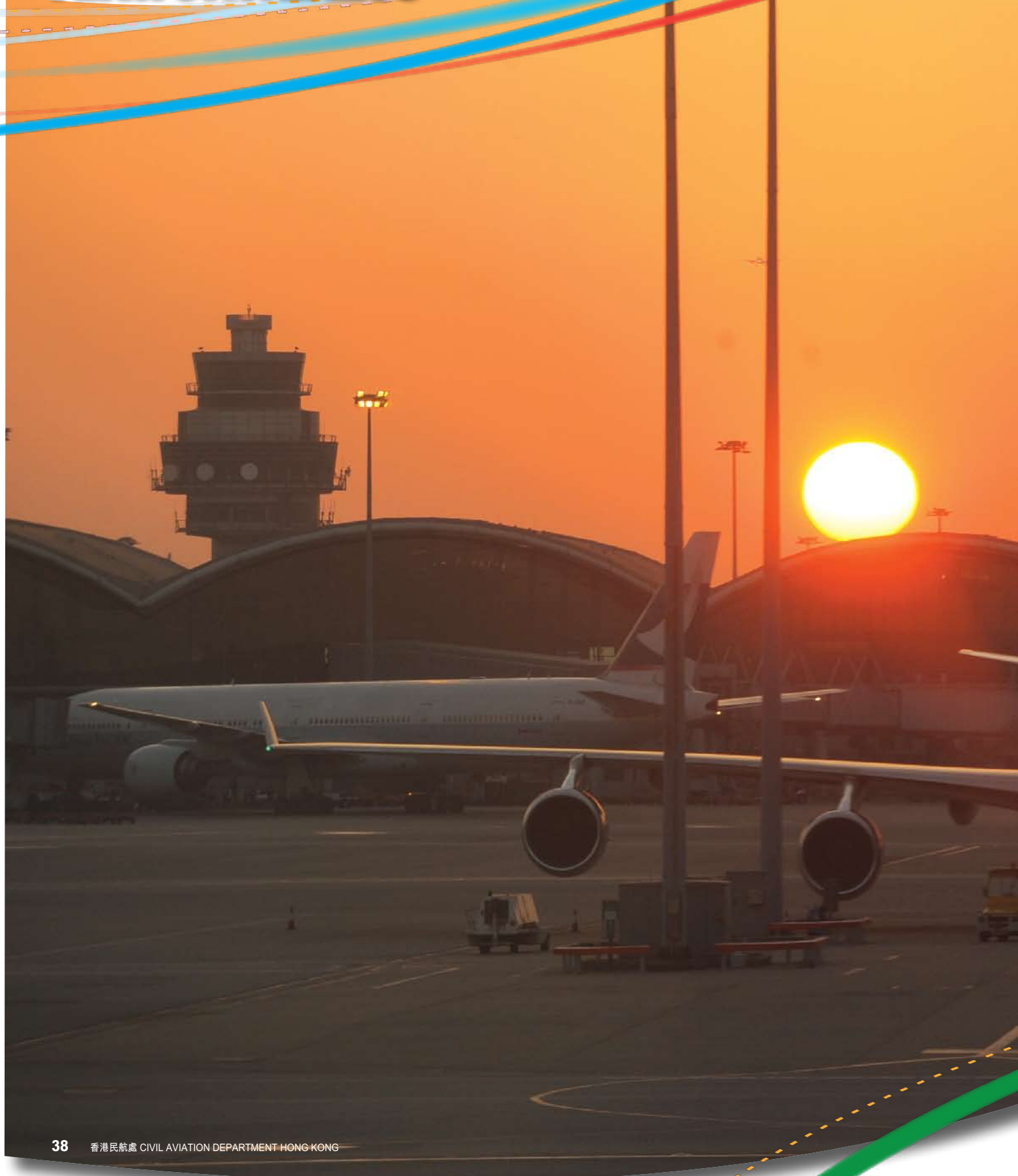


# 飛行標準及適航

## 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）所訂定的標準和建議措施。本部的其他職責包括簽發航空人員執照、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，調查飛機意外和事故、以及分析安全數據。

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, supervision of airworthiness and maintenance standards of aircraft registered in Hong Kong, supervision of light aircraft and helicopter operations, investigation of aircraft accidents and incidents, and safety data analysis.

