

**立法會**  
**Legislative Council**

LC Paper No. CB(1)1157/06-07  
(These minutes have been seen  
by the Administration)

Ref: CB1/PL/ES/1

**Panel on Economic Services**

**Minutes of meeting**  
**held on Monday, 22 January 2007, at 10:45 am**  
**in the Chamber of the Legislative Council Building**

- Members present** : Hon Jeffrey LAM Kin-fung, SBS, JP (Chairman)  
Hon Abraham SHEK Lai-him, JP (Deputy Chairman)  
Ir Dr Hon Raymond HO Chung-tai, SBS, S.B.St.J., JP  
Dr Hon David LI Kwok-po, GBS, JP  
Hon Fred LI Wah-ming, JP  
Dr Hon LUI Ming-wah, SBS, JP  
Hon CHAN Kam-lam, SBS, JP  
Hon SIN Chung-kai, JP  
Hon Howard YOUNG, SBS, JP  
Hon LAU Chin-shek, JP  
Hon Miriam LAU Kin-yee, GBS, JP  
Hon Andrew LEUNG Kwan-yuen, SBS, JP  
Hon WONG Ting-kwong, BBS  
Hon CHIM Pui-chung  
Hon KWONG Chi-kin  
Hon TAM Heung-man
- Members absent** : Hon James TIEN Pei-chun, GBS, JP  
Hon Vincent FANG Kang, JP  
Hon Ronny TONG Ka-wah, SC
- Public officers attending** : Agenda Item IV  
Ms Eva CHENG  
Permanent Secretary for Economic Development and  
Labour (Economic Development)

Mr Howard LEE  
Deputy Secretary for Economic Development and  
Labour (Economic Development) 2

Dr WONG Ming-chung  
Assistant Director  
Hong Kong Observatory

Mr Edwin LAI  
Senior Scientific Officer  
Hong Kong Observatory

Agenda Item V

Ms Eva CHENG  
Permanent Secretary for Economic Development and  
Labour (Economic Development)

Mr Michael WONG  
Deputy Secretary for Economic Development and  
Labour (Economic Development) 1

**Attendance by invitation** : Agenda Item V

The Airport Authority Hong Kong

Dr David J PANG  
Chief Executive Officer

Mr Hans BAKKER  
Commercial Director

Mr Allan YEUNG  
General Manager, Property Business

**Clerk in attendance** : Ms Connie SZETO  
Chief Council Secretary (1)6

**Staff in attendance** : Ms Debbie YAU  
Senior Council Secretary (1)1

Ms Michelle NIEN  
Legislative Assistant (1)9

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Action

- I Confirmation of minutes and matters arising**  
(LC Paper No. CB(1)705/06-07 - Minutes of meeting held on 27 November 2006)

The minutes of the meeting held on 27 November 2006 were confirmed.

- II Information papers issued since last meeting**  
(LC Paper No. CB(1)618/06-07(01) - Tables and graphs showing the import and retail prices of major oil products from December 2004 to November 2006 furnished by the Census and Statistics Department)

2. Members noted the above paper issued since last meeting.

- III Items for discussion at the next meeting**  
(LC Paper No. CB(1)730/06-07(01) - List of outstanding items for discussion)

LC Paper No. CB(1)730/06-07(02) - List of follow-up actions)

3. Members agreed to discuss the following items proposed by the Administration at the next regular meeting to be held on Monday, 26 February 2007, at 10:45 am:

- (a) An item from the Hong Kong Observatory; and
- (b) Replacement of the Civil Aviation Department (CAD)'s air traffic control system and creation of posts for the development of a new CAD Headquarters on the Airport Island.

On item (a) above, members noted that the title of the agenda item would be finalized in due course.

Accuracy of fuel dispensers

4. The Chairman referred members to the letter dated 18 January 2007 from Hon Fred LI tabled at the meeting, in which he proposed the Panel to schedule

discussion on policy issues relating to the recent incident about inaccurate measurement of a fuel dispenser at a fuel station and invite fuel companies to join the discussion.

