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、統籌和提供空管系統、雷達、導航儀器和通訊設備，並監管香港空中航行服務(包括進行航空事故調查)，簽發空管執照及相關級別。

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

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年內，本部繼續致力維持高水準服務及穩定可靠的空管系統，以支援各項航空交通服務。二零零七年五月十一日，立法會財務委員會通過撥款更換現有空管系統。新空管系統的整體設計、詳細運作要求、招標文件及招標等準備工作亦隨即展開，進度良好。

During the year, the Division continued its efforts in maintaining a high standard, stable, and reliable ATC system to support air traffic services. With funding approval received from the Finance Committee of the Legislative Council on May 11, 2007 for replacement of the existing ATC system, detailed design of the system architecture, refinement of operational requirements, preparation of tender documents, and tender invitation for the new ATC system were progressing well.

衞星通訊、導航及監察／航空交通管理系統的發展計劃現正穩步推展，七個系統構件已投入運作，另外七個正進行測試，以評估相關運作效益。為應付區內航空交通增長的需求，新的系統構件如抵港航機排序系統、電子飛行進程單系統、廣播式自動相關監察系統和飛行計劃衝突提示系統，現正進行測試，務求盡早採用。

Steady progress was made on the Satellite-based Communications, Navigation and Surveillance/Air Traffic Management (CNS/ATM) Systems Project, with seven system elements now in operational use and seven on trials to assess their operational benefits. To cope with the rapid air traffic growth in the region, trials and early implementation of new CNS/ATM system elements like Arrival Manager System, Electronic Flight Strip System, Automatic Dependent Surveillance-Broadcast (ADS-B), Flight Plan Conflict Advisory System etc., were being pursued.

本部繼續推行新的資訊科技應用系統，提升電腦網絡的基建與設施，以配合本處電子化服務和數碼政府的目標。二零零九年，本部就建立資訊科技服務的品質管理系統展開工作，預定在二零一零年年底完成。

The Division also continued to implement new IT applications and enhance the computer network and infrastructure in line with the departmental e-business development and e-government objectives. The Quality Management System (QMS) for IT services was initiated in 2009 with a target completion date towards the end of 2010.

本部負責設計、規劃、統籌和提供空管系統。
The Division is responsible for the design, planning, coordination, and provision of ATC systems.

航空交通管制系統的發展

更換航空交通管制系統

現有空管系統的處理能力和功能已無法應付預期中的航空交通增長需求及航空業的發展。為保持香港作為國際及區內航空交通樞紐的地位，民航處有需要更換一套高效能及配備最新功能的空管系統，以加強香港飛行情報區內航空交通服務的效率。本處在二零零七年五月獲得撥款，並在二零零八年完成詳細的市場調查/ 系統設計後，在年內進行了各主要空管系統運作要求及系統規格的制訂工作。首份合約在二零一零年一月二十二日批出，採購項目為控制塔模擬機。通訊主幹和航空交通管理系統先後在二零零九年五月及十一月進行招標，其餘各系統的招標工作會在二零一零年至二零一一年分期進行。

AIR TRAFFIC CONTROL SYSTEMS DEVELOPMENT

Replacement of Air Traffic Control System

The capacity and functionalities of the existing ATC system were unable to cope with the projected air traffic growth and expansion of the aviation industry. To maintain Hong Kong's position as an international and regional aviation hub, it was considered necessary to replace the existing ATC system with a higher capacity and the latest functionalities so as to enhance the efficiency in the provision of air traffic services in the Hong Kong Flight Information Region. With funding approval given in May 2007 and detailed market survey/system design completed in 2008, preparation of the operational requirements and system specifications for major ATC systems was made during the year. The first contract for the provision of Control Tower Simulator (CTS) was awarded on January 22, 2010. Tender invitation for Communications Backbone and Air Traffic Management System was also mounted in May 2009 and November 2009 respectively, with the remaining tenders to be rolled out in phases in 2010-2011.

民航處人員測試新航空交通服務訊息處理系統。
Staff testing the new AMHS operator position.

本部安排更換空管系統以支援各項航空交通服務。
The Division arranged replacement of the existing ATC system to support air traffic services.

