

# CAD Link

民航處通訊

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## 51st Conference of Directors General of Civil Aviation Asia and Pacific Regions 亞太地區民航局局長第51次會議

By **Mr Jeffrey Law**,  
Senior Operations Officer (Special Duties),  
Air Services and Safety Management Division  
航班事務及安全管理部  
高級民航事務主任（專責事務）**羅哲偉**

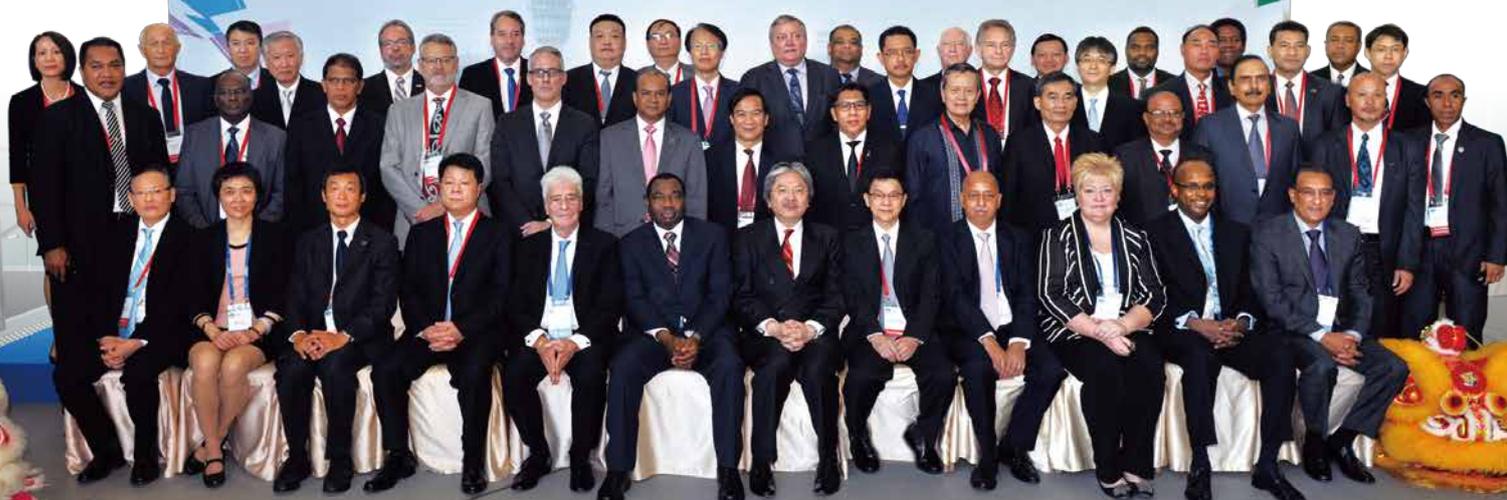


▲ The Financial Secretary, Mr John C Tsang, delivering a speech at the Opening Ceremony on 24 November.  
財政司司長曾俊華在11月24日的開幕典禮上致辭。

The 51st Conference of Directors General of Civil Aviation, Asia and Pacific Regions (DGCA Conference) was successfully held at the Hong Kong Civil Aviation Department Headquarters from 24 to 27 November 2014.

The four-day Conference was attended by more than 270 delegates from over 40 states/administrations and international organisations. All major states in the region such as China, Australia, Japan, India, Pakistan, and New Zealand, members of the Association of South East Asian Nations, as well as some Pacific Island states, also participated in the Conference.

▼ Heads of delegations taking a photo with Mr Tsang (front row sixth right), ICAO representatives and CAD management.  
各代表團的領袖與曾俊華（前排右六）、ICAO代表及民航處管理層合照。





▲ CAD colleagues briefing Conference delegates about the Air Traffic Control Tower of Hong Kong International Airport (left) and the Aviation Education Path (right) during their visits.  
與會代表參觀香港國際機場的航空交通控制塔（左）和航空教育徑（右），聆聽同事的講解。

We were very honoured to have the International Civil Aviation Organization (ICAO)'s President of the Council, Dr Olumuyiwa Benard Aliu, and Secretary General, Mr Raymond Benjamin, to join us. Other prominent officials like the Deputy Administrator of the Civil Aviation Administration of China, Mr Zhou Laizhen, and Regional Director of the Asia and Pacific Office of ICAO, Mr Arun Mishra, also attended.

Director-General of Civil Aviation, Mr Norman Lo, was elected as the Chairperson of the Conference. Apart from the items on regulatory oversight; air navigation planning, implementation and capacity enhancement; economic development of air transport; aviation and the environment; and technical and regional co-operation, the agenda also included the theme topic "Rise to Future Challenges in Aviation through Closer Collaboration and Harmonisation", and a new item on considering global flight tracking and risks to civil aviation arising from conflict zones.

Delegates discussed about 60 papers during the Conference. Through lively and fruitful discussions, a list of 29 action items was agreed. In addition, the Conference endorsed the reports of the Fourth Meeting of the Regional Aviation Safety Group (RASG/4) and the Second Regional Aviation Security Coordination Forum (RASCF/2) - Asia and Pacific Regions, both held on 20 and 21 November.

Moreover, recognising the multifaceted challenges in aviation, participating states/administrations decided unanimously to adopt the Hong Kong Statement concerning the following areas:

- continuous improvement in aviation safety;
- enhancing air navigation capacity and efficiency;
- further enhancing aviation security;
- sustainable supply of aviation professionals; and
- protecting the environment.

The DGCA Conference also saw the signing of a number of cooperation and working arrangements between ICAO and states/administrations and amongst states/administrations on communication, safety and security oversight, certification of aircraft parts and accident investigation.

The Deputy Administrator of the Civil Aviation Administration of China, Mr Zhou Laizhen, proposed to form a Task Force to examine the feasibility for setting up the High Level Aviation Commission in the Asia and Pacific Region. The proposal was well supported by participating states/administrations and ICAO agreed to assist in the setting up of the Task Force.

Taking the opportunity of the presence of senior civil aviation officials during the Conference period, ICAO held side meetings using seminar facilities at the

CAD Headquarters. In particular, ICAO lined up a high-level meeting on Afghanistan airspace contingency planning immediately after the DGCA Conference on 28 November to discuss effective air navigation services to support safe and orderly traffic flow between Europe and Asia through the Kabul flight information region and adjacent airspace.