*(Post-meeting note: The letter from Hon Fred LI was subsequently issued to Panel members vide LC Paper No CB(1)788/06-07(01) on 23 January 2007.)*

5. The Chairman also drew members' attention that Hon Miriam LAU would raise an oral question on accuracy of fuel dispensers at the Council meeting to be held on 24 January 2007. He consulted members on Hon Fred LI's proposal.

6. Mr WONG Ting-kwong noted that subsequent to the said incident, the Commissioner of Customs and Excise had indicated that there was no question of any intentional deception by the auto-fuel company concerned. He considered the incident an isolated case involving unnoticed mechanical error. As members would have an opportunity to raise supplementary questions on Ms Miriam LAU's question at the Council meeting, Mr WONG did not consider it necessary for the Panel to schedule discussion on the item.

7. Mr Fred LI said that the Panel might consider at a later stage whether to discuss the subject matter, in particular on the need to specify a permitted margin of error for fuel dispensers in facilitating enforcement of relevant laws.

8. Ms Miriam LAU was also concerned that despite substantial decrease in international crude oil price from about US\$70 to some US\$50 per barrel in recent months, the local pump price had only fallen slightly. She urged the Government to monitor the situation closely to relieve the burden of the affected economic sectors. Ms LAU opined that the Panel might consider discussing the adjustment of local pump prices in due course. Noting that there had been little adjustment in fuel surcharges imposed by airline operators on passengers, Mr CHAN Kam-lam also suggested the Panel to schedule discussion on the subject.

9. The Chairman said that he would follow up on members' suggestions in consultation with the Administration.

#### **IV Replacement of high performance computing system for the Hong Kong Observatory**

(LC Paper No. CB(1)730/06-07(03) - Information paper provided by the Administration)

#### Briefing by the Administration

10. At the invitation of the Chairman, the Assistant Director, Hong Kong Observatory (AD/HKO) briefed members on the proposal to acquire a replacement high performance computing (HPC) system to support weather forecasting and warning services of the HKO. He highlighted the salient points of the proposal as follows:

- (a) Numerical Weather Prediction (NWP) was the basic forecasting tool in modern weather centres. It was a technique of simulating the evolution of the atmosphere on HPC systems. Such simulation required very intensive computing resources to solve the complex mathematical equations involved;
- (b) The existing HPC system of the HKO was acquired in 1999. It had a peak performance of 0.02 TeraFLOPS (i.e. it could perform 0.02 million million floating point operations per second), which was very low as compared with some other meteorological centres. The HKO had to configure the existing system to support running NWP models at two horizontal resolutions: a coarser 60-km version over a larger domain and a finer 20-km version over a smaller domain. The NWP model outputs thus generated lacked the quality of resolution required to adequately capture spatial differences and differentiate the detailed topography of Hong Kong. Moreover, the existing system only allowed NWP models to be run optimally at 3-hourly intervals. This update frequency was not adequate to deal with fast developing weather situations;
- (c) New NWP models taking advantage of the advances in computing technology had been developed in the past few years offering more functions, including a suite of refined models with enhanced horizontal resolutions to resolve spatial differences, more frequent model runs to capture rapid changes of inclement weather, and more advanced data analysis techniques to provide meteorological information of a better quality. With a view to providing more timely and detailed weather forecasts and warnings, the HKO had commissioned an HPC Technical Study in 2006. Taking into account the anticipated operational requirements applicable to Hong Kong in terms of model resolution, update frequency and dimensions of forecast domain, the consultant recommended replacing the existing system by an enhanced system with a peak performance of 3 to 5 TeraFLOPS, configured to run a suite of high resolution NWP models with horizontal resolutions ranging from 2 km to 20 km. With the proposed replacement, the HKO would be better equipped to simulate and issue warnings of short-lived and localized weather phenomena so that members of the public would be provided with more detailed and timely weather forecasts and warnings;

- (d) On the basis of findings of the HPC Technical Study and based on the latest market information provided by the consultant and the Architectural Services Department (ASD), the estimated non-recurrent cost of the proposal was \$48.5 million. The additional annual recurrent expenditure arising from the project was estimated to be \$4.03 million from 2009-10 onwards. The Economic Development and Labour Bureau (EDLB) and the HKO would absorb the additional recurrent cost from within their existing resources. No additional staff would be required as existing HKO staff would be deployed to operate the new HPC system; and
- (e) Regarding the implementation plan, the HKO planned to invite tender and award the contract by March 2008, and commission the system by November 2009.

