立法會
Legislative Council

LC Paper No.CB(4)205/17-18

Ref : CB4/HS/2/16

Paper for the House Committee

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

Purpose

This paper reports on the deliberations of the Subcommittee to Follow Up Issues Relating to the Three-runway System at the Hong Kong International Airport ("the Subcommittee").

Background

2. The Hong Kong International Airport ("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 three-runway system ("3RS") 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.

4. On 20 March 2012, the Executive Council ("ExCo") granted AAHK its in-principle approval to adopt, for planning purpose, the 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[1], 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 public inspection from June to July 2014.

7. On 7 November 2014, DEP approved the 3RS EIA Report and issued the associated Environmental Permit ("EP") 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, ExCo affirmed the need for the 3RS project at HKIA.

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 financial arrangement for the 3RS project.

11. On 26 April 2016, the Chief Executive-in-Council granted the approval for the draft Chek Lap Kok Outline Zoning Plan under the Town Planning Ordinance (Cap. 131), as well as the authorization of the proposed reclamation under the Foreshore and Sea-bed (Reclamations) Ordinance (Cap. 127) for the expansion of HKIA into a 3RS.

12. A subcommittee was formed under the House Committee ("HC") of the Fifth Legislative Council ("LegCo") on 15 May 2015 to study issues relating to 3RS at HKIA. The former Subcommittee completed its work and submitted its report to HC on 17 June 2016 (LC Paper No. CB(4)1123/15-16).

---

[1] 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).

The Subcommittee

13. At its meeting on 28 October 2016, HC of the Sixth LegCo endorsed the appointment of the Subcommittee to study and follow up on 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 revenue-raising measures for 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.

The terms of reference and membership of the Subcommittee are in **Appendices I and II**.

14. The Subcommittee has held a total of eight meetings. To better understand the construction progress of 3RS, in particular the reclamation works, the Subcommittee conducted a site visit to HKIA on 5 May 2017. The Subcommittee has also received a joint submission [LC Paper No. CB(4)177/16-17(01)] from People's Aviation Watch, Greenpeace, The Conservancy Association, Save Lantau Alliance, Greeners Action and Hong Kong Dolphin Conservation Society which has expressed concerns over a wide range of issues concerning the 3RS project.

Declaration of interests

15. Hon Jeffrey LAM, Hon Steven HO and Hon Frankie YICK declared that they are members of the AAHK Board.

Deliberations of the Subcommittee

16. The Subcommittee notes that the 3RS project includes the following seven core components:

(a) formation of approximately 650 hectares of land north of the existing airport island by reclamation partly on top of disused contaminated mud pits using non-dredge methods including deep cement mixing ("DCM")[2] technique for ground improvement;

(b) construction of the Third Runway, taxiways and apron;

(c) construction of the Third Runway Passenger Building ("TRPB") with 57 parking positions upon 3RS commissioning;

(d) 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 between TRPB and T2; and

(g) construction of airport support infrastructure, utilities and facilities.

17. AAHK has advised that subsequent to the completion of the statutory gazettal processes, AAHK has been taking forward the project progressively. Construction works of the 3RS commenced on 1 August 2016 and is expected to be completed in 2024, with the target commissioning of the new runway in 2022.

18. In the course of deliberation, the Subcommittee has received briefings on various issues relating to the 3RS including latest development of airspace management, cost and financial arrangement plan, the scope and progress of 3RS works, implementation of the key EIA commitments, HKIA's manpower plan and development, HKIA's enhancement plan, and results of the latest HKIA Workforce Survey are also highlighted and deliberated by the Subcommittee at subsequent meetings.

---

[2] DCM involves the solidification of the marine mud by mixing it with cement, giving rise to clusters of improved ground in the form of closely spaced columns that are able to support the reclamation above. The merit of DCM is to contain contaminates from escaping in any water squeezed out.

19. Some members have expressed support for the early implementation of the 3RS project given that the two-runway system ("2RS") is reaching its full capacity; and that the project will help strengthen Hong Kong's position as an international aviation hub, bring tremendous economic benefits, and create ample job opportunities for Hong Kong. Some members, however, have grave reservations about the project given the unsolved airspace issues, doubtful cost-effectiveness and financial viability of the project, and adverse environmental impact. They have also expressed great dissatisfaction to the financial arrangement for the project which was regarded as bypassing the vetting and approval mechanism of LegCo. Deliberations of the Subcommittee are set out below.

Capacity of HKIA

20. According to the Administration, HKIA has been experiencing strong traffic growth since its opening in 1998. HKIA's throughputs reached 70.5 million passengers and 4.52 million tonnes of cargo in 2016, and are expected to continue to grow and reach 102.3 million passengers and 8.9 million tonnes of cargo respectively by 2030. To enhance the handling capacity of HKIA, AAHK has been taking forward various initiatives, including the West Apron Expansion Project[3] and the Midfield Development Project[4], which have been in full operation since February 2015 and March 2016 respectively. The Subcommittee is aware of some members' concern on the capacity limit of the 2RS. There are also views challenging the need of the 3RS at HKIA, in particular, whether the capacity of the current 2RS at HKIA can be further expanded or whether a better management of the existing facilities could be achieved, thereby saving the need to build the 3RS.

21. AAHK has explained that whilst the various enhancement initiatives will increase the passenger handling capacity of HKIA in the short to medium term, such initiatives will not increase the airport's overall handling capacity as the bottleneck lies in the airport's runway capacity which is capped at 68 air traffic movements ("ATMs") per hour. Various studies have been conducted

---

[3] The West Apron Expansion project, which cost over HK$2.5 billion, was completed in the end of 2014 and commenced full operation in 2015. The project provides a total of 28 additional parking stands to increase the parking capacity of the maintenance and cargo aprons.

[4] Located west of Terminal 1 between the two existing runways of HKIA, the Midfield has an area of 410 000 square metres. In late 2015, AAHK completed the construction of the Midfield Concourse and its ancillary facilities with 20 aircraft parking positions. With its full operation in March 2016, the Midfield Concourse is now able to handle approximately 20% of HKIA's daily air traffic movements, increasing the airport capacity by about 10 million passengers a year. Development of the remaining Midfield is scheduled to be completed in phases by 2020.

in the past to assess the capacity of the existing 2RS. The latest study was the Airspace and Runway Capacity Study commissioned by AAHK and carried out by the National Air Traffic Services in 2008, which was based on the latest air traffic control technology and international standards. According to this study, in full compliance with the safety standards/requirements of the International Civil Aviation Organization ("ICAO")[5], the maximum practical capacity that can be achieved with the existing 2RS would be 68 ATMs per hour. The capacity of the existing 2RS is constrained by two factors in which ICAO has strict requirements and standards: (i) the need for spacing between aircraft due to the spiral air turbulence generated by the aircraft in the front; and (ii) the different terrain surrounding the runway. A third runway is therefore needed to meet long-term traffic demand. The planning objective of the 3RS is to incrementally achieve a maximum capacity of 102 ATMs per hour after the commissioning of the 3RS at HKIA, in line with the growth of demand for aviation services.

Construction of TRPB

22. On the design of TRPB, the Subcommittee has enquired whether there is a need to adopt the double "Y" design proposed in the AAHK's Master Plan 2030 instead of the present single "Y" design to meet the future growth in passengers. AAHK has advised that the scale and capacity of the current single "Y" design of TRPB is similar to that of the former double "Y" design and can sufficiently handle an additional 30 million passengers per annum.

