



## 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。

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 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.



◀ 航空營運督察經常進行巡查，確保飛機運作安全。

Flight operation inspector conducts inspection to ensure safe operation of aircraft.

## 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，本港共有九家公司持有香港航空營運許可證。年內，本部處理了多宗更改航空營運許可證的申請，以營運首次在香港民用航空器登記冊上登記的新型號飛機。在本部完成所需的審查後，本處在二零零五年七月二十九日更改港聯航空有限公司（港聯航空）的航空營運許可證，讓該公司得以營運 Embraer ERJ-170 型飛機。港聯航空的直升機部門改名為空中快線，而空中快線在二零零六年二月一日獲發獨立的航空營運許可證。二零零五年八月二十六日，本處更改中富航空有限公司（中富航空）的航空營運許可證，加入龐巴迪 CRJ-700 型飛機。二零零六年二月，中富航空提出另一項更改航空營運許可證申請，要求在該公司的機隊中加入波音 B737-800 型飛機。新成立的本地航空公司甘泉航空提出航空營運許可證的申請，以波音 B747-400 型飛機經營往歐洲和北美洲的長途航線。截至本報告年度結束為止，本部仍在審批中富航空的更改申請和甘泉航空的航空營運許可證申請。

## 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 processed a number of AOC variation applications for the operations of new types of aircraft to be put on the Hong Kong Civil Aircraft Register. After the completion of the necessary assessment, an AOC variation for Hong Kong Express Airways Limited (HKEA) was issued on July 29, 2005 for the operations of Embraer ERJ-170 aircraft. The helicopter division of HKEA was renamed as Heli Express Limited (HEXP) and a separate AOC for HEXP was issued on February 1, 2006. An AOC variation for CR Airways Limited (CRA) to include Bombardier CRJ-700 aircraft was issued on August 26, 2005. CRA had also made another AOC variation application in February 2006 to include Boeing B737-800 aircraft in their fleet. A newly established local airline, Oasis Hong Kong Airlines Limited (OHKA), had made an AOC application to operate Boeing B747-400 aircraft for long haul services to Europe and North America. By the end of the report period, the Division was still processing the AOC variation application of CRA and the AOC application of OHKA.

適航主任檢查飛機機件。

Airworthiness officer conducting an aircraft inspection.



截至二零零六年三月三十一日，九家持有航空營運許可證的公司為：

國泰航空有限公司（國泰）  
港龍航空有限公司（港龍）  
香港華民航空有限公司（華民）  
直升機服務（香港）有限公司  
香港商用飛機有限公司  
港聯航空有限公司（港聯航空）  
空中快線（前身為港聯航空的直升機部門）  
中富航空有限公司（中富航空）  
Jet Aviation Business Jets  
(Hong Kong) Limited

年內，本部推行一項聯合巡查計劃，監察本地持有航空營運許可證公司的運作。飛行標準組視察了 24 個外站和進行了 148 次飛行檢查，而有關航空營運許可證的其他巡查則合共有 221 次。本部亦按照年檢程序，對本港航空公司採用的 26 台飛行模擬器進行評審、視察及重新批出使用許可。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 32 次停機坪突擊巡查，確保使用香港國際機場的外國航空公司均符合國際水平。

#### 接收飛機

隨著香港航空業的快速增長，本地航空公司添置飛機以擴充其機隊。年內共有 22 架飛機列入香港民用航空器登記冊內。國泰接收兩架波音 B747 型、一架波音 B777 型和三架空中巴士 A330 型飛機。港龍接收一架空中巴士 A320 型和三架空中巴士 A330 型飛機。港聯航空接收三架 Embraer ERJ-170 型飛機。中富航空接收一架

As at March 31, 2006, 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 (Metrojet)  
Hong Kong Express Airways Limited (HKEA)  
Heli Express Limited (HEXP) (formerly the helicopter division under the AOC for HKEA)  
CR Airways Limited (CRA)  
Jet Aviation Business Jets (Hong Kong) Limited (Jet Aviation)

During the year, the activities of the local AOC holders were monitored through a combined programme of inspections. The Flight Standards Office completed 24 station inspections, 148 flight inspections and a total of 221 other AOC inspections. The 26 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 local AOC holders, the Division also continued to monitor the helicopter and fixed-wing aircraft operations of the Government Flying Service (GFS). Besides, to ensure compliance with international standards by foreign airlines using the Hong Kong International Airport (HKIA), the Division conducted 32 ad-hoc ramp inspections during the year.

