



第七章 飛行標準及適航 Chapter 7 Flight Standards and Airworthiness

飛行標準及適航

飛行標準及適航部負責簽發航空營運許可證，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用航空組織（國際民航組織）所訂的標準和建議措施。本部的其他職責包括簽發航空人員執照、分析安全數據、監察在香港登記

Flight Standards and Airworthiness

The Flight Standards and Airworthiness Division is responsible for the issue 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 International Civil Aviation Organization (ICAO). Other functions of the Division include personnel licensing, safety data analysis, supervision of airworthiness and maintenance



的飛機的適航標準和維修水平、監察輕型飛機和直升機運作、規管航空交通服務，以及調查飛機意外和事故。

standards of aircraft registered in Hong Kong, supervision of light aircraft and helicopter operations, regulation of the provision of air traffic services, and the investigation of aircraft accidents and incidents.



適航主任進行停機坪巡查，確保航機飛行安全。
An Airworthiness Officer conducts ramp inspection to ensure flight safety.



適航主任為中富航空購置的龐巴迪CRJ-200型飛機進行適航檢查。
Airworthiness Officers carry out an airworthiness check on a Bombardier CRJ-200 aircraft brought by CR Airways.

飛行標準組

簽發和續發航空營運許可證

截至本報告年度結束為止，本港共有9家公司持有香港航空營運許可證。年內，本部調撥所需人力和資源，處理中富航空有限公司提出更改其航空營運許可證的申請，以營運一架首次在香港民用航空器登記冊上登記的龐巴迪CRJ-200型飛機。為了審批有關申請和日後監管其運作，本處兩名適航主任和一名高級營運督察前往中國濟南和青島接受龐巴迪提供的飛機維修和飛行員訓練課程。本處於二零零三年六月二十七日更改該公司的航空營運許可證。

9家持有航空營運許可證的公司為：

- 國泰航空有限公司
- 港龍航空有限公司
- 香港華民航空有限公司
- 直升機服務(香港)有限公司
- 香港商用飛機有限公司
- 港聯直升機有限公司
- 中富航空有限公司
- Jet Aviation Business Jets (Hong Kong) Limited
- 飛翔熱氣球有限公司

年內，本部推行一項聯合巡查計劃，監察所有持有航空營運許可證公司的運作。飛行標準組視察了16個外站和進行了136次飛行檢查，而有關航空營運許可證的其他巡查則合共有182次。本部亦按照年檢程序，對本港航空公司採用的25台飛行模擬器進行評審、視察及重新批給使用許可。除了監察持有航空營運許可證公司的運作外，本部亦繼續監察政府飛行服務隊的直升機和定翼機運作。此外，本部在年內進行了22次停機坪突擊巡查，以監察使用香港國際機場的外國航空公司符合國際水平。

FLIGHT STANDARDS OFFICE

Issue and Renewal of AOC

There were nine Hong Kong AOC holders by the end of the report period.

During the year, the Division put in the necessary manpower and resources to process the varied AOC application by CR Airways Limited (CRK) for the operations of a Bombardier CRJ-200 aircraft, which was a new type of aircraft to be put on the Hong Kong Civil Aircraft Register. To process the application and for future monitoring, two CAD Airworthiness Officers and one Senior Operations Inspector attended maintenance and flight crew training courses delivered by Bombardier in Jinan and Qingdao. The varied AOC was presented to CRK on June 27, 2003.

The nine AOC holders were:

- Cathay Pacific Airways Limited (CPA)
- Hong Kong Dragon Airlines Limited (HDA)
- Air Hong Kong Limited (AHK)
- Heliservices (Hong Kong) Limited (HEL)
- Metrojet Limited
- Helicopters Hong Kong Limited (HHK)
- CR Airways Limited (CRK)
- Jet Aviation Business Jets (Hong Kong) Limited (Jet Aviation)
- Visions Balloons Limited

The activities of all AOC holders were monitored through a combined programme of inspections. The Flight Standards Office completed 16 station inspections, 136 flight inspections and a total of 182 other AOC inspections. The 25 flight simulators used by the local airlines were evaluated, inspected and re-approved for use in accordance with the annual inspection procedures. Apart from the AOC holders, the Division also continued to monitor the helicopter and fixed-wing aircraft operations of the Government Flying Service (GFS). Besides, to monitor compliance with international standards by foreign airlines using the Hong Kong International Airport (HKIA), the Division conducted 22 ad-hoc ramp inspections during the year.