23. In order to assess if AAHK has under-estimated the growth in passenger throughput, some members request AAHK to provide its updated projection of annual growth of air passenger throughput of HKIA. In response, AAHK has advised that it is updating its long-term traffic forecast as part of HKIA's next master planning cycle (i.e. Master Plan 2035), the results of which will be available in 2018.

Airspace management

24. The Subcommittee notes that in order to realize the capacity increase associated with the commissioning of the 3RS, the management of the airspace in the Pearl River Delta ("PRD") area should be coordinated to accommodate the necessary procedures for the new runway and the planned capacity increases at the other airports in the area. Some members are however worried that if the immediate airspace in the PRD area is not made available for use by aircraft to or from Hong Kong, it will impact negatively on the ultimate target runway

[5] ICAO, a specialized agency of the United Nations, was established in 1944 to promote the safe and orderly development of international civil aviation. It works with its Member States and global aviation organizations to develop international standards and recommended practices.

capacity of the 3RS, rendering the project a "white elephant" in the end. In this respect, some members have enquired whether the target runway capacity of 102 ATMs per hour under the 3RS at HKIA is viable and sustainable, and whether the Mainland authorities will agree to review the management of the PRD airspace to achieve the projected capacity increase.

25. The Administration has advised that to tie in with the development of the 3RS, necessary arrangements on airspace management and relevant air traffic management procedures have to be made to progressively enhance the handling capacity of HKIA to keep pace with the growth in flight demand at HKIA. The 3RS development at HKIA has been receiving full support from the Central People's Government at various levels. Moreover, the "Guiding Opinions of the State Council on Deepening the Co-operation within the Pan-Pearl-River Delta Region" (《國務院關於深化泛珠三角區域合作的指導意見》) ("the Guiding Opinions") issued on 15 March 2016 clearly state that the State Council supports the development of the 3RS to reinforce Hong Kong's position as an international aviation hub and encourages closer co-operation between HKIA and airports in the nine provinces/regions of the Mainland. The Guiding Opinions also express clear support for the co-ordinated management and utilization of Pan-PRD airspace. Lately, the Civil Aviation Department ("CAD") and the Air Traffic Management Bureau of the Civil Aviation Administration of China ("CAAC") signed the "Joint Statement on Supporting the Sustainable Development of Air Navigation Services and Airspace in the PRD Region" ("the Joint Statement") in May 2017, as a further step in setting objectives for the future development of air navigation services and airspace in the region.

26. The Administration has also advised that back in 2004, CAAC, CAD and the Civil Aviation Authority of Macao had already set up a Tripartite Working Group ("TWG") to formulate measures to improve the airspace structure and air traffic control arrangements in the PRD region to optimize the use of airspace and enhance safety. In 2007, TWG drew up the "Pearl River Delta Region Air Traffic Management Planning and Implementation Plan (Version 2.0)" ("the Plan") which clearly stipulated the optimization targets and measures to be achieved and implemented. The overarching objective of the Plan is to optimize the utilization and management of the PRD airspace in a safe and efficient manner with the aim to achieve a win-win situation for the five airports in the PRD region.

27. On members' request for the provision of the Plan and the Joint Statement, the Administration has advised that the full contents of the Plan are to be kept confidential since it is a government-to-government official documents. However, to balance the needs of various stakeholders, the three governments have been announcing the implemented measures of the Plan in

the form of press releases and navigation charts/diagrams in the Aeronautical Information Publication to keep the public and aviation industry informed of the major work progress of TWG. The Administration has also published the summary of the Joint Statement which mainly states that both sides will make the utmost effort to help take forward the development plans for the five major airports in the PRD region and to enable the 3RS at HKIA to progressively achieve the target runway capacity of 102 ATMs per hour in the long run.

28. Notwithstanding the Administration's explanation, some members call on the Administration to discuss with its counterparts in TWG regarding the disclosure of the contents of the Plan, as well as the milestones for achieving the target runway capacity of 102 ATMs per hour.

29. Regarding the latest development of PRD airspace management, the Administration has advised that the implementation of the Plan is an ongoing exercise. A number of airspace enhancement and related air traffic management measures in the Plan have been implemented over the years to facilitate the segregation of traffic in Hong Kong Flight Information Region ("FIR")[6] and streamline the air traffic flow, thus reduce the complexity of traffic handling, and simultaneously increase the efficiencies of aircraft operation in the region and air traffic management. Examples include the establishment of additional handover points, new air routes and peripheral flight paths in the PRD region, and adjustment of the Zhuhai airspace structure.

Delegation of airspace management

30. The Subcommittee notes that due to the close proximity of HKIA and Shenzhen Airport to the FIR boundary, a certain degree of "shared use" of airspace between Hong Kong and the Mainland is required, and an ICAO-endorsed air traffic management arrangement known as "delegation of airspace management" will be adopted. In this respect, the Plan has touched upon joint airspace planning as well as "delegation of airspace management", which may be adopted to facilitate the achievement of the target runway capacity of 102 ATMs per hour under the 3RS operation at HKIA in the long term. Some members have expressed concerns about the "shared use" of airspace within the PRD airspace under the Plan, in particular the decision-making process under such an arrangement.

31. The Administration has advised that relevant civil aviation authorities will still be responsible for the decision-making of their respective FIRs under the Plan. Moreover, none of the air traffic management enhancement

---

[6] The airspace of the entire globe is divided into numerous FIRs; within each FIR, a designated civil aviation authority is responsible for providing air traffic control service so that aircraft flying anywhere in the world will receive such service to ensure aviation safety.

measures and targets set out in the Plan concerns the re-allocation of civil aviation airspace stipulated by ICAO. In other words, there is no need to adjust the FIR boundary between Hong Kong and the Mainland as a result of implementing the Plan. CAD will continue to ensure that the arrangements made are in compliance with the relevant provisions of the Basic Law and the relevant requirements set down by ICAO in the course of taking forward the Plan.

32. On members' enquiry about the locations where the air traffic control ("ATC") units of Hong Kong and the Mainland will hand over the control of an aircraft under the "delegation of airspace management" arrangement, the Administration has advised that air traffic management efficiency will be a major factor of consideration when ATC units decide where the control of an aircraft should be handed over. The detailed information regarding the "delegation of airspace management" arrangement will be made available to users before implementation. In line with other aeronautical information, the release of such information will be in accordance with the relevant ICAO requirements.

"Air wall" constraint

33. Some members are of the view that the utilization of airspace is crucial to achieving the maximum capacity of 102 ATMs per hour after the commissioning of the 3RS. Given the proximity between HKIA and the Shenzhen Airport, the use of the Mainland airspace by aircraft departing from HKIA is subject to the requirement that they must reach the designated altitude of 15 700 feet[7] before handing over to the Mainland authorities. The situation is the same for the aircraft entering Hong Kong airspace from the Mainland that are required to track southward before landing at HKIA. This altitude requirement constitutes the "air wall" between Hong Kong and Shenzhen airspaces.