11. Members noted that the Administration planned to submit the relevant funding proposal for the consideration of the Finance Committee (FC) at the latter's meeting to be held on 9 February 2007.

#### Discussion

12. Mr WONG Ting-kwong expressed the support of the Democratic Alliance for the Betterment and Progress of Hong Kong for the proposal. He also appreciated HKO's effort in recent years in improving performance as its works were closely linked to the daily lives and economic activities of the public.

#### *Performance of the proposed HPC system*

13. Mr Fred LI welcomed the replacement proposal and hoped that with the new HPC system, the HKO could provide more timely and detailed weather forecasts and warnings to facilitate members of the public in planning their school or work schedules. However, noting that the speed of the HPC systems used at the Korea Meteorological Administration and that to be acquired by the Beijing Meteorological Bureau were 18.5 and 6 TeraFLOPS respectively, which were much more powerful than the proposed new HPC system with a peak performance of 3 to 5 TeraFLOPS only, Mr LI was concerned whether the new system could adequately cope with the needs of Hong Kong. He also enquired why the HKO had not recommended the purchase of a new HPC system of a fixed speed but instead proposed to purchase a system ranging from 3 to 5 TeraFLOPS, and sought clarification on the actual speed requirement for the new system.

14. AD/HKO explained that the new HPC system would be purchased with regard to the operational requirements of the HKO, in particular the scope of NWP models needed to be generated. He elaborated that as the HPC systems of the China Meteorological Administration and the Korea Meteorological

Administration were required to run global NWP models covering all key cities in the world, the computing resources they needed were thus much more intensive. Unlike these two centres, the HPC system in the HKO only needed to support running regional NWP models for a smaller domain between mid-Asia and the northern part of the west of Pacific Ocean, and in respect of specific weather systems that could affect Hong Kong such as tropical cyclones, monsoons and cold fronts. Hence, an HPC system with a speed of 3 to 5 TeraFLOPS would meet the needs of the HKO. Taking into account the anticipated operational requirements applicable to Hong Kong in terms of model resolution, update frequency and dimensions of forecast domain, the consultant of the HPC Technical Study had recommended that an enhanced system with a peak performance of 3 to 5 TeraFLOPS would be adequate to meet HKO's operational needs. AD/HKO further advised that to ensure cost-effectiveness of the new HPC system, the actual speed requirement would be finalized subject to the market price of HPC hardware and software at the time of awarding the contract.

15. Dr LUI Ming-wah echoed Mr Fred LI's view and stressed that Hong Kong should not lag behind other cities in terms of weather forecast performance. He was keen to ensure that the new HPC system would remain the most advanced one in the region in three to five years after the replacement.

16. AD/HKO stressed that the accuracy of weather forecasts hinged more on the version of NWP models adopted for use. He confirmed that a 3 to 5 TeraFLOPS HPC system could already provide adequate support to run the next generation of NWP models. He further advised that the Beijing Meteorological Bureau had planned to acquire in 2007 an HPC system of 6 TeraFLOPS due to different business requirements. The new system was required to support a different type of software or meet specific demand. As such, it was not appropriate to make direct comparison between the HPC system to be acquired by the HKO and those by the Beijing Meteorological Bureau and other meteorological centres.

17. The Deputy Secretary for Economic Development and Labour (Economic Development)2 (DS/ED2) supplemented that the HKO had been collaborating with other major meteorological centres in providing weather forecasts and had been obtaining from these centres NWP model outputs covering a larger domain to facilitate forecasts and warnings on regional weather conditions. Such collaborations had obviated the need for the HKO to repeat simulation on the evolution of the atmosphere on a global scale and could optimize the performance of its HPC system to ensure cost effectiveness in the provision of weather services.