Delegates' experience during DGCA Conference was not limited to formal meetings. To enrich delegates' understanding of the latest aviation development in Hong Kong, we arranged a guided tour to the Aviation Education Path at CAD Headquarters, and technical visits to Hong Kong's major civil aviation facilities and organisations, including Air Traffic Control Complex, Hong Kong International Airport, Cathay Pacific Airways, Hong Kong Aircraft Engineering Company Limited and Hong Kong Air Cargo Terminal Limited. Besides, exhibition booths were set up by Airport Authority Hong Kong, Hong Kong Observatory, Hongkong Post and the Aviation Security Company Limited at CAD Headquarters during the Conference to showcase their services and foster interaction with delegates. Cultural tours were also arranged for the delegates to enjoy the rich diversity of Hong Kong's heritage and culture.

In summary, the DGCA Conference was successfully conducted. Starting from planning the Conference flow by the

Organising Committee in November 2013, CAD colleagues worked hands-on from preparing conference documents, arranging venues and transportation to providing IT and administrative support, with our team spirit being crucial to the success. Of course, state-of-the-art facilities at CAD Headquarters allowed delegates to attend meetings hassle-free. The Conference not only was a resounding testimony of CAD's capability in terms of human resources and hardware to hold large-scale international conferences, but also an encouragement for us to strive for excellence and to organise more seminars, meetings and training for the aviation industry, so as to further reinforce Hong Kong's position as a global aviation hub.



Delegates visiting Tai O Fishing Village during their cultural tour on 26 November. 與會代表在11月26日的文化考察遊參觀大澳漁村。

DG Mr Norman Lo, as Chairperson of the 51st DGCA Conference, chairing a conference session. 處長羅崇文以第51屆民航局局長會議大會主席的身分主持會議。

Delegates discussing the latest aviation issues at the Auditorium. 與會代表在演講廳討論最新航空議題。





▲ RASCF/2 participants discussing ways to strengthen international partnership in aviation security. 參加RASCF/2的代表商討如何加強國際航空保安合作。

亞太地區民航局局長第51次會議，於2014年11月24至27日在香港民航處總部順利舉行。

為期四日的會議雲集超過270位來自四十多個國家 / 行政區與國際組織的代表，區內所有主要國家如中國、澳洲、日本、印度、巴基斯坦、紐西蘭、東盟十國及一些太平洋島國均派員出席。

我們十分榮幸，邀請到國際民航組織 (International Civil Aviation Organization, ICAO) 理事會主席奧盧穆伊瓦·貝納德·阿留和秘

書長雷蒙·邦亞曼蒞臨今次會議。其他主要官員，如中國民用航空局副局長周來振和ICAO亞太區辦事處處長Arun Mishra亦率團參加。

民航處處長羅崇文獲選為大會主席。除規管監察、航空導航規劃、實施與航空交通容量增長、航空交通的經濟發展、航空與環境，以及技術與區域合作外，議程也包括大會主題「緊密合作，和衷共濟，共同迎接航空界未來挑戰」和全球航班追蹤及衝突地區對民航所產生的風險等最新議題。

各代表在會議期間討論約60份文件，經深入討論後通過29項跟進事項。此外，大會也通過在11月20及21日舉行的亞太地區區域航空安全小組第四次會議 (RASG/4) 和第二次亞太地區航空保安協調研討會 (RASCF/2) 的報告。

另外，有鑑於航空界需要應對多方面挑戰，與會各國 / 行政區一致通過關於以下範疇的《香港宣言》：

- 持續改進航空安全；
- 提升空中導航能力及效率；
- 進一步提升航空保安；
- 持續培育航空專才；及
- 保護環境。

會議期間，多個國家 / 行政區與其他國家 / 行政區或ICAO就通訊、航空安全和保安監察、飛機零件認證、意外調查等簽訂多個合作協議和工作安排。

◀ (From left) Secretary General of ICAO, Mr Raymond Benjamin; President of the Council of ICAO, Dr Olumuyiwa Bernard Aliu; Secretary for Transport and Housing, Professor Anthony Cheung Bing-leung; DG Mr Norman Lo; and Regional Director of the Asia and Pacific Office of ICAO, Mr Arun Mishra proposing a toast at the Welcome Reception.

(左起)國際民航組織秘書長雷蒙·邦亞曼、理事會主席奧盧穆伊瓦·貝納德·阿留、運輸及房屋局局長張炳良教授、民航處處長羅崇文和國際民航組織亞太區辦事處處長Arun Mishra在歡迎會上祝酒。





▲ An Australian delegate speaking at RASG/4.  
澳洲代表在RASG/4上發言。

中國民用航空局副局長周來振在會上提議設立專門工作組，以研究成立亞太區民航委員會的可行性。有關倡議廣獲與會者支持，而ICAO也承諾在這方面提供協助。

承各民航當局高層官員在場之便，ICAO於會議期間利用民航處總部的研討設施舉行多個小型會議。值得一提的，是緊接是次會議，ICAO於11月28日召開高層次會議，討論如何有效安排航空導航服務，以輔助途經喀布爾飛行情報區及毗鄰空域，來往歐亞的航空交通。

與會代表今次的經驗，並不限於正式會議。為了讓與會者加深對香港航空業最新發展的認識，本處安排他們參觀民航處總部的航空教育徑，及考察本港的主要民航設施和機構，包括航空交通管制大樓、香港國際機場、國泰航空、香港飛機工程公司和香港空運貨站。同時，香港機場管理局、香港天文台、香港郵政和機場保安有限公司也在會議期間於本處總部設立展覽攤位，向與會者介紹服務，增加彼此的溝通。我們也特別為與會代表舉辦文化考察遊，讓他們體驗香港多樣的傳統和文化。

總括來說，今次民航局局長會議十分成功。籌備委員會在去年11月開始策劃會議流程，此後由準備會議文件、安排場地、交通，以至提供資訊科技和行政支援，均

由民航處同事親力親為，當中的團隊精神實為會議成功舉辦的關鍵。當然，民航處總部與時並進的設施也令與會者在舒適的環境和優良的配套下進行會議。這次亞太地區民航局局長會議的經驗，不但印證本處無論在人才和硬件方面都足以籌辦大型國際會議，也激勵我們精益求精，在未來為航空界舉辦更多研討和培訓活動，進一步鞏固香港作為世界航空樞紐的地位。



▲ Participants visiting the Hong Kong Geopark.  
參加者到香港地質公園一遊。

Sharing by colleague:  
同事分享：

## Valuable experience gained through organising international conference 協辦大型國際會議 獲取寶貴工作經驗

By Miss Jessica Wong, Assistant Operations Officer, Flight Standards and Airworthiness Division  
飛行標準及適航部助理民航事務主任黃曉彤女士

Since joining the Department in April 2014, we have been warmly welcomed by our supervisors and seniors who have hinted to us of the broad exposure and exciting opportunities that being Assistant Operations Officers (AOOs) would have. As we go along gaining our knowledge and experience to become civil aviation professionals, we have been presented with many opportunities to learn and see how industry partners collaborate and work together. Our involvement in the 51st Conference of Directors General of Civil Aviation, Asia and Pacific Regions (DGCA Conference) was just one of the many examples.