34. A member has pointed out that in order to meet the altitude requirement, the departing aircraft from HKIA flying northward need to detour a long way within the Hong Kong airspace to reach an altitude higher than 15 700 feet before they can pass the "air wall" and enter the Mainland airspace. Such an altitude requirement has not only lengthened flight times and prevented the existing 2RS of HKIA from optimizing its operational efficiency, but also led to an enormous waste of fuel. View has been expressed that unless the "air wall" constraint can be resolved, the effectiveness of the 3RS in expanding the runway capacity of HKIA to the target maximum capacity of 102 ATMs per

---

[7] The handover altitude has been lowered to 12 800 feet since 2005 for non-peak hours at night (i.e. 11pm -7am).

hour remains very doubtful. In order to gain an understanding about the impact of "air wall" on the runway capacity, the member strongly recommends the Administration to commission a consultancy study on the matter.

35. The Administration has explained that in order to ensure that aircraft in adjacent airspaces can operate concurrently in a safe and efficient manner, every aircraft must reach a certain altitude and geographical location before an ATC unit may hand over control of that aircraft to another ATC unit. This is to ensure that aircraft in adjacent airspace can fly at various altitudes in a safe manner. This air traffic management arrangement of "transfer of control point" aims to safeguard flight safety, and is commonly applied at busy airports all over the world. As regards runway capacity, including that of the 2RS of HKIA, it is subject to the time interval and space separation required between aircraft movements on safety consideration, and has no relationship with the aforesaid air traffic management arrangement. The ultimate target runway capacity of 102 ATMs per hour is devised on the basis of implementation of various airspace enhancement measures, but not merely deriving from flight routes and directions.

Cost and financial arrangement

36. AAHK has advised that the estimated construction cost of the 3RS is $141.5 billion at money-of-the-day prices, of which approximately 40% will be used for land formation. The financial arrangement for the 3RS will be based on the "joint contribution and user-pay" principle. With the advice of its financial consultant, the Hongkong and Shanghai Banking Corporation Limited ("HSBC"), AAHK will fund the 3RS project through the following three sources:

(a) retaining AAHK's operating surplus ($47 billion);

(b) levying a new Airport Construction Fee ("ACF") ($26 billion); and

(c) borrowing/raising funds from the market ($69 billion).

The revenue generated by (a) and (b) above will provide around 51% of the funding required to finance the 3RS project. The remaining 49% will be raised from the market as mentioned in (c).

37. In the course of deliberation, the Subcommittee has examined details of individual funding sources, overall financial viability and sustainability of the 3RS project, and the related legal and financial risk of the financial arrangement plan proposed by AAHK. The responsibilities of AAHK and the Government

in case of cost overrun and the consequential financing arrangement as well as the related monitoring system are also deliberated by the Subcommittee.

Financial viability and sustainability of the 3RS project

38. Some members are of the view that the construction cost of 3RS is extravagant and there may be risk for cost overrun due to uncertainties in the financial market, interest rate rises and delay in construction, not to mention the fact that the economic benefits of the 3RS may be compromised if the airspace issues cannot be solved. They also hold the view that the "joint contribution and user-pay" principle of the financial arrangement for the 3RS project is misleading. Under the present financial arrangement, AAHK has retained all distributable profits payable to the Government which are public money. The introduction of ACF to departing passengers is in fact a kind of taxation. As such, the construction costs of 3RS are actually borne by the Government and the general public, and these monies can effectively be put to other uses. They have also expressed grave concern that the Government will ultimately have to bear the extra cost of the 3RS project if cost overrun occurs since AAHK is wholly-owned by the Government. Some members are of the view that as AAHK's proposal of 3RS financial arrangement has by-passed the vetting and approval mechanism of LegCo, such arrangement may contravene Article 73 of the Basic Law which provides that one of the powers and functions exercised by LegCo is to approve taxation and public expenditure.

39. Regarding the viability of AAHK's financial arrangement proposal for the 3RS project, AAHK has advised that it appointed HSBC to conduct a feasibility study in 2015 ("the 2015 study") on the financial arrangement plan for the project. The 2015 study has confirmed that AAHK would be able to raise additional debt to fund the consequential funding shortfall in the event of cost overrun. In the study, HSBC has conducted a risk assessment of different scenarios and undertaken "what-if" analysis for five hypothetical downside scenarios[8] for testing the financial robustness and prudence of the 3RS financial arrangement plan and evaluate whether AAHK has the capability of managing the impacts under such scenarios. After prudent assessment, HSBC has concluded that AAHK is capable of raising debt to fund the 3RS, and the overall financial arrangement for the 3RS is practicable and viable. HSBC considers that, in the event that these downside scenarios were to occur, AAHK would still be able to maintain an investment grade rating and raise further debt

[8] The five hypothetical downside scenarios include: (i) a 15% decline in the AAHK's total revenue; (ii) a 20% overspend on 3RS capital cost; (iii) a 50% overspend on 3RS capital cost; (iv) single adverse event e.g. similar to the SARS outbreak in 2003, leading to a decline in passenger throughput and air traffic movements; or (v) a 2% increase in the cost of borrowing.

to fund the consequential funding shortfall for meeting the project expenditure. The Government's independent financial consultant has also agreed to HSBC's conclusion. AAHK has also stressed that the hypothetical downside scenarios adopted by HSBC are for sensitivity testing purpose only and do not reflect its expectation of possible outcomes.

40. On the financial arrangement plan for the 3RS, the Administration has advised that as the proponent of the 3RS project, AAHK has drawn up the financial arrangement of the project and submitted a proposal to the Government. As set out in its proposal, AAHK will finance the 3RS project by making use of internal sources of funds, external borrowings and charging airport users. This proposal, which is a three-pronged approach under the principle of joint contribution, is more equitable than direct government funding out of the general revenue or asking taxpayers at large to pay for the construction costs. Under the proposed financial arrangement, no fund allocation, capital injection or loan guarantee from the Government is required. Article 73 of the Basic Law stipulates that the powers and functions of LegCo include the approval of taxation and public expenditure. Since the financing arrangement proposed by AAHK does not involve taxation or public expenditure, the requirements of Article 73 hence are not applicable.

41. On AAHK’s proposal to retain operating surplus, AAHK has explained that section 26 of AAO stipulates that AAHK "may" declare and pay dividends to the Government. The AAHK Board will take into account AAHK's operational and financial needs when deciding whether or not dividend will be declared and the amount to be declared (if any) in the respective financial year. The arrangement does not involve the Government's "waiver" or "exemption" of AAHK's dividend.

42. Referring to section 20(2)(a)(ii) of AAO which reads "… in the Authority's being unable to pay (either wholly or partly) a debt … the Government shall pay to the Authority an amount equal to such expenditure (including any loss) as has been reasonably incurred by the Authority …", a member has enquired if the Government will inject funds into the 3RS project by virtue of the provision if cost overrun occurs. The Administration has explained that the Government will only provide financial backing to AAHK when the loss is incurred due to the decisions of the Chief Executive in Council and when public interest is involved. Since the 3RS project is not a direction by the Chief Executive in Council under Section 20(1)(a) of the AAO, the provision will not be applied.

43. On the legal basis for levying ACF, the Subcommittee is informed that AAO empowers AAHK to levy ACF. The ruling of the High Court handed down with respect to three judicial review cases in March 2016 further affirmed

AAHK's power granted by AAO to charge ACF. AAHK has begun collecting ACF on air tickets issued from 1 August 2016 for departing passengers at HKIA. ACF will remain in effect until all the 3RS-related borrowings have been fully repaid, which is expected to be in the financial year 2030-2031. It is AAHK's intention to maintain the charging levels of ACF throughout the collection period.

