





飛行標準及適航 Flight Standards and Airworthiness

飛行標準及適航部負責簽發航空運輸企業經營許可證（航空經營許可證），以及在發出許可證後監察所有持證公司的運作，確保這些公司遵守國際民航組織所訂定的標準和建議措施。

The Flight Standards and Airworthiness Division is responsible for the grant of Air Operator's Certificate (AOC) and the subsequent monitoring of all AOC holders to ensure their compliance with the Standards and Recommended Practices of the International Civil Aviation Organization (ICAO).

飛行標準及適航 Flight Standards and Airworthiness

本部的其他職責包括簽發空勤人員和飛機維修執照，監察在香港登記的飛機的適航標準和維修水平，監督飛機維修機構、輕型飛機和直升機運作，監察外國航空公司在香港國際機場的運作，調查飛機意外和事故，以及分析安全數據。

Other functions of the division include the issue of flight crew and aircraft maintenance licences, monitoring of airworthiness and maintenance standards of aircraft registered in Hong Kong, supervision of aircraft maintenance organisations, supervision of light aircraft and helicopter operations, surveillance of foreign airline operators' operations at Hong Kong International Airport (HKIA), investigation of aircraft accidents and incidents, and safety data analysis.

飛行標準組

FLIGHT STANDARDS OFFICE

簽發和續發航空經營許可證

Issue and Renewal of AOC

截至二零一三年三月三十一日，獲民航處簽發航空經營許可證的本地公司有十家，計為：

As of 31 March 2013, there were ten Hong Kong AOC holders, namely:

香港華民航空有限公司 (華民航空)	AHK Air Hong Kong Limited (AHK)
國泰航空有限公司 (國泰航空)	Cathay Pacific Airways Limited (CPA)
直升機服務 (香港) 有限公司	Heliservices (Hong Kong) Limited (HEL)
香港航空有限公司 (香港航空)	Hong Kong Airlines Limited (CRK)
香港航空公務機管理有限公司 (香港商務航空)	Hong Kong Airlines Corporate Jet Management Limited (HKJ)
港龍航空有限公司 (港龍航空)	Hong Kong Dragon Airlines Limited (HDA)
香港快運航空有限公司 (香港快運)	Hong Kong Express Airways Limited (HKE)
香港商用飛機有限公司 (香港商用飛機)	Metrojet Limited (MTJ)
空中快線有限公司 (空中快線)	Sky Shuttle Helicopters Limited (HHK)
TAG Aviation Asia Limited (TBJ)	TAG Aviation Asia Limited (TBJ)

截至二零一三年三月三十一日，獲發航空經營許可證的本地公司共有十家。

As of 31 March 2013, there were ten Hong Kong AOC holders.



年內，本部通過全面巡查和審查，繼續監察本地航空經營許可證持證公司的安全表現和營運標準。飛行標準組巡查人員執行了129次飛行和機艙安全檢查，並對航空經營許可證持證公司作出共316次其他巡查，包括外站巡查，檢查運作記錄，視察訓練情況和審批核准考核人員。本部也按照檢查程序，評審和視察本港航空公司位於海外和香港的49台飛行模擬器，並重新簽發使用許可。此外，本部負責監察政府飛行服務隊的直升機和定翼機運作。

新設的多機組飛行員執照（飛機）培訓課程

飛行標準組先後於二零一三年一月和二月，批准CAE牛津航空學院和港龍航空，開辦多機組飛行員執照（飛機）的中級階段和高級階段試驗培訓課程，對象為港龍航空的12位飛行學員。這項訓練課程根據國際民航組織最新的發牌制度和着重才能的訓練概念而制定。

飛行標準組批准CAE牛津航空學院和港龍航空，開辦多機組飛行員執照（飛機）的中級階段和高級階段試驗培訓課程。

The Flight Standards Office granted the approval to CAE Oxford Aviation Academy and HDA respectively to conduct the Intermediate Training Phase and Advanced Training Phase of the HDA/CAE Joint Multi-crew Pilot's Licence (Aeroplanes) Trial Course.

