

**立法會**  
**Legislative Council**

LC Paper No. CB(4)197/16-17(02)

Ref : CB4/HS/2/16

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

**Background brief on issues relating to the development of  
the three-runway system at the Hong Kong International Airport**

**Purpose**

This paper provides background information on the development of the three-runway system ("3RS") at the Hong Kong International Airport ("HKIA") and deliberations of the Subcommittee to Follow Up Issues Relating to the Three-runway System at the Hong Kong International Airport under the House Committee of the Fifth Legislative Council ("the former Subcommittee").

**Background**

Key milestones of the 3RS project

2. HKIA is operated and maintained by the Airport Authority Hong Kong ("AAHK"), a statutory body wholly owned by the Government and whose functions, powers and duties are governed by the provisions of the Airport Authority Ordinance (Cap. 483) ("AAO").

3. To meet future air traffic growth, AAHK has been planning to expand HKIA into a 3RS system since 2008. In June 2011, AAHK published the HKIA Master Plan 2030 which outlined HKIA's future development options. A three-month public consultation was carried out to collect views and feedbacks of the public. 73% of the respondents supported the proposal to expand HKIA into a 3RS system.

4. On 20 March 2012, the Executive Council granted AAHK its in-principle approval to adopt, for planning purpose, 3RS as the future development direction for HKIA.

5. In August 2012, AAHK received the Environmental Impact Assessment ("EIA") Study Brief from the Director of Environmental Protection ("DEP") which sets out the scope of environmental issues to be addressed in the EIA study. Based on the Study Brief, AAHK commenced the EIA study covering 12 environmental areas<sup>1</sup>, assessing the potential environmental impact of the project.

6. AAHK submitted the 3RS EIA Report to the Environmental Protection Department in April 2014. The 3RS EIA Report was available for the public to inspect from June to July 2014.

7. On 7 November 2014, DEP approved the 3RS EIA Report and issued the associated Environmental Permit which sets out a number of conditions covering proposed environmental mitigation measures, enhancement initiatives, monitoring, and submission requirements during different stages of the project.

8. At the meeting on 17 March 2015, the Executive Council affirmed the need for the 3RS project at HKIA and, at the same time, requested AAHK to further refine the financial arrangement proposal to optimize borrowing from the market with a view to lowering the Airport Construction Fee ("ACF") level.

9. On 8 May 2015, the Lands Department issued a Government Notice for the reclamation works of HKIA's expansion into a 3RS. In addition, the Town Planning Board issued a Government Notice announcing the amendments to the approved Chek Lap Kok Outline Zoning Plan.

10. On 29 September 2015, AAHK announced the revised financial arrangements for 3RS, including the new proposed level of ACF.

11. On 26 April 2016, the Chief Executive-in-Council granted the approval for the draft Chek Lap Kok Outline Zoning Plan, as well as the authorization of the reclamation under the Foreshore and Sea-bed (Reclamations) Ordinance (Cap. 127).

---

<sup>1</sup> The 12 environmental areas include (i) air quality; (ii) hazard to human life; (iii) noise impact; (iv) water quality; (v) sewerage and sewage treatment; (vi) waste management; (vii) land contamination; (viii) ecology (terrestrial and marine ecology, including Chinese White Dolphins); (ix) fisheries; (x) landscape and visual; (xi) cultural heritage; and (xii) health impact (air emissions and aircraft noise).

## Overview of the 3RS project

12. As advised by AAHK, the 3RS project is more than building an additional runway. It includes the following seven core components –

- (a) formation of approximately 650 hectares of land north of the existing airport island by reclamation;
- (b) construction of the third runway, taxiways and apron;
- (c) construction of the third runway concourse ("TRC") with 57 parking positions upon 3RS commissioning;
- (d) modification/expansion of the existing Terminal 2 ("T2") and construction of associated road network;
- (e) provision of a new Automated People Mover System and an integrated maintenance depot;
- (f) provision of a new high-speed Baggage Handling System serving TRC and T2; and
- (g) construction of airport support infrastructure, utilities and facilities.

The construction of the 3RS project will take some eight years to complete, counting from the date when reclamation commences.

## Cost and financial arrangements

13. Having critically reviewed the scope of the 3RS project and on completion of the scheme design, AAHK estimated the capital cost of the 3RS to be approximately \$141.5 billion in money-of-the-day prices, i.e. after taking into account expected price inflation over the period up to expected completion of 3RS in 2023-2024, assuming an eight-year construction period commencing in 2016-2017.

