

For Information

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

Issues Raised at the meeting on 15 March 2016

Introduction

In discussing LC Paper No. CB(4)704/15-16(01) at the meeting on 15 March 2016, the Airport Authority Hong Kong (“AAHK”) undertook to provide the following additional information as per Members’ request :

- (a) how to ensure that the new systems for the three-runway system (“3RS”) will be compatible with the existing ones;
- (b) whether passengers would make use of the existing immigration halls in Terminals 1 and 2 for immigration clearance and whether such facilities would have to be modified; and
- (c) the modifications to be made to Terminal 2 (“T2”) and the associated costs.

AAHK now provides the information in paragraphs 2 to 9 below.

(a) System Compatibility Assurance

2. A comprehensive control and integration plan for all the new and expanded airport systems, including the Baggage Handling System (“BHS”), will be designed and implemented holistically with due consideration of the interfaces and compatibility between the new and existing systems. In particular, extensive integrated commission testing will be conducted to ensure the systems are functioning properly and seamless before putting in operation.

3. Similar control and integration plan was successfully implemented for the Automated People Mover (“APM”) system¹ and the BHS at the recently commissioned Midfield Concourse. (The Midfield Concourse is an extension to the existing Terminal 1 (“T1”) which is designed to serve an additional 10 million passengers per year.)

(b) Immigration Facilities

4. T1 and T2 will have separate immigration facilities. The existing immigration facilities in T1 will remain unchanged. However, as part of the 3RS project, the existing T2 will be modified and expanded to provide arrivals, departures and full-fledged passenger services to further support increased passenger demand. As such, new immigration facilities will be provided in the modified/expanded T2 to cater for the increased passenger flow. AAHK has been working closely with relevant Government departments to finalise the detailed arrangement for the immigration facilities in T2 for the 3RS project.

(c) Modification/Expansion of Terminal 2

5. The original Sky Plaza project was first conceived under AAHK’s Hong Kong International Airport (“HKIA”) Master Plan 2020 (“MP2020”), which recommended, among other things, the development of a commercial complex to strengthen HKIA as a regional aviation hub with quality facilities for passengers and the airport community. Along this line of planning, the AAHK Board approved the SkyPlaza project (subsequently renamed T2) in 2003. The planning intention at that time was that, on full development, T2 would be an inter-modal transportation node, providing integrated transit services to passengers for air, land and sea transportation, with a view to expanding HKIA’s catchment areas to the Pearl River Delta area. At the same time, T2 should also supplement and support T1 in the provision of check-in/departure facilities. Construction works commenced in 2003 and the project was completed in 2007.

6. It should be noted that MP2020 was drawn up in 2001, long before the 3RS was contemplated. Even when construction of T2 commenced in 2003, the 3RS was not on the drawing board. The need for the 3RS was only established in HKIA Master Plan 2030 which was published in 2010.

¹ The APM system for the 3RS will be operating independently from the existing system and will not have compatibility issues.

7. As foreshadowed in paragraph 4, the existing T2 building will be modified and expanded to provide full-fledged passenger services as part of the 3RS project. The need to modify and expand T2 has been examined in great detail. During the 3RS Scheme Design, a total of eight different approaches to modify/expand T2 have been reviewed. The current scheme was selected on the basis that it will be able to achieve better overall environmental results, minimise disturbance to passengers and the operation of the terminal during works. The scheme is considered absolutely necessary for the overall operational efficiency of the 3RS. The modified/expanded T2, together with the existing 70 million passengers per annum (“mppa”) design capacity of T1, can handle a total of 100 mppa and would be able to meet demand up to 2030.

8. It is estimated that the existing construction floor area of about 180,000m² at T2 will be expanded to about 300,000m² to handle the additional 30mppa. Careful consideration has been given to retaining the existing structures and facilities. According to the latest design, the entire T2 foundation, substructures, office blocks, tour coach hall and tour coach station at Level 3, together with most of the building services facilities and airport system works, such as generators and transformers, chillers, lifts etc, could be retained. Other floor levels will also be retained as far as possible but with modifications necessary to suit the expanded T2 layout. In summary, about 60% of the original T2 structure could be preserved and reused. Materials demolished from the T2 would be reused or recycled in the 3RS project wherever possible.

9. The cost for modifying/expanding T2 is estimated to be about HK\$16.5 billion (in money-of-the-day (“MOD”) prices), with breakdown as follows :

Scope of Works for T2 Modification/Expansion	MOD (HK\$B)
1. Foundation, Basement and Structure	5.7
2. Architectural Works	4.2
3. Electrical and Mechanical and Airport Systems Works	6.6
Total :	16.5

(d) Other Information

10. In addition to the above requested information, AAHK was also requested to provide the following:

- (a) Executive Summary of the Carbon Emission Study on the Hong Kong International Airport; and
- (b) assessment of the environmental impact of the seawater cooling system for the Third Runway Concourse and related terminal facilities on Chinese White Dolphins (“CWD”).

11. The executive summary of the Carbon Emission Study is available on AAHK’s website at http://info.threerunwaysystem.com/pdf/en/hkia_carbon_emissions_study_airport_emissions_management_report_executive_summary.pdf.

12. The potential environmental impacts associated with the seawater cooling system of the 3RS project were examined in detail and presented in Chapter 8 “Water Quality Impact” of the 3RS Environmental Impact Assessment (“EIA”) Report at http://www.epd.gov.hk/eia/register/report/eiareport/eia_2232014/html/Ch%208%20-%20Water%20Quality.pdf. Relevant details are presented in Section 8.4.5 (assessment criteria); Sections 8.6.7 and 8.6.8 (assessment methodology); and Sections 8.7.2.27 to 8.7.2.37 (water quality assessment findings).

13. The corresponding assessment findings on marine ecology (including CWD) are presented in Sections 13.8.4.17 to 13.8.4.24 of the 3RS EIA Report accessible at the link http://www.epd.gov.hk/eia/register/report/eiareport/eia_2232014/html/Ch%2013%20-%20Marine%20Ecology.pdf.

Advice Sought

14. Members are invited to note the additional information set out in this paper.

**Airport Authority Hong Kong
April 2016**