

**For discussion
on 26 November 2007**

Legislative Council Panel on Economic Development

Development of a new Civil Aviation Department Headquarters on the Airport Island

PURPOSE

This paper briefs Members on the details of a project in the Public Works Programme (75KA “New Civil Aviation Department headquarters”) to construct a new Civil Aviation Department (CAD) headquarters on the Airport Island (the project).

BACKGROUND

2. We briefed Members on 26 February 2007 on a proposal to replace the existing Air Traffic Control (ATC) system of CAD and to develop a new CAD headquarters building on the Airport Island to house the new ATC system and all functional divisions of CAD. At present, CAD’s functional divisions are scattered at different locations, which adversely affects the operational efficiency of the department.

3. At the time, we informed Members that the details of the project were being finalized and that we would revert to Members on the project in the fourth quarter of 2007. Members generally supported the proposal. On 11 May 2007, the Finance Committee (FC) approved funding for replacing the ATC system.

PROJECT SCOPE AND NATURE

4. The scope of the project comprises –
- (a) the construction of a new CAD Headquarters building of about 65 000 square metres (m²) in construction floor area (CFA) or 22 775 (m²) in net operational floor area (NOFA) to provide for –

- (i) offices of total NOFA of about 3 428 m²;
 - (ii) ATC facilities of total NOFA of about 10 923 m², including an ATC centre, its supporting equipment, systems and facilities; an aeronautical information centre; an aircraft search and rescue coordination centre; an aeronautical network centre;
 - (iii) other facilities of total NOFA of about 8 424 m², including aircraft accident investigation facilities; training and examination facilities; operational evaluation, research and development facilities; a multi-purpose auditorium; conference facilities; a library cum resource centre; an ATC tour presentation room and an educational path; a staff canteen; ancillary facilities; and car parking spaces;
- (b) the alteration of the Backup ATC Complex; and
 - (c) the reinstatement of the existing CAD offices.

A site layout plan is at **Enclosure 1**. We plan to start the construction works in September 2008 for completion in December 2011. The installation, testing and commissioning of the new ATC system will commence in April 2011. Upon satisfactory testing and acceptance of the new ATC system, the new headquarters building and the new ATC centre will be commissioned by end 2012.

JUSTIFICATIONS

5. As explained to Members in February 2007, we need to replace the existing ATC system which is approaching the end of its usable life and cannot handle the forecast air traffic beyond 2012. It is not feasible to replace the existing system on site because the new ATC system requires space three times the size of the existing ATC centre. We are also concerned about possible disruption to the daily round-the-clock operation of the existing ATC Centre. We therefore need to construct a new building to house the new ATC system. As advised by Members in February 2007, additional space has been earmarked to cater for the replacement of the new ATC system in the

future and further expansion requirements arising from the growth in air traffic.

6. The opportunity is also taken to relocate CAD's functional divisions, which are scattered at various locations (see details at **Enclosure 2**), under one-roof. Aviation is a highly specialised and multi-disciplined industry. Its regulation requires close collaboration among different functional divisions of CAD. A co-located CAD headquarters will enhance productivity and improve the services to the aviation industry. The existing Control Tower and the ATC Backup Complex on the air-side of the Hong Kong International Airport (HKIA) will remain where they are, to provide air traffic controllers with a close and unobstructed view of the runways, taxiways and airport apron.

7. Moreover, it is necessary to add new facilities to meet operational requirements, including –

- (a) aircraft accident investigation facilities. Aircraft accident investigation is one of CAD's major responsibilities. It is specialised and time-critical, requiring close coordination and extensive technical support among different professions in the collection and analysis of evidence. Reassembling the critical parts of recovered wreckage to its original shape can greatly facilitate the necessary examination, surveying and testing. The new CAD headquarters building should be provided with dedicated facilities for this purpose;
- (b) a multi-purpose auditorium and conference facilities for hosting international and regional aviation conferences and meetings. At present, the department is constrained by the need to rent or borrow outside venues. The International Civil Aviation Organisation (ICAO) promotes awareness of new regulatory requirements in civil aviation through seminars, workshops and training courses. ICAO welcomes assistance from its members in the form of providing venues for this purpose. With the new facilities, CAD will be able to play a more active role on this front, thereby further enhancing our status as an international and regional aviation centre;

- (c) an ATC tour presentation room and an educational path. To promote understanding and cultivate interest in aviation among the general public, CAD organises tours of its ATC facilities from time to time. The new facilities will allow the display of interesting elements such as aircraft models, photos and small antique aircraft/engines parts to enhance the attractiveness and effect of these tours; and
 - (d) a library cum resource centre. At present, because of a lack of space, a large volume of books, reports and other aviation related documents are kept in stores. The new facility will enable CAD to better use such information and resources. Part of the reading materials will be made available to the industry and, where warranted, individual members of the public.
8. The new CAD headquarters will be located on the land-side of HKIA, on a site allocated by the Airport Authority (AA) at no cost to the Government at the southeastern part of the Airport Island (to the north of the Dragonair and China National Aviation Corporation Building).