接收航空器

在嚴重急性呼吸系統綜合症（「沙士」）於二零零三年三月爆發時，航空交通量縮減。但疫症過後，航空交通量迅速回升。本地航空公司更添置飛機以擴建機隊。年內，國泰航空公司接收七架廣體飛機，包括三架空中巴士A330型、一架空中巴士A340-600型和三架波音B777型飛機。港龍航空公司亦接收兩架空中巴士A321型和一架空中巴士A330型飛機，以及一架波音B747-200型貨機。中富航空則接收一架龐巴迪CRJ-200型定翼飛機。直升機方面，直升機服務（香港）有限公司接收一架歐洲直升機公司AS355N型直升機。香港飛行總會則會接收一架R22 BETA II型直升機。而香港首家持有航空營運許可證的氣球營運公司飛翔熱氣球有限公司則添置多一個熱氣球。

工作組

飛行工作時間限制工作組和酒精及藥物工作組均由本處領導。飛行工作時間限制工作組繼續與業界商討有關飛行工作時間限制的事宜。酒精及藥物工作組正研究引入酒精及藥物測試程序。

鑑於各界日漸關注宇宙輻射對機組人員的影響，本處自二零零二年九月起對飛行高度在26 000呎以上的飛機實施宇宙輻射監測計劃，所有在香港登記作公共運輸的飛機，其營運的航空公司已記錄和備存機組人員於飛行高度可能超過26 000呎飛機上，所受宇宙輻射總劑量及有關機組人員的姓名。宇宙輻射及航空會議將於來年繼續監察該監測計劃的運作。

Delivery of Aircraft

Following the fast recovery from the air traffic downturn caused by the Severe Acute Respiratory Syndrome (SARS) in March 2003, local airlines expanded their fleets with the delivery of additional aircraft during the year. CPA received seven wide-bodied aircraft consisting of three Airbus A330, one Airbus A340-600 and three Boeing B777 aircraft. HDA received two Airbus A321 and one Airbus A330 aircraft and one Boeing B747-200 freighter. CRK brought in a fixed-wing Bombardier CRJ-200 aircraft. The helicopter operator HEL took delivery of a Eurocopter AS355N helicopter, while the Hong Kong Aviation Club (HKAC) took delivery of a Robinson R22 BETA II helicopter. The first balloon operator holding a Hong Kong AOC, Visions Balloons Limited added another hot air balloon to its operations.

Working Groups

The Flight Time Limitation Working Group (FTLWG) and the Alcohol and Drugs Working Group (ADWG) are under the chairmanship of CAD. FTLWG continued to work with the industry on matters relating to flight time limitation. ADWG has been studying the introduction of procedures for conducting alcohol and drugs screening.

With the increased concern on the impact of cosmic radiation on crew members, the Cosmic Radiation Monitoring Programme for flights above 26 000 feet was implemented in September 2002. Since then, operators of public transport aircraft registered in Hong Kong have, in respect of any flight by that aircraft during which it may fly at an altitude in excess of 26 000 feet, kept a record of the total dose of cosmic radiation to which the crew members are exposed together with their names. The programme will be under constant monitoring by the Cosmic Radiation and Aviation Meeting in the coming year.



頒發飛行訓練機構許可證

本處出版的《CAD 509》文件，概述對飛行訓練機構頒發許可證的要求；這些飛行訓練機構提供綜合訓練課程，以培訓具備儀表飛行等級的香港商用(飛機)飛行員。二零零零年年中，位於澳洲阿得雷德的英國宇航航空訓練學校(英國宇航)獲本處根據《CAD 509》文件頒發首個許可證，有效期為兩年。在許可證的有效期內，英國宇航可為國泰航空公司和港龍航空公司的飛行學員舉辦飛行訓練課程。本處於二零零二年八月向英國宇航續發許可證，為期兩年至二零零四年八月。飛行標準組總民航事務主任於二零零三年十一月前往英國宇航進行中期視察，認為英國宇航的運作繼續保持高水準。為了向英國宇航續發許可證，本處將於來年根據《CAD 509》文件所訂的標準，對該飛行訓練機構進行審核。

Approval of Flying Training Organisation

Published by CAD, the document CAD 509 outlines the requirements for the CAD Approval of a Flying Training Organisation offering an Integrated Course of Training for Hong Kong Commercial Pilot's Licence with Instrument Rating (Aeroplane). In mid-2000, the first CAD 509 Approval was granted to the BAE Systems Flight Training (Australia) Pty. Limited (BAE), a flying training organisation in Adelaide, Australia to conduct flying training for the cadet pilots of CPA and HDA for a period of two years. The approval for BAE was renewed in August 2002 for another two years until August 2004. The Chief Operations Officer of the Flight Standards Office visited BAE in November 2003 to conduct an interim inspection and concluded that BAE continued to operate to a high standard. In the coming year, CAD will audit the flying training organisation according to standards stipulated in CAD 509 for the purpose of renewing the approval.