#### Delivery of Aircraft

Following the continuous fast growth and expansion of the Hong Kong aviation industry, local airlines expanded their fleets with the delivery of additional aircraft during the year and a total of 22 aircraft were put on the Hong Kong Civil Aircraft Register. CPA received two Boeing B747, one B777 and three Airbus A330 aircraft. HDA received one Airbus A320 and three Airbus A330 aircraft. HKEA received three Embraer ERJ-170 aircraft. CRA received one Bombardier CRJ-700



龐巴迪 CRJ-700 型飛機。香港商用飛機有限公司接收兩架灣流 G200 型和一架灣流 G450 型飛機。香港飛行總會則接收一架 Cessna 152 型飛機、一架 Bell EC120B 型、兩架 Robinson R22 型和一架 Robinson R44 型直升機。

#### 工作組

飛行工作時間限制工作組、酒精及藥物工作組和宇宙輻射及航空委員會均由本處領導。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。宇宙輻射及航空委員會則一直監控機組人員所受宇宙輻射劑量的監測計劃。

#### 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，培訓考取儀表飛行等級的香港商用（飛機）飛行員。位於澳洲阿德雷德的英國宇航航空訓練學校（現改稱 Flight Training Adelaide Pty. Limited（下稱阿德雷德飛行學校）），在二零零零年中獲本處首次根據《CAD 509》文件頒發許可證。許可證每兩年續期一次。阿德雷德飛行學校現正負責訓練國泰和港龍的飛行學員。

飛行標準組總民航事務主任分別在二零零五年九月和二零零六年三月對阿德雷德飛行學校進行中期視察，視察結果認為該校的運作繼續保持高水準。該校根據《CAD 509》文件獲發的許可證將於二零零六年十一月期滿，為了審批是否續發許可證，本處將在二零零六年下半年對該校進行全面審核。

aircraft. Metrojet received two additional Gulfstream G200 and one Gulfstream G450 aircraft. The Hong Kong Aviation Club (HKAC) took delivery of one Cessna 152 aircraft, one Bell EC120B, two Robinson R22 and one Robinson R44 helicopters.

#### Working Groups

The Flight Time Limitation Working Group (FTLWG), the Alcohol and Drugs Working Group (ADWG) and the Cosmic Radiation and Aviation Committee (CRAC) 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. The programme to monitor the exposure to cosmic radiation by crew members has been under constant review by CRAC.

#### Approval of Flying Training Organisation

Published by CAD, CAD 509 outlines the requirements for CAD Approval of a Flying Training Organisation offering an Integrated Course of Training for the issue of a 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 (currently renamed as Flight Training Adelaide Pty. Limited (FTA)), a flying training organisation in Adelaide, Australia. The approval is renewed every two years. Currently, FTA are training cadets from CPA and HDA.

The Chief Operations Officer of the Flight Standards Office had conducted interim inspections in September 2005 and March 2006 respectively and concluded that FTA continued to operate to a high standard. In the latter half of 2006, CAD will conduct a full audit on FTA for the purpose of renewing the FTA CAD 509 Approval, which will expire in November 2006.



### 適航事務組

年內，適航事務組繼續監察所有在香港登記飛機的維修和適航水平。適航事務組由 16 位適航主任組成，工作包括定期審查香港航空公司的航站、定期審查認可的維修機構，以及檢查飛機，審查地點包括香港、中國內地、亞洲、澳洲、歐洲、南非和北美洲各地城市。這些工作是很重要的，有助適航事務組持續認可航空營運許可證、認可維修機構，以及為在香港登記的飛機簽發或續發適航證。年內發生的大事包括：批准首架波音 B747-400 型客機改裝成貨機；通過首架波音 B747-400 型改裝貨機的飛行試驗；以及根據《香港航空要求 HKAR-145》，認可三家海外維修機構。