Taking part in the DGCA Conference provided me with the opportunity to take up different roles as part of the many very able teams, including the MC of the Conference, tour guide on the nature and cultural tours and the technical visit, and coordinator/helper at various other events. All of these roles presented me with varying levels of challenges, and reminded me of the importance of good planning, preparation and team work. It was amazing to see how many tasks were accomplished under coordinated team effort. Being the MC of the Conference, I also enjoyed the added benefit of stationing at the Auditorium where the Conference took place to listen to the presentations and discussions of many high level representatives of civil aviation authorities. I found the presentations very informative and the topics discussed very interesting, and they provided me with a foundation to learn deeper as I progress along my career.

It was very fortunate that the DGCA Conference took place during the course of my AOO attachment programme. I was very grateful for the amount of trust that the seniors had placed in me as an AOO to help out. On top of the challenges that I had faced in a few occasions – which certainly made me stronger and more versatile – I also treasure the opportunity to get to know delegates from different states/administrations and colleagues from different offices during the Conference. I believe this bond will help us in setting a firm footing for the many future collaborations to come.

Lastly, I wish to thank the Department again for giving us the opportunity to participate in this successful Conference. It was certainly an eye-opening and valuable experience for new joiners like us, and we look forward to contributing more and working closely together with our colleagues and industry partners in meeting the aviation challenges ahead.

自2014年4月加入民航處以來，上司和前輩便不時提點我們作為助理民航事務主任可獲得的體驗和機會。的確，在我們吸收知識和經驗、晉身民航專業人員的路上，部門為我們提供很多體驗航空界協同合作的機會，而協助籌辦亞太地區民航局長第51次會議便是一個好例子。

這次參與民航局局長會議，使我有機會在眾多出色的團隊中擔任不同的崗位，包括會議司儀，自然和文化考察遊以及技術考察團的導遊，和在其他活動中提供協助。這些崗位帶給我不同挑戰，也提醒我良好規劃、準備和團隊精神的重要。藉着大家群策群力，才得以完成各項任務。身為會議司儀，我還可以駐守會議場地，聽取各國民航當局高層官員的演說和討論。我深信這些內容詳實而有趣的演說和討論，能為我在職業生涯的持續學習奠下重要的基礎。

我很榮幸能在入職助理民航事務主任初期，見證這場重要的會議。我亦感謝各前輩的信任，讓我參與籌備活動。在過程當中，除了通過各項挑戰，使我變得更堅強、更能屈能伸外，我亦很珍惜這次能讓我認識到各國代表和各分部同事的機會，相信在這次會議過程中所建立的友誼，能為大家將來更緊密合作的基礎。

最後，我衷心感激部門給予機會，讓我們參與這重要的會議。這寶貴經驗使新入職同事大開眼界、獲益良多。我們期待能夠為民航業作出更大的貢獻，並與同事和業界夥伴緊密合作，共同迎接航空界未來的挑戰。



# CAD attains Gold Award in GreenPlus Recognition Award 2014

## 民航處喜獲「環保節能機構嘉許計劃2014」金獎

By **Mr Thomas Fok**, Senior Electronics Engineer (Technical Support), Air Traffic Engineering Services Division  
航空交通工程服務部高級電子工程師（技術發展）**霍偉雄**

CAD has been striving to implement green measures to protect the environment. Recently, we were given the Gold Award under the Bank and Office category in the GreenPlus Recognition Award 2014 organised by CLP Power Hong Kong Limited.

The objective of the recognition programme is to encourage organisations to promote energy conservation and adopt optimal energy saving solutions in order to achieve sustainable development. After joining the programme, CAD colleagues worked in full steam to submit detailed information on the environmentally friendly design at CAD Headquarters, arrange auditors to conduct on-site inspection of our green installations, and brief the judges on CAD's accomplishment in energy conservation. In spite of the keen competition, CAD, as a first-timer joining this programme, was overjoyed to have won the top-ranking Gold Award under the Bank and Office category in the award presentation ceremony on 4 September 2014.

Environmentally friendly installations such as rainwater recycling irrigation system, cooling tower bleed-off flushing system, photovoltaic panels, hollow light pipes, solar tracking optical fiber lighting system, and a green roof garden are now in place at CAD Headquarters. In the future, we shall further explore practicable green initiatives like switching off corridor lightings, reducing the frequency of on-load power drills, optimising air-conditioning chillers, and adjusting the temperature of server rooms, etc., so as to provide reliable and efficient services in a sustainable way.

民航處一直致力推行環保措施節能以保護環境。我們早前更在中華電力有限公司舉辦的「環保節能機構嘉許計劃2014」中，獲頒銀行／辦公室組別金獎。

計劃的目的是鼓勵企業促進環保及採用最佳節能措施，達至可持續發展。決定參加計劃後，同事全力應戰，向大會提交有關民航處總部節能設計的詳細資料，安排審計員實地視察總部的節能設計，和向評審介紹民航處的節能成果等。儘管競爭激烈，且為首次參加，但民航處於2014年9月4日的頒獎典禮中，獲頒發在銀行／辦公室組別中最高榮譽的金獎，令同事喜出望外。

民航處總部現時的環保裝置，包括雨水回收灌溉系統、冷却塔溢流沖廁水供應系統、太陽能光伏板、空心自然光井、追蹤太陽光纖導光管照明系統和空中花園等。我們將繼續探求可行的環保措施，例如關閉部分的走廊照明、減少進行負載供電演練、優化空調冷機組以及調節機房溫度等，透過可持續發展的策略繼續提供穩定和高效率的服務。



▲ The star at the top tip of the trophy is filled with green grass to symbolise environmental friendliness achieved by the gold awardee. 獎座頂端填滿青草的星星，象徵金獎得獎者實現的環保成果。

▼ DG Mr Norman Lo (third right) receiving the trophy at the award presentation ceremony. 處長羅崇文（右三）於頒獎典禮上接受獎座。



# Department activities

## 部門活動花絮

25.05.2014



▲ The CAD tenpin bowling team won the bronze medal in Corporate Games 2014.  
民航處保齡球團隊於工商機構運動會2014獲得銅牌。

15.07.2014



▲ Representatives from the Hong Kong Polytechnic University and the Vocational Training Council discussed civil aviation training issues with CAD.  
香港理工大學和職業訓練局的代表與民航處探討民航訓練事宜。