機組人員的專業水平受本處嚴格監察。

Professional standards of flight crew are constantly monitored by CAD.

適航事務組

年內，適航事務組繼續監察所有在香港登記的飛機的維修和適航水平。適航事務組由十五位適航主任組成，工作包括定期審查香港航空公司在本港、內地和海外的航站、定期審查認可的維修機構，以及在香港、中國內地、亞洲、澳洲、歐洲和北美洲各地城市內檢查飛機。上述工作是必須的，因為該等工作有助適航事務組履行航空營運許可證的持續認可、維修機構的認可，以及為在香港登記的飛機簽發或續發適航證的有關職責。

為了配合本港航空業的發展，本處在年內進行了增聘適航主任的工作。現職適航主任繼續接受與適航事宜有關的技術培訓及最新的監管策略資訊。此外，適航主任亦獲派出席國際研討會、會議和工作組會議，以擴闊適航主任對國際適航標準新發展的視野。年內，適航主任出席的活動包括空中巴士A380型飛機的發證、結構和維修審查委員會工作組會議、國際民航組織世界航行大會、通訊、導航及監察/航空交通管理系統和全球導航衛星系統研討會、航空訓練研討會、維修審查委員會政策會議，以及飛機型號、人為因素和安全管理課程。

AIRWORTHINESS OFFICE

The Airworthiness Office continued to monitor the maintenance and airworthiness standards of all Hong Kong registered aircraft. With a workforce of 15 Airworthiness Officers, this Office carried out routine AOC line station audits, approved maintenance organisation audits, and aircraft surveys in various locations including locally in Hong Kong and the Mainland, and cities in Asia, Australia, Europe and North America. These activities are essential to support the continual validation of AOC, approval of maintenance organisation, and the issue and renewal of Certificates of Airworthiness for Hong Kong registered aircraft.

Recruitment of Airworthiness Officers was conducted in the year to cope with the expansion of Hong Kong's aviation industry. Airworthiness Officers currently in service continued to receive technical training and regulatory update on airworthiness issues. The Officers also attended international seminars, conferences and working group meetings to widen their exposure on the latest development of the international airworthiness standards. Events that were attended by the Airworthiness Officers during the year included the Airbus A380 working group meetings on Certification, Structure, and Maintenance Review Board; the ICAO Air Navigation Conference; the Seminar on Satellite-based Communications, Navigation and Surveillance/Air Traffic Management Systems & Global Navigation Satellite System; the Aviation Training Forum; the Maintenance Review Board Policy meeting; as well as various aircraft type technical, human factors and safety management courses.

飛機發動機維修服務乃受民航處嚴密監察。
Maintenance services provided to aircraft engines are
subject to CAD's stringent monitoring.



飛機維修

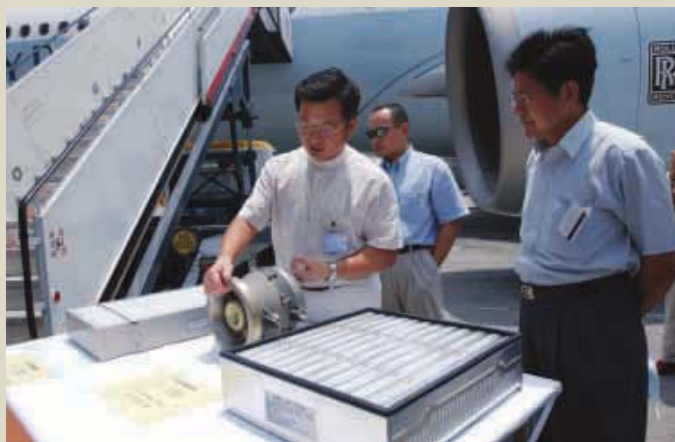
適航事務組透過機庫檢查、公司運作審查及產品審查，定期監察所有香港認可的飛機維修及飛機部件維修公司，並不斷審查和定期視察香港飛機工程有限公司、香港航空發動機維修服務有限公司及廈門太古飛機工程有限公司等主要維修公司。

在「沙士」於二零零三年三月在香港和亞洲爆發時，香港航空公司的運作大受影響。由於客量大跌，很多飛機暫停服務。但適航事務組繼續確保這些飛機的適航標準仍然得以保持。

Aircraft Maintenance

The Airworthiness Office continued to monitor all Hong Kong approved aircraft and aircraft component maintenance companies regularly through hangar surveys, company audits and product audits. Major maintenance companies, including Hong Kong Aircraft Engineering Company Limited (HAECO), Hong Kong Aero Engine Services Limited (HAESL) and Taikoo (Xiamen) Aircraft Engineering Company Limited (TAECO), are monitored by rolling audits and regular visits.