18. While conveying the support of the Alliance for the proposal to replace the HPC system of the HKO, Mr Abraham SHEK considered that the HKO should decide on the speed of the new HPC system to be acquired taking into account of its operational needs in the future years instead of on the basis of the market price

at the time of awarding the contract. Sharing the view, Mr CHAN Kam-lam remarked that should the HKO acquire a slower system due to budget constraint, it might need to replace the new system after a short period of time. As such, he considered that the HKO should determine the speed required for the new HPC system before inviting the tender. If necessary, the Administration could seek FC's approval for additional funds to purchase a more powerful HPC system.

19. AD/HKO said that the HKO would certainly wish to acquire a faster system to facilitate the provision of more timely and detailed weather forecasts and warnings. Moreover, the acquisition of a new system with a peak performance of 5 TeraFLOPS would help maximize the value for public monies. DS/ED2 added that the present proposal provided flexibility whereby the HKO could acquire an HPC system of 3 TeraFLOPS to meet its basic requirements or if the market price for the new system became lower when the tender was invited, the approved funds could enable the acquisition of a faster system of 4 or 5 TeraFLOPS.

20. Mr Abraham SHEK was unconvinced and suggested that the Administration should consider seeking FC's funding approval in two steps. First for upgrading the power capacity at the HKO Headquarters and site design/preparation, to be followed by the acquisition of the HPC hardware and software. He also enquired about the estimated costs for HPC systems of 3 TeraFLOPS and 5 TeraFLOPS.

21. AD/HKO advised that on a preliminary rough estimation, a 3 TeraFLOPS HPC system would cost about \$30 million in money-of-day prices.

22. DS/ED2 said that obtaining funds from FC for the whole project at one go would provide better certainty for the project and help maintain the momentum for its implementation. Nevertheless, he assured members that flexibility would be provided in the tender document to enable the HKO to make the best use of public resources in acquiring a suitable HPC system. He added that as suggested by members, the HKO would endeavour to decide on the speed requirement of the new HPC system before inviting the tender.

23. Noting that the existing HPC system supported running NWP models at two horizontal resolutions, viz., 60 km and 20 km, vis-à-vis 2 km to 20 km for the new system, Mr CHAN Kam-lam sought clarification on the difference between the old and new systems in terms of weather forecast performance.

24. AD/HKO explained that the existing HPC system supported running NWP models at a coarser 60-km version which covered a larger domain between mid-Asia and the northern part of the west of Pacific Ocean and at a finer 20-km version over a smaller domain from Southeast Asia to South China Sea. The new system would offer a suite of refined models with enhanced horizontal resolutions at a coarser 20-km version and a finer 2-km version covering only the Pearl River Delta (PRD). This could enable HKO to provide more detailed and

refined weather forecasts and warnings for the reference of the public.

25. While appreciating the improvement on the accuracy of weather forecasts made by the HKO in the past few years, the Chairman however noted that there were some occasions in which different districts had experienced distinctive weather conditions, such as a marked difference in wind speed. He was concerned whether the new HPC system could address the spatial differences in weather. Echoing his view, Mr Fred LI pointed out that due to the lack of time-critical weather warnings, some members of the public had to return home right after arriving schools or workplaces. In this connection, he sought the HKO's undertaking in providing timely weather information after the roll-out of the new HPC system.

26. AD/HKO advised that NWP models run on the new HPC system would take advantage of the advances in computing technology to offer enhanced horizontal resolutions to resolve spatial differences and more advanced data analysis techniques to provide meteorological information of a better quality. DS/ED added that while the enhanced HPC system could better equip the HKO to simulate and issue warnings of short-lived and localized weather phenomena, it was not possible for the simulation to match exactly with the real weather conditions because of the inherent limitation of NWP technology.

27. Mr SIN Chung-kai enquired whether HKO had considered using other more advanced computing technology, such as grid computing, to run the NWP models instead of just adopting an enhanced version of the same technology.

28. AD/HKO confirmed that the consultant of the HPC Technical Study had considered various computing technologies available in the market. While the HKO would replace the existing CRAY system by an enhanced version, he pointed out that the new system would use the technique of parallel processing instead of vector processing to run the NWP models.

#### *Implementation of the proposal*

29. Noting from the Administration's paper that the serviceable life of HPC systems was normally about five years, Mr Fred LI expressed grave concern that it would take three years from now before the commissioning of the new HPC system. Given rapid advancement in technology, he was concerned that the new system might become outdated by then. Hence, he urged the HKO to expedite the implementation process. He also enquired whether the existing HPC system would be re-cycled for other uses or written off when it was replaced.