09.08.2014



▲ Hong Kong CAD, Macau Civil Aviation Authority, Zhuhai Airport and Zhuhai Approach Control Center played friendly matches in the Pearl River Delta Aviation Football Cup held at Zhuhai Approach Control Center's football field.  
香港民航處、澳門民航局、珠海機場空管站和珠海進近管制中心參與珠三角民航盃，於珠海進近管制中心足球場進行友誼賽。

23.08.2014



▲ CAD Staff Club members visited the Fire Services Department's Diving Base at the Government Dockyard on Stonecutters Island to understand more about search and rescue training.  
民航處職員康樂會參觀昂船洲政府船塢的消防處潛水訓練基地，了解搜救工作訓練。

12.09.2014



▲ International Air Transport Association delegates visited CAD.  
國際航空運輸協會代表到訪民航處。

21.09.2014



▲ Operations Officer (Air Services), Ms Mavis Fung, won the championship in the badminton ladies single in Corporate Games 2014. 民航事務主任(航班事務)馮瑩女士在工商機構運動會2014的羽毛球女子單人比賽中勇奪冠軍。

27.09.2014



▲ CAD colleagues played badminton matches in Taikoo Cup.  
民航處同事參與太古盃羽毛球比賽。

26.11.2014



▲ Executive Director of the European Aviation Safety Agency, Mr Patrick Ky (third left), led a delegation to visit the Air Traffic Control Complex. 歐洲航空安全局執行董事Patrick Ky (左三)率領代表團到訪航空交通管制大樓。

18.12.2014



▲ CAD colleagues spent enjoyable time together at the Christmas Party. Long and Meritorious Awards were also presented to colleagues who have served the Government for 20, 30 and 40 years respectively. 各民航處同事於聖誕聯歡會聚首一堂，共度快樂時光。部門亦同時頒發長期優良服務獎予服務政府達二十年、三十年和四十年的同事。



# Evidence-based Training 循證培訓模式

By **Mr Lawrence Wong**, Senior Operations Inspector, Flight Standards and Airworthiness Division  
飛行標準及適航部高級營運督察黃景輝

Evidence-based Training (EBT) is a new methodology for airline pilot training developed in recent years, which seeks to address the shortcomings of traditional training programmes. I will introduce the rise of EBT, its concepts and challenges faced by the regulators in this article.

## Traditional Proficiency Checks

Over the years, pilots are required to undergo the six-monthly Proficiency Checks (PC) on the aircraft type they are flying. These checks were developed due to many engine failures in early days of civil aviation history. In this regard, a traditional PC involves many engine failure manoeuvres.

## The rise of EBT

However, whilst the technology and reliability of modern aircraft have improved enormously in recent years, the existing airline pilot training requirements in national regulations are still mainly based on the PC developed from early generation jets. Does the existing airline pilot training programme still meet pilots' needs? In response, an international aviation industry-wide working group conducted a strategic review and identified the shortcomings of current training programmes. A methodology titled EBT was established accordingly. EBT seeks to address these shortcomings by putting in place training and testing processes which deal with the current challenges faced by flight crew in the modern regime.

## EBT concept

In 2013, ICAO published guidance document 9995, Manual of EBT. According to this guidance document,

there are two main types of EBT:

- (1) Baseline EBT
- (2) Enhanced EBT

Baseline EBT is based on operational data of jet aircraft of different generations whereas Enhanced EBT is based on operator specific data, for example, Air Safety Report, Flight Data Analysis Programme and Line Operations Safety Audit.

The aim of EBT is to develop and evaluate the competencies essential for safe operations of aircraft by addressing the most relevant threats according to evidence collected through operational data analysis. Through the implementation of EBT, the operators should be able to develop more realistic and effective flight crew training programmes so as to improve operational safety.

EBT is a voluntary, scenario-based training and assessment programme conducted in a qualified Flight Simulation Training Device. The gist of EBT programme is to provide a training environment that is closer to real world. EBT can be used as an additional training programme or it can be used to replace traditional PC. However, the latter will require regulatory authorities' approval.

## EBT implementation in Hong Kong

Some operators in Hong Kong have been adopting EBT as additional training programmes for some years. Since these programmes were developed before the publication of ICAO guidance document 9995, therefore they are not exactly the same as the suggested setup in the ICAO document. Nevertheless, they still

provide good benefits for flight crew training.

## Challenges faced by regulators

For any new initiatives, there are always some challenges which may be faced by regulators and there is no exception to EBT.

(1) Data analysis plays an important role in successful EBT implementation. However, any data system has its own strengths, weaknesses and bias. In other words, data can identify problems but it doesn't provide the root causes.

(2) Traditionally, the conduct of test is either satisfactory or unsatisfactory. With the EBT implementation, it could involve many attempts before a trainee becomes competent. This is a significant difference to the traditional test system.

(3) Different countries and operators may have different mandatory requirements and safety cultures. Before implementing EBT, regulators have to buy in to the approach and will have to develop new ways to oversee training. Inevitably, evaluating an operator's traditional training programme would be an easier regulatory task. Evaluating how well an operator builds its EBT programme based on operational data will require a regulator that is insightful and sophisticated, and able to devote a lot of time to the task.

(4) The management and oversight requirements of the EBT programme aim to ensure that a higher level of safety is achieved continuously. However, it is not easy to differentiate if an "improved level of safety" is the outcome of regular



▲ Traditional proficiency checks were developed from early generation jets. 傳統考核多以早期噴射機為基礎設計。



▲ The technology and reliability of modern aircraft have improved enormously. 現代航機的性能及可靠程度已大大提高。

mitigation measures or effective EBT implementation. Hence, regulators and operators should communicate closely in order to define guidelines for both parties to monitor Flight Data Analysis Programme and recurrence of similar incidents for assurance of effective EBT implementation.

## Transition

In conclusion, we believe that a common understanding between regulatory authorities and operators will be the first step to successful EBT implementation. In addition, to prepare for a change from the traditional concept, regulators should be flexible, innovative and vigilant.

There is no doubt that the traditional regulatory system of training and testing has served the aviation industry well over the years. However, EBT implementation would provide a step change in the quality and relevance of the testing of flight crew competence for mitigating risks in flying today's highly advanced and automated aircraft in our ever congested skies.

