



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（包括調查航空事故），以及簽發航空交通管制員執照和相關級別。

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

更換空管系統

現時空管系統自一九九八年香港國際機場啟用時投入運作，至今已超過15年。為應付未來的航空交通需求，本處於二零零七年獲立法會批准撥款15.65億元更換現有的系統。新系統的安裝工程已大致完成，系統測試和驗收的籌備工作則正在進行中。新系統須通過一連串嚴格測試，並根據既定的國際航空安全管理標準及程序通過評審，確保運作安全、可靠穩定。待完成系統整合、試行運作，並為工程和空管人員提供足夠的技術和操作培訓後，新的航空交通管制中心（空管中心）預計可於二零一五年分階段投入服務。

Replacement of ATC Systems

The existing ATC systems have been in use for over 15 years since the opening of Hong Kong International Airport (HKIA) in 1998. To meet the future air traffic demand, the Legislative Council approved \$1.565 billion in 2007 for the replacement of the existing ATC systems. The installation of the new systems had been largely completed while the preparation work relating to system and acceptance tests are in progress. To ensure the new systems are safe, reliable and stable, they have to undergo a series of stringent tests and satisfy assessments in accordance with the established international aviation safety management standards and procedures. Upon the successful completion of system integration, trial runs, as well as adequate technical and operational training for the engineering and operational staff, the new Air Traffic Control Centre (ATCC) is planned to commence operation in phases in 2015.



新航空訊息轉送系統正在新航空電訊中心內進行驗收測試。

Acceptance test of the new aeronautical messaging system is carried out at the new Aeronautical Network Centre.

新航空交通管制系統已安裝在控制塔台內，並進行系統測試。
The new ATC system is installed and being tested at the Air Traffic Control Tower.

國際民用航空組織航空系統組塊升級

民航處按照國際民用航空組織（國際民航組織）航空系統組塊升級的框架，並參考《亞太區無縫航空交通管理計劃書》訂明的優先次序，與業界共同制定策略並分階段在香港實施各個升級項目。本處於二零一三年五月舉辦了簡報會，向業界介紹航空系統組塊升級的內容，並爭取業界支持落實計劃。同年八月，本處制定了第一階段升級的實施計劃書，並於二零一四年年初向國際民航組織遞交該計劃書。

The International Civil Aviation Organization (ICAO) Aviation System Block Upgrades

In accordance with ICAO's Aviation System Block Upgrades (ASBU) framework and with reference to the priorities stipulated under the Seamless Air Traffic Management Plan for the Asia and Pacific regions, CAD collaborated with the aviation industry to develop strategies for phased implementation of ASBU modules in Hong Kong. In May 2013, CAD organised a briefing to the industry on the details of ASBU, and solicited their support for implementation. In August 2013, CAD formulated an implementation plan for the first phase of ASBU, and submitted the same to ICAO in early 2014.

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

年內，本部致力推廣安全意識，繼續舉辦安全訓練和推廣活動，並全力配合航空交通管理標準組對衛星通訊、導航及監察/航空交通管理系統、外站運作情況，以及技術安全事故報告和調查過程所進行的審計和視察。為達到持續改善安全管理系統整體表現的目標，本部定期進行內部審計和視察，並培訓共29位同事成為認可審計人員，積極參與相關工作。

新航空交通管制中心內的駐場工程師工作席。
Duty Engineer working position in the new ATCC.



Ongoing Development of the Safety Management System in Support of the Provision of Safe Communications, Navigation, Surveillance and Critical Building Services

Throughout the year, AESD maintained its momentum in safety promotion, and continued to organise safety training and promotion activities. Besides, the division provided full support to the Air Traffic Management Standards Office's (ATMSO) audit and inspections on the satellite-based Communications, Navigation, Surveillance/Air Traffic Management (ATM) systems, outstation operations, and technical safety occurrence reporting and investigation process. To achieve continuous improvement of the overall performance of the Safety Management System (SMS), regular internal audits or inspections were conducted. A total of 29 colleagues were trained to become approved auditors to provide support to the conduct of relevant internal audit or inspection work.

新航空交通管制系統正進行系統測試。
The new ATC system is being tested.