30. In response, AD/HKO explained that the normal serviceable life of an HPC system was about five years. The existing HPC system was acquired in 1999 at a cost about \$10 million. With proper repair and maintenance provided by the supplier, it was believed that the existing HPC system would continue to perform steadily until the replacement system was ready by November 2009.

On the implementation schedule, AD/HKO advised that according to the ASD, it would take about 17 months to upgrade the power capacity at the HKO Headquarters and prepare the site for housing the new HPC system. When these were ready, the new HPC system would be delivered, installed and tested. Another twelve months would be required to conduct trial runs of new NWP models on the new HPC system before its commissioning by November 2009. As such, the whole process would take some 30 months to complete. As regards the disposal of the existing HPC system, AD/HKO pointed out that as the system would have serviced for ten years by the time of replacement, whether it could continue to provide service or otherwise would depend on users' requirements. Nevertheless, AD/HKO said that the HKO would follow the Government's established procedures in disposing the existing HPC system.

31. In reply to Mr Fred LI's further enquiry, AD/HKO envisaged that similar to the existing system, the new HPC system could have a serviceable life of about ten years unless there were major breakthroughs in NWP technology and/or the HKO had to meet new service needs requiring more advanced system support.

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32. Acknowledging members' concern about the rapid advancement in computing technology, the Permanent Secretary for Economic Development and Labour (Economic Development) (PS/ED) undertook to liaise with the ASD to explore the feasibility of speeding up the upgrading of the power capacity at the HKO Headquarters so as to expedite the replacement project. She also noted members' view on the need to ensure public resources would be put to the best use in procuring a value-for-money and cost-effective HPC system. She assured members that the Administration would acquire an advanced HPC system in terms of its capability in running regional NWP models. In reply to the Chairman's further enquiry, PS/ED advised that it would take up to nine months for the successful bidder to deliver the new HPC system after awarding the contract. She considered the schedule reasonable given the large scale of the new system.

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33. Mr Fred LI was pleased to note the Administration's undertaking to expedite the upgrading of the power capacity at the HKO Headquarters as he considered unacceptable that the works would take 17 months to complete. He called on the Administration to revise its implementation plan as set out in paragraph 17 of the Administration paper (LC Paper No CB(1)730/06-07(03)) before submitting the proposal to FC. Otherwise, he might not give his support for the proposal.

*Regional co-operation*

34. Pointing out that the local weather conditions would be influenced by the weather in Southeast Asia and PRD, Mr CHAN Kam-lam highlighted the importance of co-operation between the HKO and meteorological authorities in the region, in particular about their efforts in ensuring the compatibility of the weather forecast systems to enable efficient exchange of information and ensure

the provision of complementary weather services. He opined that with enhanced co-operation with other meteorological centres, the HKO would be able to provide more refined forecasts to facilitate weather-sensitive aviation and maritime operations. Sharing the view, the Chairman asked whether the HKO had explored the possibility of interconnecting its system with those of other meteorological authorities in the region with a view to facilitating sharing of information.

35. In response, AD/HKO stressed that the HKO had been maintaining close working relationship with other counterparts in the region, in particular the Guangdong Meteorological Bureau. For example, the annual meteorological seminar among meteorological authorities of Guangdong, Hong Kong and Macao would be held in Hong Kong during the week to discuss further strengthening of co-operation and share results of research work. Moreover, the HKO had brought in the existing NWP forecasting tool from the Japan Meteorological Agency which would also provide the next generation of NWP technology for the HKO. However, due to difference in business requirements in terms of resolutions and domain coverage, the HKO could not share the NWP model outputs on-line with other meteorological counterparts. They mainly exchanged radar and weather information and shared research results with each other.

36. In addition to exchange of meteorological information with and co-operation between the HKO and other meteorological centres in the region, DS/ED2 advised that the HKO also participated actively in different technical committees under the World Meteorological Organization (WMO) to keep abreast of the latest technological development and trends in world weather phenomena.