During the outbreak of SARS in Hong Kong and Asia in March 2003, the operations of the Hong Kong AOC holders were disrupted. Many of their aircraft were temporarily pulled out from service due to the tremendous reduction of passengers. However, the Airworthiness Office continued to ensure that the airworthiness standards of these aircraft were being maintained at all times.



處長林光宇和助理處長梁汝強於記者會上介紹波音B777型飛機「高效能過濾器」的效用。
Director-General Mr Albert Lam and Assistant Director-General Mr Y K Leung brief the media on
the function of a Boeing B777 aircraft HEPA filter.

二零零二年五月二十一日，本處與中國民用航空總局和澳門民航局簽訂「互相認可航空器維修單位批准」合作安排。之後，一批位於中國、澳門和香港的飛機部件維修公司，獲中國民用航空總局、澳門民航局和本處根據該合作安排取得互相認可。二零零四年二月十八日，本處與中國民用航空總局和澳門民航局根據該合作安排簽訂一增編，以擴闊互相認可的範圍至發動機維修公司。一如早前認可飛機部件維修公司的過程，維修標準組將於來年進行所需的審查工作，以確立獲推薦的發動機維修公司的互相認可細則。

年內，適航事務組繼續舉辦與飛機維修有關的工作坊。在二零零四年二月舉行的維修錯誤管理系統和安全管理系統工作坊，獲業界熱烈參與。參加者包括維修工程師、技術服務專家、維修管制員、經理、品質監控人員等。

Following the implementation of the Cooperation Arrangement on mutual acceptance of approval of aircraft maintenance organisations signed on May 21, 2002 with the General Administration of Civil Aviation of China (CAAC) and Civil Aviation Authority of Macao (CAAM), a list of component maintenance organisations in China, Macao and Hong Kong had been mutually accepted by CAAC, CAAM and CAD. On February 18, 2004, an Addendum to the Cooperation Arrangement was signed to extend the mutual acceptance to engine maintenance organisations. Similar to the process leading to the mutual acceptance of component maintenance organisations, a Maintenance Standardisation Team was formed and will carry out in the coming year the necessary investigations to establish the status of mutual acceptance for the nominated engine maintenance organisations.

The Airworthiness Office continued to conduct maintenance related workshops during the year. A workshop on Maintenance Error Management System and Safety Management System was held in February 2004 with overwhelming attendance by the industry. Attendees included maintenance engineers, technical services experts, maintenance controllers, managers, quality monitoring personnel, etc.



維修標準組確立民航當局是否遵行其訂立的適航審批規定。
Maintenance Standardisation Team establishes the compliance of the aviation authorities with their respective airworthiness approval requirements.



飛機維修訓練

年內，再有兩家維修訓練機構獲發《香港航空要求—147(核准維修訓練／考試)》許可證：分別是一家位於澳洲布里斯本的Aviation Australia和一家名為香港專業教育學院(青衣分校)的本地教育機構。兩家維修訓練機構均獲准舉辦基本訓練課程，以作報考飛機維修執照考試。

截至二零零四年三月三十一日，在本港和海外共有五家維修訓練機構獲發《香港航空要求—147》許可證。該五家機構均獲准舉辦跟維修在香港登記的飛機有關的基本訓練課程及飛機型號訓練課程。

Aircraft Maintenance Training

Two more Maintenance Training Organisations were granted the HKAR-147 Approval during the year. They were the Aviation Australia in Brisbane, Australia and the Hong Kong Institute of Vocational Education (Tsing Yi), a local educational institute. Both organisations were approved to conduct Basic Training Course for the purpose of taking Hong Kong Aircraft Maintenance Licence examinations.

As at March 31, 2004, there were a total of five HKAR-147 Maintenance Training Organisations located in Hong Kong and overseas which were approved to provide basic and aircraft type training for the maintenance of Hong Kong registered aircraft.