循證培訓模式(Evidence-based Training, EBT)是近年發展出來、用以培訓飛行員的新模式，旨在補足傳統訓練模式的不足。我將在下文介紹EBT的發展、概念，以及監管機構面對的挑戰。

## 傳統考核模式

一直以來，飛行員每六個月都需要通過考核，以確保其操控特定型號飛機的能力。因應航空發展初期發生的大量引擎故障，傳統考核內容主要圍繞引擎故障相關的操作。

## 循證培訓模式的發展

隨着科技發展，現代航機的性能及可靠程度近年已大大提高。然而，現時各地飛行員培訓的標準，仍多以早期的噴射機為基礎。那現行的培訓計劃仍切合飛行員的需要嗎？有鑑於此，早前各國航空業界組成了一個工作小組，負責策略性評估及審視現有訓練模式的不足。該小組提出了EBT，在訓練及考核的過程中加入現時飛行人員所面對的挑戰等元素，以解決現有培訓及考核模式的問題。

## 循證培訓的概念

2013年，國際民航組織發出了指引文件（文件編號9995）。根據該指引，EBT大致分為兩種：

- (1) 基準循證培訓模式 (Baseline EBT)
- (2) 進階循證培訓模式 (Enhanced EBT)



EBT is conducted in a qualified flight simulation training device.  
EBT需在合格的模擬飛行訓練設備內進行。



基準培訓以不同年代之噴射機營運數據作基礎；而進階培訓則使用個別營運者特有的數據，例如航空安全報告 (Air Safety Reports)、飛行數據分析計劃 (Flight Data Analysis Programme)及航線營運安全審查 (Line Operations Safety Audit)。

EBT旨在透過分析營運數據去解決對安全運行最相關的威脅及風險，深入評估及提升各項對航機營運安全具重要影響的表現。通過實施EBT，營運者應能制定更真實及有效的飛行人員培訓計劃，從而提高操作安全性。

EBT為自願性、基於場景，並需在合格的模擬飛行訓練設備 (Flight Simulation Training Device) 內進行的培訓及評估計劃，旨在提供更接近真實世界的訓練環境。另外，EBT可視作額外的訓練計劃，或者用以取代傳統的考核模式。然而，後者必須得到相關監管部門的批准。

## EBT在香港實施的情況

香港一些營運者數年前已開始採用EBT作為額外訓練課程。由於部分訓練課程於國際民航組織指引文件9995號公布前已經實施，因此這些課程的程序及內容未必完全符合該文件中建議的設定。儘管如此，這些額外訓練對飛行機組培訓甚有裨益。

## 監管機構面對的挑戰

一如任何新的措施，監管機構總會面對大大小小的挑戰，EBT亦不例外。

(1) 數據分析對能否成功實施EBT至關重要。然而，任何數據系統都有其長處、弱點和偏頗的地方。換言之，數據可以幫助發現問題，但不會直接闡明問題的根源；

(2) 傳統考核只顯示學員的表現是否符合標準。但是通過實施EBT方案，學員可以經多次嘗試以證明能力，跟傳統的考核系統有顯著差別；

(3) 不同的國家和營運者可能有不同的強制要求和安全文化。EBT實施前，監管機構必須透徹了解新的訓練模式，及制定新的方法來監督訓練。相對於EBT而言，監管一個營運者的傳統培訓項目是一個比較容易完成的任務。若要評估營運者如何基於營運數據建立EBT程序，將需要具遠見及成熟的監管機構，並投入大量時間方能做好監督工作；及

(4) EBT的管理和監督旨在確保達致持續而高水平的航空安全。然而，要證明是日常緩解措施，或是有效執行EBT而提升了航空安全水平，並不容易。因此，監管機構和營運者應密切溝通，雙方制定指引方針以監測飛行數據分析計劃及重覆發生的事故，確保EBT方案能有效實施。

## 新舊模式之過渡

總括而言，我們相信監管部門和營運者之間達至共識將是成功實施EBT的第一步。此外，監管機構應保持靈活、創新和時刻警惕，並為改進傳統模式做好準備。

毫無疑問，傳統的培訓、考核和監管制度多年來一直行之有效。然而，現時飛機性能既先進又自動化，航空交通也日趨繁忙；為了減輕飛行風險，實施EBT將會是提升飛行員訓練考核質素及成效的一個重要改革。

# Hong Kong Safety Programme 2014 - 2017

## 香港安全方案 2014 - 2017

by **Miss Clara Wong**, Chief Operations Officer (Technical Administration), Air Services and Safety Management Division  
航班事務及安全管理部總民航空事主任（技術行政）**黃嘉華女士**

Since ICAO rolled out a wide range of global safety initiatives in 2013, CAD has proactively and continuously refined our safety oversight and safety management practices to align with the global safety roadmap and strategies. One of the global safety objectives as given in ICAO's latest Global Aviation Safety Plan requires that all states fully implement a State Safety Programme (SSP) before 2022. This mandate for SSP is further elaborated on the new Annex 19 to the Convention on International Civil Aviation on Safety Management, which stipulates that "Each state shall establish an SSP for the management of safety in the state, in order to achieve an acceptable level of safety performance in civil aviation".

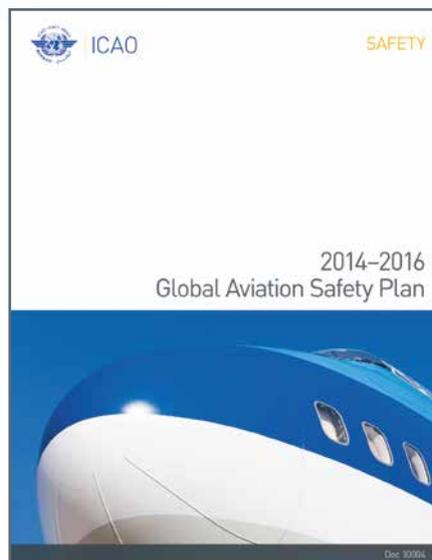
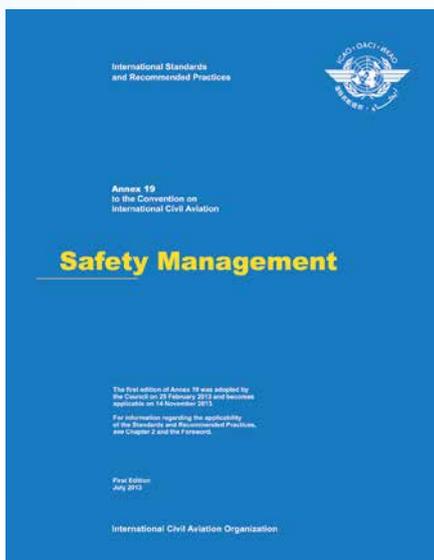
management guidance and international practices. It not only describes the safety oversight framework currently in place in Hong Kong, but also sets out the strategies which Hong Kong has adopted for the implementation of SSP. A few highlights are as follows:

### Highlights

- The Hong Kong Safety Programme was developed in close coordination with CAD divisions and government departments concerned.
- Every effort has been made to align the format, structure and contents of the Programme as closely as possible with ICAO Annex 19 and its Safety Management Manual (Doc 9859)

global safety objectives.