FINANCIAL IMPLICATIONS

9. We estimate the total capital cost of the project to be \$1,997.0 million in money-of-the day (MOD) prices, made up as follows –

	\$ million
(a) Site works	10.1
(b) Foundations	126.8
(c) Building	752.0
(d) Building services	534.1
(e) Drainage	16.1
(f) External works	143.4

	\$ million	
(g) Alteration works to the Backup ATC Complex	8.5	
(h) Furniture and equipment ¹	140.0	
(i) Reinstatement of existing CAD offices	15.6	
(j) Consultants' fees for construction stage	7.5	
(k) Contingencies	160.0	
	Sub-total	1,914.1 (in September 2007 prices)
(l) Provision for price adjustment	82.9	
	Total	1,997.0 (in MOD prices)

10. Upon the commissioning of CAD headquarters, about 1 730 m² of rented office accommodation and four rented car parking spaces could be released, resulting in rental savings of about \$3.7 million per year, and about 1 040 m² of rent-free office accommodation at the HKIA Passenger Terminal Building could be returned to AA, resulting in possible management charge savings of about \$0.4 million per year. In addition, about 5 700 m² of government owned office accommodation and 38 Government owned car parking spaces could also be released for use by other departments.

¹ Based on an indicative list of furniture and equipment items required, including a security system, audio-visual systems, a public address system, a simultaneous interpretation system, mobile emergency power generators, mobile-storage racks, a Radio-frequency Identification (RFID) library system and furniture for aircraft accident investigation facilities, ATC tour presentation room, educational path, staff canteen, library cum resource centre and general offices.

PUBLIC CONSULTATION

11. The proposal has the general support of the Aviation Development Advisory Committee and the aviation industry, including the International Air Transport Association, Board of Airline Representatives, AA, Airline Operators Committee, airlines holding the Air Operator's Certificates issued by CAD, Hong Kong Aircraft Engineering Co. Ltd. and Hong Kong Air Traffic Control Association². CAD has also informed the Islands District Council of the proposal.

LAND ACQUISITION

12. The project does not require any land acquisition.

Way Forward

13. Subject to Members' views, we intend to upgrade **75KA** to Category A at an estimated cost of \$1,997.0 million in MOD prices by going to the Public Works Sub-Committee and FC in December 2007 and January 2008 respectively.

Transport and Housing Bureau November 2007

² Some representatives of the aviation industry are concerned about the possible increase in ATC and En-route Navigation Charges resulting from the financial investment by CAD and have asked for greater transparency in any adjustment to these charges in future. Nevertheless, the industry representatives generally support the replacement of the ATC system and the building of a CAD headquarters on the Airport Island, which they agree will help sustain the healthy growth of the aviation industry.