During the year, the safety performance and operating standards of Hong Kong AOC holders were monitored through a comprehensive programme of inspections and audits. In addition to 129 flight operations and cabin safety inspections, the Inspectorate staff of the Flight Standards Office had conducted 316 AOC inspections including station inspections, operational records inspections, training inspections and approval of authorised examiners. Forty-nine flight simulators located worldwide and in Hong Kong and used by local airlines were evaluated, inspected and reapproved for use in accordance with the inspection procedures. The division was also tasked with the responsibility of monitoring helicopter and fixed-wing aircraft operations of the Government Flying Service (GFS).

New Multi-crew Pilot's Licence (Aeroplanes) Course

In January and February 2013, the Flight Standards Office granted the approval to CAE Oxford Aviation Academy and HDA respectively to conduct the Intermediate Training Phase and Advanced Training Phase of the HDA/CAE Joint Multi-crew Pilot's Licence (Aeroplanes) Trial Course for HDA's 12 cadet pilots. The course was developed based on ICAO's new licensing regime and competency-based training concept.



交付航空器

香港航空業持續增長，本地航空公司紛紛擴充機隊。年內，香港民用航空器登記冊共新增39架航空器，其中33架來自香港航空經營許可證持證公司，詳情如下：

國泰航空 CPA	六架空中巴士A330型、三架波音B747型貨機和五架波音B777型 Six Airbus 330, three Boeing 747 freighters and five Boeing 777
香港航空 CRK	四架空中巴士A330型、一架空中巴士A330型貨機和八架空中巴士A320型 Four Airbus 330, one Airbus 330 freighter and eight Airbus A320
港龍航空 HDA	兩架空中巴士A320型 Two Airbus 320
香港快運 HKE	一架空中巴士A320型 One Airbus 320
香港商用飛機 MTJ	一架680 Citation Sovereign型和一架灣流GV型 One 680 Citation Sovereign and one Gulfstream GV
TBJ	一架灣流G450型 One Gulfstream G450

Delivery of Aircraft

As the Hong Kong aviation industry continued to grow, local airlines expanded their fleets and 39 aircraft were added to the Hong Kong Civil Aircraft Register in the period. The following are added under Hong Kong AOC holders:



年內，香港民用航空器登記冊共新增39架航空器。

Thirty-nine aircraft were added to the Hong Kong Civil Aircraft Register in the period.



適航事務組通過機庫檢查、公司運作審查和產品審查，定期監察所有香港認可的飛機維修和飛機部件維修機構。

The Airworthiness Office monitors all Hong Kong approved aircraft and aircraft component maintenance organisations regularly through hangar surveys, company audits and product audits.

適航事務組

適航事務組監察所有在香港登記飛機的維修和適航標準。適航事務組的適航主任經驗豐富，定期審查本港航空公司的飛行站，又定期審查認可的維修和設計/生產機構，以及在香港、內地、中東、印度、亞洲其他地方、歐洲和北美洲各地城市檢查飛機，以持續監察航空經營許可證、維修和設計/生產機構的認可，以及為在香港登記的飛機簽發或續發適航證。

飛機維修

適航事務組繼續通過機庫檢查、公司運作審查和產品審查，定期監察所有香港認可的飛機維修和飛機部件維修機構。截至二零一三年三月三十一日，共有29家公司獲發香港認可維修機構的資格。適航事務組藉持續審查和定期視察，監察多家主要維修公司，包括香港飛機工程有限公司、香港航空發動機維修服務有限公司和廈門太古飛機工程有限公司。