37. Mr CHAN Kam-lam called on the Administration to inform meteorological centers in the region of HKO's proposal to replace the HPC system. To facilitate future cooperation and exchange of information, Mr CHAN stressed that the HKO and its counterparts could join hands to tackle technical issues that might arise after the commissioning of the new system. He considered that Hong Kong should also strive to become the regional hub in weather forecasts with a view to further enhancing its international status.

38. In response, AD/HKO highlighted the active participation of the HKO in international meteorological organizations. For instance, the Director of the HKO was the Vice-president of Regional Association II (Asia) of the WMO. He himself was the Vice Chair of the Working Group on Disaster Preparedness and Prevention of the Typhoon Committee, and the Chair of Expert Team on Public Weather Services in Support of Disaster Prevention and Mitigation of the WMO. Moreover, the HKO had initiated in 2005 the "Pilot Project on the Provision of City-Specific NWP Products to Developing Countries via the Internet" with the aim to enhance the weather forecasting capacity of developing countries in the region through the supply of city-specific NWP products. The project had made good progress with the first batch of city-specific forecasts

prepared by Hong Kong, Japan and Republic of Korea put into operation in January 2006.

Conclusion

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39. Summing up, the Chairman said that the Panel supported the proposal to replace the HPC system of the HKO in principle. He urged the Administration to take note of members' concerns and suggestions expressed at the meeting including revising the implementation plan to expedite the process of site preparation and specifying the speed of the HPC system to be acquired before submitting the funding proposal to FC.

**V Briefing on SkyCity Development at the Hong Kong International Airport**

(LC Paper No. CB(1)730/06-07(04) - Information paper provided by the Airport Authority Hong Kong)

40. At the invitation of the Chairman, PS/ED highlighted the contribution of the Hong Kong International Airport (HKIA) to Hong Kong's economy by achieving robust growth in both passenger and cargo throughputs in the past years. She then invited Dr David J PANG, Chief Executive Officer of Airport Authority Hong Kong (AAHK) to brief members on the SkyCity development project at HKIA.

Briefing by AAHK

41. With the aid of power-point, Dr David PANG highlighted the development and future plan of HKIA as follows:

- (a) To maximize the values of HKIA, AAHK had redefined HKIA about six years ago as the centre of integrated multi-modal flow of people, goods, information and capital. In 2001, AAHK had articulated its vision, strategies and facilities planning to create more value out of HKIA. To stay ahead of competition, AAHK had re-examined its strategy in 2006 and mapped out its 20-year plan viz. *HKIA 2025* ;
- (b) Currently, HKIA was providing services to 85 airlines with connection to 150 destinations, including 40 cities in the Mainland. On land transport connectivity, HKIA was serviced by the best airport express in the world and by 40 bus routes with many drop-off points covering the entire territory. Moreover, there were 240 coaches operating daily between HKIA and 70 towns and cities in PRD area and Guangxi. HKIA was looking forward to the reality of the Hong Kong-Zhuhai-Macao Bridge which would

enable HKIA to connect with the national rail network of the Mainland. On sea flow, there were ferry services between HKIA and 5 PRD ports. With the introduction of the one-stop check-in service, passengers travelling from the Mainland to other parts of the world via HKIA could obtain their boarding passes and check in their luggage at the Mainland ports. In this way, HKIA's catchment area would extend across the boundary inside the Mainland;

- (c) To meet future demand and contribute further to the economy of Hong Kong, HKIA had started the SkyCity development about six years ago, which included AsiaWorld-Expo (AWE), a second airport hotel - Hong Kong SkyCity Marriott Hotel, a permanent SkyPier, a 9-hole golf course, and two office towers and Terminal 2 (T2);
- (d) T2, with a total floor area of 140 000 m<sup>2</sup>, would be a new terminal where the flows of air, land and sea seamlessly converged. T2 housed a tour coach hall with 36 parking bays, providing local and cross-boundary coach services. T2 also provided 56 passenger check-in counters and immigration and customs services. In addition, it offered a wide variety of choices on retail and catering services as well as entertainment facilities; and
- (e) The economic activities of HKIA could be extended to Tung Chung and North Lantau and even to Tuen Mun and the PRD area. HKIA would transform from a city's airport to an airport city, bringing more economic and social value and pride to the people of Hong Kong.

