

For Information

**Legislative Council Subcommittee
to Follow Up Issues Relating to the
Three-runway System at the Hong Kong International Airport**

Introduction

This paper sets out the response of the Civil Aviation Department (“CAD”) to relevant issues under its purview raised by Hon Albert Ho in his letters dated 4 and 9 November 2015.

**(a) Implementation Progress of the Recommendations made in the
National Air Traffic Services (“NATS”) Reports**

2. The Airport Authority Hong Kong (AAHK) commissioned NATS to conduct the Airspace and Runway Capacity Study (“ARCS”) for the Hong Kong International Airport (“HKIA”) in 2008, taking into account the latest air traffic control technology and international standards. The relevant reports by NATS have been uploaded onto AAHK’s designated homepage for the Three-runway System (3RS) project¹.

3. NATS identified potential enhancements to increase runway capacity at HKIA and made 46 recommendations in the Phase 1 Report. ARCS Phase 1a Study was subsequently conducted in response to one of the recommendations in the Phase 1 Report, which identified three options in relation to the missed approach procedures for further studying (pg. 23 of the Phase 1a Report refers). NATS eventually recommended in the Phase 1a Report to implement two new missed approach procedures (p.26 of the Phase 1a Report refers).

4. CAD, with the participation of AAHK, has progressively adopted NATS’ 46 recommendations, including the implementation of new missed approach procedures for the 2RS, to optimise air traffic

¹http://www.threerunwaysystem.com/en/Information/Consultancy_reports.aspx

management. With the implementation of the above recommendations, the maximum hourly air transport movement (“ATM”) at HKIA under 2RS has been increased from 55 in 2008 to the current 68.

5. In the Phase 1b Study, NATS looked at, among others, the possible modes of operation of HKIA under a 3RS. One of the recommended missed approach procedures would route over the Tsing Shan Firing Range. CAD had decided not to adopt this option at an early stage due to technical limitations on flight operations, including the climb gradient requirement.

(b) Flight Routes of HKIA under 3RS and the Impact on Macao

6. Regarding the flight routes of HKIA under 3RS, a tripartite working group (TWG), comprising civil aviation authorities of the Mainland, Hong Kong and Macao, was formed in 2004 with the aim of optimising the use of airspace in the PRD Region. The TWG drew up the “Pearl River Delta Region Air Traffic Management Planning and Implementation Plan (Version 2.0)” (“the 2007 Plan”) in 2007, which has taken into account the operational need for 3RS of HKIA, as well as the planned development of other key airports in the PRD (including the airport in Macao).

7. The phased implementation of the 2007 Plan, which was agreed by all parties concerned, provides the basis for achieving the eventual target maximum capacity of 102 ATMs per hour under the 3RS operation at HKIA in the long run. A brief summary of the progress made in the implementation of the 2007 Plan is at **Appendix A**. On 9 May 2016, the three parties signed an agreement on a strengthened liaison mechanism to enhance co-operation and exchange, reflecting the determination of the three parties to continue to take forward the 2007 Plan in a progressive manner (the relevant press release is at **Appendix B**).

8. In parallel, CAD is conducting a study to explore various means to increase the capacity of 3RS incrementally before the full implementation of the 2007 Plan. We will brief the relevant Panel of the Legislative Council on the findings of the study in due course. In any

case, it is not envisaged that projected traffic demand will immediately add up to 102 ATMs per hour when the 3RS is commissioned. The maximum capacity of 102 ATMs per hour is a target to be reached in the longer run.

(c) Simulation of flight procedures for 3RS

9. NATS completed the relevant simulations for the evaluation of the 3RS flight procedures of HKIA. The results have been published in the NATS Phase 1b Report.

10. The Standard Instrument Departure (“SID”) Charts, Standard Instrument Arrival (“STAR”) Charts and Instrument Approach Charts are aeronautical charts on flight procedures published in the publicly available Aeronautical Information Publication (“AIP”). The relevant aeronautical charts for 3RS will be published by CAD in the AIP in a timely manner.