# 飛行標準及適航 FLIGHT STANDARDS AND AIRWORTHINESS

## 飛行標準組

### 簽發和續發航空營運許可證

截至二零零九年三月三十一日，有八家航空公司持有香港航空營運許可證，它們為：

- 香港華民航空有限公司 (華民航空)
- 國泰航空有限公司 (國泰航空)
- 直升機服務(香港)有限公司
- 空中快線有限公司 (空中快線)
- 香港航空有限公司 (香港航空)
- 港龍航空有限公司 (港龍航空)
- 香港快運航空有限公司 (香港快運)
- 香港商用飛機有限公司 (香港商用飛機)

## FLIGHT STANDARDS OFFICE

### Issue and Renewal of AOC

As at March 31, 2009, there were eight Hong Kong AOC holders and they were:

- Air Hong Kong Limited (AHK)
- Cathay Pacific Airways Limited (CPA)
- Heliservices (Hong Kong) Limited (HEL)
- Sky Shuttle Helicopters Limited (SSH) (formerly known as Heli Express Limited (HEXP))
- Hong Kong Airlines Limited (HKA)
- Hong Kong Dragon Airlines Limited (HDA)
- Hong Kong Express Airways Limited (HKE)
- Metrojet Limited (Metrojet)



民航處透過全面的巡查和審查計劃，繼續監察本地航空營運許可證的持證公司的安全表現和營運標準。

*The safety performance and operating standards of Hong Kong AOC holders were monitored through a comprehensive programme of inspections and audits.*

年內，本部透過全面的巡查和審查計劃，繼續監察本地航空營運許可證的持證公司的安全表現和營運標準。當中，飛行標準組執行了93次飛行檢查，並對航空營運許可證的持證公司作出了合共310次的其他巡查(包括外站巡查和審批准准考核人員)。本部亦按照年檢程式，對本港航空公司所採用的35台飛行模擬器進行了評審、視察及重新簽發使用許可。此外，本部亦兼負監察政府飛行服務隊的直升機和定翼機運作的職責。而年內，為確保使用香港國際機場的外國航空公司均能符合國際標準，本部進行了個別的停機坪巡查。

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 93 flight operations inspections, the Flight Standards Office had conducted a total of 310 AOC inspections including station inspections, operational records inspections, training inspections and approval of authorised examiners. The 35 flight simulators used by these local airlines were evaluated, inspected and re-approved for use in accordance with the annual inspection procedures. The Division was also tasked with the responsibility of monitoring the helicopter and fixed-wing aircraft operations of the Government Flying Service (GFS). Furthermore, to ensure compliance with international standards by all airline operators at the Hong Kong International Airport (HKIA), the Division conducted separate ramp inspections on foreign airline operators during the year.



### 航空器移交

年內，合共有19架航空器被新增至香港民用航空器登記冊內，詳情如下：

航空公司	類型	Airlines	Aircraft Type
國泰航空	二架空中巴士A330、六架波音B747貨機和三架波音B777	CPA	Two Airbus A330, six Boeing B747 freighter and three Boeing B777
直升機服務(香港)香港有限公司	一架Aerospatiale SA315B	Heliservices	One Aerospatiale SA315B
香港快運	二架波音B737	HKE	Two Boeing B737
香港商用飛機	二架灣流G200	Metrojet	Two Gulfstream G200
個別私人 航空器營運者	一架Robinson R22、一架Robinson R44及一架龐巴迪 Global 5000	Private aircraft operators	One Robinson R22, one Robinson R44 and one Bombardier Global 5000

### Delivery of Aircraft

A total of 19 aircraft were added to the Hong Kong Civil Aircraft Register in the period as follow:

### 工作組

為確保有效施行國際民航組織的安全標準，本處負責領導飛行工作時間限制工作組、防止濫用精神科物質於航空業界工作組、宇宙輻射及航空委員會和風切變及湍流預報系統工作組的工作。當中，飛行工作時間限制工作組繼續與業界商討有關飛行工作之時間限制事宜，精神科物質工作組則繼續努力草擬防止濫用精神科物質之工作守則以便業界可以遵循，宇宙輻射及航空委員會則繼續透過監測計劃、監察機組人員所面對的宇宙輻射劑量，而風切變及湍流預報系統工作組則定期監察該系統的功能，藉以定立運作程序，優化系統的性能。