適航主任持續接受技術培訓及接收適航監管訊息。適航主任亦被派往出席國際研討會、會議和工作組會議，以掌握國際適航標準的最新發展。年內，參加的活動包括波音及空中巴士飛機合格審定和維修審查委員會工作組會議、國際民航組織亞洲及太平洋區民航局局長會議，以及飛機型號、人為因素和安全管理課程。

### 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，定期監察所有香港批准的飛機維修及飛機部件維修公司。在報告期內，獲本處批准的公司共 26 家，其中有三家在本港以外地方成立的公司列入名單。適航事務組對多家主要

### AIRWORTHINESS OFFICE

The Airworthiness Office continued to monitor the maintenance and airworthiness standards of all Hong Kong registered aircraft. With a workforce of 16 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, South Africa and North America. These activities are essential to support the continual validation of AOC, approval of maintenance organisation, and issue and renewal of Certificates of Airworthiness for Hong Kong registered aircraft. Some major events in the year included the approval of the first Boeing B747-400 passenger to freighter conversion, approval of the flight test of the first B747-400 freighter conversion and approval of three additional HKAR-145 Aircraft Maintenance Organisations outside Hong Kong.

Airworthiness Officers 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 Boeing and Airbus working group meetings on Certification and Maintenance Review Board; the ICAO Conference of Directors General of Civil Aviation, Asia and Pacific Regions, as well as various human factors, safety management and aircraft type technical courses.

### 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. During the report period, the total number of CAD approved companies were 26 and among them, three companies outside Hong Kong were added



◀ 適航主任視察外勤維修服務。  
Airworthiness officer monitoring the  
line maintenance services

維修公司進行周而復始式的審查和定期查訪，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、廈門太古飛機工程有限公司及新航工程公司。

至於與外地民航當局互相認可航空器維修單位的合作安排方面，本處在二零零六年三月二十二日與加拿大運輸部民航局簽訂諒解備忘錄（又稱「航空維修技術安排」）。根據該諒解備忘錄，香港和加拿大兩地的民航當局會互相承認對方飛機維修機構簽發的許可證。其他與本處訂有類似安排的民航當局包括中國民航總局、澳門民航局和新加坡民航局。

年內，適航事務組繼續舉辦與飛機維修有關的工作坊。本處在二零零五年五月舉辦為期兩週的香港適航事務課程，邀得英國民航局派員擔任客席講者。上述課程業界熱烈參與。參加者包括維修工程師、技術服務專家、維修總監、經理、品質監控人員等。

#### 飛機維修訓練

截至二零零六年三月三十一日，在本港和海外共有五家維修訓練機構獲發《香港航空要求 HKAR-147》許可證。該五家機構均獲准舉辦維修香港登記飛機所需的基本訓練及飛機型號訓練課程。

to the list. Major maintenance companies, including Hong Kong Aircraft Engineering Company Limited (HAECO), Hong Kong Aero Engine Services Limited (HAESL), Taikoo (Xiamen) Aircraft Engineering Company Limited (TAECO) and SIA Engineering Company (SIAEC), are monitored by rolling audits and regular visits.

On the cooperation arrangement on mutual acceptance of approval of aircraft maintenance organisation, a Memorandum of Understanding (MOU) also known as "Technical Arrangement on Aircraft Maintenance" was signed on March 22, 2006 with Transport Canada Civil Aviation Directorate. The MOU allowed the respective civil aviation authorities of Hong Kong and Canada to recognise each other's approvals of maintenance organisations to maintain aircraft. Other civil aviation authorities which had signed similar arrangements with CAD included the General Administration of Civil Aviation of China (CAAC), Civil Aviation Authority of Macao (CAAM), and Civil Aviation Authority of Singapore (CAAS).

The Airworthiness Office continued to conduct maintenance related workshops during the year. A two-week Hong Kong Airworthiness Course was hosted in May 2005 by CAD with guest speakers from the United Kingdom Civil Aviation Authority (UKCAA). The airworthiness course was with overwhelming attendance by the industry. Attendees included maintenance engineers, technical services experts, maintenance controllers, managers and quality monitoring personnel.