- The Hong Kong Safety Programme is published on the CAD website ([www.cad.gov.hk/reports/HKSP2014-17.pdf](http://www.cad.gov.hk/reports/HKSP2014-17.pdf)) to promote safety awareness and to foster safety partnership across disciplines, including the stakeholders, service providers, industry partners and the international aviation community.
- In line with international practices, performance-based regulatory elements will progressively be introduced in the Hong Kong's safety oversight system to focus on relatively higher risk areas, and the use of safety data will be refined to target safety concerns. Our long term goal is to apply proactive and predictive safety management practices before 2027.



### Updating the SSP for Hong Kong

Charged with the regulatory responsibilities for aviation safety in Hong Kong, it is incumbent upon the CAD to undertake the implementation of the related SSP activities. To this end, with the diligent efforts of all concerned, CAD has completed the review and updating of the SSP for Hong Kong. A new document, namely the Hong Kong Safety Programme 2014-17, was published in October 2014.

This newly updated Hong Kong Safety Programme was developed with reference made to the latest ICAO safety

(SMM). The four components and 11 elements of the Hong Kong Safety Programme are modelled closely on the ICAO's SSP framework (See table 1).

- Although ICAO has set a global target for all states to implement the SSP by 2022, Hong Kong will take a proactive step to stay ahead of the global target by implementing the SSP in full by 2017.
- The 2014 – 2017 SSP Implementation Plan given at Appendix 2 of the Hong Kong Safety Programme presents Hong Kong's roadmap to meet the

◀ Annex 19 to the Convention on International Civil Aviation and Global Aviation Safety Plan published by ICAO. 由國際民航組織發出的國際民用航空公約附件19和全球航空安全計劃。

### Next Steps – Continuous Review and Refinement

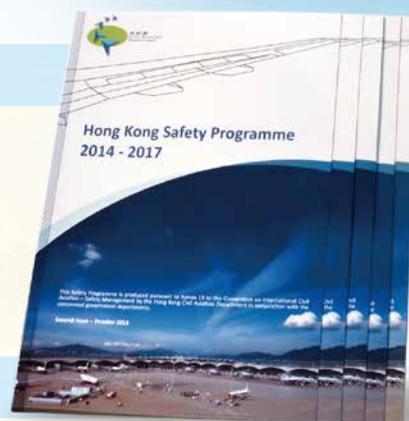
The Hong Kong Safety Programme is a living document. After its publication, we will continue to regularly review and refine it in the light of experience to ensure that it remains up-to-date, relevant and appropriate to the aviation industry in Hong Kong. This is consistent with CAD's long standing pledge and commitment to sustain and improve the aviation safety standards of Hong Kong and to maintain our position as a leader in the promotion of aviation safety within the region.

自國際民航組織 (ICAO) 於2013年推出一系列的全球安全措施，民航處積極優化本地航空安全的監察及管理系統，以配合全球航空安全路向及策略。ICAO最新推出的全球航空安全計劃 (Global Aviation Safety Plan) 其中一項安全目標，要求成員國於2022年或之前全面落實安全方案。而相關要求亦於國際民用航空公約附件19 — 安全管理詳細闡述：「各國必須制定一個國家安全方案來管理該國的安全，以便民用航空安全績效達到可以接受的水平。」

**Table 1 - Hong Kong Safety Programme Framework (4 Components and 11 Elements)**

**表1 - 香港安全方案框架（四個組成部分和十一項要素）**

<b>1. State Safety Policy and Objectives</b> 香港的安全政策與目標
1.1 Hong Kong safety legislative framework 香港安全立法框架
1.2 Hong Kong safety responsibilities and accountabilities 香港的安全責任和問責制
1.3 Accident and incident investigation 意外與事故調查
1.4 Enforcement policy 執行政策
<b>2. State Safety Risk Management</b> 香港對安全風險的管理
2.1 Safety requirements for the service provider's SMS 對服務提供者安全管理體系的安全要求
2.2 Agreement of the service provider's safety performance 關於服務提供者安全績效的協議
<b>3. State Safety Assurance</b> 香港的安全保障措施
3.1 Safety oversight 安全監督
3.2 Safety data collection, analysis and exchange 安全數據的收集、分析和交流
3.3 Safety-data-driven targeting of oversight on areas of greater concern or need 根據安全數據側重對具有更大安全關切或需要的領域進行監督
<b>4. State Safety Promotion</b> 香港的安全推廣措施
4.1 Internal training, communication and dissemination of safety information 內部培訓、交流和傳達安全信息
4.2 External training, communication and dissemination of safety information 外部培訓、交流和傳達安全信息



**▲** Hong Kong Safety Programme 2014-17 published by CAD. 由民航處出版的《香港安全方案2014-17》。

- 香港將緊貼國際趨勢，在我們現有的航空安全監督制度內，逐步優化安全數據的運用，引入基於數據及績效管理元素，對具有更大安全關切或需要的領域進行監督及管理。我們的長遠目標是在2027年前透過主動並具預見性的安全管理方法，積極預計安全風險，採取行動，防患未然。

### 展望—持續檢討和優化

香港安全方案因時制宜。方案出版後，我們仍會定期檢討，根據實踐經驗進行更新和優化，以確保香港安全方案適時和切合香港航空業界運作要求。這符合民航處一直以來的承諾，致力提高香港的航空安全標準，維持香港在區內促進航空安全的領導地位。

### 香港安全方案之更新

作為香港的航空安全監管機構，民航處肩負落實安全方案的重任。在各方協力下，民航處完成方案的檢討和更新，並於2014年10月推出《香港安全方案2014-17》。

香港安全方案的更新版，是根據ICAO最新的安全管理標準和指引來制定；新方案除詳述香港現行的航空安全監察系統外，還載有落實安全方案的相關策略。以下為其中幾項要點：

#### 要點

- 香港安全方案是民航處各分部與相關政府部門共同協商和合作得出的成果。
- 方案的格式、結構和內容以國際民用航空公約附件19和安全管理手冊(SMM) (Doc 9859號文件)為基礎。而方案的四個組成部分和十一項相關要素亦參照ICAO SSP的框架而建立。(見表1)
- 雖然ICAO的目標是要求所有成員國在2022年或之前推行SSP，我們採取更積極措施，目標是在2017年全面推行SSP，以維持香港在促進航空安全的領導地位。
- 列於香港安全方案附錄2的2014-2017年度 SSP 推行計劃路線圖，闡述了香港為配合全球航空安全目標的策略。