### 適航事務組

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準。由經驗豐富的適航主任所組成的適航事務組，工作範圍包括定期審查香港航空公司在本港、內地和海外的飛行站、定期審查認可的維修機構，以及在香港、內地、亞

### Working Groups

To ensure effective implementation of ICAO safety standards, the Flight Time Limitation Working Group (FTLWG), the Prevention on Problematic Use of Psychoactive Substances in Aviation Working Group, the Cosmic Radiation and Aviation Committee (CRAC) and Windshear and Turbulence Warning System Working Group (WTWSWG) are formed under the chairmanship of CAD. While the FTLWG continued to work with the industry on matters relating to flight time limitation, the psychoactive substances working group has been focusing in the development of the Codes of Practice for the industry regarding the prevention of the problematic use of psychoactive substances, the programme to monitor the exposure to cosmic radiation by crew members has been under constant review by CRAC, and the technical performance of the Windshear and Turbulence Warning System has been constantly monitored by the WTWSWG with a view to formulating operational procedures for maximising the capabilities of the system.



# 飛行標準及適航 FLIGHT STANDARDS AND AIRWORTHINESS

洲、澳洲、歐洲和北美洲各地城市檢查飛機。上述工作之目的為求適航事務組能履行航空營運許可證內的持續認可、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。



民航處人員進行航機檢查。  
*CAD officers conducting aircraft inspection.*

適航主任繼續接受適航事宜的相關技術培訓和吸取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，以擴闊適航主任的國際視野並瞭解適航標準的最新發展。報告年內，適航主任出席了空中巴士、波音飛機和ARJ21飛機的維修審查委員會工作組會議，國際民航組織基於性能的導航和意外調查的工作坊，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，定期監察所有香港認可的飛機維修及飛機部件維修公司。截至二零零九年三月三十一日，共有25家公司獲發香港認可維修機構的資格。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，均受適航事務組監察，當中包括持續審查和定期視察。

## AIRWORTHINESS OFFICE

The Airworthiness Office monitored the maintenance and airworthiness standards of all Hong Kong registered aircraft. With a team of experienced Airworthiness Officers, the Office carried out routine AOC line station audits, approved maintenance organisation audits, and aircraft surveys locally in Hong Kong as well as other cities in the Mainland, Asia, Australia, Europe and North America, for the purpose of continual validation of AOC, approval of maintenance organisation, and the issue and renewal of Certificates of Airworthiness for Hong Kong registered aircraft.

Airworthiness Officers received technical training and regulatory update on airworthiness issues, and attended international seminars, conferences and working group meetings to widen their exposure and update their professional and technical knowledge on the latest development of the international airworthiness standards. In the report period, Airworthiness Officers had attended the Airbus, Boeing and ARJ 21 working group meetings on Certification, Flight Testing and Maintenance Review Board; the ICAO Performance Based Navigation and Accident Investigation Workshop as well as various aircraft type technical, human factors and safety management 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. As at March 31, 2009, there were 25 approved maintenance organisations holding Hong Kong approvals. 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 regulated through rolling audits and regular visits.

The Airworthiness Office also conducted maintenance related courses during the year. A two-week Hong Kong Airworthiness Course hosted by the Division in May 2008 with guest speakers from the Civil Aviation Administration of China (CAAC) and the United Kingdom Civil Aviation Authority (UKCAA), received overwhelming attendance from the industry, including maintenance engineers, technical services experts, maintenance controllers, managers, quality monitoring personnel, etc.





截至二零零九年三月三十一日，共有25家公司獲發香港認可維修機構的資格。  
As at March 31, 2009, there were 25 approved maintenance organisations holding Hong Kong approvals.