#### Aircraft Maintenance Training

As at March 31, 2006, there were 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	22
續發適航證	Certificate of Airworthiness Renewed	146
審定重大改裝	Major Modification Approved	34
認可飛機維修機構	Approved Aircraft Maintenance Organisations	26
認可飛機維修訓練機構	Approved Aircraft Maintenance Training Organisations	5
簽發飛機維修執照	Aircraft Maintenance Licence Issued	1102

英國民航局諮詢服務

英國民航局根據與本處簽署的合約，繼續向本處提供諮詢服務，包括向所有適航主任提供一般的監管建議和最新的適航資訊。二零零六年一月，英國民航局飛機維修標準部派出一名檢查主任來港，向本處所有適航主任作講解，內容涵蓋一般最新要求，以及個別的適航專題，包括新飛機的審定、設計和製造的最新規定，以及歐洲航空安全機構的發展和規定等。

UKCAA Advisory Services

Under a contract between the UKCAA and CAD, UKCAA continued to provide advisory services including general regulatory advice and airworthiness update to all Airworthiness Officers. In January 2006, a surveyor from UKCAA Aircraft Maintenance Standards Department conducted a briefing session in Hong Kong to all Airworthiness Officers covering general updates and specific airworthiness topics such as the latest requirements on new aircraft certification, design and manufacturing, future development and requirements in EASA (European Aviation Safety Agency).

航空人員執照事務組

PERSONNEL LICENSING OFFICE

飛行員執照

Flight Crew Licensing

年內，航空人員執照事務組處理了 1 557 份首次簽發執照、執照續期、批核或延期的申請，並簽發了 4 206 份體檢合格證明書，以及評核了 2 710 份飛行員執照考試試卷。這些考試中，有 472 次是根據《CAD 509》文件所頒發的許可證在澳洲阿得雷德的阿得雷德飛行學校舉行，並由本處人員監考，有 2 238 次考試則在香港舉行。

During the year, the Personnel Licensing Office processed 1 557 applications for initial issue, renewal, endorsement and extension of flight crew licences, issued 4 206 medical certificates and set 2 710 examination papers for applicants of flight crew licences. Amongst those examinations, 472 were invigilated by CAD officers under CAD 509 Approval at FTA in Adelaide, Australia while 2 238 were conducted in Hong Kong. Most of Hong Kong’s professional flight crew licences



◀ 多項於香港舉行的航空人員執照考試由本部人員負責監考。

Various personnel licensing examinations conducted in Hong Kong are invigilated by CAD officers.

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 260 份由這類海外執照持有人提出的轉換申請。

#### 飛機維修執照

自有關簽發飛機維修執照的《香港航空要求 HKAR-66》在二零零四年四月一日全面推行後，截至二零零六年三月三十一日，有效飛機維修執照共有 1 102 個。在報告年度內舉辦的考試達 6 613 次。

#### 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。使用本地空域的機構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（駐港部隊）、直升機服務（香港）有限公司、港聯航空和香港飛行總會）、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有需要時也參與協調工作。

were issued by conversion from licences issued in other ICAO States. In the year, 260 applications from such licence holders were handled.

#### Aircraft Maintenance Licensing

Following the full implementation of HKAR-66 Aircraft Maintenance Licensing requirements from April 1, 2004, as at March 31, 2006, the number of valid Aircraft Maintenance Licence issued was 1 102. The number of examinations reached 6 613 during the report period.

#### 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 include fixed-wing operators and rotary wing operators (GFS, the People's Liberation Army Forces Hong Kong (PLA), HEL, HKEA and HKAC) as well as paraglider operator (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 22 架飛機加入香港民用航空器登記冊內。同期取消登記的有兩架定翼機和兩架直升機。截至二零零六年三月三十一日，香港民用航空器登記冊內共有 189 架飛機。分類如下：

AIRCRAFT REGISTER

During the year, there were 22 aircraft added to the Hong Kong Civil Aircraft Register. In the same period, two fixed-wing aircraft and two helicopters were removed from the register. As at March 31, 2006, the total number of civil aircraft in the Hong Kong Civil Aircraft Register was 189.