AIRWORTHINESS OFFICE

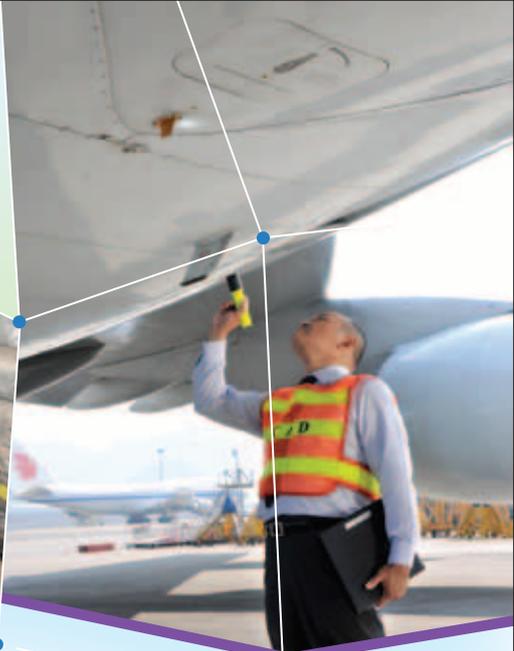
The Airworthiness Office monitors the maintenance and airworthiness standards of all Hong Kong registered aircraft. With a team of experienced Airworthiness Officers, the office carries out routine AOC line station audits, approved maintenance and design/production organisation audits, and aircraft surveys locally in Hong Kong as well as cities in the Mainland, Middle East, India, other parts of Asia, Europe and North America, for the purpose of continual monitoring of AOC, approval of maintenance and design/production organisation, and the issue and renewal of Certificates of Airworthiness for Hong Kong registered aircraft.

Aircraft Maintenance

The Airworthiness Office continued to monitor all Hong Kong approved aircraft and aircraft component maintenance organisations regularly through hangar surveys, company audits and product audits. As of 31 March 2013, there were 29 approved maintenance organisations holding Hong Kong approvals. Major maintenance companies, including Hong Kong Aircraft Engineering Company Limited (HAECO), Hong Kong Aero Engine Services Limited, and Taikoo (Xiamen) Aircraft Engineering Company Limited, are regulated through rolling audits and regular visits.

飛行標準及適航 Flight Standards and Airworthiness

適航事務組人員檢查飛機維修情況。
An Airworthiness Officer examining the maintenance status of an aircraft.



飛機維修訓練

截至二零一三年三月三十一日，本港和內地共有五家維修訓練機構獲發《香港航空要求—147》許可證，可以舉辦維修香港登記飛機的基本訓練和飛機型號訓練課程。

Aircraft Maintenance Training

As of 31 March 2013, there were five HKAR-147 Aircraft Maintenance Training Organisations located in Hong Kong and the Mainland which were approved to provide basic and aircraft type training for the maintenance of Hong Kong registered aircraft.

飛機和相關產品/零件的設計與生產

截至二零一三年三月三十一日，共有11家設計和生產機構獲發《香港航空要求—21》許可證，可以審定飛機相關產品/零件，包括設計和生產。

Design and Production of Aircraft and Related Products/Parts

As of 31 March 2013, 11 HKAR-21 Design and Production Organisations were approved to provide certification of aircraft related products/parts including their design and production.

適航事務組統計數字

(二零一二年四月一日至二零一三年三月三十一日)

Airworthiness Office Statistics

(between 1 April 2012 and 31 March 2013)



航空人員執照事務組

空勤人員執照

二零一二至一三年度，航空人員執照事務組共處理3 553份申請，當中包括首次簽發和續期簽發空勤人員執照、簽發飛機和儀表等級、英語能力認證和轉換海外執照為香港執照。為配合業界對海外培訓和考試的需求，民航處核准了澳洲、英國和新西蘭的飛行培訓機構。年內，執照事務組共處理了6 948次空勤人員執照筆試。此外，又向香港空勤人員執照或航空交通管制執照持有人/申請人簽發共4 068份體檢合格證明書。

PERSONNEL LICENSING OFFICE

Flight Crew Licensing

During 2012-13, the Personnel Licensing Office (PELO) processed 3 553 applications, including initial grant and renewal of flight crew licences, aircraft and instrument ratings, language proficiency endorsements and conversion of foreign flight crew licences into Hong Kong licences. To meet industry demand for conducting overseas training and examinations, CAD approved Flying Training Organisations in Australia, the United Kingdom and New Zealand. During the year, PELO processed 6 948 CAD flight crew licensing written examinations. In addition, 4 068 medical certificates were issued to holders/applicants of Hong Kong flight crew licence or air traffic controller's licence.