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空管系統和重要屋宇設施的安全管理系統

本部繼續致力就本地航空交通服務制訂和實施各個安全管理系統構件。首輪內部審核涵蓋定期審核本部八個主要職能範圍，為期共16個月，並在二零一零年三月圓滿結束。新增的審核範圍仍在考慮中。二零零九年十一月，本部進行分析，以確定通訊、導航及監察/航空交通管理系統所實施的安全程序與監管要求之間的差距。本部現正制訂改善範疇和相關額外工作，務求進一步提升本地航空交通服務各方面的安全水平。

Safety Management System (SMS) for Air Traffic Control (ATC) Systems and Critical Building Services Facilities

The Division continued putting in substantial efforts to develop and implement various safety management system (SMS) elements in provision of air traffic services in Hong Kong. The first round of 16-month internal audit cycle, consisting of regular audits to eight major AESD's functional areas, was satisfactorily completed in March 2010. Additional audit area(s) is under review. In addition, the Division carried out an analysis in November 2009 to identify gaps between implemented safety processes and regulatory requirements for CNS/ATM systems. Areas of improvement and associated additional efforts are being worked out to further enhance various safety aspects of our air traffic services.

民航處航站修葺工程

為改善民航處航站的實質狀況和屋宇裝備，使航站得以持續運作，本部自二零零九年一月起在18個民航處航站和天線場進行修葺工程。二零一零年三月底，所有工程按財政預算如期竣工。上述工程計劃為期15個月，完成約160項工程，包括安裝保安系統，以及改善屋宇設備和避雷裝置。整項計劃由專責小組密切監察，小組成員包括本處、建築署和機電工程署的高級專業人員。

Renovation Works at CAD Outstations

To improve physical and building services conditions of CAD outstations for sustainable operations, the Division initiated a renovation work project for 18 CAD outstations and antenna farms since January 2009 which was completed on time and within budget by the end of March 2010. The 15-month project, closely supervised by a task force comprising senior professionals from the Department, Architectural Services Department (ArchSD) and Electrical and Mechanical Services Department (EMSD), completed some 160 work items, covering installation of security systems, and enhancements of building services facilities and lightning protection facilities, etc.

衞星通訊、導航及監察/航空交通管理系統

為配合國際民航組織就衞星通訊、導航及監察/航空交通管理系統所訂的全球和地區實施計劃，本處繼續研究系統的最新發展，並詳細測試系統各個構件。有關系統的技術和運作測試均取得良好進展。

為了早日發揮系統的功能，部分技術成熟的系統構件已投入服務，藉此提升和優化香港空管服務的水平。該等系統構件包括數據化自動航站情報服務、數據化遠航氣象情報服務、飛前放行指示數據鏈路服務、先進場面活動引導和控制系統、香港與曼谷和澳門之間的航空電訊網、與澳門的航空交通服務訊息處理系統，以及與三亞的空中交通服務設施間數據通訊。

飛前放行指示雙向數據鏈路服務

飛前放行指示數據鏈路服務在二零零八年提升為雙向傳輸後，服務使用率由約50%的離港航機逐步增至70%，使用服務的航空公司數目由最初的11家增至二零一零年三月底的44家。預計未來數年會有更多航機使用此服務，以提升空管人員與飛行員的通訊效率。

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

To comply with the Global and Regional Implementation Plans of the ICAO for the Satellite-based CNS/ATM systems, studies on the latest CNS/ATM development and detailed investigation on various elements of the CNS/ATM systems continued. Satisfactory progress was achieved on relevant technical and operational system trials.

To reap the benefits of early CNS/ATM applications, some mature CNS/ATM system elements such as Digital-Automatic Terminal Information Service (D-ATIS), Digital-Meteorological Information for Aircraft in Flight (D-VOLMET) service, Pre-Departure Clearance (PDC) datalink service, Advanced Surface Movement Guidance and Control System (A-SMGCS), Aeronautical Telecommunication Network (ATN) connecting Hong Kong with Bangkok and Macao, ATS Message Handling System (AMHS) service with Macao, and Air Traffic Services Inter-facility Data Communication (AIDC) with Sanya have been put into operational use which enhanced and upgraded the ATC services of Hong Kong.

Pre-Departure Clearance Two-way Datalink Service

Since the upgrading of the Pre-Departure Clearance (PDC) Datalink Service to two-way operation in 2008, utilisation rate has increased steadily from about 50% up to 70% of the departure flights and the number of active participating airlines has also increased from an initial 11 to 44 airlines as of end March 2010. It is anticipated that more aircraft will use the service to grasp the benefit of efficient communications between ATC and pilots in the coming years.