為空管系統定期分析安全數據和密切監察安全趨勢，是有效的安全管理系統的重要一環。隨着為期三年的安全表現指標和目標於二零一三年年底屆滿，本部根據最近五年的安全數據，與維修服務機構共同更新一套安全表現指標和目標。該套指標和目標經航空交通管理標準組審議和接納，有效期至現有系統過渡至新空管中心為止。另外，本部根據國際民航組織對負責航空交通安全運作的電子工程人員所訂定的指引，與維修服務機構合作，加強對前線維修人員的培訓計劃和工作指引，納入了更多安全、風險評估和管理、及安全保證等方面的元素，令空管系統的運作更安全可靠。

Regular analysis of safety data and close monitoring of safety trend are integral activities of an effective SMS. With the three-year Safety Performance Indicators/Targets (SPI/SPT) expiring in end 2013, efforts were made jointly with the maintenance service provider to develop a new set of SPI/SPT based on the latest five-year safety statistics. The new values, which would be valid until the transition into the new ATCC, were reviewed and accepted by the ATMSO. In addition, the division worked with the maintenance service providers to strengthen the training scheme and working guidance for frontline maintenance staff in accordance with the ICAO Air Traffic Safety Electronics Personnel guideline. In the new scheme, more elements on safety, risk assessment and management, safety assurance, etc., were incorporated, enhancing the safe and reliable operations of the ATC systems.

衛星通訊、導航及監察/航空交通管理系統

為遵從國際民航組織的全球空中航行計劃，民航處已開發、使用並提供以下八項與衛星通訊、導航及監察/航空交通管理相關的系統和服務：

(一) 飛前放行指示雙向數據鏈路系統

截至二零一四年三月底，飛前放行指示雙向數據鏈路服務的使用率為78%，使用服務的航空公司則增至70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進一步提升。

(二) 航空電訊網、航空交通服務訊息處理系統、航空交通服務設施間數據通訊

為配合國際民航組織亞太地區航空電訊網和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電訊網和航空交通服務訊息處理系統已投入運作。年內，香港與曼谷就航空交通服務訊息處理系統進行了多項測試，結果令人滿意。該系統已於二零一四年九月二十二日投入運作。

另外，本部利用航空固定電訊網與三亞和台北實施航空交通服務設施間數據通訊，以加強航空安全，並提升與毗鄰空管中心通訊的運作效率。



民航處於政府飛行服務隊兩架直升機上安裝廣播式自動相關監察應答機，並展開飛行試驗，評估使用廣播式自動相關監察進行低空監察的覆蓋情況。CAD installed ADS-B transponders on two GFS helicopters for launching flight trials to assess low-level surveillance coverage using ADS-B.

SATELLITE-BASED CNS/ATM SYSTEMS

To comply with the ICAO Global Air Navigation Plan, CAD developed and implemented eight CNS/ATM systems and services as highlighted below:-

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

The utilisation rate of the Pre-Departure Clearance Two-way Datalink Service was 78% and the number of participating airlines increased to 70 as at the end of March 2014. It is anticipated that more aircraft will use the service to enhance efficient communication between ATC staff and pilots in the coming years.

(ii) Aeronautical Telecommunication Network, Air Traffic Service Message Handling System and Air Traffic Service Inter-facility Data Communication

In accordance with the ICAO Asia-Pacific Regional Aeronautical Telecommunication Network (ATN) and Air Traffic Service Message Handling System (AMHS) Implementation Plan, a new ATN and AMHS circuit between Hong Kong and Macao was put into operation. Upon satisfactory completion of the ATN and AMHS testing between Hong Kong and Bangkok during the year, the new ATN and AMHS were put into operational use on 22 September 2014.

The Air Traffic Service Inter-facility Data Communication over Aeronautical Fixed Telecommunication Network with Sanya and Taipei was put into operation to enhance flight safety and operational efficiency in communication with adjacent ATC centres.



(三) 先進場面活動引導和控制系統

鑑於機場環境時有轉變，本部於二零一三年四月安排了供應商研究先進場面活動引導和控制系統訊號的可靠度和覆蓋範圍，收集和分析訊號的性能表現數據，以採取措施提升系統表現。我們正與供應商和香港機場管理局商討執行檢測研究報告的建議，以增強系統訊號在機場的覆蓋能力。