The composition of aircraft on the Hong Kong Civil Aircraft Register as at March 31, 2006 was as follows:

類型	Aircraft Type	數目 Number
波音B747型	Boeing B747	41
波音B777型	Boeing B777	16
空中巴士A340型	Airbus A340	18
空中巴士A330型	Airbus A330	40
空中巴士A320型	Airbus A320	11
空中巴士A321型	Airbus A321	6
空中巴士A300型	Airbus A300	6
龐巴迪BD-700型	Bombardier BD-700	1
龐巴迪CRJ-200型	Bombardier CRJ-200	1
龐巴迪CRJ-700型	Bombardier CRJ-700	1
灣流G200型	Gulfstream G200	4
灣流G450型	Gulfstream G450	1
Embraer ERJ-170型	Embraer ERJ-170	3
BAe 4100型	BAe 4100	2
其他定翼飛機	Other fixed-wing aircraft	10
直升機	Helicopter	26
熱氣球	Hot air balloon	2
合計	Total	189

航空交通管理標準組

航空交通管理標準組是本處監察機制的重要部分。報告期內，該組繼續履行其職責，規管航空交通管理的運作，確保航空交通服務維持在最高安全水平。

制定航空交通管理服務的安全要求（《CAD 670》文件）的目的在於更有系統地規管航空交通服務。年內，航空交通管理標準組專注監察空管服務提供者（即本處航空交通管理部）推行《CAD 670》文件及遵辦的進度。

AIR TRAFFIC MANAGEMENT STANDARDS OFFICE

As part of the CAD check and balance mechanism, the Air Traffic Management Standards Office (ATMSO) continued with their functions to regulate and oversee air traffic management (ATM) operations to ensure that the safety of air traffic services is maintained at the highest level possible.

The ATM Services Safety Requirements (CAD 670) had been issued to achieve a more structured and rational approach to safety regulation of air traffic services. During the year, the ATMSO was focusing in overseeing the implementation of CAD 670 and compliance of the requirements therein by the ATM services provider, viz. the Air Traffic Management Division (ATMD) of the CAD.

### 安全監督工作

年內，航空交通管理標準組對航空交通管制中心、機場指揮塔、訓練組、航空資料中心、雷達模擬器系統和控制塔模擬器等航空交通管制設施，進行了 39 次檢查。此外，該組也定期視察航空交通管制等級考試情況，確保考試達到所需的監管要求。按照安全管理系統的原則，航空交通管理部自行制訂內部審核計劃，作為質素保證計劃的一部分。年內，航空交通管理部就不同的航空交通管制運作層面進行四次內部審計，航空交通管理標準組抽查其中兩個內部審計報告進行年終檢查，檢查結果令人滿意。

航空交通管理標準組同時亦根據《CAD 636》文件內調查航空交通事故的指引，參與並監察航空交通事故的調查，目的是為了確定事發原因和制訂安全建議，以減少事故再發生。該組審視了 12 宗航空交通事故調查報告，並提出相應的安全建議，交航空交通管理部跟進。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亦對調查報告有關航空交通管制和飛行運作方面提供寶貴意見，該委員會成員包括本地航空公司和政府飛行服務隊的代表。在報告期內，航空交通安全評核委員會共召開兩次會議，就這些航空交通管制事故提供專業意見。

### 文件編製

年內，航空交通管理標準組發出下列有關安全監管規定的文件：

1. 《CAD 636》文件 — 航空交通事故調查指引（第 2 號）
2. 《CAD 650》文件 — 航空交通管理安全監管審核及檢查人員手冊：審核及檢查原則和程序（第 2 號）
3. 《CAD 744》文件 — 簽發航空人員執照：香港航空交通管制員

### Safety Oversight Activities

A total of 39 inspections were conducted during the year on various air traffic control facilities including the Air Traffic Control Centre, Aerodrome Control Tower, Training Unit, Aeronautical Information Centre, Radar Simulator and Control Tower Simulator. In addition, the ATMSO also carried out regular inspections on ATC rating examinations to ensure that they were conducted up to the regulatory requirements. In accordance with the principles of the Safety Management System (SMS), the ATMD had established its own internal safety audit plan as part of the quality assurance programme. During the year, the ATMD conducted four internal audits on different facets of air traffic control operations. In this connection, the ATMSO had also conducted a year-end inspection, by sampling, on two ATMD internal audit reports and the results were found satisfactory.