年內，適航事務組亦有舉辦與飛機維修有關的課程。二零零八年五月，適航事務組舉辦為期兩星期的香港適航事務課程，並邀請中國民用航空局及英國民航局的客席講者作講解。上述課程獲業界熱烈參與，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。

### 飛機維修訓練

截至二零零九年三月三十一日，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

As at March 31, 2009, there were a total of five HKAR-147 Aircraft 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.



# 飛行標準及適航 FLIGHT STANDARDS AND AIRWORTHINESS

## 適航事務組統計數字

(由二零零八年四月一日至二零零九年三月三十一日)

簽發適航證	19
續發適航證	226
審定重大改裝	11
認可飛機維修機構	25
認可飛機維修訓練機構	5
認可設計及製造機構	4
簽發飛機維修執照	1 395

## 航空人員執照事務組

### 飛行員執照

執照事務組於二零零八至零九年度處理共2 680份有關簽發飛行員或機組人員執照、飛機型號和特殊批註的申領與及執行了3 105份飛行員執照考試。這些考試中，有2 393次考試在香港舉行，其餘的712次則是由本處人員前往位於澳洲的阿得雷德飛行學校，親自監考該校根據《CAD 509》批准檔所舉行的飛行員執照考試。執照事務組另共簽發了3 737份體檢合格證明書，並處理了221個以轉換海外執照形式申請簽發的香港執照。

### 飛機維修執照

截至二零零九年三月三十一日，航空人員執照事務組簽發的有效執照共有1 521個。年內，航空人員執照事務組透過香港飛機工程有限公司位元元於將軍澳的電腦化考試系統，舉辦了合共6 923份試卷的考試。

## 協調本地空域使用者

為促進航空安全，香港分區飛行安全委員會繼續定期召開會議協調香港空域使用者之間的安全事宜。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(駐港部隊)、直升機服務(香港)有限公司、空中快線和香港飛行總會)、香港滑翔傘會以及個別私人航空器擁有人。

## Airworthiness Office Statistics

(between April 1, 2008 to March 31, 2009)

Certificate of Airworthiness Issued	19
Certificate of Airworthiness Renewed	226
Major Modification Approved	11
Approved Aircraft Maintenance Organisations	25
Approved Aircraft Maintenance Training Organisations	5
Approved Design and Manufacturing Organisations	4
Aircraft Maintenance Licence (AML) Issued	1 395

## PERSONNEL LICENSING OFFICE

### Flight Crew Licensing

During 2008-09, Personnel Licensing Office (PELO) processed 2 680 applications for initial licence issue or renewal, inclusion of ratings and addition or removal of endorsements in flight crew licences. A total of 3 105 CAD flight crew licensing written examinations were conducted with 2 393 held locally in Hong Kong while the remaining 712 were overseas examinations invigilated by CAD at Flight Training Adelaide in Australia under CAD 509 Approval. 3 737 Medical Certificates were issued to Hong Kong flight crew licence or air traffic controller's licence holders/applicants. PELO also processed during the year 221 applications for conversion of a foreign flight crew licence into a Hong Kong licence.

### Aircraft Maintenance Licensing

As at March 31, 2009, the number of valid AML issued was 1 521. During the report period, a total of 6 923 examinations were conducted at the delegated examination centre, using paperless computerised examination system, at HAECO in Tseung Kwan O.

## 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 discuss issues to enhance safety and coordination in the local airspace. These local airspace users include fixed-wing operators and rotary wing operators (GFS, the Hong Kong Garrison of the People's Liberation Army (PLA), HEL, SSH and the Hong Kong Aviation Club (HKAC)) as well as the Hong Kong Paragliding Association and private aircraft owners.



體諒到石崗機場是現時香港唯一可供輕型飛機運作之場地的原故，駐港部隊暫時批准香港飛行總會於週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飛行員訓練。為確保飛行安全，所有使用石崗機場的機構均須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。

### 飛機登記

年內共有19架航空器被新增至香港民用航空器登記冊內，而同期亦有二架空中巴士A340型、一架龐巴迪CL604型、六架波音B737型、九架波音B747型、一架灣流G550型及一架Robinson R22飛機被取消有關登記。截至二零零九年三月三十一日，香港民用航空器登記冊內共有223架民用航空器。當中199架由香港航空營運許可證的持證公司和政府飛行服務隊所擁有，而它們的分類如下：

類型	數目
空中巴士A300型	8
空中巴士A320型	10
空中巴士A321型	6
空中巴士A330型	48
空中巴士A340型	16
波音B737型	8
波音B747型	52
波音B777型	27
BAe4100型	2
灣流G200型	5
灣流G450型	1
灣流G550型	1
直升機	15

With Shek Kong airfield the only aerodrome available in Hong Kong for light aircraft operations, PLA continued to give temporary permission to HKAC to operate 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 Hong Kong Sector Flight Safety Committee assisted in the coordination if required.