(四) 廣播式自動相關監察系統

為配合國際民航組織於亞太地區實施廣播式自動相關監察，民航處於二零一三年第四季順利完成驗收八個廣播式自動相關監察地面站，並開發了一套廣播式自動相關監察數據分析系統，用來監察和分析裝有廣播式自動相關監察設備的飛機的數據，以提高香港飛行情報區內的飛行安全。另一方面，民航處已在政府飛行服務隊轄下兩架直升機設置廣播式自動相關監察應答機，並進行飛行測試，以評估地面站在本港低空範圍的綜合訊號覆蓋情況。結果顯示地面站的覆蓋在低空範圍內可補充大部分現有雷達未能覆蓋的範圍，有助提升航空交通管制員的監察能力和增加對實際情況的了解。

(iii) Advanced Surface Movement Guidance and Control System

To cater for the on-going changes of the airport environment, AESD has engaged an equipment supplier to conduct a signal integrity and coverage study of the Advanced Surface Movement Guidance and Control System (A-SMGCS) in April 2013 by collecting and analysing performance data for the implementation of enhancement measures. Coordination is underway with the supplier and Airport Authority Hong Kong (AAHK) for executing the recommended measures in the study report to enhance A-SMGCS signal coverage performance at HKIA.

(iv) Automatic Dependent Surveillance-Broadcast System

To align with ICAO's Regional Plan for implementing Automatic Dependent Surveillance – Broadcast (ADS-B), CAD has commissioned eight ADS-B ground stations in the fourth quarter of 2013, and developed an ADS-B data analysis system to monitor and analyse data from ADS-B equipped aircraft for enhancing the aviation safety within the Hong Kong Flight Information Region. Besides, CAD also arranged with the Government Flying Service (GFS) to mount ADS-B transponders on two of their helicopters, and supported flight trials to assess integrated signal coverage at low level provided by the ground stations within the Hong Kong territories. The results revealed that coverage at low level provided by the ground stations could supplement most of the places where existing radar had no coverage due to terrain limitations. This could enhance surveillance capabilities and situational awareness of the air traffic controllers.



民航處於二零一三年五月舉辦簡報會，向業界介紹航空系統模組升級的內容。
In May 2013, CAD organised briefing sessions to industry partners on the details of ASBU.

二零一四年三月十九日機電工程署與民航處續簽服務水準協議。

The Electrical and Mechanical Services Department and CAD renewed the Service Level Agreement on 19 March 2014.



(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，並為空管人員提供自動化服務。隨着操作經驗不斷累積，我們在年內專注微調系統功能，以配合不斷增加的航空交通流量。

(六) 陸基增強系統

為使飛機進場和着陸程序更為精確，民航處正研究機場安裝陸基增強系統在技術上是否可行。除完成初步選址研究外，本部也結合了民航處和地政總署設於全港各處的全球衛星導航系統監測站所收集到的實時數據，設立全港衛星數據庫。本部又於二零一三年開始安裝電離層閃爍監測系統。民航處通過國際民航組織電離層研究工作組，與周邊地區合作，共同研究亞太地區上空的電離層對陸基增強系統性能的影響。

(七) 電子飛行進程單系統

年內，電子飛行進程單系統運作暢順，鞏固了航空交通控制塔人員利用電子飛行進程單的操作經驗，有助順利過渡至新空管中心以無紙方式運作。此外，根據電子飛行進程單系統的合約提供的綜合顯示器，已於二零一三年十月啟用。綜合顯示器可以集中顯示來自多方面的運作資料，大大簡化了控制塔的運作。

(八) 機場協同決策

二零一三年七月，本部推出桌面版及手機版的機場協同決策互聯網平台。該平台獲業界大力支持，成為協同決策日後於本港以至亞太區進一步發展和推行的基礎。

(v) Arrival Manager System

The Arrival Manager (AMAN) System was procured to achieve higher on-time arrival rate, more efficient use of airspace and automated service to controllers. With more operational experience gained, efforts were focused to fine-tune the system during the year so as to cope with the ever increasing air traffic growth.

(vi) Ground-Based Augmentation System

To augment the precision of aircraft approach and landing operations, CAD has been conducting a technical feasibility study for installing a Ground-Based Augmentation System (GBAS) at HKIA. Apart from completing a preliminary siting study, a territory-wide satellite database was established by combining real time data collected by CAD's and Lands Department's Global Navigation Satellite System Monitoring Stations located around the territory. Installation of an Ionospheric Scintillation System also commenced in 2013. The effort made would enable the collaboration with neighbouring states through the ICAO Ionospheric Studies Task Force for studying ionospheric effect on GBAS performance in the Asia and Pacific regions.