- 香港安全方案已上載於民航處網頁 ([www.cad.gov.hk/reports/HKSP2014-17.pdf](http://www.cad.gov.hk/reports/HKSP2014-17.pdf))，以提高安全意識，及促進跨專業範疇，包括持份者、服務提供者、本地及國際航空業界伙伴的合作關係。

### Safety Jargon Decoded 安全術語譯解

<b>SSP</b>	State Safety Programme: An integrated set of regulations and activities aimed at improving safety. It is developed and implemented by states / administrations. 國家安全方案 (State Safety Programme) 由國家/行政區制定，旨在提高安全的一套完整的規章和活動。
<b>SMS</b>	Safety Management System: A systematic approach to managing safety, including the necessary organisational structures, accountabilities, policies and procedures. It is developed and implemented by service providers and regulated by civil aviation authorities. 安全管理體系 (Safety Management System) 為管理安全的系統做法，包括必要的組織結構、問責制、政策和程序；由服務供應機構制定和實行，並由民航當局規管。
<b>PBR</b>	Performance-based Regulation: A new concept to manage safety risks through a safety-data-driven / risk-based regulatory system. It aims to complement the conventional prescriptive-based safety oversight system. 基於績效監測 (Performance-based Regulation) 是以安全數據推動或基於風險管理系統的嶄新概念。新系統能輔助傳統指示/規定式的安全監督系統加強安全管理。

# CAD newsmakers 同事動向

## Welcome to the newcomer

Miss Lee Wai Sze	Treasury Accountant	李蔚詩女士	庫務會計師
Mr Ngai Man Ki	Supplies Officer	倪文基先生	物料供應主任
Ms Au Wing Yan	Student Air Traffic Control Officer	歐詠恩女士	見習航空交通管制主任
Mr Chan Ka Hang	Student Air Traffic Control Officer	陳家桁先生	見習航空交通管制主任
Ms Chu Ka Yan, Nancy	Student Air Traffic Control Officer	朱家因女士	見習航空交通管制主任
Mr Chung Chi Kit, Jackie	Student Air Traffic Control Officer	鍾志傑先生	見習航空交通管制主任
Mr Fu Sin Wai, Freddy	Student Air Traffic Control Officer	傅善維先生	見習航空交通管制主任
Mr Kee Tsuen Tak, Patrick	Student Air Traffic Control Officer	祁傳德先生	見習航空交通管制主任
Miss Lam Yuk King	Student Air Traffic Control Officer	林旭琮女士	見習航空交通管制主任
Mr Lui Ho Lam	Student Air Traffic Control Officer	呂浩嵐先生	見習航空交通管制主任
Mr Mak Yuk Sing	Student Air Traffic Control Officer	麥旭昇先生	見習航空交通管制主任
Mr Tang Po Fung	Student Air Traffic Control Officer	鄧浦豐先生	見習航空交通管制主任
Mr Wong Tsz Ho	Student Air Traffic Control Officer	王子豪先生	見習航空交通管制主任
Miss Yiu Yuk Man	Student Air Traffic Control Officer	姚玉敏女士	見習航空交通管制主任
Mr Yuen Yen Wen, Sunny	Student Air Traffic Control Officer	阮彥文先生	見習航空交通管制主任
Mr Ip Ka Chun, Kevin	Assistant Operations Officer	葉家進先生	助理民航事務主任
Mr Yip Ho Yin	Assistant Operations Officer	葉皓然先生	助理民航事務主任
Mr Lam Yuk Lun, Spencer	Executive Officer II	林鈺倫先生	二級行政主任
Miss Choi Oi Ling	Assistant Clerical Officer	蔡愛玲女士	助理文書主任
Mr Lam Chung Yiu, Samuel	Assistant Clerical Officer	林仲堯先生	助理文書主任
Miss Chan Cheung Ying	Assistant Clerical Officer	陳長英女士	助理文書主任
Mr Cheng Shui Man	Motor Driver	鄭瑞民先生	汽車司機
Mr Ng Chun Shing	Motor Driver	吳春誠先生	汽車司機

## 歡迎新同事

## Farewell to those leaving

Mr Chan Chi Lok	Treasury Accountant	陳志樂先生	庫務會計師
Mr Kong Hon Shan, Stephen	Senior Supplies Officer	江漢山先生	高級物料供應主任
Mr Houston Brian	Air Traffic Control Officer II	Houston Brian先生	二級航空交通管制主任
Mr Bliedt Einar	Air Traffic Control Officer II	Bliedt Einar先生	二級航空交通管制主任
Mr Yiu Wing Kwong, Michael	Air Traffic Control Officer II	姚榮光先生	二級航空交通管制主任
Mr Hong Shiu Bong, Ben	Assistant Operations Officer	韓兆邦先生	助理民航事務主任
Miss Cheng Oi Wan, Irene	Executive Officer II	鄭藹雲女士	二級行政主任
Miss Lau Hong Yee, Katie	Air Traffic Flight Services Office II	劉康怡女士	二級航空交通事務員
Mr Ng Kai Pong, James	Air Traffic Flight Services Office III	吳啟邦先生	三級航空交通事務員
Miss Fong Yuen Lai, Carmen	Personal Secretary II	方婉麗女士	二級私人秘書
Ms Luk Chui Kum, Xonny	Personal Secretary II	陸翠琴女士	二級私人秘書
Ms Leung Khan	Motor Driver	梁瓊禧女士	汽車司機

## 再見好同僚

## Congratulations to the newly promoted

	Promoted to	Date		晉升為	生效日期
Mr Fok Chi Ming	Senior Operations Officer	8.1.2014	霍智明先生	高級民航事務主任	8.1.2014
Miss Tang Siu Ping	Air Traffic Control Officer I	21.2.2014	鄧筱萍女士	一級航空交通管制主任	21.2.2014
Mr Chan Wai Man	Air Traffic Control Officer I	21.2.2014	陳偉文先生	一級航空交通管制主任	21.2.2014
Mr Ng Chun Yin, Julian	Operations Officer	18.4.2014	伍俊賢先生	民航事務主任	18.4.2014
Mr Man Ka Chai	Chief Operations Officer	8.5.2014	文家齊先生	總民航事務主任	8.5.2014
Miss Wong Clara	Chief Operations Officer	18.6.2014	黃嘉華女士	總民航事務主任	18.6.2014
Ms Pang Wing Sze	Senior Operations Officer	23.6.2014	彭詠詩女士	高級民航事務主任	23.6.2014
Mr Wan King Doy, David	Operations Officer	27.6.2014	尹景岱先生	民航事務主任	27.6.2014
Ms Fung Ying	Operations Officer	27.6.2014	馮瑩女士	民航事務主任	27.6.2014