適航主任查閱飛機的維修記錄。
An Airworthiness Officer perusing the
maintenance logbook of an aircraft.

飛機維修執照

截至二零一三年三月三十一日，執照事務組共處理1 448份有關首次簽發飛機維修執照、執照續期或加簽飛機型號等級的申請。年內，該組和香港飛機工程有限公司設於將軍澳的認可考試中心，舉辦了涉及共2 775份試卷的考試。

Aircraft Maintenance Licensing

As of 31 March 2013, PELO processed 1 448 applications for initial licence issue, renewal or inclusion of aircraft type rating endorsements in aircraft maintenance licences. During the report period, 2 775 examinations were conducted at PELO and the authorised examination centre at HAECO in Tseung Kwan O.



飛行安全組

飛行安全組繼續對香港航空經營許可證持證公司實施安全監察計劃。計劃的主要目的，是利用風險管理模式編排和統籌各項審查工作。

另外，飛行安全組年內接獲航空業界738份強制呈報事故報表。該組與各航空公司、維修機構、機場經營人和航空交通服務機構保持緊密聯繫，調查和跟進所有強制呈報的事故，務求改善航空安全，防止同類事故再次發生。

協調本地空域使用者

為加強航空安全，由本地空域使用者組成的香港非控制區飛行安全小組繼續定期召開會議，協調香港空域的安全事宜。這些本地空域使用者包括定翼機機構和旋翼機機構（政府飛行服務隊、中國人民解放軍駐香港部隊、空中快線、直升機服務（香港）有限公司和香港飛行總會）、香港滑翔傘協會，以及個別私人航空器擁有人。

FLIGHT SAFETY OFFICE

The Flight Safety Office continued to implement the surveillance programme for the safety oversight of Hong Kong AOC holders. The key purpose of the programme is to apply a risk management approach to the schedule and coordination of inspection activities.

Also, the Flight Safety Office received 738 Mandatory Occurrence Reporting (MOR) from the industry during the year. Through close liaison with airline operators, maintenance organisations, aerodrome operator and air traffic service provider, all MORs were investigated for the purpose of enhancing aviation safety and preventing recurrence.