適航事務組統計數字

Airworthiness Office Statistics

		數目 Number
簽發適航證	Certificate of Airworthiness Issued	15
續發適航證	Certificate of Airworthiness Renewed	138
審定重大改裝	Major Modification Approved	27
簽發飛機維修公司許可證	Aircraft Maintenance Company Approval Issued	1
續發飛機維修公司許可證	Aircraft Maintenance Company Approval Renewed	17



Aviation Australia和香港專業教育學院(青衣分校)獲簽發《香港航空要求—147》許可證，獲准開辦航空器維修訓練課程。
Aviation Australia and the Institute of Vocational Education (Tsing Yi) are granted the HKAR-147 Approval to conduct aircraft maintenance training courses.

航空人員執照事務主任正在監考。
A Personnel Licensing Officer invigilates
an examination.



英國民航局諮詢服務

根據英國民航局與本處簽署的合約，英國民航局繼續向本處提供諮詢服務，包括向所有適航主任提供監管建議和最新的適航資訊。英國民航局亦對適航事務組的運作程序進行品質審查。於二零零三年七月和二零零四年三月，英國民航局飛機維修標準部派出檢查主任來港，向本處所有適航主任作講解，內容包括一般最新要求，以及個別的適航專題，包括設計機構的許可審定事宜、飛行手冊、最低限度應有設備表、雙發飛機延程運作，以及歐洲航空安全機構的發展。英國民航局同時對適航事務組的運作程序和標準進行品質審查，審查結果令人滿意。

航空人員執照事務組

飛行員執照

年內，航空人員執照事務組處理了1 070份有關首次簽發牌照、牌照續期、批核和延期的申請，並簽發了3 590份體檢合格證明書，以及評核了2 122份飛行員執照考試試卷。這些考試中，有618次是在澳洲阿得雷德的英國宇航舉行，有1 504次考試則由本處人員監考。香港大部分專業飛行員執照，均是以轉換國際民航組織其他成員國所發執照的方式簽發。年內，航空人員執照事務組共處理157份由這類海外牌照持有人提出的轉換申請。

UKCAA Advisory Services

Under a contract between the United Kingdom Civil Aviation Authority (UKCAA) and CAD, UKCAA continued to provide advisory services including general regulatory advice and airworthiness update to all Airworthiness Officers and conducted quality audits on the operations of the Airworthiness Office. In July 2003 and March 2004, surveyors from UKCAA Aircraft Maintenance Standards Department conducted briefing sessions in Hong Kong to all Airworthiness Officers covering general updates and specific airworthiness topics such as the approval matters on design organisation, flight manual, minimum equipment list, extended range twin-engined operations as well as the development of the European Aviation Safety Agency. UKCAA also conducted quality audits on the procedures and standards of the Airworthiness Office and the results were satisfactory.

PERSONNEL LICENSING OFFICE

Flight Crew Licensing

During the year, the Personnel Licensing Office handled 1 070 applications for initial issue, renewal, endorsement and extension of flight crew licences, issued 3 590 medical certificates and set 2 122 examination papers for applicants of flight crew licences. Amongst those examinations, 618 were conducted under CAD 509 Approval at BAE in Adelaide, Australia while 1 504 were invigilated by CAD's officers. Most of Hong Kong's professional flight crew licences were issued by conversion from licences issued in other ICAO States. In the year, 157 applications from such licence holders were processed.

適航主任密切監察維修人員的訓練情況。
An Airworthiness Officer monitors the training of
maintenance personnel.



飛機維修執照

隨著新訂有關簽發飛機維修執照的《香港航空要求—66》在二零零二年四月一日生效後，所有以前根據《香港航空要求（執照簽發-飛機維修工程師）》規定簽發的飛機維修工程師執照，已在二零零二年四月一日後的兩年過渡期內轉換至《香港航空要求—66》執照。年內，航空人員執照事務組簽發293個執照，以及續發421個執照。截至二零零四年三月三十一日，共877人持有《香港航空要求—66》執照。年內，因執照的轉換工作關係，有達破紀錄的783份申請參加《香港航空要求—66》執照考試。航空人員執照事務組共舉辦了27次考試，涉及2 034份科目試卷。

協調本地空域使用者

香港分區飛行安全委員會繼續定期召開會議，協調使用香港空域的本地機構的運作情況。這些使用本地空域的機構包括定翼機構和旋翼機構(政府飛行服務隊、中國人民解放軍駐香港部隊(駐港部隊)、直升機服務(香港)有限公司、港聯直升機有限公司和香港飛行總會)、滑翔傘機構(香港滑翔傘會)以及個別航空器擁有人。該委員會定期召開會議，討論因航空交通量增加而須加強本地空域安全和協調的事宜。