(vii) Electronic Flight Strip System

Satisfactory operation of the Electronic Flight Strip System (EFSS) in the past year prepared tower controllers for a smooth transition into paperless operation at the new ATCC. As part of the EFSS contract, Integrated Display Units were put in operation in October 2013 to integrate and display operational information from multiple sources to streamline tower operation.

(viii) Airport Collaborative Decision Making

AESD successfully launched the Airport Collaborative Decision Making (CDM) platform in both desktop and mobile versions through the Internet in July 2013 with very encouraging feedback and support. The platform provided a basis for further development and implementation of a local and regional CDM.

航空交通管理標準組

航空交通管理標準組(空管標準組)負責確保本港提供的空中導航服務,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,空管標準組年內對航空交通管理部和航空交通工程及標準部進行了兩次審計和26次安全檢查。審計內容包括查核服務機構有否遵守安全管理系統的規管要求,並重點審查安全政策/目標和促進安全的措施的實施成效。檢查範圍包括航空交通管理的運作、程序、培訓和考試,安全管理系統的應用,空管設備/系統,安全事故調查,以及安全建議的跟進行動。檢查人員巡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、航空網絡中心、備用空管中心、備用控制塔、培訓組、雷達模擬機和塔台模擬機。曾經接受檢查的其他空中導航服務領域包括通訊、導航及監察,航空氣象,搜索和救援,有關飛機運作的空中導航服務程序,以及航空資訊服務(包括繪製航圖)。

自二零一二年本部應用安全管理系統以來,空管標準組一直與本部同事合作,改善和優化該系統。此外,通過空中導航服務標準協調會議,空管標準組定期和空中導航服務提供單位檢討應用安全管理系統的事宜,共同努力持續發展並改進該系統。

航空界不同專業的學員參與由航空交通標準部導師教授的「安全管理體系入門」課程。
Trainees from various aviation professions joined the "Introduction to SMS" training course delivered by ATMSO instructor.



AIR TRAFFIC MANAGEMENT STANDARDS OFFICE (ATMSO)

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 26 safety inspections on the Air Traffic Management Division (ATMD) and AESD in 2013-14. 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, Control Tower, Aeronautical Information Centre, Aeronautical Network Centre, Backup ATCC and Backup Tower, Training Unit, radar simulator and Tower simulator. Inspections on CNS, meteorological information, search and rescue, Procedures for Air Navigation Services–Aircraft Operations, as well as Aeronautical Information Services (including aeronautical charting) domains of air navigation services were also conducted.

Since the implementation of AESD SMS in 2012, ATMSO has continued to work with AESD colleagues for SMS improvement and enhancement of the SMS. Additionally, through the Air Navigation Services Standards Coordination Meeting, ATMSO regularly reviewed in collaboration with air navigation service provider (ANSP) issues pertinent to the implementation of SMS to promote continual development and improvement.



空管標準組於二零零九年認可了航空交通管理部的安全管理系統，有效期為五年。因此，空管標準組的審查人員於二零一四年二月，對該系統展開續期審查，過程順利。航空交通管理部的安全管理系統其後獲續期至二零一九年。

年內，空管標準組繼續聯同航空交通管理部的調查人員，就所有空管事故展開初步調查，然後再按既定指引，決定之後的調查形式。空管標準組又繼續監察事故調查報告所建議的跟進行動的進展和成效。

航空交通安全評核委員會繼續每半年召開會議，檢討空管事故和其他安全事故。委員會成員包括飛行標準及適航部、空管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負責航空安全的人員。

年內，空管標準組為履行安全監督職責，繼續積極參與更換空管系統的項目並提供意見，確保現有系統安全過渡至新系統。

為了客觀和有系統地加強安全監察措施，空中導航服務提供單位必須訂立安全表現指標和完善的實施計劃，以達到空管標準組所認可的安全表現目標，並定期向該組提交相關數據，作安全監察之用。

文件編製

空管標準組定期覆檢和更新現有的規管文件，確保內容準確有效和符合現況。年內共發出兩份有關安全事項和空管執照規定的《空中航行服務資料通告》。

In 2009, ATMSO accepted the SMS implemented by ATMD for a period of five years. Hence in February 2014, an SMS renewal inspection was conducted by ATMSO inspectorate staff and the ATMD SMS was successfully renewed up to 2019.