COORDINATION WITH LOCAL AIRSPACE USERS

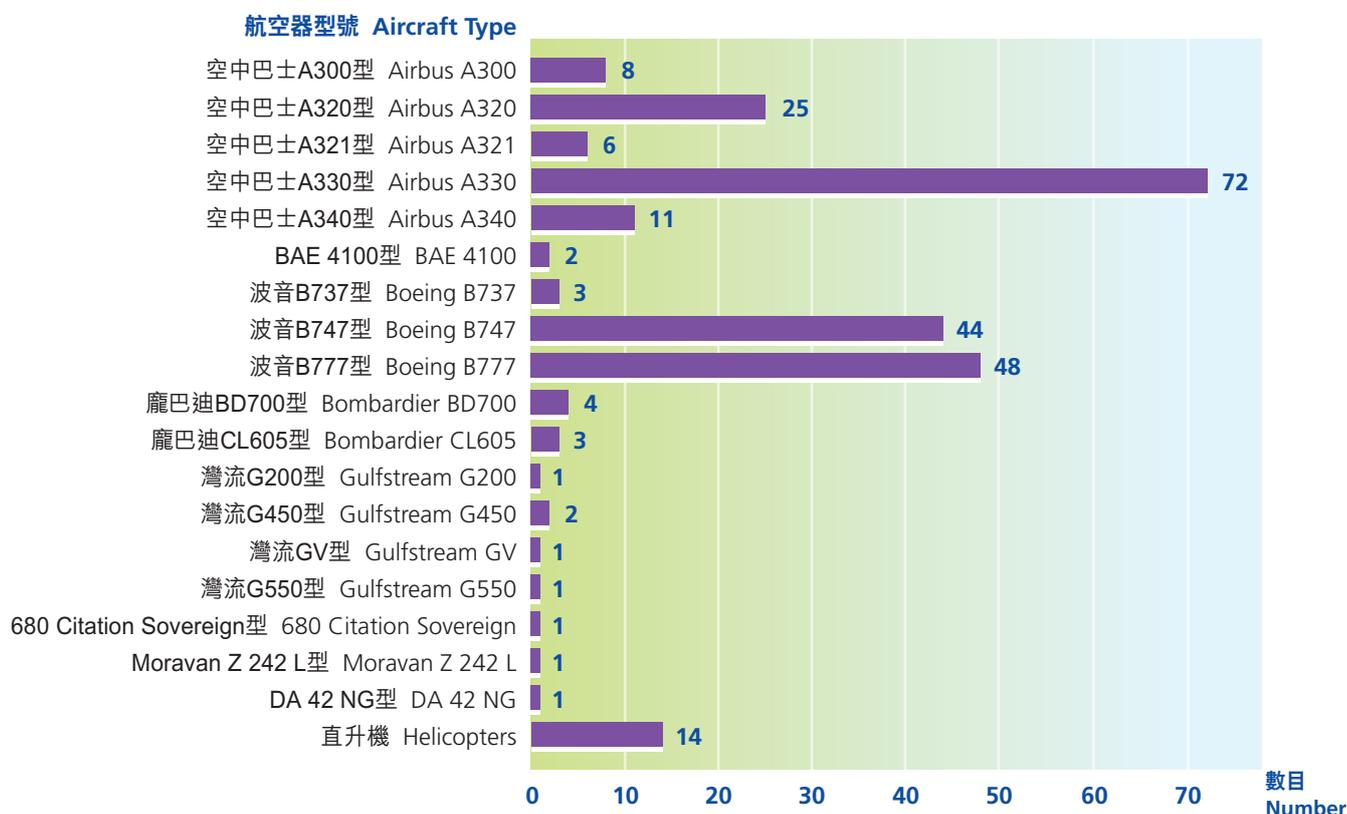
To promote flight safety, the Hong Kong Sector Flight Safety Committee comprising local airspace users continued to meet regularly to coordinate safety issues in the local airspace. These local airspace users include fixed-wing operators and rotary wing operators (GFS, Hong Kong Garrison of the People's Liberation Army, HHK, HEL and Hong Kong Aviation Club), Hong Kong Paragliding Association and private aircraft owners.

飛機登記

年內，香港民用航空器登記冊共新增39架航空器，同期另有八架波音B747型、八架波音B737型、一架560XL型、一架灣流GIV型和一架灣流G200型航空器取消登記。截至二零一三年三月三十一日，香港民用航空器登記冊上共有289架民用航空器，當中248架由香港航空經營許可證持證公司和政府飛行服務隊所擁有，詳情如下：

AIRCRAFT REGISTER

During the year, 39 aircraft were put on the Hong Kong Civil Aircraft Register. In the same period, eight Boeing 747, eight Boeing 737, one 560XL, one Gulfstream IV and one Gulfstream G200 were removed from the Register. As of 31 March 2013, the total number of civil aircraft in the Hong Kong Civil Aircraft Register was 289, of which 248 were registered under Hong Kong AOC holders and the GFS as follows:



持續訓練巡查人員

為確保巡查人員的專業知識和能力與時並進，本部安排人員接受各項飛行運作和適航事宜的訓練，包括個別飛機型號、飛行模擬器評審、審查技巧，以至安全管理訓練。此外，他們也參與國際和地區會議、研討會和工作組會議，與國際專家交流，切磋經驗和良好作業實務。這些國際會議包括國際民航組織有關全球安全監察審查計劃持續監察模式、全球衛星導航系統、性能導航、廣播式自動相關監察、安全運作和持續適航合作發展和疲勞風險管理系統的會議/研討會，國際航空運輸協會的航空燃料論壇，新飛機機種的合格審定和維修審查委員會會議，以及與各地民航當局的聯絡會議等。