*(Post-meeting note: The softcopy of the power-point material was subsequently circulated to Panel members vide LC Paper No CB(1)815/06-07 on 25 January 2007.)*

### Discussion

42. Mr Howard YOUNG requested to put on record his appreciation of HKIA's achievements under the capable leadership of Dr David PANG in recent years. He hoped to see that Mr PANG's successor would keep up the momentum and successful strategies in leading the development of SkyCity. Mr Fred LI also commended the work of AAHK under the leadership of Dr PANG in enhancing the values of HKIA. Mr Abraham SHEK and Ms Miriam LAU echoed the views and wished Dr PANG every success in his next endeavour.

*SkyCity development*

43. Noting that there would be 56 new passenger check-in counters at T2 for the handling of departing passengers, Mr Howard YOUNG enquired about the time taken for travelling from T2 to T1 where passengers might check-in and get on board aircrafts respectively. Mr Fred LI was concerned that passengers might get lost and miss their flights. Citing problems about confusion to passengers in the United Kingdom airports which had several terminals, Miss TAM Heung-man suggested that AAHK should learn from the unsuccessful experience and avoid the same mistakes in HKIA.

44. Dr David PANG advised that T2 was located just next to T1. While the two terminals were within 3-minute walking distance, it took passengers only 1 minute to travel between T2 and T1 by using the automated people mover connecting the two terminals. Passengers could also use the shuttle bus service to travel between the two terminals. To ensure passengers could enjoy hassle-free airport services, AAHK had designed simple routes between T1 and T2 and put up clear signage to direct passengers. It would also appoint 30 additional ambassadors to provide personal assistance for those passengers in need. AAHK had conducted 60 trials and drills to test the various new measures to ensure they would work upon the phased opening of T2 from February 2007 onward. Dr PANG assured that apart from drawing on the experiences of major overseas airports, AAHK would also collect feedbacks from passengers and make improvements in the light of experience in operating the new terminal.

45. On Mr Howard YOUNG's suggestion of providing more boarding gates in HKIA to cope with the growing passenger number, Dr David PANG said that AAHK had earmarked \$4.5 billion for undertaking a series of facility and capacity enhancement projects at HKIA, the major ones included the enhancement of arrivals central concourse, and the construction of a new satellite concourse which would be linked with 10 bridge-served aircraft stands to meet the future needs of extra parking stands.

46. In response to Miss TAM Heung-man's enquiry about supporting facilities provided for the SkyCity development, Dr David PANG said that AAHK had worked closely with its business partners, service providers and government agencies to beef up existing supporting facilities. For example, the land transport facilities had been revamped to tie in with the opening of T2 thereupon the Airport Express Line station would operate on both platforms facing each terminal whereas the tour coach terminus would be relocated under T2 with enhanced facilities and 37 coach pick-up bays.

47. In response to Miss TAM Heung-man's enquiry about the financing arrangements for the SkyCity development, Dr David PANG advised that the entire project was financed by AAHK's internal reserve plus existing banking facilities. On Miss TAM's further enquiry on the interest rates charged by banks, Dr PANG said that both long term and short term banking facilities had been

engaged to fund the project. According to the feasibility study conducted on the development project, the interest rates were considered reasonable having regard to the projected internal rate of return of the project.

48. Mr Abraham SHEK expressed concern about the return from AAHK's investment on the SkyCity development. Dr David PANG stressed that there were a number of key components under the SkyCity development. T2 was not just a shopping centre but also a focal point of the flow of people and goods. It was believed that as long as AAHK could maintain and enhance the flow of people and goods and create more business opportunities, the SkyCity would operate successfully and would continue to generate economic spin-off in attracting business activities and reinforce the airport city concept.

49. In reply to Mr Abraham SHEK's further enquiry on the timetable of AAHK's privatization plan, Dr David PANG said that working in partnership with the Government, AAHK would continue to enhance the value of HKIA. PS/ED added that the public consultation exercise back in end May 2005 had indicated divergent public views on AAHK's privatization. In the meantime, the Administration considered it more important to enhance HKIA's competitiveness and improve its business performance in order to reinforce Hong Kong's status as the aviation hub in the region.