本部領導由民航處、建築署及機電工程署等高級專業人員組成的專責小組審核修葺工程進度。
The Division led the task force comprising senior professionals from CAD, ArchSD and EMSD to review progress of renovation works project.

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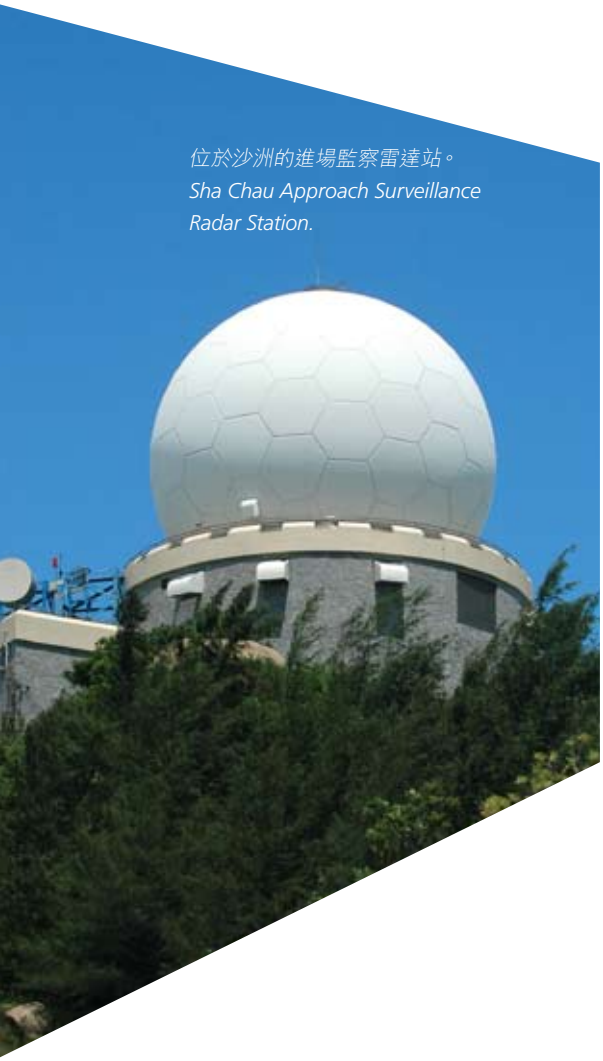


位於沙洲的進場監察雷達站。
Sha Chau Approach Surveillance Radar Station.

航空交通管制中心內的抵港航機排序系統。
Arrival Manager System in the air traffic control centre.

航空電訊網及航空交通服務訊息處理系統

香港作為航空電訊網及航空交通服務訊息處理中樞，配合國際民航組織亞太地區航空電訊網及航空交通服務訊息處理系統實施計劃，在二零零九年七月啟用高容效航空交通服務訊息處理系統。與澳門進行的新系統相容測試和運作測試已經完成，結果令人滿意。二零零九年十二月二十九日，香港與澳門的航空交通服務訊息處理系統和航空電訊網投入運作。港澳兩地是亞太區內首對城市使用航空電訊網，提供全面的航空訊息處理服務。本處計劃由二零零九年年底開始，再分階段與北京、台北、東京、馬尼拉和其他鄰近地區的航空交通電訊中心進行測試。

Aeronautical Telecommunication Network and ATS Message Handling System

In accordance with ICAO Asia-Pacific Regional Aeronautical Telecommunication Network (ATN) and ATS Message Handling System (AMHS) Implementation Plan, with Hong Kong being an ATN and AMHS backbone site, a high capacity AMHS was commissioned in July 2009. Interoperability tests and operational trials of the new system with Macao were completed with satisfactory results. The new AMHS and ATN circuit between Hong Kong and Macao was put into operation on December 29, 2009, marking the first city-pair in the Asia and Pacific Regions that provides a full aeronautical message handling service over ATN. Further tests and trials with Beijing, Taibei, Tokyo, Manila and other adjacent ATS authorities are planned in stages commencing from the end of 2009.