44. View has been expressed that as ACF is included in the price of air tickets issued by airlines, travel agencies may have to bear the costs relating to credit card payments in collecting ACF on behalf of airlines. In this regard, AAHK should assume the role in mediating between travel agencies and airlines regarding the collection of ACF. AAHK has advised that it is inappropriate for it to intervene in the commercial relations between travel agencies and airlines. However, AAHK will relay the travel agencies' concern on collecting ACF to airlines.

Cost control mechanism

45. Some members are concerned about how AAHK would enable the delivery of 3RS within expected budget and time. A member is worried that the judicial review cases arising from the 3RS project would have impact on the overall project cost and delivery schedule. The Administration has advised that it has requested AAHK to conduct proper planning and implement cost control mechanisms as early as possible in view of the immense investment of the 3RS project, its high capital cost and complexity. To ensure the delivery of the project within the expected time and budget, AAHK has put in place comprehensive risk management measures, including:

(a) adopting a pragmatic design to ensure that it is fit-for-purpose and value-for-money, avoiding extravagant or unnecessary features;

(b) adopting a detailed design at the early stage to confirm the project scope, with a view to controlling and managing the risks of changes in design and works during construction;

(c) conducting comprehensive ground investigation for better understanding of ground conditions in order to minimize the risks during construction;

(d) conducting thorough testing, including three rounds of technical trials on DCM method, to ensure the feasibility of the reclamation technology; and

(e) prudent control of financial risks, including the appointment of an independent quantity surveying consultant to conduct an independent assessment on cost computation and estimation.

46. The Administration has also advised that it has established an Airport Expansion Project Coordination Office under the Transport and Housing Bureau to monitor and coordinate matters related to the 3RS project. A high-level Steering Committee on 3RS chaired by the Financial Secretary has also been formed to provide steer and advice regarding the implementation of 3RS. AAHK's work in relation to 3RS will continue to be monitored by the AAHK Board, comprising Government officials and members appointed by the Government.

Detailed funding plan for the 3RS project

47. In September 2017, AAHK released the report on the detailed funding study for the 3RS project submitted by HSBC, which was appointed by AAHK to analyse different debt structure, identify suitable forms of financial instruments, and make recommendations on the financial instruments in relation to their timing, size and tenor that will enable AAHK to raise funding for the 3RS project in the most optimal manner. The Subcommittee has received a briefing on the detailed funding study for the 3RS project.

48. According to HSBC, following the quantitative easing ("QE") initiatives introduced during the 2008/2009 financial crisis and its aftermath, liquidity has been high in debt markets in recent years, including the Hong Kong bank loans and international bonds markets which are expected to be the key funding sources for AAHK. Notwithstanding the expectation of the managed reversal of QE and other political uncertainties around the globe, debt markets have remained open and strong. Against this backdrop, HSBC expects that debt market volumes in 2017 would exceed the strong volumes in 2016. HSBC is confident that AAHK will be able to raise the required debt of up to $69 billion on competitive terms, for two major considerations. Firstly, the total debt market capacity is substantially in excess of AAHK's funding needs. Secondly, operating on prudent commercial principles under AAO, AAHK has a good track record of raising debts to finance its operation and enjoyed access to a wide range of financing options, including bank loan and bond markets. Given AAHK's financial capability, its 100% ownership by the Government and its excellent credit rating, HSBC believes that AAHK could retain strong access to the debt market in the foreseeable future.

49. Based on prevailing assumptions as well as an assessment of the current market conditions, HSBC recommends AAHK to raise debt closer to the time when funds are required with the following general principles for governing the selection and mix of financial instruments:

(a) bonds should represent a significant component of the detailed funding plan. AAHK should consider issuing long-tenor United States Dollar ("USD") bonds (e.g.10 years) in earlier years of the detailed funding plan so as to establish a favourable benchmark interest rate to facilitate subsequent borrowings;

(b) a retail bond offering towards the start of the funding timeline to allow the general public to participate in and share the financial benefits arising from investment in the 3RS project;

(c) revolving bank facilities be maintained to meet potential unexpected liquidity requirements; and

(d) shorter-dated USD, Hong Kong Dollar ("HKD") or other foreign currencies bonds (5 to 7 years) and HKD bank loans (up to 5 years) for later years.

The detailed funding plan with implementation timeline is summarized in a schematic graph in **Appendix III**.

50. The Subcommittee is concerned about the financial risk assessment on the funding plan and the impact on the debts to be borne by AAHK in the event of cost overrun of the 3RS project or returns failing to meet the expected targets in future. The Subcommittee has enquired whether the Government has assessed the possible financial and legal consequences should AAHK fail to repay the debts and whether the Government will help AAHK repay the debts. Given that the incremental borrowings proposed by AAHK comprise nearly half of the total cost of the 3RS project, some members strongly urge the Administration to appoint an independent consultant to review the detailed funding plan.

51. The Administration has advised that AAHK had repeatedly undertaken in public that in the financing of the 3RS, AAHK will not require funding support nor guarantee from the Government. The Government has no plan to bear any cost overrun of the 3RS project. Unlike the 2015 study which aimed to verify the viability of AAHK's financial arrangement proposals for the 3RS project, the study on the detailed funding plan of the 3RS project only focus on the detailed plan to raise debt from the market. The Government therefore does not consider it necessary to appoint an independent consultant to review AAHK's detailed funding plan.

52. Some members are concerned that the recent downgrading of Hong Kong's credit rating by Standard & Poor's from AAA to AA+ will have bearings

on AAHK's cost of borrowing which will impact on the cost of borrowing of the 3RS project. AAHK has advised that HSBC is of the view that the market has remained calm regarding the recent downgrading of Hong Kong's and AAHK's credit rating by Standard and Poor's. HSBC concludes that the overall financial arrangement for the 3RS is practicable and viable, and that AAHK is still able to maintain an investment grade rating and raise further debt under the five downside scenarios.

53. Notwithstanding the Administration's and AAHK's explanation, a few members remain unconvinced that AAHK is able to self-finance the 3RS project. They request the Administration/AAHK to provide updated information on the progress of the 3RS project, including the financial arrangement, on a regular basis to facilitate LegCo's monitoring.

54. Some members welcome the introduction of retail bonds, and urge AAHK to allocate a larger portion of its borrowings for funding the 3RS project in the form of retail bonds so as to allow more members of the public to participate and be engaged in the project. They have pointed out that with savers receiving very low interest rates from their deposits, the offering of retail bonds by AAHK at an interest rate equal or approximate to its borrowing costs would be a welcome move for the public. Suggestion has also been made for AAHK to issue more green bonds which are designed to fund projects that have positive environmental and/or climate benefits.

55. AAHK has advised that as the interest cost associated with retail bonds is considerably higher than that of borrowing from the bank and institutional bonds markets, HSBC recommends that retail bonds should constitute a smaller portion of the overall funding. However, subject to the market responses and the actual cost of borrowing, AAHK may review, as appropriate, the size of retail bonds at a later stage. As the green bond market has grown rapidly in recent years, AAHK will also explore the feasibility to offer green bonds in the market to showcase its green credentials and appeal to investors who are increasingly focused on environmental issues.