14. When devising the financial arrangements, AAHK has adopted the "joint contribution" principle, i.e. users of HKIA, including passengers, airlines and operators at HKIA should contribute to the project cost. AAHK has proposed to fund 3RS through the following three sources:

- (a) retaining AAHK's operating surplus including, inter alia, reviewing and optimizing existing fees and charges;

- (b) introducing a new ACF; and
- (c) raising third party debts from the market leveraging on AAHK's financial capability and excellent credit rating.

*Retaining operating surplus*

15. AAHK intends to optimise all its revenue sources, including the airport charges which would be brought back to the level of 16 years ago (when the charges were reduced in January 2000 due to the Asian Financial Crisis), with subsequent increases to be introduced in line with inflation. AAHK plans to retain all distributable profits from 2014-2015 onwards until the commissioning of 3RS (assuming a project construction period of eight years which commences in 2016-2017).

16. AAHK estimates that about \$47 billion (or 33%) of the required capital funding for the 3RS project would be raised through optimising revenues and retaining distributable profits.

*Introducing a new ACF*

17. ACF is collected on air tickets issued on or after 1 August 2016 as part of the financial arrangement for 3RS. Airlines will collect ACF from departing passengers, including origin/destination and transfer/transit, at HKIA when air tickets are issued. The ACF collection will be in effect until all borrowings related to the 3RS project are fully repaid. The charging rate of ACF is fixed throughout the collection period. A table summarizing the charging mechanism of the ACF regime is set out as below:

ACF (HK\$ per departing passenger)	<b>Origin/Destination</b>	<b>Premium Class</b>	<b>Economy Class</b>
	Long	\$180	\$160
	Short	\$160	\$90
	<b>Transfer/Transit</b>	<b>Premium Class</b>	<b>Economy Class</b>
	Long	\$180	\$160
Short	\$160	\$70	

18. AAHK estimates that about \$26 billion (or 18%) (net of tax) of the capital funding requirement of the 3RS project would be raised through the implementation of ACF.

### *Raising funds from the market*

19. Taking account of the funding sources outlined in paragraphs 15 to 18 above, there remains a funding shortfall of \$52 billion. To fill this funding gap, AAHK needs to resort to borrowing/raising funds from the market. Together with the estimated borrowing cost of \$17 billion, the total incremental borrowings will be \$69 billion which will be raised from the market by phases subject to the 3RS capex phasing.

20. AAHK has assessed its borrowing capability taking into account potential impact to AAHK's credit rating and ensuring compliance with AAO. It has come to the view that it would be viable to increase borrowing incrementally to \$69 billion, which would bring its maximum debt level to \$77 billion in the 2023-2024 financial year ("FY") or around 4.5 times EBITDA in FY2022-2023. AAHK has access to a wide range of funding options, including bank and bond markets. These markets have sufficient liquidity to fund the \$69 billion incremental debt required by AAHK.

### Subcommittee to Follow Up Issues Relating to the Three-runway System at the Hong Kong International Airport under the House Committee of the Fifth Legislative Council

21. In view of the wide public concern about 3RS and as the issues involved various policy areas, the House Committee ("HC") of the Fifth Legislative Council ("LegCo") appointed the former Subcommittee at its meeting on 15 May 2015.

22. The former Subcommittee focused its work on the feasibility of 3RS, its scope and design details, financial arrangement, existing capacity of HKIA, environmental impacts, and related matters. The deliberations of the former Subcommittee covered the need, urgency and economic benefits of 3RS; enhancement and runway capacity of the existing two-runway system; "air wall" constraint and Pearl River Delta airspace; the new air traffic control system at the Civil Aviation Department; scope, cost and financial arrangement plan of the 3RS project; mitigation and enhancement measures in connection with the conservation of marine ecology and Chinese White Dolphins; aircraft noise impact on North Lantau; compensation for affected villages; green features for TRC and related terminal facilities, as well as innovation and technology in HKIA.

23. At the meeting of the former Subcommittee held on 12 April 2016, the following motion was passed:

"As the overall runway capacity of the Hong Kong International Airport under a Three-runway System operation was based on the "Pearl River Delta Region Air Traffic Management Planning and Implementation Plan (Version 2.0)" ("the 2007 Plan") signed by Hong Kong, the Mainland and Macao, this Subcommittee requests the Government to provide this Subcommittee with the content of the 2007 Plan concerning the basis for coming up with 102 air traffic movements per hour."