先進場面活動引導和控制系統

由二零零八年十一月起，先進場面活動引導和控制系統先後進行為期16個月的運作評估、系統性能優化和空管及技術人員培訓。上述工作順利完成後，系統在二零零九年四月一日投入運作。系統採用多點定位及廣播式自動相關監察技術，加強監察飛行區內航機升降和車輛進出的情況，以及設置衝突及「跑道入侵」警告功能，提高空管安全和效率。為了發揮系統的最大功能，本處為運作上需要進入或越過現用跑道的車輛裝設應答機，裝設工程在二零零九年年底展開，預定在二零一零年年底竣工。

廣播式自動相關監察系統

民航處採購廣播式自動相關監察顯示系統，以便監察和評估廣播式自動相關監察系統接收西沙群島(屬於內地管理範圍)訊[illegible]的覆蓋範圍和位置的準確程度。此外，[illegible]共同策劃測試，為[illegible]

Advanced Surface Movement Guidance and Control System

An Advanced Surface Movement Guidance and Control System (A-SMGCS) was put into operational use on April 1, 2009 following satisfactory completion of a 16-month operational evaluation, performance optimisation and user and technical training since November 2008. The A-SMGCS employs both the multilateration and Automatic Dependent Surveillance-Broadcast (ADS-B) technologies for enhanced surveillance of aircraft and vehicle movements on the airfield, and provision of conflict and runway incursion alerting functions for added air traffic control safety and efficiency. In order to achieve the maximum benefits of the system, vehicles with an operational need to enter or cross active runways would be equipped with vehicle locators, installation of which has commenced in late 2009 for completion by the end of 2010.

Automatic Dependent Surveillance - Broadcast

CAD procured an ADS-B display system to facilitate monitoring and evaluation of coverage and position accuracy of Automatic Dependent Surveillance – Broadcast (ADS-B) signals received from Xisha Island which is under the management responsibility of the Mainland. Steady planning progress was also made for a joint trial with Government Flying Service by equipping suitable ADS-B avionics to their helicopters to evaluate the effectiveness of [illegible]technology for surveillance of low level flying aircraft.

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

抵港航機排序系統

研發抵港航機排序系統的目的，旨在提高準時抵港的航機數目、更善用空域，以及為管制人員提供自動化服務。系統通過運作評估和完成優化後，在二零零九年六月二十三日開始試行運作，預定在二零一零年年中啟用。系統功能會在二零一零年年底進一步提升，以在惡劣天氣情況下編定最佳的抵港航機序列。

Arrival Manager System

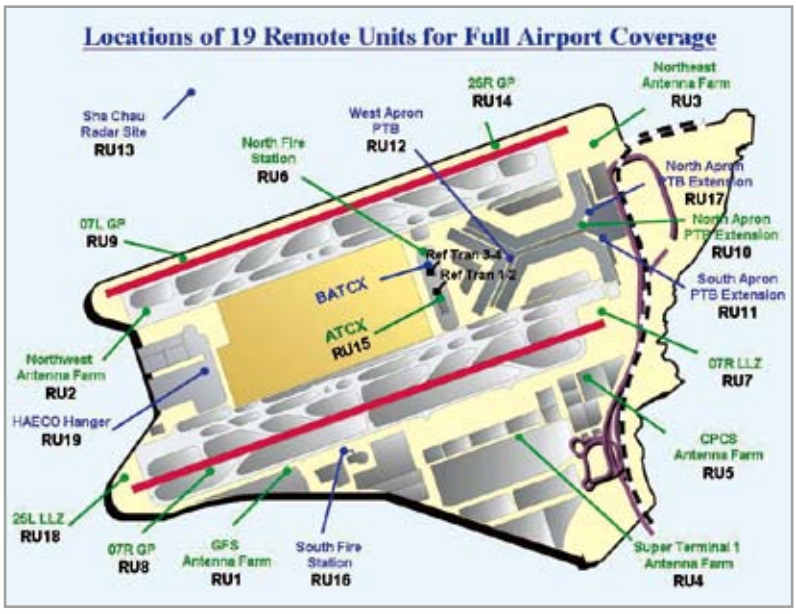
The Arrival Manager (AMAN) System was developed to help achieving more on-time arrivals, more efficient use of airspace and automated service to controllers. Following successful operational evaluation and system enhancement, the system was put into operational trial since June 23, 2009, and is targeted for operational use in mid 2010. Further upgrade of the system to enable optimisation of aircraft arrival sequencing during adverse weather conditions will be made in the end of 2010.