## 恭賀榮升之喜

## Congratulations to the newly promoted

## 恭賀榮升之喜

	Promoted to	Date		晉升為	生效日期
Mr Fung Hoi Wah, Marco	Operations Officer	27.6.2014	封凱華先生	民航事務主任	27.6.2014
Miss Law Sau Kwan	Operations Officer	27.6.2014	羅秀君女士	民航事務主任	27.6.2014
Miss To Mei Ching, Doris	Assistant Clerical Officer	15.9.2014	涂美清女士	文書助理主任	15.9.2014
Mr Li Kwok Chu, Raymond	Assistant Director-General of Civil Aviation	6.10.2014	李國柱先生	民航處助理處長	6.10.2014
Ms Cheung Lai Kuen, Mona	Chief Air Traffic Control Officer	6.10.2014	張麗娟女士	總航空交通管制主任	6.10.2014
Miss Wong Man Sin, Janet	Aeronautical Communications Officer I	10.10.2014	黃文倩女士	一級航空通訊員	10.10.2014
Mr Lo Hung Fai	Aeronautical Communications Officer I	10.10.2014	盧雄輝先生	一級航空通訊員	10.10.2014
Miss Chan Ka Pik, Rebecca	Aeronautical Communications Officer I	10.10.2014	陳嘉碧女士	一級航空通訊員	10.10.2014
Ms Hon Mi Yi, Jennifer	Aeronautical Communications Officer I	10.10.2014	韓美儀女士	一級航空通訊員	10.10.2014
Mr Luk Chung Man	Aeronautical Communications Officer I	10.10.2014	陸頌民先生	一級航空通訊員	10.10.2014
Mr Lam Ming Him	Aeronautical Communications Officer I	10.10.2014	林明謙先生	一級航空通訊員	10.10.2014
Mr Ching Pui Kay	Chief Aeronautical Communications Supervisor	1.12.2014	程培基先生	總航空通訊主任	1.12.2014

## Best wishes to the retiree

## 願退休生活愉快

Mr Wong Ping Fai	Assistant Director-General of Civil Aviation	王炳輝先生	民航處助理處長
Mr Yeung Hoi Wan, Peter	Chief Electronics Engineer	楊海雲先生	總電子工程師
Mr Yam Kwok Ming, Patrick	Air Traffic Control Officer I	任國明先生	一級航空交通管制主任
Mr Ng Po Wah, Terence	Air Traffic Control Officer II	吳寶華先生	二級航空交通管制主任
Mr Leung Chi Chiu	Aeronautical Communications Supervisor	梁志超先生	航空通訊主任
Mr Chan Ka Keung	Aeronautical Communications Supervisor	陳家強先生	航空通訊主任
Ms Yeung Lai Sheung, Rebecca	Aeronautical Communications Officer I	楊麗嫦女士	一級航空通訊員
Ms Cheung Lai Hing	Aeronautical Communications Officer I	張麗卿女士	一級航空通訊員
Ms Li Yuk Yee	Aeronautical Communications Officer I	李玉儀女士	一級航空通訊員
Mr Cheng Bing Fu, Patrick	Senior Air Traffic Flight Services Officer	鄭炳富先生	高級航空交通事務員
Ms Koo Pui King	Senior Clerical Officer	顧佩琮女士	高級文書主任
Ms Fung Mi Lin, Maria	Clerical Officer	馮美蓮女士	文書主任
Mr Kwok Shui Kee	Office Assistant	郭瑞基先生	辦公室助理
Mr Chan Chi Fai	Office Assistant	陳志輝先生	辦公室助理

## Congratulations to the recipients of Long and Meritorious Service Travel Award Scheme 2014/2015

### 恭賀2014/2015優良服務公費旅行獎勵計劃得獎人

Miss Yiu Kam Chee	Air Traffic Control Officer I	姚金枝女士	一級航空交通管制主任
Ms Cheung Lai Hing	Aeronautical Communications Officer I	張麗卿女士	一級航空通訊員
Miss Tsang Mee Ling	Aeronautical Communications Officer I	曾美玲女士	一級航空通訊員
Ms Yeung Lai Sheung	Aeronautical Communications Officer I	楊麗嫦女士	一級航空通訊員
Miss Lam Ying Mi	Personal Secretary II	林影眉女士	二級私人秘書

## Congratulations to the recipient of Travel Award in 2014/2015 under the Secretary for the Civil Service's Commendation Award Scheme

### 恭賀2014/2015公務員事務局局長嘉許狀計劃旅行獎勵

Mr Chan Wai Yin, John	Air Traffic Control Officer I	陳偉賢先生	一級航空交通管制主任
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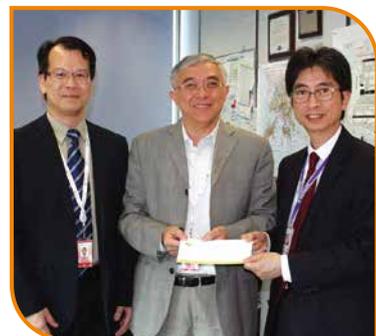
▲ Congratulations to Mr Raymond Li on his promotion to the rank of Assistant Director-General of Civil Aviation.  
恭喜李國柱晉升為民航處助理處長。



▲ Congratulations to Mr KC Man on his promotion to the rank of Chief Operations Officer.  
恭喜文家齊晉升為總民航事務主任。

Congratulations to Miss Clara Wong on her promotion to the rank of Chief Operations Officer.  
恭喜黃嘉華女士晉升為總民航事務主任。

Congratulations to Mr William Ching on his promotion to the rank of Chief Aeronautical Communications Supervisor.  
恭喜程培基晉升為總航空通訊主任。



▲▲▲ Congratulations to colleagues on their promotion to the rank of Aeronautical Communications Officer I.  
恭喜同事晉升為一級航空通訊員。

▲ ADG(ATM), Mr Manuel Sum (front row second right), and ATMD colleagues congratulate Ms Esther Tang (front row second right) and Mr Raymond Chan (front row first left) on their promotion to Air Traffic Control Officer I.  
助理處長（航空交通管理）岑兆華（前排左二）和航空交通管理部同事祝賀鄧筱萍女士（前排右二）和陳偉文（前排左一）晉升一級航空交通管制主任。



▲ Colleagues promoted to Aerodrome Control Officers taking a photo with DG Mr Norman Lo (front row fourth left); Executive Director, Airport Operations of Airport Authority Hong Kong, Mr Ng Chi-kee (front row fourth right); and senior management of CAD.  
晉升為塔台管制主任的同事與處長羅崇文（前排左四）、機場管理局機場運行執行總監吳自淇（前排右四）及民航處高層人員合照。