由於石崗機場是本港唯一可供輕型飛機運作的機場，因此駐港部隊暫時批准香港飛行總會於周末繼續在該機場進行康樂性質的定翼機和旋翼機飛行活動和訓練。駐港部隊亦允許政府飛行服務隊在該機場進行直升機駕駛員訓練。為確保飛行安全，所有使用石崗機場的機構與駐港部隊保持緊密聯繫和協調在該機場進行的活動。香港分區飛行安全委員會在有需要時會參與協調工作。

Aircraft Maintenance Licensing

Following the implementation of HKAR-66 Aircraft Maintenance Licensing requirements from April 1, 2002, all aircraft maintenance engineer licences issued under the previous Aircraft Maintenance Engineer Licensing (HKAR-AMEL) requirements had been transferred to the HKAR-66 licence during the two-year transition period. During the year, a total of 293 licences were issued and 421 were renewed. As at March 31, 2004, the total number of HKAR-66 licence holders was 877. As a result of the transition to HKAR-66 licensing system, the number of aircraft maintenance licence examination applications reached a record high of 783 in the year and the Personnel Licensing Office conducted 27 examinations which involved the use of 2 034 examination papers.

COORDINATION WITH LOCAL AIRSPACE USERS

The Hong Kong Sector Flight Safety Committee continued to hold regular meetings to coordinate operations of local airspace users within Hong Kong airspace. These local airspace users included fixed-wing operators and rotary wing operators (GFS, the Hong Kong Garrison of the People's Liberation Army (PLA), HEL, HHK and HKAC) as well as paraglider operator (the Hong Kong Paragliding Association) and private aircraft owners. The Committee had regular meetings to discuss issues that would enhance safety and coordination in the local airspace due to the increase in traffic density.

Since Shek Kong airfield was the only aerodrome available for light aircraft operations, PLA continued to give temporary permission to HKAC to continue its recreational fixed-wing and rotary wing aircraft flying and training at the airfield during weekends. GFS was also allowed by PLA to conduct training for its helicopter pilots at the airfield. To ensure flight safety, all these Shek Kong airfield users maintained close liaison and coordination with PLA for their operations at the airfield. The Committee assisted in the coordination if required.

飛機登記

年內共有15個航空器列入香港民用航空器登記冊內，計有兩架空中巴士A321型、四架空中巴士A330型、一架空中巴士A340-600型、一架波音B747型、三架波音B777型和一架龐巴迪CRJ-200型飛機，以及兩架直升機和一個熱氣球。同期取消登記的有一架HS125型飛機和九架直升機。截至二零零四年三月三十一日，香港民用航空器登記冊內共有156個民用航空器。分類如下：

AIRCRAFT REGISTER

During the year, a total of 15 aircraft were put on the Hong Kong Civil Aircraft Register. They were two Airbus A321, four Airbus A330, one Airbus A340-600, one Boeing B747, three Boeing B777 and one Bombardier CRJ-200 aircraft as well as two helicopters and one hot air balloon. In the same period, one HS125 aircraft and nine helicopters were removed from the Register. As at March 31, 2004, the total number of civil aircraft in the Hong Kong Civil Aircraft Register was 156.

The composition of aircraft on the Hong Kong Aircraft Register as at March 31, 2004 was as follows:

類型	Aircraft Type	數目	Number
空中巴士A320型	Airbus A320	8	
空中巴士A321型	Airbus A321	6	
空中巴士A330型	Airbus A330	33	
空中巴士A340型	Airbus A340	18	
波音B747型	Boeing B747	35	
波音B777型	Boeing B777	15	
龐巴迪BD-700型	Bombardier BD-700	1	
龐巴迪CRJ-200型	Bombardier CRJ-200	1	
BAe4100	BAe4100	2	
灣流 200型	Gulfstream G200	1	
直升機	Helicopters	24	
其他定翼飛機	Other fixed-wing aircraft	10	
熱氣球	Hot air balloon	2	
合計	Total	156	



航空交通管理標準組

本部在二零零三年年初成立航空交通管理標準組，負責規管在飛行情報區內的航空交通服務。該組的成立是一項重要的策略，目的是為了更有系統地規管航空交通服務。航空交通管理標準組履行監管者的角色，監察航空交通管理部內安全管理系統的發展和推行，以及進行定期的安全審核和檢查，以確保航空交通管理部的運作遵循有關的規定和安全管理系統的準則。年內，航空交通管理標準組針對航空交通管理的不同範疇，制定指引和列明規定，用以規管航空交通服務。

AIR TRAFFIC MANAGEMENT STANDARDS OFFICE

The Air Traffic Management Standards Office (ATMSO) was established under the Flight Standards and Airworthiness Division in early 2003 to take up the function of safety oversight of air traffic services within the Hong Kong Flight Information Region (FIR). The establishment of ATMSO is an important strategic step to achieve a more structured and rational approach to safety regulation of air traffic services in Hong Kong. ATMSO plays an important regulatory role with an ambit to oversee the development and implementation of the Safety Management System (SMS) in the Air Traffic Management Division (ATMD) and to conduct regular safety audits and inspections to ensure that ATMD complies with the relevant regulatory requirements and follows SMS principles in its operations. During the year, ATMSO developed and published guidance materials and set out the requirements in various facets of air traffic management based on which the provision of air traffic services is being regulated.