陸基增強系統

為配合採用基於性能的導航，應付全球對善用空域的需求，本處計劃在香港國際機場建立陸基增強系統，藉此加強全球衞星導航系統的功能，支援系統覆蓋範圍內飛機進場、着陸、起飛和地面運作等各階段程序。本處會根據該計劃研究電離層對陸基增強系統性能的影響。為配合研究，本處會在二零一零年年底或之前裝設監察系統，收集和分析全球衞星導航系統發出的數據。

Ground Based Augmentation System

In support of the implementation of Performance Based Navigation (PBN) to address the global demands on efficient use of airspace capacity, a Ground Based Augmentation System (GBAS) for the HKIA is being planned that augments the Global Navigation Satellite System (GNSS) and supports all phases of approach, landing, departure, and surface operations within its area of coverage. The project will involve a study of ionospheric effect on the performances of GBAS. To facilitate the study, a monitoring system to collect and analyse data from GNSS will be installed by the end of 2010.



十九個改進型地面活動引導和控制系統的位置圖。
Locations of 19 A-SMGCS Multilateration Remote Units.

同事在儀表着陸系統儀器室內工作。
Staff works in the Instrument Landing System equipment room.

下滑道天線為儀表著陸系統的組成部分，它能提供準確的方向指示及下降指引訊號，在正常或即使在惡劣的天氣狀況下，航機亦能安全地在跑道上降落。

The Glide Path antenna is an intergral part of the Instrument Landing System installed at the Airport providing precise descent guidance signals for safe landing of aircraft on the runway during all weather conditions.

飛行計劃衝突提示系統

飛行計劃衝突提示系統的設計和研發工作在二零一零年一月順利完成，現正進行全面測試和驗證。系統啟用後，當飛越香港空域的飛機可能出現中期(五至二十分鐘)衝突時，管制人員即可獲得提示，藉此加強空管運作安全。

Flight Plan Conflict Advisory System

The design and development of a Flight Plan Conflict Advisory System (FiPCAS) was successfully completed in January 2010 and is now under extensive testing and validation. The system, upon commissioning, will help enhance safety to ATC operations by providing alerts to controllers when medium term (5 to 20 minutes) potential conflicts exist between aircraft flying over the Hong Kong airspace.

電子飛行進程單系統

為配合以無紙方式記錄飛行進程，本處在二零一零年二月十日批出電子飛行進程單系統供應及安裝合約。本處會首先在現有控制塔利用系統進行運作評估，所得經驗對協助新空管中心及控制塔順利改以電子方式運作大有幫助。

Electronic Flight Strip System

To support paperless flight strip operations, a contract for the supply and installation of an Electronic Flight Strip System (EFSS) was awarded on February 10, 2010. This system will initially be used for operational evaluation in existing tower. The operational experience so gained will facilitate a smooth transition to electronic flight strip environment in both new ATC centre and tower operations.

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改善通訊、導航、監察及航空交通管理系統的維修安排

為加強空中航行服務，本部採用以風險為本的模式，改善通訊、導航、監察及航空交通管理系統的現行維修安排。本處會採用最佳維修安排和電腦化系統，分析現有及新設系統的設備狀況和性能，務求迅速回應系統維修要求，從而提升系統運作效率和服務水平。本處與機電工程署簽訂新的服務水平協議，藉此進一步加強安全管理方面的工作，同時就民航處各場地的電機及機械系統、屋宇設備和電子裝置，訂定積極的維修措施。

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

With a view to strengthening the provision of air navigation services, the Division adopts a risk-based approach to enhance the existing maintenance practice on Communications, Navigation, Surveillance and Air Traffic Management (CNS/ATM) Systems. Best maintenance practices and computerised systems will be employed to analyse equipment conditions and system performance of both existing and new CNS/ATM Systems with a view to providing faster response to maintenance issues and hence enhancing operational efficiency and service availability. A new Service Level Agreement was also engaged with EMSD to further strengthen efforts on safety management as well as various proactive maintenance initiatives for electrical and mechanical systems, building services facilities and electronics installation at CAD venues.