24. The Administration's response to the motion passed is in **Appendix I**.

25. The former Subcommittee completed its work in June 2016 and put forward a total of 45 recommendations in its report to HC (LC Paper No. CB(4)1123/15-16). A summary of the recommendations is in **Appendix II**.

26. Three members of the former Subcommittee, namely Hon WU Chi-wai, Hon Albert HO and Hon SIN Chung-kai considered that the former Subcommittee's report, which represented the views of the majority of the Subcommittee, did not reflect their diverse views. They had therefore submitted an alternative report setting out their views on issues relating to the subject matter (LC Paper No. CB(4)1131/15-16(01)).

### **Council questions**

27. At the Council meetings on 15 October 2014, 4 February 2015, 15 and 22 April 2015, 27 May 2015, 8 July 2015 and 25 November 2015, Hon Kenneth LEUNG, Hon Gary FAN, Dr Hon KWOK Ka-ki, Hon Regina IP, Hon Albert CHAN, Hon YIU Si-wing and Hon Jeffrey LAM raised questions about, inter alia, development and funding proposal of 3RS, aircraft noise, capacity and nearby developments of HKIA, and shortage of construction workers. Hyperlinks to the relevant written replies from the Administration are provided in **Appendix III**.

## **Latest development**

### Subcommittee to Follow Up Issues Relating to the Three-runway System at the Hong Kong International Airport under the House Committee of the Sixth Legislative Council

28. At its meeting on 28 October 2016, HC of the Sixth LegCo endorsed the appointment of a subcommittee under HC ("the Subcommittee") to study and follow up issues relating to 3RS at HKIA, including the feasibility of 3RS, its scope and design details, financial arrangement, existing capacity of HKIA, environmental impacts, and related matters. According to the work plan approved by HC, the Subcommittee will focus its work on the following areas –

- (a) scope and design details of 3RS;
- (b) economic benefits, financial arrangement and implementation of funding proposals of 3RS;
- (c) arrangement, use and management of airspace and the relevant waters;
- (d) arrangement to enhance the capacity of HKIA;
- (e) environmental impacts; and
- (f) follow-up on the report of the former Subcommittee.

## **Relevant papers**

29. A list of relevant papers which are available on the LegCo Website (<http://www.legco.gov.hk>) is in **Appendix III**.

**The Administration's response to the motion passed  
at the meeting on 12 April 2016  
(Source: LC Paper No. CB(4)1021/15-16(01))**

**For Information**

**Legislative Council Subcommittee  
to Follow up Issues Relating to the  
Three-runway System at the Hong Kong International Airport  
  
Motion Passed at the Meeting on 12 April 2016**

**Introduction**

At the Subcommittee meeting held on 12 April 2016, the following motion was passed –

“As the overall runway capacity of the Hong Kong International Airport (HKIA) under a Three-runway System (3RS) operation was based on the Pearl River Delta (PRD) Region Air Traffic Management Planning and Implementation Plan (Version 2.0) (the 2007 Plan) signed by Hong Kong, the Mainland and Macao, this Subcommittee requests the Government to provide this Subcommittee with the content of the 2007 Plan concerning the basis for coming up with 102 air traffic movements per hour.”

This paper sets out the Government’s response.

**Background**

2. The National Air Traffic Services (NATS)<sup>1</sup> was commissioned by the Airport Authority Hong Kong in 2008 to conduct the Airspace and Runway Capacity Study (ARCS) to assess the maximum practical hourly capacity of the 3RS.

**Basis for runway capacity derivation of the 3RS**

3. The runway capacity of HKIA under 3RS is determined by a number of factors: surrounding terrain, minimum separation between aircraft operating on the runways, the mode of operation of each runway

---

<sup>1</sup> NATS is a British aviation expert consultant.



which may be arrivals only (A), departures only (D) or mixed mode (MM) comprising arrivals and departures.

4. Taking into account HKIA's special circumstances (for example, the surrounding terrain constraint, congested airspace, the aircraft mix at HKIA, etc.) and the need to comply in full with the International Civil Aviation Organisation (ICAO)'s safety and minimum separation requirements, NATS calculated the potential runway capacity for each of the three runways considered individually.