North Commercial District development

56. In September 2016, the Government supported AAHK to develop the Airport North Commercial District ("NCD") at the north-eastern corner of the Airport Island by approving that the NCD area be carved out from the original land lease of the airport and put under a new lease with a 50-year term granted to AAHK at a nominal premium. The Subcommittee has examined the justifications for granting the NCD site to AAHK for commercial development. Some members are of the view that such land granting arrangement is tantamount to helping AAHK finance the 3RS project, and that AAHK's

development of NCD may deviate from its main purpose of managing HKIA and lead to unfair competition with the private sector.

57. The Administration has advised that pursuant to the terms and conditions of the land lease, AAHK can pursue airport related development (including hotel, office, retail and other commercial premise purposes) and airport support development. NCD is part of the Lot and the Extension of HKIA. This arrangement will enhance AAHK's flexibility in using the gross floor area of NCD and the attractiveness of the development project in the market. NCD will be developed into the first purpose-built retail, dining and entertainment destination in the area to enhance the attractiveness and competitiveness of HKIA as a global aviation hub and to promote tourism and business and employment opportunities. The NCD development is of strategic importance to the economic and social development of Lantau and Hong Kong. It is expected to be a major component in promoting the "bridgehead economy" of the Hong Kong-Zhuhai-Macao Bridge ("HZMB").

58. AAHK has also clarified that the profits generated from the NCD development would not contribute to the financing arrangement of the 3RS project. AAHK, a statutory body wholly owned by the Government, is responsible for the management of HKIA and the development of airport-related activities. AAHK is bound by law to operate according to prudent commercial principles. The Government has required AAHK to factor in the full market value of the land when devising tender conditions for disposal of the NCD site and considering the tender bids as well as entering into commercial agreements with private developers.

Progress of 3RS construction works

59. AAHK has briefed the Subcommittee on the progress of the construction works for the 3RS. On land formation, members note that one of the major components of the 3RS project is the formation of approximately 650 hectares of land north of the existing airport island by reclamation partly on top of disused contaminated mud pits using non-dredge methods including DCM technique for ground improvement. All designs for reclamation have been substantially completed and approved by the Buildings Department. AAHK has awarded all major works contracts for the reclamation and its associated ground improvement works, comprising five DCM contracts and the main reclamation contract.

Filling materials used in the 3RS reclamation works

60. The Subcommittee notes that marine sand from the PRD region will be used for the reclamation works under the 3RS project. However, it has been

reported that the reclamation contractors concerned have failed to source sufficient marine sand for the reclamation works and therefore have switched to use manufactured sand (i.e. sand made by crushing rubbles with machines). Some environmental groups have pointed out that the large amount of fine particles contained in manufactured sand are difficult to settle and will therefore be suspended in the sea for a long period of time, causing an unacceptable level of pollution to the waters in the vicinity of the reclamation area.

61. The Subcommittee has examined whether AAHK has permitted its contractors to switch to use manufactured sand for the reclamation works, and the respective places of origin of the marine sand and other filling materials currently used for the 3RS reclamation works. The Subcommittee has also examined the immediate and potential impact of the related works and arrangements on the environment. Given the sourcing of reclamation materials for the 3RS project has significant bearing on the project cost, quality of reclamation and the environment, the Subcommittee passed a motion at the meeting on 11 April 2017 calling on AAHK to provide detailed information on the quantities and prices of all the filling materials procured and ordered by its contractors.

62. In response to the allegations made in an anonymous letter that some contractors of the 3RS project have failed to source sufficient marine sand for the 3RS reclamation works and therefore have switched to use manufactured sand, AAHK has advised that the allegations were unsubstantiated. While AAHK does not specify in the contracts the source(s) of filling materials to be used for the 3RS reclamation works, all filling materials must meet the contract specification and the stringent requirements of the EP for the 3RS project for the purpose of mitigating any possible impact on water quality during construction. Along the line of the EP condition, AAHK has prescribed in the contracts specific requirements on the particle size. Generally speaking, there are three types of filling materials that can fulfil the related requirements, namely, marine sand, manufactured sand and suitable filling materials from works sites in Hong Kong. As at end of April 2017, about two million cubic metre ("m^3") of filling materials have been used, of which 23,000 m^3 were marine sand imported from Vietnam; 20,000 m^3 were suitable filling materials from works sites in Hong Kong; and the remaining were manufactured sand imported from the quarries in the PRD region.

63. AAHK has further advised that although the actual sourcing of the filling materials is done by AAHK's contractors, AAHK has imposed stringent requirements to ensure the compliance of filling materials with the EP requirements. In the event that the contractors import sand for the reclamation works, they have to observe the requirements specified under the Sand Ordinance (Cap. 147) which regulates the importation of sand. For

manufactured sand used by the contractors, AAHK has required its contractors to submit proposals for sand source, including the relevant mining certificates, business licences and test reports. The contractors are also required to make relevant submissions to the government departments to confirm that the imported manufactured sand is not governed by Cap. 147. Upon satisfactory compliance with all requirements, AAHK will issue no objection certificates to the sand source proposals from the contractors. Up to April 2017, AAHK has not issued any objections to its contractors to source manufactured sand.

64. On the monitoring of filling materials for the 3RS reclamation, AAHK has advised that all barges for transporting filling materials are required to install an Automatic Identification System which is an automated tracking system used on vessels. Their journey from the origin of the filling materials to Hong Kong will be monitored closely by AAHK. For each of the sand barges arriving in Hong Kong, the contractors have to produce relevant documentations, such as shipping order form, import/export forms, etc., for inspection by AAHK. AAHK will take samples of the filling materials from each of the barges. The collected samples will be taken to a Hong Kong Laboratory Accreditation Scheme laboratory for testing. Since commencement of reclamation in November 2016 to end April 2017, a total of 916 samples of filling materials taken from the barges have been tested. All samples passed the tests.

65. Some members hold a strong view against the award of the 3RS construction contracts without the approval of LegCo. They request AAHK to provide information on the awarded contracts, including the price of filling materials, to facilitate members' monitoring on the cost of the project. AAHK has advised that it is the commercial decisions of the contractors to secure and procure filling materials in accordance with the requirements prescribed in their contracts with AAHK. AAHK does not have information on the material prices and quantities of different filling materials procured by its contractors. AAHK also does not require its contractors to inform it of the name(s) of their filling material supplier(s). The contracts between AAHK and its contractors, which include the cost of filling materials, are commercial documents which cannot be disclosed. Apart from commercial confidentiality between AAHK and its contractors, the cost of filling materials also has implications concerning commercial agreements between the contractors and their subcontractors. AAHK therefore is not in a position to divulge the cost of filling materials. However, the cost was within AAHK's estimate.

66. Notwithstanding AAHK's explanation, some members maintain that AAHK should provide such information to facilitate members' monitoring. There is a suggestion that AAHK should consider making arrangements for members to peruse the reclamation contracts signed between AAHK and its

contractors regarding the supply of filling materials used in the 3RS reclamation under a confidentiality agreement. Another view is that AAHK should consider the sources and the credibility of suppliers when procuring filling materials, instead of merely meeting the budget. AAHK should improve the transparency in the process of procuring the filling materials.

Reclamation methods adopted

67. In view of the incidents of extension of reclaimed land concerning the HZMB Hong Kong Link Road Project which has also adopted the non-dredge reclamation method, members have expressed concerns about the reclamation methods to be adopted by AAHK and measures to enhance construction safety. AAHK has advised that there are different non-dredge reclamation methods and the non-dredge reclamation method adopted in HZMB Hong Kong Link Road Project is different from the DCM adopted for the 3RS reclamation. For the 3RS reclamation, a combination of non-dredge reclamation methods will be used having considered the varying site conditions and requirements and the possible impact on the environment. In the course of the works, minor changes to the ground improvement methods may be necessary to cope with the different site conditions.