協同決策

協同決策是一套制度，通過實時交換運作情報，讓有關各方更能掌握實際情況、簡化工作流程，不論在運作、財政抑或環境方面，都能為航空業各方帶來巨大效益。為配合本港發展和推行協同決策，本處到歐洲多個主要國際航空樞紐實地考察，又在二零零九年九月十四日舉辦協同決策工作坊，吸引了130多名來自不同本地航空機構的代表出席。此外，本處現已與機場管理局、航空公司和地勤服務代理人等主要機場持份者，舉辦專題小組討論。

Collaborative Decision Making

Collaborative Decision Making (CDM) is a system that will bring significant operational, financial and environmental benefits to all aviation stakeholders through improved situational awareness and streamlined workflows by real-time sharing of operational information. To facilitate the development and implementation of CDM in Hong Kong, the Department conducted a fact finding visit to major international hubs in Europe and organised a CDM workshop in Hong Kong on September 14, 2009, with more than 130 participants from local aviation communities supporting the event. Focus group discussions with major airport stakeholders such as Airport Authority, airlines, ground handling agents are being organised.

航空交通管理標準組

為確保本港空中航行服務維持最高安全水平，航空交通管理標準組負責規管空中航行服務的安全。

AIR TRAFFIC MANAGEMENT STANDARDS OFFICE (ATMSO)

To ensure that the safety of air navigation services (ANS) in Hong Kong is maintained at the highest level possible, the ATMSO has the responsibility to perform safety regulatory functions to oversee provision of ANS.

航空交通管理標準組同事正進行安全監督工作。
Staff from ATMSO conducts safety inspection.

安全監督工作

為持續監察航空安全，航空交通管理標準組共進行42次安全檢查，以及一次空中航行服務提供者審查。檢查範圍包括：航空交通管理工作的運作、程序、培訓和考試；安全管理系統的實施；空管設備/ 系統；安全事故調查；以及安全建議的跟進行動。經檢查的設施包括航空交通管制中心、控制塔、航空情報中心、備用航空交通管制中心和控制塔、培訓組、雷達模擬系統及控制塔模擬機。

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

為加強規管者與服務提供者的協作和合作，航空交通管理標準組與航空交通管理部、本部工程項目組和技術發展組定期召開會議，藉此密切監察空中航行服務提供者發展安全管理系統的情況。

Safety Oversight Activities

For continuous safety regulatory surveillance, ATMSO conducted a total of 42 safety inspections and 1 audit on the Air Navigation Services Provider (ANSP). The inspections included Air Traffic Management (ATM) activities in operations, procedures, training, examinations; implementation of SMS; ATC equipment/systems; safety occurrences investigations; and follow-up actions on safety recommendations. Facilities inspections were conducted in the Air Traffic Control Centre (ATCC), Control Tower, Aeronautical Information Centre, Backup ATCC & Tower, Training Unit, Radar Simulator and Aerodrome Simulator.

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

To enhance collaboration and cooperation between the regulator and service provider, the ATMSO convened regular meetings with ATMD and the Projects and Technical Support Sections of AESD. Through such regular coordination, the ATMSO closely monitors the development of SMS by the ANSP.

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

文件編制

航空交通管理標準組定期檢討和更新現有規管文件，確保內容準確、有效和符合現況。年內，該組發出四份《空中航行服務資料通告》，所公布的主要事項包括危險識別方法、事故分類修訂、更改進場管制扇區名稱，以及安全推廣工作。

Documentations

The ATMSO conducted regular reviews and updates on existing regulatory documents to ensure that they remain accurate, valid and up-to-date. During the report period, the ATMSO issued four Air Navigation Services Information Notices (ANSIN). These notices focused on hazard identification methods, changes to the classification of incidents, renaming of approach control sectors, and safety promotion activities.

空管主任執照

航空交通管理標準組一項重要職責是根據國際民航組織《附件1》的標準，規管空管主任執照簽發制度。在本報告年度內，該組共處理12個簽發空管主任執照申請、37個首次簽發空管執照級別申請、161個續發空管執照級別申請、16個首次簽發合格證書申請、191個續發合格證書申請、5個首次簽發空管認可考官證書申請、14個續發空管認可考官證書申請，以及15個英語能力證書申請。

ATC Personnel Licensing

One of the important functions of the ATMSO is to administer the ATC licensing scheme in accordance with the standards in ICAO Annex 1. During the report period, the Office processed 12 applications for the grant of ATC licences, 37 initial award and 161 renewal of ATC ratings, 16 initial award and 191 renewal of Certificates of Competency, five applications for the initial award and 14 renewal of ATC Approved Examiner (AE) Certificates, and 15 applications for English Language Proficiency Certificates.