航空交通管理標準組訂立航空交通管理安全政策。
Air Traffic Management Standards Office formulates air traffic management safety policies.

安全監督工作

作為安全監督工作的重要部份，航空交通管理標準組對航空交通管制的運作和培訓的不同範疇進行定期檢查。年內，航空交通管理標準組於二零零三年十二月對航空交通管理部有關機場管制的運作，進行能力保證的審核。來年該組將會繼續進行類似的審核。

航空交通管理標準組同時亦參與航空交通事故的調查，目的是為了確定事發原因和制定安全建議，以減少將來再次發生的機會。為了增加調查的客觀性和全面性，航空交通安全評核委員會邀請本地的航空公司的代表和本地空域的使用者參與，審視調查報告，以確保調查過程的完整性。該委員會亦會覆檢航空交通服務運作的安全標準，以及制定改善安全的措施，提高航空安全。

根據國際民用航空公約附件11的指引和規定，航空交通管理標準組自二零零三年十一月起訂立可接受的安全水平，作為一個客觀的工具，以量化形式量度香港航空交通管理系統的安全標準。此計劃可不斷監察和定期審查航空交通管理所達的安全水平。

Safety Oversight Activities

As an important part of the safety oversight function, ATMSO conducted regular inspections on various aspects of air traffic control (ATC) operations and training. During the year, ATMSO carried out an audit in December 2003 on ATMD focusing on competency assurance in Aerodrome Control operations. Similar audits will continue to be conducted in the coming year.

ATMSO also participated in the investigation in air traffic incidents with the objectives of establishing the causes and identifying safety recommendations so as to minimise recurrence in future. In an effort to improve the objectivity and comprehensiveness of the incident investigation process, the Air Traffic Safety Assessment Committee (ATSAC) was established whereby external participation from representatives of local airlines and airspace users were invited to scrutinize the investigation reports with a view to ensuring the integrity of the investigation process. The Committee also serves to review the safety standards of air traffic services and to identify safety improvement measures with a view to promoting aviation safety.

In accordance with the guidelines and requirements as stipulated in Annex 11 to the Convention on International Civil Aviation, the "Acceptable Level of Safety" has been established since November 2003 as an objective tool for measuring quantitatively the safety standards of the air traffic management system in Hong Kong. The scheme provides for continuous monitoring and regular assessment of the safety level achieved in air traffic management.



意外調查部展開有關政府飛行服務隊歐洲直升機公司
EC155B1型直升機意外的調查。
Accident Investigation Division is mobilised
to conduct investigation into the GFS
Eurocopter EC155B1 helicopter accident.



航空交通管制主任執照

透過航空交通管制主任執照簽發制度，航空交通管理標準組履行規管航空交通管制主任資格的責任。年內，該組處理共444份簽發和續發航空交通管制主任執照的申請。此外，共17位航空交通管制主任獲發航空交通管制認可考官證書，並獲指定為合資格考官，可提供為考取航空交通管制等級而須進行的考試。作為能力保證計劃的一部份，航空交通管理標準組聯同航空交通管理部在年內舉辦了一個認可考官培訓課程，共五位航空交通管制主任成功完成課程。

意外調查

政府飛行服務隊歐洲直升機公司EC155B1型直升機

二零零三年八月二十六日，政府飛行服務隊一架登記標誌為B-HRX的歐洲直升機公司EC155B1型直升機，執行運送傷病者任務途中，發生意外。直升機於穿越大嶼山東涌飛行通道時，撞向山坡墜毀。直升機上兩名機組人員死亡。

意外調查部隨即運作，展開調查。由於法國是該直升機的設計國和製造國，法國航空安全監察分析局的調查員亦參與調查工作。英國航空意外調查局亦應邀協助解讀肇事直升機的駕駛艙錄音機和飛行數據記錄儀的數據。

二零零三年九月二十五日，總意外調查主任發表初步報告，依據在報告發出前所得的資料，詳列各項有關該意外的事實。根據《香港民航（意外調查）規例》，更深入的調查正在進行中，以確定意外發生的成因。

Air Traffic Control Officers Licensing

ATMSO discharges its responsibility of regulatory approval of Air Traffic Control Officers through the ATC personnel licensing system. During the year, ATMSO handled 444 applications for initial issue and renewal of Air Traffic Control Officer Licences. In addition, 17 Air Traffic Control Officers were granted ATC Approved Examiners Certificates and are designated as qualified examiners for the conduct of examinations leading to the award of ATC ratings. As part of the ATC competency assurance programme, ATMSO, in conjunction with ATMD, conducted during the year an Approved Examiners Training Course in which five Air Traffic Control Officers successfully completed the training.