### AIRCRAFT REGISTER

During the year, a total of 19 aircraft were put on the Hong Kong Civil Aircraft Register. In the same period, two Airbus A340, one Bombardier CL604, six Boeing B737, nine Boeing B747, one Gulfstream G550 and one Robinson R22 aircraft were removed from the Register. As at March 31, 2009, the total number of civil aircraft in the Hong Kong Civil Aircraft Register was 223. Of which 199 were registered under Hong Kong AOC holders and GFS as follows:

Aircraft Type	Number
Airbus A300	8
Airbus A320	10
Airbus A321	6
Airbus A330	48
Airbus A340	16
Boeing B737	8
Boeing B747	52
Boeing B777	27
BAe4100	2
Gulfstream G200	5
Gulfstream G450	1
Gulfstream G550	1
Helicopters	15





# 飛行標準及適航 FLIGHT STANDARDS AND AIRWORTHINESS



截至二零零九年三月三十一日，香港民用航空器登記冊內共有223架民用航空器。  
As at March 31, 2009, the total number of civil aircraft in the Hong Kong Civil Aircraft Register was 223.

## 安全數據分析

本部與各航空公司及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，本部詳盡地調查和分析了645宗個案。

## SAFETY DATA ANALYSIS

The Division maintained close liaison with airline operators and maintenance organisations regarding occurrences involving Hong Kong registered aircraft. During the year, 645 occurrences and incidents were investigated and analysed.

### 修訂《1995年飛航(香港)令》

由二零零九年一月一日起，本港航空法例——《1995年飛航(香港)令》(《命令》)的修訂生效，以配合國際民用航空組織(國際民航組織)有關適航、航空器設備、安全管理、數據保存和人員執照的最新規定和建議措施，以及適用的國際慣例。《命令》亦訂定所需條文，以處理根據《芝加哥公約》第83分條作出職能及責任轉移而出現的情況。

### 安全管理系統

由二零零九年一月一日起，航空公司和飛機維修機構須推行安全管理系統，以配合中國香港的安全計劃。《命令》相關條文已修訂，以便在香港實施上述安全管理系統的規定。

為推廣安全管理概念，促進亞太區和業界推行安全管理系統，本部聯同國際民航組織，在二零零八年六月在香港舉辦國際民航組織安全管理系統課程，為期五天。課程備受歡迎，共有超過33名來自本地和國際航空界以及亞太區民航當局的航空專家和人員參加。

### AMENDMENTS TO THE AIR NAVIGATION (HONG KONG) ORDER 1995 (AN(HK)O)

From January 1, 2009, the amendments to the AN(HK)O, the local legislation on air navigation, became effective to keep abreast of the latest requirements and recommended practices of the International Civil Aviation Organization (ICAO) and applicable international practices relating to airworthiness, aircraft equipment, safety management, data preservation and personnel licensing and to provide for the necessary provisions to deal with the case where there is a transfer of the functions and duties under Article 83 bis of the Chicago Convention.

### SAFETY MANAGEMENT SYSTEM

From January 1, 2009, air operators and maintenance organisations were required, as part of Hong Kong, China's Safety Programme, to implement their Safety Management System (SMS). The relevant legislation in the AN(HK)(O) had been amended to bring such SMS requirements into legal effect in Hong Kong.

To promote the concept and to facilitate the SMS implementation throughout the region and industry, the Division jointly organised with ICAO to host a 5-day ICAO SMS Course in Hong Kong in June 2008. The course was well attended by over 33 civil aviation experts and personnel from both the local and international industry, and civil aviation authorities in the regions.