The ATMSO participated in and monitored the investigations of air traffic incidents in accordance with established procedures of the Guidance for Air Traffic Incident Investigation (CAD 636). The objectives of investigation are to establish the causes leading to an incident and recommend safety measures to minimise recurrence. The ATMSO had scrutinised 12 incident investigation reports and recommended, as appropriate, safety enhancement measures to be followed up by the ATMD. To ensure the objectivity and comprehensiveness of these investigations, the Air Traffic Safety Assessment Committee (ATSAC), which comprises representatives from local airlines and the Government Flying Service, also provided valuable inputs with respect to air traffic control and flight operations. During the report period, two ATSAC meetings were held to provide expert comments on these ATC incidents.

### Documentation

During the year, the ATMSO published the following safety regulatory documents:

1. CAD 636 Guidance for Air Traffic Incident Investigation (Issue No.2)
2. CAD 650 ATM Safety Regulatory Auditor and Inspector Handbook – Auditing and Inspection Principles and Procedures (Issue No.2)
3. CAD 744 Personnel Licensing - Hong Kong Air Traffic Controllers



再次發出《CAD 636》和《CAD 650》文件的目的，是提高有關文件所訂的安全監管規定。而發出《CAD 744》文件則在於列舉航空交通管理部簽發各項見習航空交通管制員和航空交通管制員執照的規定要求，同時訂立清晰的訓練要求大綱，以配合航空交通管制員執照和航空交通管制等級所需的申請標準。

#### 航空交通管制主任執照

航空交通管理標準組根據國際民航組織附件一規管航空交通管制主任執照簽發制度。在報告期內，該組處理了五個簽發航空交通管制主任執照的申請、42 個首次申請航空交通管制等級的申請和 363 個續發航空交通管制等級的申請。二零零五年十月，該組聯同航空交通管理部舉辦合資格考官訓練課程。四位航空交通管制主任在完成訓練後，獲發航空交通管制認可考官證書，並被認為合資格考官，可主持有關航空交通管制等級的考試。

為了遵行國際民航組織就航空交通管制員所訂的語言能力規定，航空交通管理標準組要求航空交通管理部制定遵行計劃，務求在二零零八年三月五日或之前達到新的執照簽發要求。為此，該組與航空交通管理部緊密合作，確保遵行國際民航組織語言能力規定的安排得以如期落實。

#### 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。直升機在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。年內，意外調查主任仍在進行深入調查和分析，以期確定意外發生的成因。截至本報告年度結束為止，意外報告定稿工作已進入最後階段。

Whilst the re-issue of CAD 636 and CAD 650 were aiming at enhancing the safety regulatory requirements in the respective documents, CAD 744 was issued with the objectives of outlining the regulations that need to be complied with by the ATMD in relation to the licensing of student air traffic controllers and air traffic controllers. This document also aims at establishing a clear framework of the training requirements that lead to achieving the necessary standards for the applications of air traffic controller licence and air traffic control rating.

#### ATC Personnel Licensing

The ATMSO administers the ATC licensing scheme with reference to ICAO Annex 1. During the report period, this office processed five applications for the grant of ATC licences, 42 applications for initial award of ATC ratings and 363 applications for rating renewal. An Approved Examiner Training Course was conducted in conjunction with the ATMD in October 2005. Upon successful completion of the training, four Air Traffic Control Officers were granted the ATC Approved Examiner Certificates and designated as approved examiners to conduct ATC rating examinations.

In response to ICAO language proficiency requirements for air traffic controllers, the ATMSO had issued requirements to the ATMD for developing an implementation plan to meet the new licensing requirements by March 5, 2008. In this connection, the ATMSO had collaborated closely with the ATMD to ensure that the implementation plan to meet the ICAO language proficiency requirements would be carried out timely and effectively.