68. Noting that the reclamation area of the 3RS project would cover a large area, and that the composition of the seabed concerned is complicated, concern has been raised on the measures taken by AAHK to ensure that the DCM adopted for the 3RS reclamation would be successful. AAHK has advised that although DCM has never been used in Hong Kong's reclamation projects, it has been widely used in Asia, Europe and America. To provide further confidence in the constructability and the environmental acceptability of the method in the local context, a series of trials has been conducted before commencement of the 3RS reclamation works. The trials and the associated monitoring and testing have all been proven successful. The DCM works for 3RS commenced on 1 August 2016 and are progressing on schedule. It is expected that the entire DCM works will take around two years to complete, with phased handover to the follow-on reclamation works.

69. To facilitate the exchange of knowledge, there is a suggestion that AAHK should share its experience of using DCM with local engineers via the Hong Kong Institution of Engineers.

Marine safety

70. Referring to an incident of a fireboat being stranded in the 3RS works area that took place on 30 August 2017, a member has expressed concern about the marine works safety of the 3RS. The Administration has provided a written response to give an account of the incident. It has also advised that in

accordance with the EP of the 3RS project, AAHK has established a Marine Traffic Monitoring System ("MTMS") to manage vessel activities in and around the 3RS marine works area. As part of the MTMS, AAHK established the Marine Traffic Control Centre ("MTCC") to monitor and track designated marine traffic routes, coordinate designated marine entrances to the works site, check the compliance of vessel speed limit, and ensure good marine practice and safety. MTCC also serves as the central liaison point between AAHK and relevant government departments in relation to the 3RS works. After the incident, relevant procedures have been reviewed and the guidelines on the use of radio communications between MTCC and government concerned vessels have been revised.

Manpower plan of HKIA

71. One of the economic benefits brought by the 3RS project is the creation of employment opportunities. According to the AAHK's Master Plan 2030, it is anticipated that the 3RS would create direct employment of around 123 000 jobs, as compared to 89 000 jobs under the existing 2RS. The Subcommittee has received briefings by AAHK on the overview of manpower situation at HKIA, measures taken by AAHK to attract people to work at HKIA and the results of the 2017 HKIA Workforce Survey. According to the Survey, there are about 73 000 people working at HKIA as at 31 December 2016.

72. While there are both views for and against the importation of labour to cope with the manpower shortage arisen from the jobs created by the 3RS, members have urged AAHK to formulate long-term manpower plans and measures to better facilitate and encourage more people to work at HKIA.

73. The Subcommittee considers that the remote location and high transportation cost have discouraged people from working at HKIA, resulting in a manpower shortage. Members urge AAHK to provide more concessionary bus fares for airport staff and suggest AAHK conducting a survey on the travelling expenses of airport staff, especially those who engage in relatively low-paid jobs. Members also urge the Administration to improve the bus frequencies and rationalize the detour of airport bus routes, especially the overnight airport bus routes, so as to shorten the travelling time of commuters. To retain staff, members consider that AAHK should provide favourable working environment, adequate resting areas, discounted staff meal and take appropriate measures to ensure the work safety of airport staff.

74. AAHK has advised that it will continue its efforts in planning and implementing measures to attract people to work at HKIA and retain staff. Such measures include enhancement of transportation services, improvements to working conditions, availability of staff discounts, provision of job security and reasonable salary package etc.. The 2017 HKIA Workforce Survey results

indicate that the vacancy situation at HKIA has improved considerably, with the percentage of vacancies decreasing from 6.6% in 2015 to 5.8% in 2017.

Hong Kong International Aviation Academy

75. The Subcommittee welcomes the establishment of the Hong Kong International Aviation Academy ("the Academy") which is managed by AAHK to nurture talents for the aviation industry. Views have been expressed that AAHK should widely publicize the programmes provided by the Academy, and actively explore with educational institutions and airlines to develop programmes in various disciplines and at different levels in the aviation industry and provide internship based on the practitioners' needs. A member suggests that the Academy could consider launching apprenticeship training schemes in collaboration with relevant employers, so as to provide systematic on-the-job training with salary for young people aspiring to join the aviation industry.

Airport Preschool

76. Members in general welcome AAHK's setting up of the Airport Preschool ("the Preschool") under its family-friendly policy. The Preschool is subsidized by AAHK and has started operation in March 2017 providing 46 spaces for children of airport staff below the age of three. A member suggests that AAHK should consider further extending the scale and operating hours as well as lowering the service charge of the Preschool. AAHK has advised that the Preschool will have its own permanent premises in 2019 and the spaces provided by the Preschool will be increased to 100 by then.

Air traffic controllers

77. Noting that the air traffic handled by Hong Kong has increased from 167 000 ATMs per annum in 1999 to 406 000 ATMs per annum in 2015 (i.e. a 2.4-time increase), while the number of air traffic controllers only increased from 219 to 291 during the same period (i.e. a 33% increase), view has been expressed that there may be a shortage of air traffic controllers. The Administration is called on to formulate a corresponding manpower plan to address the increase in air traffic upon the commissioning of 3RS. The Administration replied that suitable arrangement would be made to address the matter.

<u>Environmental issues</u>

78. AAHK has briefed the Subcommittee on the progress of implementing the key EIA commitments by AAHK. One of the key requirements stipulated

in the EP of 3RS is the implementation of a comprehensive Environmental Monitoring and Audit ("EM&A") programme which comprises pre-construction baseline monitoring and construction phase impact monitoring of Chinese White Dolphins ("CWDs"), water quality, dust and noise, as well as environmental audits and inspections to ensure the proper implementation of all required environmental protection and mitigation measures. To ensure compliance with the EP requirements, a full-time on-site Environmental Team ("ET") has been commissioned by AAHK to carry out comprehensive environmental monitoring and audit in connection with CWDs, ecology, air, noise, water etc.. Furthermore, a full-time on-site Independent Environmental Checker ("IEC") has been appointed to audit, review, and verify all EM&A data and EP submissions. In addition, AAHK has also appointed an EP consultant to support AAHK in the coordination of EP issues, EIA commitments and the development of a number of key environmental management plans and deliverables as stipulated in EP.

79. The Subcommittee is informed that while the construction dust and noise impact monitoring commenced in December 2015, CWDs and water quality impact monitoring began in August 2016, following the commencement of land-based and marine-based construction activities. All EM&A information, including environmental monitoring results, implementation status of environmental mitigation measures, events of non-compliance and the corresponding follow-up actions etc., is reported on a monthly basis and summarized in the monthly EM&A Reports which are available at AAHK's website.

80. Regarding the concern about the impact of the 3RS reclamation works on the waters in the vicinity of the reclamation area, AAHK has advised that about 2 400 Suspended Solids ("SS") monitoring results were obtained from 22 water monitoring stations covering areas around the construction site as well as areas upstream and downstream from 1 December 2016 to 30 April 2017. There were 62 cases of SS exceedance. The findings of the investigations by ET and IEC indicated that those exceedances were not related to the 3RS project. The independent laboratory reports regarding the relevant test on SS are also summarized in the monthly EM&A Reports.