5. After studying various possible modes of operations, NATS concluded that the primary mode of operations of the 3RS should be the one offering the highest balanced capacity between Departures and Arrivals, which would see the North/Centre/South runways operating in A/D/MM respectively, giving 33 + 35 + 34 movements per hour, i.e. a total of 102 movements per hour. This is the highest balanced capacity that can be achieved for the 3RS under independent operation. The full ARCS Reports, which were made public in July 2011, can be accessed via HKIA's website: [http://www.threerunwaysystem.com/tc/Information/Consultancy\\_reports.aspx](http://www.threerunwaysystem.com/tc/Information/Consultancy_reports.aspx). Paragraphs extracted from the ARCS reports which are of particular relevance to the above are at Annex A.

6. In summary, the maximum practical hourly capacity of the 3RS, i.e. 102 movements per hour, was derived by NATS via the ARCS in 2008, which had taken into consideration the projected flight tracks anticipated in the 2007 Plan. The projected flight tracks extracted from the ARCS Reports can be found in Annex B.

**Civil Aviation Department**  
**May 2016**

**Annex A**

**Extracted from NATS ARCS Phase 1b Report**

**11 STAGE 3: THREE RUNWAY OPERATIONS**

**11.1 Initial Investigation of Modes of Operation**

The modes of operation are described for each runway from North to South.

Mode of Operations may be Arrivals only (**A**), Departures only (**D**) or Mixed Mode Arrivals and Departures (**MM**).

For a 3-runway airport each runway is, in theory, capable of operating in one of these three modes, resulting in 27 potential operating modes. These 27 modes have been placed in a table and each mode evaluated for operability and capacity. At the end of this process a number of core operating modes are identified as suitable for further investigation.

**11.2 Detail Review of Modes of Operation for each Runway Option**

The three runway options (including variants) have been assessed based on the modes of operation selected from the initial review. The issues have been identified and a number of mitigation measures have been proposed. The capacity of each mode of operation, after implementation of these mitigations has then been assessed.

The review has been undertaken by developing a table for each runway option, for each mode of operation and in both the Runway 25 and the Runway 07 directions. The SOIR compliance issues in respect of parallel approaches, departures, missed approaches and wake vortex are identified in each case. Possible mitigations are then proposed where appropriate and considered to be viable.

Each table contains an assessment of the potential capacity of the airport operating in the chosen mode of operation on the assumption that the issues have been resolved. A final table for each option describes the primary mode of operation and the actual capacity that is likely to be achieved. Due to the significant and complex nature of the issues, particularly the interaction between the various issues, these capacity figures may be significantly lower than the theoretical maximum capacity.

The detailed review and the tables developed are contained in Appendix B.

The result of this is a review of the development of a recommended mode of operation for each runway option. This includes a recommended primary mode of operations where arrival and departure capacities are generally balanced. Modes of operation to deal with arrival and departure peaks are also recommended.

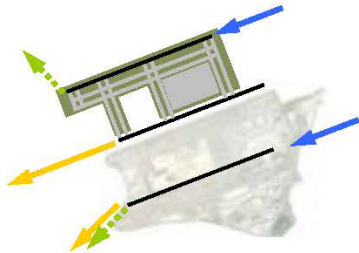
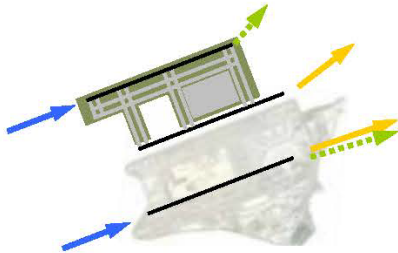
A summary of the review and these recommended modes are described below together with the mitigations that are required to operate these modes, and the capacity achieved with the mitigations in place.

### 11.3 Summary of the Review of Options P and R

Options P and R have the lowest number of SOIR compliant and operational issues. The outer runways are far enough apart to support Independent Parallel Operations using the proposed breakout manoeuvre. The arrival capacity of the dedicated arrival runway (07L/25R) has been assessed as 33 arrivals per hour for compatibility with the rest of the report. In practice, the improved consistency and reduced contingency margins proposed for two runways in segregated mode could also be applied to this runway which might result in the achievable arrival rate being slightly higher (up to around 36 arrivals per hour).

Significant issues that remain are the ability to apply 15 degrees separation between the missed approach and the SID tracks and the fact that the SIDs and missed approaches, while providing the required track separation, both turn in the same direction. A specific safety case is required to support these operations.