As part of its duties, ATMSO continued to participate in the preliminary investigation 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. Also ATMSO continued to monitor the progress and effectiveness of post-incident follow-up actions on the recommendations put forward in the investigation reports.

Review of ATC incidents and other safety occurrences continued to be conducted half yearly by the Air Traffic Safety Assessment Committee, which comprised representatives from the Flight Standards and Airworthiness Division, ATMSO, ATMD, and flight safety personnel of major local airline operators and GFS.

As part of the safety regulatory oversight responsibilities, ATMSO continued to participate actively in the ATC systems replacement project to provide inputs with a view to facilitating the safe transition to the new systems.

To enhance safety monitoring measures with a systematic and objective-based approach, ANSP was required to establish safety performance indicators together with structured action plans to achieve safety performance targets as agreed by ATMSO. Such safety performance measurements were periodically provided to ATMSO for regulatory oversight.

Documentations

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



受訓學員與航空交通標準組導師合照。
The class of trainees with the instructors from ATMSO.

空管人員執照

空管標準組的重要職責之一，是根據《國際民航公約》附件1的標準和《1995年飛航（香港）令》的規定，執行空管主任執照簽發制度。年內，該組共發出99份首次簽發的空管主任執照、空管級別執照和合格證書，另續發了225份空管級別執照和合格證書。

空管主任執照電子數據庫已經啟用，以提升空管主任執照簽發程序的效率。該系統經過擴展之後，現在可供航空交通管理部一起使用，為申請、處理和簽發空管主任執照、空管級別執照和證書提供一站式服務。

認可培訓機構

根據《國際民航公約》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培訓機構，可為航空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《國際民航公約》附件1的規定開辦，並須接受空管標準組監管。

安全推廣工作

為推廣安全訊息，空管標準組定期為空中導航服務提供單位和維修服務承辦商的職員，舉辦安全文化和安全管理系統的簡報會，以鞏固安全監督和安全管理概念。

空管標準組與本處轄下的香港民航訓練中心攜手合作，為本地航空機構籌辦了「安全管理系統概論」培訓課程。該課程會視乎可用的培訓時段和航空業界的反應，繼續在適當的時機推出。

此外，空管標準組也定期於本處內聯網發布規管資訊和安全管理資料，方便所有空中導航服務人員查閱。

ATC Personnel Licensing

One of the important functions of ATMSO is to administer the ATC licensing scheme in accordance with the standards in ICAO Annex 1 and the requirements of Air Navigation (Hong Kong) Order 1995. During the report period, ATMSO processed 99 initial awards of ATC Licences, ATC Ratings and Certificates of Competency, as well as 225 renewals of Ratings and Certificates.

An ATC Licence electronic database has been implemented to enhance the efficiency and effectiveness of the ATC licensing scheme and extended for shared use with ATMD to provide one-stop service for the application, processing and issuing of ATC licences, ratings and certificates.

Approved Training Organisation

In accordance with requirements of ICAO and the Air Navigation (Hong Kong) Order 1995, ATMD was recognised 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.

Safety Promotion

For safety promotion, ATMSO conducted periodic briefings to ANSP colleagues and the staff of the maintenance services provider on safety culture and SMS to reinforce safety oversight and safety management concepts.

In association with the department's Civil Aviation Training Centre, ATMSO had also prepared an Introduction to SMS Training Course for the local aviation communities. The course would continue to be presented depending on the availability of training slot and general response of the aviation communities.

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

培訓及發展組

培訓及發展組通過培訓及發展委員會，與本處各分部緊密合作，統籌各專業職系人員接受相關民航範疇的培訓，在策劃和推行方面，大收事半功倍之效。在安排以才能為本的培訓之餘，培訓及發展組也致力推廣持續學習的文化，現正構思設計一套更有系統的培訓方案，以期有效落實上述目標。

成立民航訓練學院

行政長官在二零一四年《施政報告》中提到，在經濟發展委員會轄下航運業工作小組支持下，政府將會就成立民航訓練學院進行可行性研究，以期提高本地和海外航空從業員的技術水平。該學院可為航空業培養人才，提升航空運輸安全水平和效率，並進一步鞏固香港作為區內主要航空樞紐的領導地位。本處將委聘顧問公司進行研究，籌備工作已經展開。

TRAINING AND DEVELOPMENT OFFICE (TDO)

In collaboration with divisions through the Training and Development Committee, TDO centrally managed training for officers of different professional grades with the objective of enhancing effectiveness in the planning and provision of training in their respective disciplines in civil aviation. In addition to competency-based training, continuous learning was also promoted and TDO has been developing a more structured programme for effective implementation of these initiatives.