81. The Subcommittee notes that in order to reduce acoustic disturbance, risk of injury or mortality and changes to abundance and patterns of habitat use of CWD, high speed ferries ("HSFs") of SkyPier travelling to/from Zhuhai and Macao are required by AAHK to divert to the north of the Sha Chau and Lung Kwu Chau Marine Park with their speed restricted to 15 knots or below across areas with higher CWD abundance starting from 28 December 2015. AAHK has reported that during the period between March 2016 and February 2017, with the exception of three deviation cases, about 10 000 sailings of diverted

HSFs travelled across the Speed Control Zone at an average speed of 15 knots or below. Those deviation cases were largely to do with vessel captains having to give way to another oncoming vessel to ensure safety. Appropriate follow-up investigation and actions have been taken on those cases to ensure the safe implementation of route diversion and compliance with speed control requirements in future.

82. As committed by AAHK in its 3RS EIA Report, to avoid the cause of injury/noise disturbance to CWDs, dolphin exclusion zone has been established around noisier marine construction activities. In this respect, AAHK has advised that as at April 2017, there was only one occasion whereby a particular marine construction activity had to be suspended for 30 minutes due to the spotting of CWD in the dolphin exclusion zone with a 250-metre radius from the concerned marine construction activity. The following measures have also been put in place during the construction of the 3RS project in connection with the protection of CWDs:

(a) complete avoidance of marine percussive piling and avoidance of bored piling during the peak calving season for CWDs; and

(b) acoustic decoupling of construction equipment mounted on construction barges to minimize acoustic disturbance to CWDs.

83. In order to implement a Marine Ecology and Fisheries Enhancement Strategy for the 3RS project, AAHK has established a Marine Ecology Enhancement Fund ("MEEF") and a Fisheries Enhancement Fund ("FEF") with a total budget of HK$400 million. As reported by AAHK, it has established a Management Committee for each of MEEF and FEF, and a Steering Committee to provide overall directional guidance for the operation of the funds. These Committees comprise members from different stakeholder groups including academics, green groups, dolphin experts and fishermen etc.. Application for funding from the MEEF for financial year ("FY") 2017-2018 closed at the end of January 2017, while that for funding from the FEF closed at the end of February 2017. The two management committees are responsible for vetting and selecting relevant applications. AAHK has reported that the successful applications for FY 2017-2018 will be announced in mid-2017. On members' concern about the sustainability of MEEF and FEF, AAHK has advised that these two funds are put under an endowment arrangement which is targeted to generate an annual return of 4%. To ensure stable funding support for both funds, any shortfall in the targeted annual return will be topped up by the $100 million "top-up" fund established for both funds.

Aircraft noise

84. Some members are concerned about aircraft noise, in particular the aircraft noise generated at night and caused by the increase in the number of ATMs upon the commissioning of 3RS. In response, the Administration has advised that:

(a) aircraft noise levels will be continuously monitored by assessments with regard to the Noise Exposure Forecast 25 contour. It is stated in the EIA Report that demand for night flights will be managed at HKIA to ensure that the noise contour generated in the remaining years of 2RS operation will not expand to affect any new noise sensitive receivers;

(b) various measures have been devised to mitigate the aircraft noise disturbance on the residents concerned. For example, AAHK has introduced a Noise Quota Count Pilot Scheme with a view to better controlling the total noise level of aircraft operating at the HKIA at night and encouraging airlines to use quieter aircraft types. Besides, subject to acceptable operational and safety consideration, aircraft departing to the northeast of HKIA between 11 pm and 7 am are required to use the southbound route via the West Lamma Channel to avoid overflying populated areas; and

(c) the existing South Runway will mainly be put on standby mode at night after the commissioning of 3RS to minimize the noise disturbance to residents nearby.

Other issues

85. The Subcommittee has taken the opportunity to discuss a number of issues relating to the current operation of HKIA. A brief summary is provided below.

Flight delays

86. Some members have requested the Administration to devise measures to improve the flight delay situation in parallel with the construction of 3RS. In response, the Administration has advised that in the first six months of 2017, 2 420 flight delays were recorded at HKIA out of the 103 795 departing flights. The air traffic flow management ("ATFM") measures in the Mainland has been in force for 262 times during the period. Flight delays, in particular flights leaving for the Mainland, have increased in the past year due to a number of factors including adverse weather, airspace constraints, heavy air traffic demand,

aircraft technical issues and ATFM measures being in force in the Mainland etc., many of which are beyond the control of CAD. That said, priority has been accorded to improving the on-time performance of flights among the work of TWG.

Parking spaces at HKIA

87. Under the 3RS project, T2 will be closed for expansion in 2019. Concern has been raised about the loss of parking spaces at HKIA during the T2 expansion period. AAHK has advised that there are currently about 4 300 parking spaces at HKIA. The approximately 1 400 parking spaces to be lost due to the expansion of T2 are expected to be offset by the 1 400 parking spaces available after the completion of the Car Park 4 extension in Terminal 1.

88. The recent increase in long-stay parking fees at HKIA is also of concern to members. View has been expressed that the increase will pose financial burden on those users of HKIA who have genuine need to drive to HKIA. AAHK has advised that it encourages the public to travel by means of public transport. To achieve this, the percentage increase in long-stay parking fees is higher than that of hourly parking. AAHK has also advised that the revenue generated from the car parks at HKIA only constitutes a very small fraction (less than 1%) of AAHK's total revenue.

Baggage delivery service

89. Some members are concerned about the time taken for delivering passenger baggage from arriving aircraft to the Baggage Reclaim Hall ("BRH") and urge AAHK to enhance the efficiency of baggage delivery service in HKIA. AAHK has advised that it attaches great importance to baggage handling service and has set up performance indicators in respect of baggage handling services at HKIA. AAHK has a performance pledge that the first and last piece of baggage from an arrival flight must be delivered to BRH within 20 and 40 minutes respectively after landing. In 2016-2017, over 96% of arrival baggage fulfil its pledge. New measures such as procurement of new equipment and entrusting only one contractor to provide baggage delivery service will be implemented in August 2018 to further improve the service efficiency.

Transport infrastructure on Lantau

90. To tie in with the future development of Lantau Island which includes the commissioning of the 3RS, the completion of HZMB, and the development of Tung Chung East and various large scale commercial developments, some members consider that there is a pressing need for the Administration to

improve the traffic network to and from Lantau Island so as to cope with the additional traffic flow. Apart from the construction of the Tung Chung East railway station, some members have called on the Administration and AAHK to consider the feasibility of providing a regional railway linkage, such as a monorail system, between Tung Chung, the Hong Kong Boundary Crossing Facilities and the Airport Island so as to facilitate people living in Tung Chung to work in the airport. The Administration has advised that issues on the transport infrastructure on Lantau require careful studies and comprehensive consideration, taking into account a host of relevant factors.

91. Referring to the incident in 2015 that the Kap Shui Mun Bridge was collided by a vessel resulting in the closure of lanes in Tsing Ma Bridge, a member has enquired whether AAHK has formulated any contingency measures to deal with the unpredictable incidents which may affect airport staff travelling to HKIA for work. AAHK has advised that there is an established mechanism in handling such situations.

92. The Subcommittee agrees that the issues relating to the transport infrastructure on Lantau should be further followed up by the Panel on Transport.