The analysis of Options P and R indicate that Mode 9 (MM/D/A) is the highest capacity mode. However, it requires a SID from Runway 07L that turns left by 30 degrees, and this creates a significant conflict with the Shenzhen circuit. As a result, Mode 9 is not recommended in the Runway 07 direction. This problem does not exist in the Runway 25 direction, as the Runway 25C SID can climb straight ahead, or turn only 15 degrees right, depending on the separation required from Runway 25L. Operating Mode 9 in one direction only does not provide any increase in the declared capacity, as only the lowest capacity can be declared. Operating different modes in each direction creates operational difficulties when changing runway direction and further complicated the process of terminal and runway allocations. As a result, Mode 23 is recommended as the primary mode of operations in both runway directions.

Options P & R		Mode 23 A/D/MM		Runway Separation 2240/1525m	
RECOMMENDED PRIMARY MODE OF OPERATION					
Runway 25 Direction			Runway 07 Direction		
					
Runway	Use	Capacity	Arrivals	Departures	
25R/07L	Arrivals	33/36*	33/36*	-	
25C/07C	Departures	35	-	35	
25L/07R	Mixed	34	17	17	
<b>Total</b>		<b>102/105*</b>	<b>50/53*</b>	<b>52</b>	

\*Note: up to 36 arrivals and total capacity up to 105 movements per hour with the reduction in contingency in the arrival spacing.

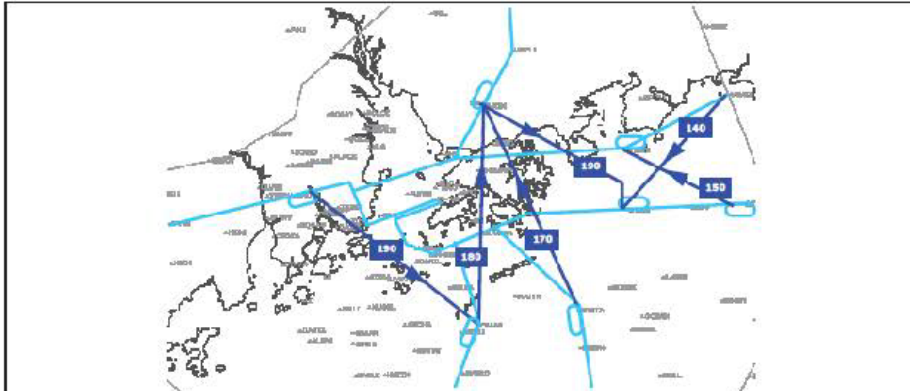
Note:

**Option P** – Wide Spaced Parallel Runway (2240m) Offset to the West

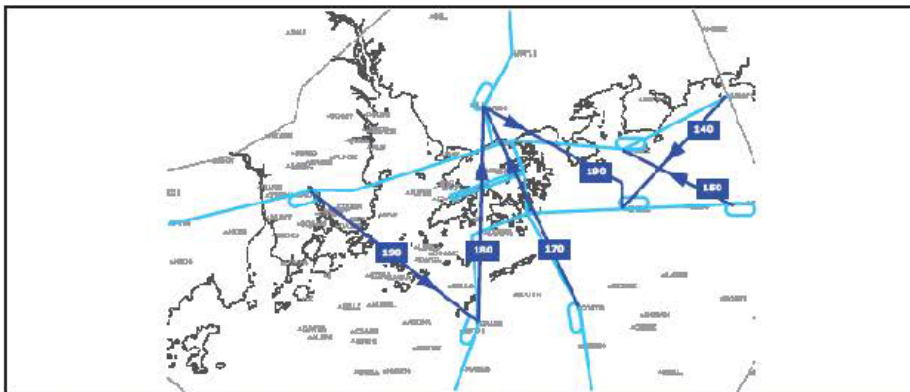
**Option R** – Parallel Runway at 1525m Offset to the West