Establishment of a Civil Aviation Training Institute

The Chief Executive announced in the Policy Address 2014 that with the support of the Working Group on Transportation under the Economic Development Commission, the Government would conduct a study on the feasibility of establishing a civil aviation training institute, with a view to enhancing the skills for local and overseas practitioners of the aviation industry, thereby nurturing talents for the aviation industry, enhancing the level of safety and efficiency of air transport, and further strengthening Hong Kong's leading status as a major aviation hub in the region. CAD is in the process of engaging a consultant to conduct the study.



民航處於二零一四年一月舉辦簡報會，向業界徵詢在香港設立航空業培訓學院的意見。
In January 2014, CAD organised a briefing on "Consultancy Study of Establishing a Training Institute for the Civil Aviation Sector in Hong Kong" and solicited opinions from the industry.

為增進大眾對航空運輸業發展的了解，民航處特別於總部大樓設立航空教育徑推廣相關資訊。

To promote the public's interest and a better understanding of the development of the air transport industry, CAD has constructed the Aviation Education Path as an integral part of the CAD Headquarters building.



民航處培訓資料庫

民航處培訓資料庫可讓本處集中管理不同範疇的專業職系人員的培訓需求。用於管理培訓需要和安排培訓課程的模組已投入服務。同事現有的培訓記錄正分階段載入民航處培訓資料庫，餘下模組的程式編製工作也到了最後階段。

航空教育徑

民航處設立航空教育徑，目的是引發青年人投身航空業的興趣。由二零一四年一月起，訪客無須預約便可自由參觀教育徑，大大方便市民大眾學習一般航空知識。自教育徑啟用以來，到訪人次超過一萬，訪客包括一般市民、中小學和大學學生、制服團體成員、本地與海外的航空業界人士，成績令人鼓舞。

資訊科技管理

通過妥善實施各項新的資訊科技措施和「電子政府」策略，資訊科技管理組繼續支援各分部的日常運作。年內，資訊科技管理組完成了三項大型資訊科技計劃，以加強資訊科技服務和支援：

(一) 按照泛政府的資訊保安政策，年內把本處所有桌面和筆記本電腦的作業系統升級至微軟視窗7，同時又把微軟辦公室套件升級至二零一零年版本。此外，硬碟已經全面加密，以加強保護電腦儲存的數據。

(二) 配置使用可抵禦持續滲透攻擊的進階防火牆，以補傳統資料防護技術（如防毒軟件）的不足，並提升部門的資訊安全水平。

(三) 開發應用緊急事故資訊通報系統，讓空管人員能夠通過短訊和電子郵件，實時收到緊急事故的重要提示訊息並發放資訊。

CAD Training Database

CAD Training Database allows the training requirements for professional grade officers in various disciplines to be managed centrally. The module for managing the training needs and scheduling of training courses for officers had been put into operation. The uploading of existing training records of officers into this database was carried out in phases. Programming work for the other modules was in the final stage.

Aviation Education Path

Through establishing the Aviation Education Path, CAD hopes to arouse the interest of the youth in joining the aviation industry. From January 2014, the Education Path has been open to walk-in visitors, facilitating the general public to learn about general aviation knowledge. The results were encouraging - since the Education Path's opening, we had received more than 10,000 visitors, including the general public, school and university students, uniform groups, as well as the overseas and local aviation communities.

IT MANAGEMENT

The Information Technology Management Unit (ITMU) continued to support day-to-day operations of various divisions through the effective implementation of new IT initiatives and e-Government strategy. During the year, three major IT projects were completed for the betterment of IT service and support:

(i) To comply with pan-Government IT security policy, all CAD office desktop computers and notebook computers were upgraded to Windows 7, and Microsoft Office to version 2010, in order to enhance data protection with full hard disk encryption.

(ii) Advanced Persistent Threat firewall was configured and implemented to enhance information security and supplement the conventional information security protection technology (e.g. antivirus software).

(iii) Emergency Notification System was developed and implemented to enable real-time dissemination of Short Message Service (SMS) and email messages to air traffic controllers for emergency alert and information sharing.