Dragonair House/CNAC Building on both sides of Tung Fai Road with a combined site area of approximately 28 000 m² was allocated by the Board of Directors of the AAHK for the construction of the new CAD Headquarters.

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，加快工程進度。此外，民航處同事對新大樓的設計要求及理念亦可引入整個項目設計內，從而更能滿足用家的實際使用要求。

A design-and-build (D & B) approach is adopted for the construction of the new CAD Headquarters. Such an approach has a merit in running the initial ground works and detailed internal design stages concurrently, thus enhancing the efficiency of the construction programme. Besides, the practical needs from CAD colleagues could be integrated into the entire building design so as to meet our users' requirements.

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大樓和辦公及培訓大樓(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.

新總部的建築面積約為41 000平方米，其中包括新空管中心及相關設施、行政及規管辦公室和其他設施。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 gross floor area of 41 000 m² to accommodate the new ATCC and its associated facilities, administration and regulatory offices and other facilities. New facilities will include a centralised examination centre, aircraft accident investigation facilities, a multipurpose auditorium, an education path and a library-cum-resource centre.

二零一一年七月十一日，
民航處舉行新總部大樓平頂儀式。
The Topping-out Ceremony of the new CAD Headquarters was held on July 11, 2011.

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。大樓設計備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。

新總部設有多項環保設施和裝置，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。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。

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。

Sustainability, environmental friendliness and education 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.

Under the Building Environmental Assessment Method in Hong Kong, the new headquarters will be certified with the highest platinum rating owing to its environmental-friendly facilities and 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 levels one to three of the Facilities Building will respectively 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.

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 arouse the general public's interest in aviation. The library-cum-resource centre will also allow the CAD to share information and resources with industry partners and government counterparts.

計劃進展

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。

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。

連接各屋宇裝備、空管系統電纜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。新總部大樓主體工程於二零一一年一月完成，而平頂儀式則於二零一一年七月十一日舉行。大樓的幕牆、內部裝修和屋宇裝備工程正全速進行。

根據建築時間表，整座新總部會在二零一二年第三季落成。空管中心大樓及相關設施在二零一二年第一季已可供安裝和測試新空管系統，以及培訓相關人員。新空管中心預計於二零一四年啟用。

Project Progress

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 CAD Project had been making steady progress despite its scale and complexity.

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 the Architectural Services Department, the CAD 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.

The bridge connection, which links up all the building services, ATC systems cabling as well as the pedestrian and maintenance passageways, was erected on November 26, 2010 night. The superstructure of the new headquarters was completed in January 2011 and the topping-out ceremony was held on July 11, 2011. Works on the curtain wall system, internal fitting out, and building services were at full steam.

According to the construction schedule, the entire new headquarters will be completed in the third quarter of 2012. The ATCC Building and related facilities is ready in the first quarter of 2012 for the installation and testing of the new ATC systems and training of staff concerned. The new ATCC is planned to be commissioned by 2014.

民航處新總部教育徑入口。
Entrance of the Education Path at the new CAD Headquarters.

更換空管系統

更換空管系統涉及15個主要系統和三個訓練設施項目。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。

主要系統和訓練設施的合約已全部批出。年內，本處與承辦商檢視各個系統的詳細設計。新一代的空管系統已於二零一二年一月開始在民航處新總部大樓內安裝。

Replacement of ATC System

The replacement of the ATC system involves 15 major systems and three training facilities items. 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 HKFIR up to year 2025.

All the contracts for major systems and training facilities were awarded. During the year, the detailed design of each system was reviewed with the contractor, and the installation of the new generation of ATC system in the new CAD Headquarters has commenced since January 2012.

民航處代表從建築署及承辦商手上接過鑰匙，象徵新空管中心正式移交。
Having received the symbolic key from the Architectural Services Department and the contractor, the new Air Traffic Control Centre is officially handed over to the CAD.

民航處新總部的多用途演講廳。
Multi-purpose auditorium at the new CAD Headquarters.