航空交通管理部舉辦的各項空管培訓課程，都須接受規管。二零零九年，兩個根據進場管制培訓修訂計劃新設的空管課程，獲得規管批准。

All training courses conducted by ATMD for acquiring ATC ratings are subject to a regulatory approval process. In 2009, two new ATC courses under the revised scheme on Approach Control training gained regulatory approval.

安全推廣工作

為加強空中航行服務提供者的安全意識，航空交通管理標準組為本部人員舉辦五場簡介會，介紹國際民航組織安全管理系統的適用範疇、國際標準化組織就通訊、導航及監察所訂的相關標準、安全及質素保證管理，以及採用「Bowtie分析方法」(Bowtie Methodology)進行的安全風險管理。二零零九年九月九日，內部電子平台啟用，利便空中航行服務人員查閱安全資訊。

Safety Promotion Activities

To promote safety awareness within ANSP, the ATMSO conducted five presentations to AESD staff on ICAO SMS Framework and Related ISO Standards, Safety and Quality Management for Communications, Navigation and Surveillance (CNS), and Safety Risk Management using the Bowtie Methodology. In addition, an internal electronic platform was launched on September 9, 2009, facilitating ANS staff to have convenient access to safety information.

國際民航組織全球安全監察審查計劃

國際民航組織在二零零九年二月二十六日至三月六日到香港實地審查後，在二零零九年十一月發出最後報告。在維持有效的航空安全監督系統方面，香港整體取得94.47%的佳績，足證香港持續維持非常有效的航空安全監督系統。

除了跟進國際民航組織審計小組的建議外，民航處與國際民航組織和航空業各方繼續緊密合作，維持和改善香港航空系統的安全標準，從而保持香港作為區域及國際主要航空樞紐的地位。

ICAO UNIVERSAL SAFETY OVERSIGHT AUDIT PROGRAMME (USOAP)

In connection to the safety audit carried out on Hong Kong from February 26 to March 6, 2009, ICAO issued the final audit report in November 2009. Hong Kong achieved an overall score of 94.47% in the effective implementation of a safety oversight system. This shows that we have continued to maintain a highly effective aviation safety oversight system for the civil aviation activities in Hong Kong.

Apart from following up the ICAO audit team's recommendations, CAD will continue to work closely with ICAO and all aviation stakeholders to maintain and improve the aviation safety standards of Hong Kong in order to maintain Hong Kong's position as a leading regional and international aviation hub.

資訊科技管理

資訊科技管理組有效實施新的資訊科技措施和落實數碼政府的目標，對各分部的日常業務流暢運作，繼續發揮重要作用。

年內，資訊科技管理組完成兩項大型資訊科技計劃，以加強資訊科技服務和支援：

(i) 研發和完善電子輪值系統，由二零零九年十一月起供電訊人員試用。該系統設有合乎成本效益的解決方案，把人手作最佳分配。

(ii) 在二零一零年三月採取積極行動，更換使用多年的核心資訊科技設施/ 設備，以確保民航處電腦網絡維持高度運作水平。

此外，資訊科技管理組推行一套系統，全日24小時監察多個主要資訊科技應用系統的性能，並加強所有民航處工作站的資訊保安/保護措施。

IT MANAGEMENT

The Information Technology Management Unit (ITMU) continued to play a very important role to support day-to-day business operations of various divisions, through effective implementation of new IT initiatives and e-government objectives.

During the year, the ITMU completed two major IT projects for betterment of IT services and support:-

(i) Development and fine-tuning of an Electronic Rostering System for trial use by Telecommunications Officers since November 2009. This system provides a cost-effective solution to optimise manpower allocation.

(ii) Proactive replacement of aged core IT facilities/equipment to maintain high serviceability of departmental computer network (CADNET) in March 2010.

ITMU implemented a system for round-the-clock monitoring of performance status of a number of critical IT applications and enhanced information security/protection measures to all CAD workstations.