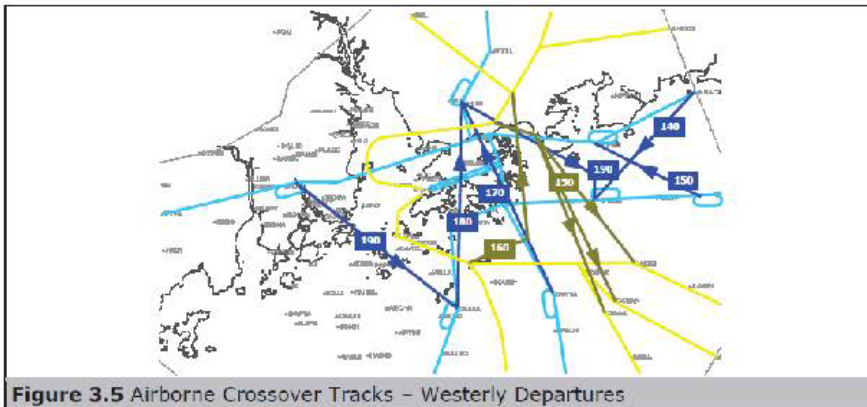
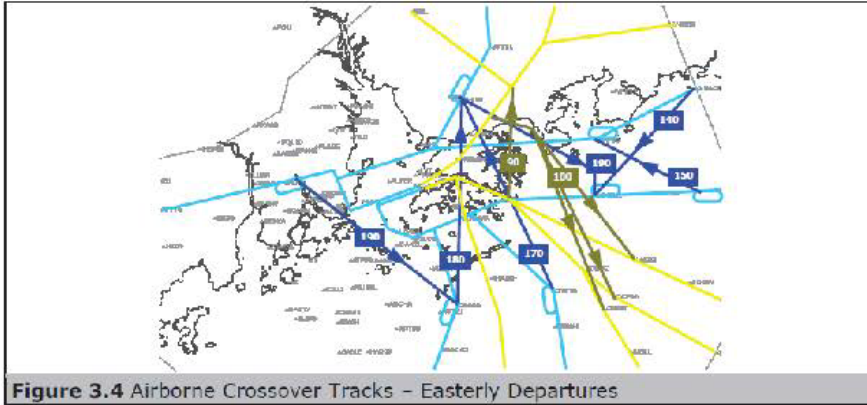
**Projected Flight Tracks for 3RS in NATS Report**



**Figure 3.2 Suggested Airborne Crossover Tracks – Easterly Arrivals**



**Figure 3.3 Suggested Airborne Crossover Tracks – Westerly Arrivals**



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

The Subcommittee to Follow Up Issues Relating to the Three-runway System at the Hong Kong International Airport of the Fifth Legislative Council recommended that –

Need and urgency of the three-runway system

- (a) the Administration and the Airport Authority Hong Kong ("AAHK") should step up efforts in explaining to members of the public, such as through the Community Liaison Groups, on why the development of the three-runway system ("3RS") is the best option to maintain Hong Kong's status as an aviation hub as well as long-term economic competitiveness, including the economic benefits foregone if 3RS is not pursued;

Enhancement of the existing two-runway system

- (b) AAHK should expeditiously come up with measures to enhance the capacity of the two-runway system prior to the full commissioning of 3RS, and report to the Legislative Council ("LegCo");

Runway capacity

- (c) the Administration should expeditiously come up with means to increase the runway capacity of 3RS before the full implementation of the "Pearl River Delta Region Air Traffic Management Planning and Implementation Plan (Version 2.0)" ("the 2007 Plan"), and report to LegCo;

Pearl River Delta airspace

- (d) the Administration should consider –
  - (i) providing more information on achieving the target maximum capacity of 102 air traffic movements per hour under the 3RS operation at the Hong Kong International Airport ("HKIA");
  - (ii) ensuring that Hong Kong's jurisdiction over its airspace would not be compromised through the implementation of the 2007 Plan;
  - (iii) allowing LegCo Members to have sight of the 2007 Plan in camera; and

- (iv) making public, where possible, the details, new development(s) and/or progress made in its discussion with the Mainland authorities concerned on taking forward the implementation of the 2007 Plan, particularly with regard to the "delegation of airspace" arrangement;

New air traffic control system at the Civil Aviation Department

- (e) The Administration should guarantee smooth and seamless transition of the existing air traffic control ("ATC") system to the new ATC system, including critically reviewing system safety, staff readiness and resources before finalizing the transition arrangement to commence in June 2016, so as to ensure that the new system will be launched only when the Civil Aviation Department has attained the highest level of system and staff readiness;