#### 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 Inspector of Accidents had been conducting in-depth investigation and analysis work so as to draw conclusions on what caused the accident. By the end of the report period, preparatory work for the accident report was still in the final stage.

**Topjet Aviation 有限公司 Robinson R44 型直升機**

二零零五年六月十一日，Topjet Aviation 有限公司一架登記標誌為 B-HJS 的 Robinson R44 型直升機，於西貢北丫起飛時發生意外。直升機損壞，機上三名人員受傷。年內，調查工作仍然繼續，以深入的調查和分析去確定意外發生的成因。

**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飛機的事件。年內，本部調查和分析了 746 宗個案。

**東南亞互助拓展安全運作及持續適航計劃**

為了提升東南亞區的飛行安全，國際民航組織轄下技術合作局設立了東南亞互助拓展安全運作及持續適航計劃（東南亞互助計劃）。二零零六年二月，東南亞互助計劃統籌委員會第七次會議在香港舉行，有超過 40 位來自 12 個東南亞區內民航當局和國際民航組織、國際航空運輸協會、美國聯邦航空局和波音公司等航空組織的首長和代表出席。會議期間，民航處處長接任東南亞互助計劃主席，任期一年。會議除檢討了上年度的計劃活動外，還討論了國際民航組織所訂的語言能力和安全管理系統規定的最新發展等重要議題。

**國際民航組織全球安全監督審核計劃**

國際民航組織大會第三十五屆會議在二零零四年九月及十月舉行，其後國際民航組織決定不再以個別附件方式進行安全監督審核，改為採用全面的系統方法。為遵行有關規定，本處成立了一個由香港天文台和民航處各分部的代表組成的工作小組，由本部首長擔任統籌員，負責與國際民航組織聯繫有關事宜。二零零五年五月，本處填妥國家航空安全活動問卷和附件遵守情況檢查單後交回國際民航組織。在報告期內，工作小組共召開四次會議，進行改用全面的系統方式所需的準備工作。

**Topjet Aviation Limited Robinson R44 Helicopter**

On June 11, 2005, a Robinson R44 helicopter of Topjet Aviation Limited with registration B-HJS had an accident when it lifted off at Pak A, Sai Kung. The helicopter was destroyed. Three persons on board the helicopter were injured. During the year, the Inspector's investigation was in progress for an in-depth investigation and analysis work so as to draw a conclusion on what caused the accident.

**SAFETY DATA ANALYSIS**

The Division maintained close liaison with airline operators and maintenance organisations regarding occurrences involving Hong Kong registered aircraft. During the year, 746 occurrences were investigated and analysed.

**CO-OPERATIVE DEVELOPMENT OF OPERATIONAL SAFETY AND CONTINUING AIRWORTHINESS PROGRAMME – SOUTH EAST ASIA (COSCAP-SEA)**

COSCAP-SEA was established under the umbrella of ICAO's Technical Cooperation Bureau for the purpose of enhancing flight safety in Southeast Asia. In February 2006, the 7th Meeting of the COSCAP-SEA Steering Committee was held in Hong Kong and attended by over 40 participants including directors general and delegates from 12 aviation authorities within the South East Asia region and various aviation organisations such as ICAO, IATA, FAA and Boeing. During the meeting, DGCA was handed the chairmanship of COSCAP-SEA for one year. The meeting reviewed the activities of COSCAP-SEA during the previous year. Other important items that had been discussed included the latest developments on language proficiency and safety management system requirements by ICAO.

**ICAO UNIVERSAL SAFETY OVERSIGHT AUDIT PROGRAMME**

After the 35th Session of the ICAO Assembly in September and October 2004, ICAO replaced the Annex-by-Annex approach with a comprehensive systems approach for the conduct of safety oversight audits. In response to this new approach, a working group, which comprised representatives from the Hong Kong Observatory and CAD, was established and the head of the Division was appointed as the coordinator to liaise with ICAO on this matter. In May 2005, CAD had completed and submitted to ICAO the State Aviation Activity Questionnaire and compliance checklists for the relevant ICAO Annexes. During the report period, four working group meetings were held in preparing the actions to be taken under the new comprehensive systems approach.