意外調查辦公室

民航處是本港的飛機意外調查當局，負責調查於香港發生的飛機意外和嚴重事故。調查工作由受過訓練的意外調查主任，根據《國際民航公約》附件13的標準和建議措施進行，目的是確定發生事故的情況和因由，以免事故再次發生。

CONTINUOUS TRAINING FOR INSPECTING STAFF

To maintain the technical knowledge and competence of officers in pace with the latest aviation development, the division arranged a wide spectrum of training for the officers on flight operations and airworthiness matters. These included training on specific aircraft types, simulator evaluation, auditing techniques as well as safety management. In addition, officers participated in international and regional conferences, seminars and working group meetings to exchange and share experiences and best practices with international experts. These international events included ICAO conferences/seminars on the Implementation of the Universal Safety Oversight Audit Programme Continuous Monitoring Approach, Global Navigation Satellite System, Performance-based Navigation, Automatic Dependent Surveillance-Broadcast, Cooperative Development of Operational Safety and Continuous Airworthiness and fatigue risk management systems; International Air Transport Association's Aviation Fuel Forum; Certification and Maintenance Review Board of some new aircraft types and coordination meetings with various aviation authorities.

ACCIDENT INVESTIGATION OFFICE

CAD is the aircraft accidents investigation authority for any aircraft accidents and serious incidents occurred in Hong Kong. These investigations are carried out by trained Inspectors of Accidents in line with the ICAO Annex 13 Standards and Recommended Practices with the purpose of determining the circumstances and causes of the occurrences to prevent recurrence in future.



年內，本處仍在調查的意外如下：

- 二零一零年四月十三日，一架屬國泰航空的空中巴士A330型飛機因兩台發動機出現控制問題，於香港國際機場緊急降落。一名乘客在疏散期間嚴重受傷。
- 二零一零年七月三日，一架屬亞太航空的阿古斯塔威斯特蘭AW139型號直升機，在上環空中快線直升機場起飛後不久，尾槳脫落，在維多利亞港水面迫降。機上機組人員和乘客全部獲救。
- 二零一零年十二月二十七日，一架屬政府飛行服務隊的歐洲直升機公司AS332 L2型超級美洲豹直升機，在執行滅火任務期間一台發動機失效，於城門水塘水面迫降。機上所有機組人員安全撤離。
- 二零一一年一月三日，一架屬直升機服務（香港）有限公司的Aerospatiale SA315B LAMA型直升機，在粉嶺為中華電力有限公司執行吊運工作。鄰近架空高壓電纜的位置突然起火，導致地面兩名工人受傷。直升機結構並無損毀。

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

意外調查辦公室為以上四宗意外的調查工作提供行政支援。

During the year, the following accidents were under investigation:

- On 13 April 2010, an Airbus 330 aircraft operated by CPA conducted an emergency landing at the HKIA due to control problem on both engines. One passenger suffered serious injury during the evacuation.
- On 3 July 2010, an AgustaWestland AW139 helicopter of East Asia Airlines from Macao experienced a loss of tail rotors shortly after takeoff from the Sky Shuttle Heliport in Sheung Wan and ditched in the Victoria Harbour. All crew and passengers onboard were rescued.
- On 27 December 2010, a Eurocopter AS332 L2 Super Puma helicopter of GFS ditched in Shing Mun Reservoir due to failure of an engine during a fire-fighting operation. All crew members left the helicopter safely.
- On 3 January 2011, an Aerospatiale SA315B LAMA helicopter of HEL conducted an underslung load operation for the China Light and Power Limited in Fanling. A flash of fire occurred adjacent to the overhead high voltage electricity power cables, injuring two workers on the ground. There was no structural damage to the helicopter.

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

The Accident Investigation Office provided administrative support to the investigations of the above four accidents.