Recommendations

93. The Subcommittee urges the Administration and AAHK to take into account the views and concerns on all relevant issues expressed by members. As the 3RS project is one of the major large scale infrastructural projects in Hong Kong, the construction of which will straddle a number of years, the Subcommittee recommends that issues relating to the 3RS project should continue to be followed up by relevant Panels of LegCo. The Administration/AAHK should provide the progress update of the 3RS project to the Panel on Economic Development on a half-yearly basis.

94. The Subcommittee also recommends that -

the Administration should:

(a) closely monitor AAHK's implementation of the 3RS project in view of its unprecedented scale, cost and complexity;

(b) consider disclosing the contents of the Plan in liaison with relevant government authorities;

(c) consider providing more information on achieving the target maximum capacity of 102 ATMs per hour under the 3RS

operation at HKIA, including the timeline for achieving such target;

(d) consider commissioning a consultancy study on the impact of "air wall" constraint on the runway capacity of HKIA;

(e) consider appointing an independent consultant to review AAHK's detailed funding plan; and

(f) closely monitor the compliance by AAHK with all mitigation measures stipulated in the EP for the 3RS project.

AAHK should:

(a) continue to enhance the capacity of the 2RS prior to the full commissioning of the 3RS;

(b) take all necessary project management and cost control measures to ensure that the 3RS project will be delivered on time and within budget;

(c) improve the transparency in the process of procuring filling materials;

(d) consider arranging LegCo Members to have sight of the 3RS construction contracts under confidential undertaking;

(e) consider allocating a larger portion of its borrowings for funding the 3RS project in the form of retail bonds and green bonds;

(f) relay the travel agencies' concern to airlines on collecting ACF;

(g) formulate long-term manpower plans and measures as well as develop better transport connectivity to facilitate and encourage more people to work at HKIA;

(h) consider conducting a survey on the travelling expenses of airport staff; and

(i) implement measures to shorten the baggage delivery time.

Council Business Division 4
Legislative Council Secretariat
10 November 2017

Appendix I

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

Terms of reference

To study and follow up issues relating to the three-runway system ("3RS") at the Hong Kong International Airport ("HKIA"), including the feasibility of the 3RS, its scope and design details, financial arrangement, existing capacity of HKIA, environmental impacts, and related matters.

Appendix II

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

Membership list*

Chairman	Hon WONG Ting-kwong, GBS, JP
Deputy Chairman	Hon Jeremy TAM Man-ho
Members	Hon Abraham SHEK Lai-him, GBS, JP Hon Jeffrey LAM Kin-fung, GBS, JP Hon CHAN Kin-por, GBS, JP Hon Paul TSE Wai-chun, JP Hon Michael TIEN Puk-sun, BBS, JP Hon Steven HO Chun-yin, BBS Hon Frankie YICK Chi-ming, SBS, JP Hon YIU Si-wing, BBS Dr Hon KWOK Ka-ki Hon Dennis KWOK Wing-hang Dr Hon Elizabeth QUAT, BBS, JP Ir Dr Hon LO Wai-kwok, SBS, MH, JP Hon CHU Hoi-dick Hon Holden CHOW Ho-ding Hon Wilson OR Chong-shing, MH Hon Tanya CHAN Hon HUI Chi-fung Hon LUK Chung-hung Hon LAU Kwok-fan, MH Dr Hon CHENG Chung-tai (Total : 22 Members)
Clerk	Ms Shirley CHAN
Legal Adviser	Mr Bonny LOO

* Changes in membership are set out in **Annex to Appendix II**.

Annex to Appendix II

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

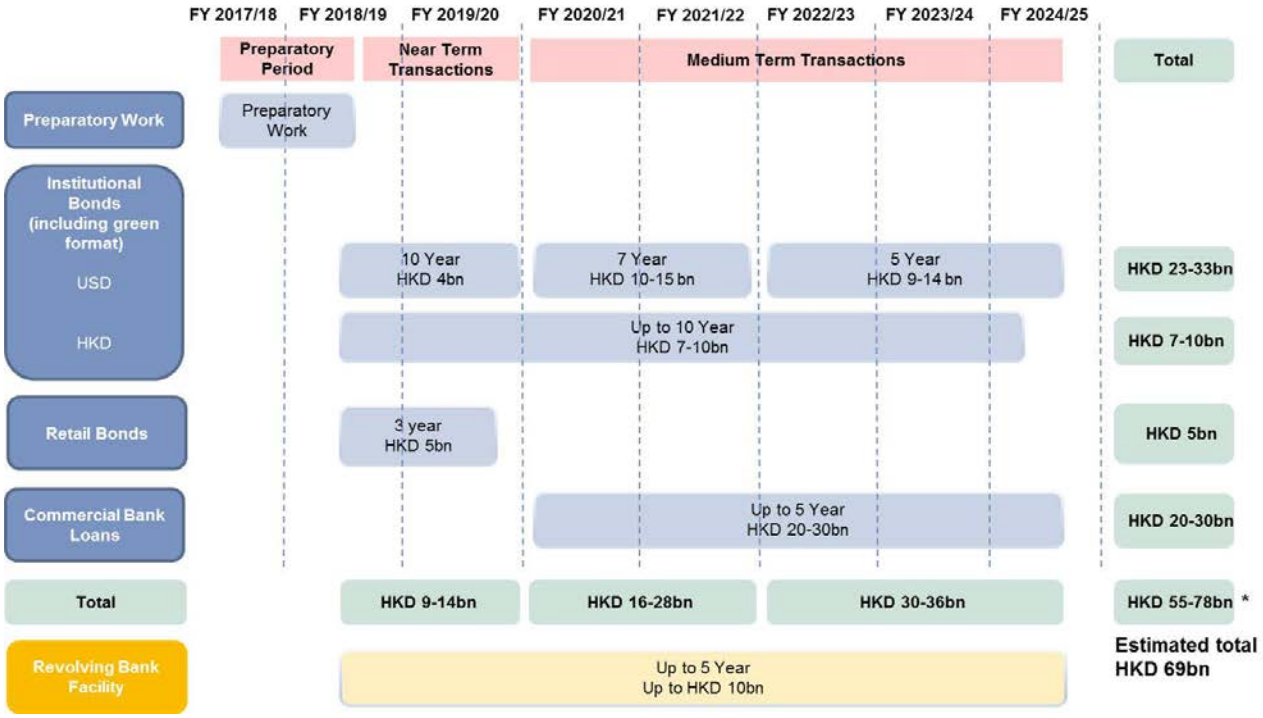
Changes in membership#

Member	**Relevant date**
Hon LEUNG Yiu-chung	Up to 20 September 2017

Changes in LegCo Membership
http://www.legco.gov.hk/general/english/members/yr16-20/notes.htm

Appendix III

The Detailed Funding Plan and Indicative Implementation Timeline



Source: AAHK, 3RS Consultancy Study: Detailed Funding Plan for Three-runway System (3RS) at HKIA – Financial Advisor Report, HSBC (2017)

Notes :

1. Revolving bank facilities serve to provide liquidity only and do not form part of the core debt funding required for the 3RS.

2. As market conditions and the terms of different instruments would vary from time to time, ranges indicating the potential issuance sizes for each debt instrument in the medium term are used to provide flexibility for AAHK to optimize the choice of instruments closer to the time of fund raising.

3. For the avoidance of doubt, the total aggregate debt issuance across all instruments in the recommended funding plan is not expected to exceed the debt requirement to fund the 3RS.

4. $55-78 billion represents the summation of the lowest and highest range of each debt instrument type.