Project scope and cost

- (f) AAHK should -
  - (i) take all necessary project management and cost control measures, including measures to ensure timely and adequate supply of manpower and construction materials, to ensure that 3RS will be delivered within time and budget;
  - (ii) take all precautionary measures to ensure stability of the reclamation works for the 3RS project, with a view to avoiding possible technical problems as have occurred in the construction of the artificial island reclaimed for the Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities ("HZMB HKBCF") project;
  - (iii) retain the existing structures and facilities of Terminal 2 ("T2") as far as possible in expanding T2 into a full-fledged terminal serving departure, arrival and transfer operations;
  - (iv) encourage overseas architectural firm(s) engaged for the detailed design of the third runway concourse ("TRC") (as the case may be) to hire more local practitioners; and
  - (v) set aside more retail space in its terminals and concourses for shops selling local brand name goods;
- (g) the Administration should closely monitor and scrutinize AAHK's implementation of the 3RS project in view of its unprecedented scale, cost and complexity;

Connectivity

- (h) AAHK should ensure that -
  - (i) the connecting time for passengers arriving at and departing from TRC to T2, Terminal 1 or the Midfield Concourse and vice versa will be within 50 minutes; and



- (ii) the Baggage Handling System and Automated People Mover systems for 3RS will be compatible with the existing ones, so as to avoid the chaotic situation occurred during the commencement of HKIA in 1998;

#### Immigration arrangements

- (i) the Administration and AAHK should ensure that the new immigration facilities to be provided in the modified/expanded T2 will be adequate to cater for the increased passenger flow upon the full commissioning of 3RS;

#### Marine safety

- (j) AAHK should implement measures to ensure marine safety during the reclamation works for the 3RS project, so as to avoid the release of heavy construction objects to the water column and collisions between working vessels and other vessels, amongst others;
- (k) the Administration should step up monitoring of contractors' performance in complying with the conditions imposed by the relevant government departments in carrying out marine construction works;

#### Financial arrangement plan of the 3RS project

- (l) AAHK should consider –
  - (i) allocating a larger portion of its borrowings for funding the 3RS project in the form of retail bonds; and
  - (ii) issuing different types of bonds, such as green bonds and Islamic bonds, to reduce costs;
- (m) AAHK should periodically inform LegCo of the implementation of the financial arrangement plan for the 3RS project;

#### Mitigation and enhancement measures in connection with the conservation of marine ecology and Chinese White Dolphins

- (n) AAHK should closely monitor the compliance by SkyPier HSF captains that they have to reduce the speed of their vessels to 15 knots or below when crossing areas with high Chinese White Dolphin ("CWD") abundance; and AAHK should take enforcement actions to deter such non-compliance;
- (o) the Administration should –
  - (i) closely monitor the full compliance by AAHK of the conditions stipulated in the Environmental Permit ("EP") for the 3RS project to avoid, minimize and/or mitigate the impact of the construction of 3RS on marine ecology and CWDs; and

- (ii) work closely with AAHK to mitigate potential impacts on marine ecology and CWDs in Hong Kong waters, as the timing for implementing the reclamation works for the 3RS project may overlap with that of the HZMB HKBCF project the site of which is located to the north east of HKIA;

#### Marine ecology and fisheries enhancement strategy

- (p) AAHK should consider –
  - (i) increasing funding to the Fisheries Enhancement Fund ("FEF"), so that more money can be put under an endowment arrangement to generate more income to support FEF initiatives; and
  - (ii) having a more lenient funding criteria under FEF;
- (q) the Administration should –
  - (i) expedite the disbursement of ex-gratia allowance ("EGA") to fishermen whose livelihood is affected by marine works projects; and
  - (ii) review the existing mechanism for providing EGA to fishermen, in view of the longer time taken to complete a marine works project;
- (r) the Administration should study the proposal put forward by a fisheries association of amending the Marine Parks Ordinance (Cap. 476) to allow succession and transfer of marine park fishing permits, so as to promote sustainable fishing in Hong Kong;

#### Stakeholder engagement

- (s) AAHK should step up efforts in engaging those green groups, which have refused to join the Professional Liaison Group, on 3RS issues;

#### Illegal fishing activities within marine parks

- (t) the Administration should –
  - (i) step up regular patrolling at marine parks in Hong Kong and take enforcement actions, where appropriate, in combating illegal fishing activities within marine parks; and
  - (ii) where necessary, seek additional resources to enhance the effort in patrolling and enforcement;

#### Aircraft noise impact on North Lantau

- (u) AAHK should –
  - (i) introduce a noise charge scheme as soon as practicable to encourage airlines to use quieter aircraft types, particularly,

- during night-time, so as to mitigate aircraft noise nuisance on North Lantau, including Ma Wan and Tung Chung New Town; and
- (ii) expedite the completion of the third runway, so that the existing South Runway can be put on standby mode, where possible, at night then;
  - (v) the Administration should closely monitor the compliance by AAHK of all noise mitigation measures stipulated in the EP for the 3RS project;