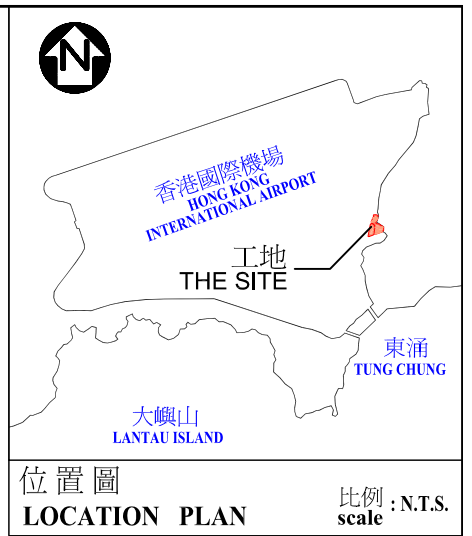
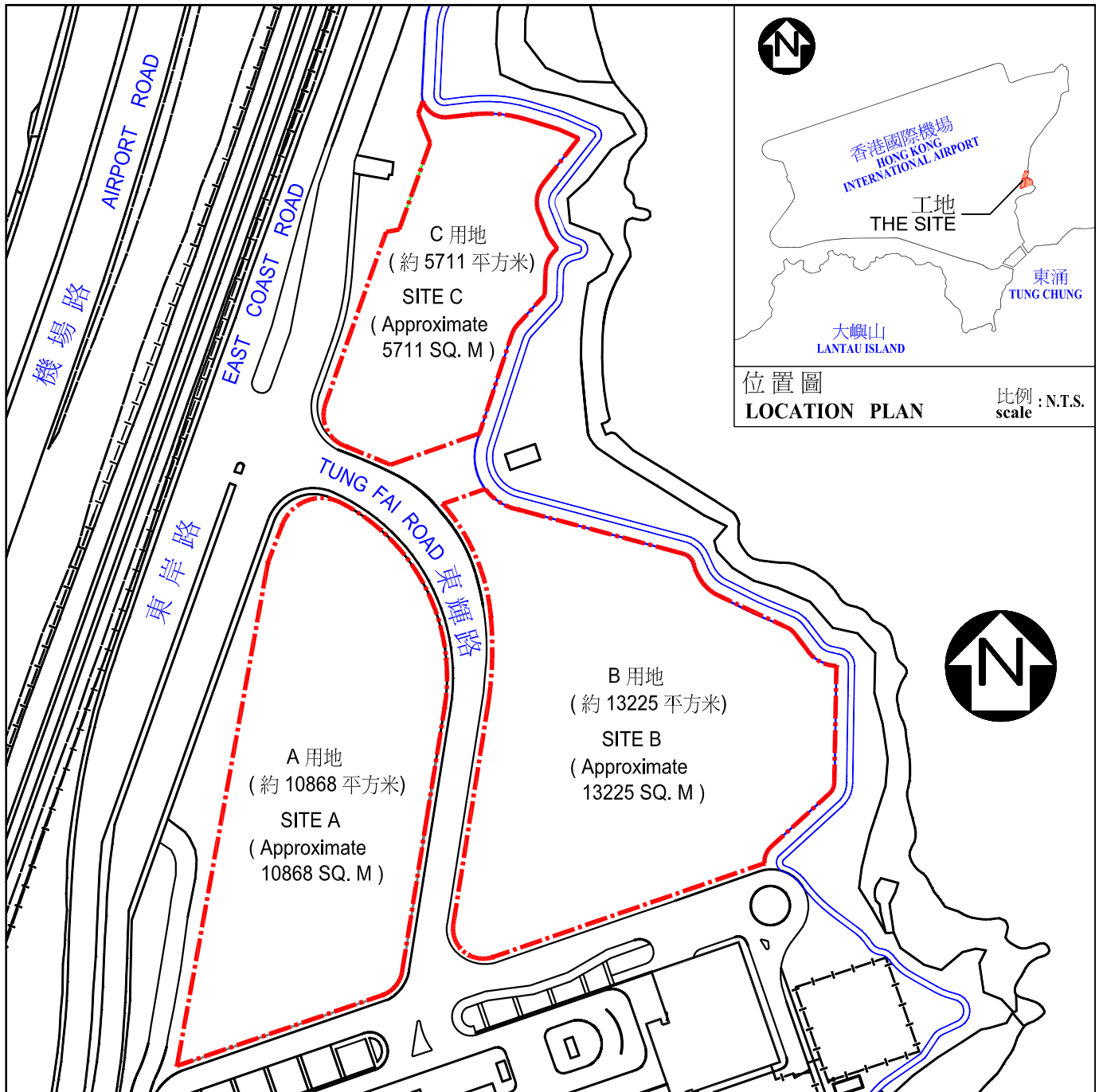
As we explained to Members in February 2007, given the expected increase in the number of flights using HKIA, it is estimated that the replacement of the ATC system together with the development of a new CAD headquarters will only result in a mild increase of less than \$300 in the cost per flight using HKIA, or about 6% of the existing figure. Likewise, it is not envisaged that the en-route navigation charge, currently at \$4.8 per nautical mile, will see any significant change arising from the project when the increased costs are expected to be cancelled out by the increased traffic.

Civil Aviation Department Headquarters

民航處總部

Location Plan

位置圖



Existing Locations of Civil Aviation Department Offices

Location	Premises	Major Formations
HKIA, Lantau	ATC Complex	Air Traffic Control Centre Air Traffic Control Tower* Aeronautical Information Centre Aeronautical Network Centre Search and Rescue Coordination Centre Air Traffic Management Division's Training Unit Offices of Air Traffic Management Division
	Backup ATC Complex	Backup Air Traffic Control Centre* Backup Air Traffic Control Tower* Staff cafeteria
	Passenger Terminal Building	Offices of Airport Standards Division Offices of Airport Administration Unit
	Air Freight Forwarding Centre	Offices of Flight Standards and Airworthiness Division Offices of Engineering and Systems Division
Queensway, Hong Kong	Queensway Government Offices	Director-General of Civil Aviation's office Offices of the Air Services Division Offices of the Administration Division Offices of the Finance Division

(* Facilities that will not be re-located as part of this project)