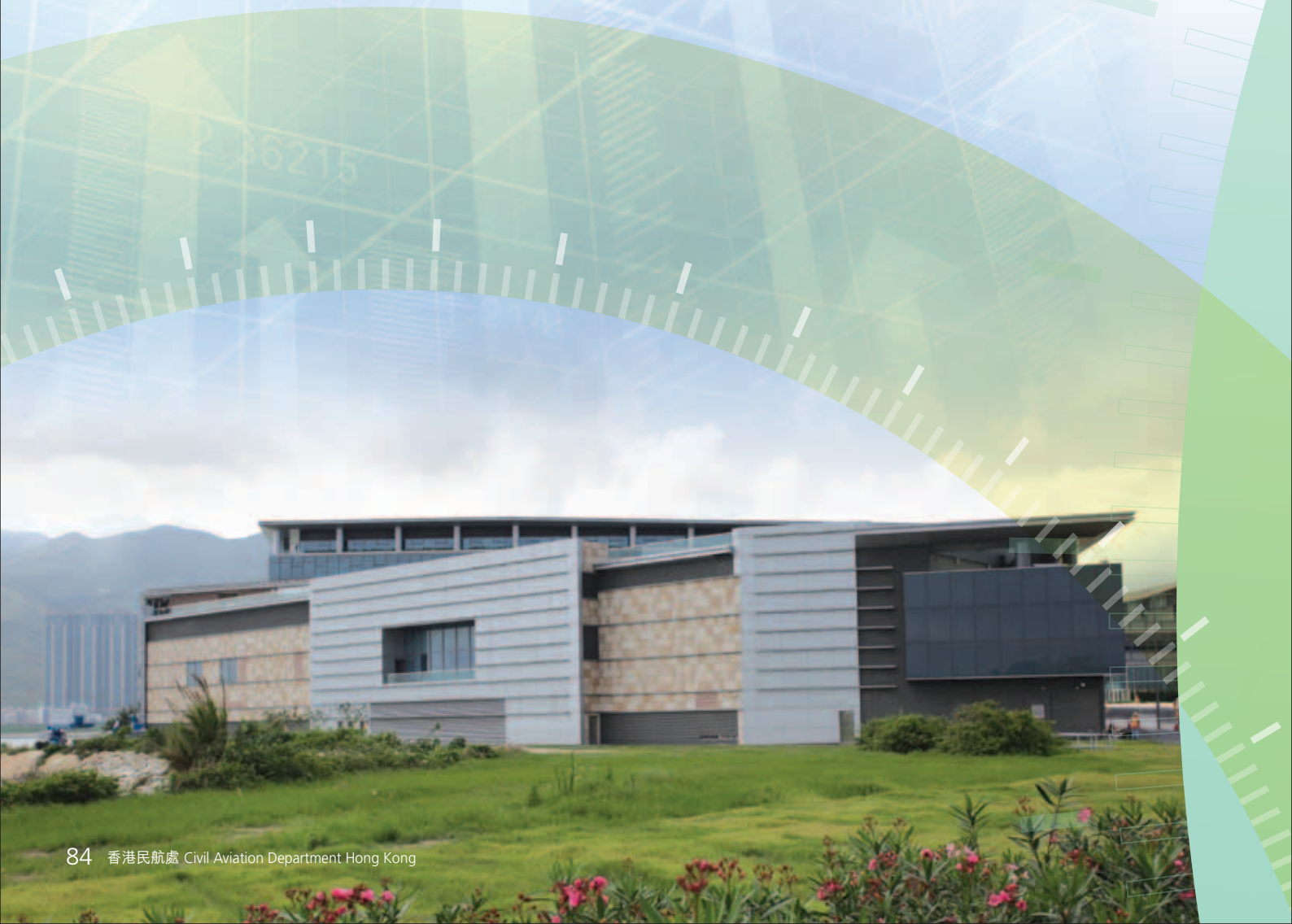
財務
Finance

本處收入與開支

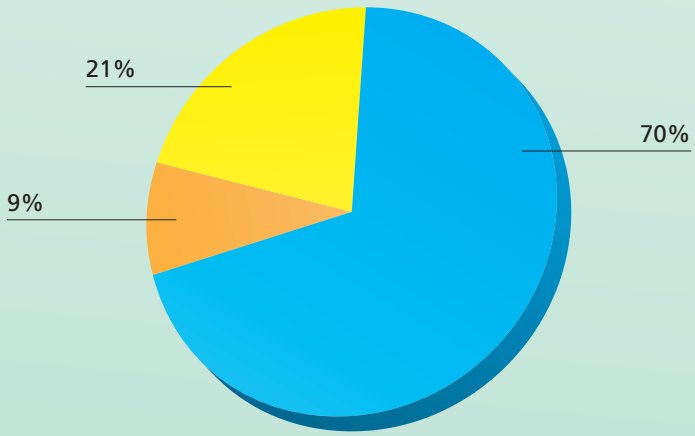
本處收入主要源自提供航空交通服務、過境導航服務及簽發牌照予本地航空公司、空勤人員、飛機維修機構、飛機工程師、培訓機構及香港國際機場。二零一一年至二零一二年度，本處的總收入達10.29億元，同期總經營支出（包括政府其他部門提供服務的成本）為10.82億元。年內資本開支達9,800萬元，主要項目包括衞星通訊、導航及監察/航空交通管理系統，以及更換航空交通管制系統。本處向來謹慎理財及在精簡的架構下仍維持有效率的運作。

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, training organisations and the Hong Kong International Airport. Total revenue in 2011-2012 amounted to $1,029 million. Total operating expenditure including costs of services provided by other government departments for the same period amounted to $1,082 million. Capital expenditure during the year amounted to $98 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.

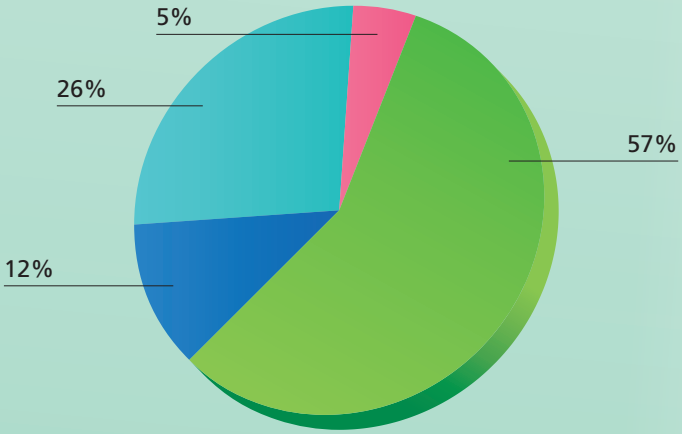


收入分析 Analysis of Revenue (2011-2012)



	百萬元$(M)
航空交通 Air Traffic Services	721
過境導航 En-route Navigation Services	218
牌照及其他收費 Licences and Other Fees	90
	1,029

開支分析 Analysis of Expenditure (2011-2012)



	百萬元$(M)
員工支出 Staff	620
經營及行政支出 General Expenses	282
折舊 Depreciation	124
維修 Maintenance	56
	1,082