#### Compensation for affected villages

- (w) AAHK should consider –
  - (i) reviewing the amount of one-off cash allowance to affected villages in North Lantau for the installation of double-glazed windows and air conditioners; and
  - (ii) removing the provision that the recipients could not hold the Government and AAHK liable for any nuisance or damage later caused to their living environment, having accepted the one-off cash allowance in (i) above;

#### Green features in HKIA

- (x) AAHK should consider –
  - (i) using more and the most efficient solar panels available in the market for TRC; and
  - (ii) exploring the possibility of using the Government's future Organic Waste Treatment Facilities in Siu Ho Wan of North Lantau to turn food waste collected on the airport island to useful compost products and biogas for energy generation;

#### Innovation and technology in HKIA

- (y) AAHK should –
  - (i) engage more local technology companies to develop new technologies for application at HKIA to enhance efficiency and operation; and
  - (ii) develop more personalized services for passengers, such as providing information on places to visit on Lantau Island through its mobile application "HKG MyFlight" and other means;

#### Manpower

- (z) the Administration and AAHK should –
  - (i) formulate measures, such as mapping out long-term manpower plans and the associated qualifications framework

- and developing better transport connectivity, to better facilitate and encourage more people to work at HKIA; and
- (ii) consult the views of the relevant stakeholders in the formulation of such measures; and

Way forward

- (aa) the next LegCo term should appoint a subcommittee under the House Committee to continue to follow up the above recommendations and issues relating to 3RS at HKIA.

*Source: Report of the Subcommittee to Follow Up Issues Relating to the Three-runway System at the Hong Kong International Airport formed under the House Committee of the Fifth Legislative Council (LC Paper No. CB(4)1123/15-16, pages 51-57)*

## List of relevant papers

Issued by	Meeting date/ Issue date	Paper
The Subcommittee to Follow Up Issues Relating to the Three-runway System at the Hong Kong International Airport of the Fifth Legislative Council	16 October 2015	<a href="#">LegCo brief</a> <a href="#">Background brief</a>
	3 November 2015	<a href="#">Administration's paper</a>
	1 December 2015	<a href="#">Administration's paper</a>
	5 January 2016	<a href="#">Administration's paper</a>
	16 February 2016	<a href="#">Administration's paper</a>
	15 March 2016	<a href="#">Administration's paper</a>
	12 April 2016	<a href="#">Administration's paper</a>
	17 June 2016	<a href="#">Report submitted by Hon Albert HO, Hon SIN Chung-kai and Hon WU Chi-wai (Chinese version only)</a>
House Committee	17 June 2016	<a href="#">Report of the Subcommittee to Follow Up Issues Relating to the Three-runway System at the Hong Kong International Airport Minutes</a>
Panel on Economic Development	24 March 2016	<a href="#">Administration's paper</a>

<b>Issued by</b>	<b>Meeting date/ Issue date</b>	<b>Paper</b>
Council Meeting	15 October 2014	<a href="#"><u>Council question on "Air traffic movements at the Hong Kong International Airport" raised by Hon Kenneth LEUNG</u></a>
	4 February 2015	<a href="#"><u>Council question on "Expansion of the Hong Kong International Airport into a three-runway system" raised by Hon Gary FAN</u></a>
	15 April 2015	<a href="#"><u>Council question on "Expansion of the Hong Kong International Airport into a three-runway system" raised by Dr Hon KWOK Ka-ki</u></a>
	22 April 2015	<a href="#"><u>Council question on "Funding proposal for the project to expand the Hong Kong International Airport into a three-runway system" raised by Hon Regina IP</u></a>
	27 May 2015	<a href="#"><u>Council question on "Aircraft noise" raised by Hon Albert CHAN</u></a>
	8 July 2015	<a href="#"><u>Council question on "The Hong Kong International Airport's capacity to receive visitors" raised by Hon YIU Si-wing</u></a>

<b>Issued by</b>	<b>Meeting date/ Issue date</b>	<b>Paper</b>
	8 July 2015	<a href="#"><u>Council question on "Development of North Commercial District and payment of relevant land premium by the Airport Authority" raised by Dr Hon KWOK Ka-ki</u></a>
	25 November 2015	<a href="#"><u>Council question on "Manpower shortage in the construction industry" raised by Hon Jeffrey LAM</u></a>