Civil Aviation Department

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Summary of Progress of Implementation of the 2007 Plan

The Tripartite Working Group has been dedicated to implement the 2007 Plan over the years. Some of the measures have already been implemented to enhance air traffic management, including:

- (i) establishment of two additional handover points and corresponding air routes between the Guangzhou and Hong Kong Flight Information Regions (“FIRs”) to cater for flights overflying Hong Kong and landing in Guangzhou and Shenzhen;
- (ii) establishment of new air routes for the eastern part of the Mainland and an additional handover point between the Hong Kong and Guangzhou FIRs for flights operating between Hong Kong, Macao and the eastern part of the Mainland with effect from 7 January 2016; and
- (iii) adjustment of the Zhuhai airspace structure and establishment of peripheral flight paths in the PRD region.

Press Releases

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CAAC, CAD and AACM sign agreement on liaison mechanism to enhance co-operation and exchange (with photos)

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The Air Traffic Management Bureau (ATMB) of the Civil Aviation Administration of China (CAAC), the Civil Aviation Department and the Civil Aviation Authority of the Macau Special Administrative Region (AACM) signed an agreement in Hong Kong today (May 9) on establishing a strengthened liaison mechanism to enhance co-operation and exchange among the civil aviation authorities in the Mainland, Hong Kong and Macau on air traffic management planning and implementation in the Pearl River Delta (PRD) region.

Witnessed by the Deputy Administrator of the CAAC, Mr Wang Zhiqing, and the Secretary for Transport and Housing, Professor Anthony Cheung Bing-leung, the agreement was signed by the Director General of the ATMB of the CAAC, Mr Che Jinjun; the Director-General of Civil Aviation, Mr Norman Lo and the President of the AACM, Mr Chan Weng-hong.

Specific contents of the agreement on the strengthened liaison mechanism to enhance tripartite co-operation and exchange include:

(1) The top management of the three civil aviation authorities will host high-level meetings in the Mainland, Hong Kong and Macau on a rotational basis and/or tele-conferencing twice a year to proactively strengthen the close co-operation among the three sides on the planning and implementation of air traffic management in the PRD region, enhance communication at the top management level, and synergy in overall planning, and foster co-operation in the PRD region; and

(2) Air traffic control technical personnel of the three sides will have more interaction and communications where necessary, share experience with each other, and conduct more meetings and exchanges at the technical level, with no limitation on the scale and number of meetings to be held.

Professor Cheung said at the signing ceremony that the agreement on the strengthened liaison mechanism to enhance co-operation and exchange helped to take forward the PRD Region Air Traffic Management Planning and Implementation Plan progressively and was also one of the means to implement the Guiding Opinions of the State Council on Deepening the Cooperation within the Pan-PRD Region. The signing of the agreement marked an enhanced partnership among the Mainland, Hong Kong and Macau in the planning of airspace resources in the PRD region which helped strengthen synergies, ensure efficient use of the airspace, and bring mutual benefits, thus achieving a win-win situation. Together, a world-class airport cluster in the PRD region would be built and the unique strengths of the region would be given full play.

Mr Wang noted that over the years, the Mainland, Hong Kong and Macau have all along been maintaining close working relationships and have established a good rapport in the field of civil aviation. The signing of the agreement on the strengthened liaison mechanism to enhance co-operation and exchange among the civil aviation authorities in the Mainland, Hong Kong and Macau on air traffic management is a good example. In line with the concept of "Innovation, Co-ordination, Integration and Mutual Benefits", the CAAC will work with the civil aviation authorities in Hong Kong and Macau to create a safer, smoother and healthier environment for sustainable development of the civil aviation industry in the PRD region through the approach of collaborative decision making, coordinated operations and development.

Professor Cheung also held a meeting today with Mr Wang to exchange views on various issues, including enhancement

of flight procedures and airspace structure of the PRD region, optimising the airspace utilisation in the region, and the three-runway system (3RS) project at the Hong Kong International Airport. Mr Wang said that, under the national directive of supporting the development of the 3RS project, the CAAC will provide full support with the aim of enabling the 3RS to maximise its potential and achieve the target runway capacity of 102 air traffic movements per hour in the long run.

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