

**INTERNATIONAL CIVIL AVIATION ORGANIZATION****TWENTY EIGHTH MEETING OF THE ASIA/PACIFIC
AIR NAVIGATION PLANNING AND IMPLEMENTATION
REGIONAL GROUP (APANPIRG/28)***Bangkok, Thailand, 11 to 14 September 2017***Agenda Item 2: Global and Inter Regional Activities****INITIATIVES BY HONG KONG CHINA IN SUPPORTING THE
ICAO NEXT GENERATION AVIATION PROFESSIONALS PROGRAMME***(Presented by Hong Kong China)***SUMMARY**

In view of global challenge in shortage of skilled aviation professionals, the ICAO has launched its Next Generation Aviation Professionals (NGAP) Programme. Hong Kong China has been steering full support to this ICAO Programme, especially on provision of competency-based training to young generation gearing them up as professional Air Traffic Control (ATC) Personnel and Air Traffic Safety Electronics Personnel (ATSEP), taking further initiative to solicit professional recognition by the Hong Kong Institution of Engineers (HKIE), and consolidate relevant training elements into the Hong Kong International Aviation Academy (HKIAA), which fills current gaps in aviation training and provides new training capacity to cater for training needs both domestically and regionally. This working paper shares the initiatives and experience of Hong Kong China and encourages ICAO, States, ANSPs and aviation communities to steer their further effort in supporting the ICAO NGAP Programme.

1. INTRODUCTION

1.1 Civil aviation is a continuous growing sector with significant impacts on economical, political and environmental aspects. Over the next 20 years, the number of global aviation passengers is expected to grow by an average 5% per annum, while the growth in the Asia Pacific Regions alone is forecast to grow by 6% per annum. At the same time, the number of new aircraft to be delivered worldwide and in the Asia Pacific Regions are estimated at over 39 000 (valued at about US\$5.9 trillion) and over 15 000 (valued at about US\$2.4 trillion) respectively.

1.2 The aviation industry in the globe has faced the challenge in shortage of skilled aviation professionals which directly impedes the attainment of expected growth in air transport. In meeting this challenge, the ICAO, under its NGAP Programme, has been working with States, international organizations, industry and academia to assist the aviation communities in accelerating supply of qualified and competent aviation professionals to support the future demands and growth in air transport.

2. DISCUSSION

Establishment of the HKIAA

2.1 Hong Kong China, as a major regional and international aviation hub, also has faced a similar challenge as other aviation communities. In meeting the operational needs and supporting the ICAO Programme, the Hong Kong's Chief Executive announced in his 2016 Policy Address that the Hong Kong Airport Authority (AAHK) would establish the Hong Kong International Aviation Academy (HKIAA). In anticipation of a vast demand of aviation professionals to cater for future operational needs of aviation industry both domestically and regionally, the HKIAA aims to not only cater for domestic demands, but also develop training capacity to support the regional aviation growth.

2.2 Since May 2017, the HKIAA has commenced its inaugural series of training programmes. To fulfil the objectives of nurturing talents to meet the wide spectrum of future aviation needs both domestically and regionally, the HKIAA offers a wide variety of aviation training programmes through a series of inter-related activities and industry collaboration.

2.3 From a domestic perspective, the HKIAA connects airport-based industries and potential employees to meet industry's manpower needs, and to offer Hong Kong's students in universities and vocational institutions access to various aviation-related internship schemes. It also provides a set of standardized introductory training for all new airport joiners to ensure consistency among all airport sectors and help alleviate training overheads incurred by individual organizations.

2.4 From a regional perspective, the HKIAA provides professional training to aviation professionals in Hong Kong and the region. Specialized training courses related to technical skills and knowledge for airport operations and airport management, aviation safety and security, and ATC services etc., are provided. Instructors for these specialized courses are drawn from the relevant aviation service industry including retirees who are subject matter experts.

Competency-based ATSEP Training

2.5 As we all know, every action taken by the engineering and maintenance personnel might have direct implication to safe, stable, and reliable operations of ATM and CNS equipment, and in turn the safety-critical air traffic services. Since February 2011, Hong Kong China has commenced revamping its conventional CNS technical training of the ATSEP maintenance staff with a view to introducing a more structured competency-based training model based on the ICAO PANS-TRG (Doc 9868). After more than six years of implementation and further development, the ATSEP training and assessment is now considered full-fledged. All the frontline ATSEP maintenance staff working on the ATM and CNS equipment has achieved ATSEP certification. With publication of the ICAO Manual of ATSEP Competency-based Training and Assessment (Doc 10057) in 2017, a comprehensive gap analysis is being conducted to identify any gaps/observations against the Manual with a view to further enhancing the ATSEP scheme in better supporting operations and maintenance of safety-critical ATM and CNS equipment.

2.6 To attract young generation to pursue their professional qualification and career development in ATSEP, the Hong Kong Civil Aviation Department (CAD) and AAHK have been taking the initiative and collaborating to systematically consolidate ATSEP training curriculum into the training spectrum offered by the HKIAA. Trainees satisfactorily completed the training will be given higher priority for employment by the ATC system maintenance organization to continue receiving On-the-Job (OJT) Training with a view to acquiring full ATSEP certification. Besides, the CAD has engaged an internationally renowned professional engineering institution, namely the Hong Kong Institution of Engineers (HKIE), to complete a comprehensive professional and qualification

assessment process on the ATSEP training scheme in 2015, where ATSEP certified personnel are accredited to be the Associate Members of the HKIE. Those Associate Members could continue to pursue their specialization in the HKIE which has well-established mutual recognition/cooperation scheme with international professional engineering bodies in other countries worldwide. Through professional recognition of ATSEP qualification by international engineering institutions, career development in ATSEP has been directly linked up with and further promoted within the engineering industry, channeling continuous flow of engineering workforce into the highly specialized aviation domain.

3. ACTION BY THE MEETING

3.1 The Meeting is invited to:

- a) note the initiatives taken by Hong Kong China in supporting the ICAO NGAP Programme to cope with the challenge in shortage of skilled aviation professionals both domestically and regionally;
- b) encourage ICAO and States to steer and pursue professional recognition for ATSEP qualification through cooperation with international professional engineering institutions in order to promote career development in ATSEP and channel continuous flow of engineering workforce into the aviation domain;
- c) encourage ANSPs to implement competency-based ATSEP scheme to better support the safety-critical ATM and CNS equipment operations; and
- d) encourage States to support the ICAO NGAP Programme through investment of human and financial resources which are essential to the Programme's continued success.

— END —