ACCIDENT INVESTIGATION

Government Flying Service Eurocopter EC155B1 Helicopter

On August 26, 2003, a GFS Eurocopter EC155B1 helicopter with registration B-HRX, had a fatal accident when it was on a Casualty Evacuation mission. The helicopter impacted with terrain while crossing the Tung Chung Pass of Lantau Island and was destroyed. The two crew members on board the helicopter died.

The Accident Investigation Division was mobilised to conduct the accident investigation. As France is the state of design and manufacture of the helicopter, investigators from the Bureau d'Enquetes et d'Analyses pour la Securite de l'Aviation civile, also participated in the investigation. The United Kingdom Air Accidents Investigation Branch was requested to assist in the retrieval of data from the cockpit voice and flight data recorder of the helicopter.

A preliminary report containing the facts relating to the accident as determined up to the time of issue was released on September 25, 2003. A more in-depth investigation under the Hong Kong Civil Aviation (Investigation of Accidents) Regulations was in progress to determine the circumstances and cause of the accident.

中華航空公司波音麥道-11型飛機

年內，本處完成了有關中華航空公司一架波音麥道-11型飛機(呼號CAL642)在一九九九年八月二十二日降落香港國際機場25L跑道時失事的最後調查報告。有關報告未有發表，須視乎中華航空公司根據《香港民航(意外調查)規例》要求覆核而成立的覆核委員會聆訊的結果。覆核委員會聆訊於二零零三年十一月舉行。覆核委員會主席正撰寫覆核委員會的報告。

安全數據分析

本部與各航空公司和維修機構保持緊密聯繫，跟進涉及在香港登記的飛機的事件。年內，本部調查和分析了769宗個案。

航空保安及飛行安全

自美國於二零零一年發生九一一事件後，本處在二零零二年八月發出飛行運作通知，規定所有在香港登記具備運輸(乘客)類別適航證，以及經核證最高起飛重量逾45 500公斤的飛機，或乘客座位數目超過60個的飛機，均須由二零零三年十一月一日起，根據該通知安裝獲核准的駕駛艙門。年內，國泰航空公司及港龍航空公司已完成所有更改工程，並已附合安裝駕駛艙門的規定。來年，本處將會監察營運在香港登記的飛機的航空公司，制訂和提供獲認可的保安培訓課程的情況，以確保機組人員能採取最合適的方法，減低非法干擾行為所造成的影響。

China Airlines Boeing MD-11 Aircraft

Although the investigation report on the accident that occurred to a China Airlines Boeing MD-11 aircraft (callsign CAL642), which crash-landed on Runway 25L at HKIA on August 22, 1999 was finalised, the publication of the report was still pending subject to the results of the Board of Review raised by China Airlines under the Hong Kong Civil Aviation (Investigation of Accidents) Regulations. The Board of Review meetings were held in November 2003. The report of the Board of Review was being prepared by the Chairman of the Board of Review.

SAFETY DATA ANALYSIS

The Division maintained close liaison with air operators and maintenance organisations regarding occurrences involving Hong Kong registered aircraft. During the year, 769 occurrences were investigated and analysed.

AVIATION SECURITY AND FLIGHT

SAFETY

After the September 11 incidents in the United States in 2001, CAD issued a Flight Operations Notice in August 2002, requiring all Hong Kong registered aeroplanes with a Certificate of Airworthiness in the Transport (Passenger) Category and with a maximum certified take-off mass in excess of 45 500 kilogram, or with a passenger seating capacity greater than 60, to equip with an approved flight crew compartment door according to the requirements as stipulated in the Notice from November 1, 2003. During the year, CPA and HDA had completed all the necessary modifications works and were already in compliance with the requirements of installation of flight crew compartment door. In the coming year, CAD will monitor the compliance by the operators of Hong Kong registered aeroplanes with the establishment and maintenance of an approved security training programme, which ensures that crew members act in the most appropriate manner to minimise the consequences of unlawful interference acts.