50. Ms Miriam LAU pointed out that according to the Administration, the suggestion of expanding the cross-boundary ferry services at SkyPier to cater for non-transit passengers would be subject to the availability of the necessary custom, immigration and quarantine (CIQ) facilities. She sought information on the progress made so far.

51. Acknowledging Ms LAU's concern, Dr David PANG said that it was part of AAHK's plan to make available the necessary facilities to enable non-transit passengers to visit AWE and other tourist attractions in the vicinity of HKIA. Floor space had been earmarked in the SkyPier for CIQ facilities.

52. Ms Miriam LAU did not subscribe to AAHK's response. She considered that having serviced transit passengers for a few years, SkyPier should be allowed to operate cross-boundary ferry services. She sought information on the obstacles, if any, and the timetable in taking forward the initiative.

53. The Deputy Secretary for Economic Development and Labour (Economic Development)1 (DS/ED1) explained that the Environment, Transport and Works Bureau was the bureau responsible for coordinating the development of cross-boundary ferry services. He understood that in exploring the feasibility of expanding cross-boundary ferry services, factors such as the utilization of the existing cross-boundary ferry terminals, and the cost-effectiveness of operating a new terminal, which would require CIQ services, would have to be taken into account. DS/ED1 undertook to reflect Ms Miriam LAU's view and suggestion to ETWB for consideration. The Chairman urged the Administration to make

Admin the best use of SkyPier and draw up a concrete timetable in implementing the initiative.

54. The Chairman expressed support for continuous development of HKIA and enquired about new development plans in the future. Dr David PANG referred to the HKIA 2025 which was a 20-year plan guiding the development of HKIA ensuring that the airport would continue to contribute to the social and economic development of Hong Kong, as well as to position HKIA as one of the most important gateway hubs of the Mainland. It was estimated that HKIA would serve close to 80 million passengers and handle 8 million tonnes of cargo and half a million aircraft movements per year by 2025. HKIA would make specific recommendations to ensure that its capacity could meet the rapid growth in passenger and cargo.

*Economic benefits of the SkyCity*

55. Noting that the SkyCity development would create new employment opportunities, Mr KWONG Chi-kin hoped to see that residents in Tung Chung, particularly those with low education attainment level, could find jobs at HKIA so that they did not need to incur high travelling expenses to work in the city centre. He enquired about the types and respective number of jobs to be created by the SkyCity development.

56. Dr David PANG advised that T2 would offer about 1 500 jobs, which did not include the jobs generated during the construction phase. He pointed out that HKIA also relied on the communities in Tung Chung for manpower supply. A wide variety of jobs of different skill levels, such as low-skilled cleaning work or customer service jobs in catering and retail business which required higher level of skills, were available. He added that to enable more grass-root residents in Tung Chung to work at HKIA, AAHK had in the past year worked with the Government as well as voluntary agencies in organizing training programmes to enhance the competencies of the residents to enable them to take up new jobs at HKIA.

57. Noting that T2 would be offering more choices on retail, catering, and entertainment facilities to enrich passenger experience, Mr Abraham SHEK was concerned that the opening of T2 might adversely affect business of shops in Tung Chung and asked whether AAHK had conducted study to assess the impact.

58. Dr David PANG said that the airport city concept should extend beyond the airport boundaries to create stronger economic links with vicinity areas. Moreover, in places like Dallas and Beijing, spines and clusters of airport-linked businesses were set up along the major roads up to 25 kilometres away from the airport to form aerotropolis. Highlighting the complementary role of HKIA to Tung Chung, Dr PANG believed that the increased flow of people at HKIA would certainly help the surrounding areas by creating more business and job opportunities and generating economic spin-off for the interests of nearby

communities including Tung Chung.

*HKIA's competitiveness*

59. Referring to media reports about concern that airports in Guangdong might take over HKIA to become the aviation hub in the region, Mr Fred LI enquired about measures to be taken by AAHK in maintaining HKIA's competitiveness, such as attracting more budget airlines to fly to Hong Kong.

60. On competition with neighbouring airports, Dr David PANG said that HKIA aimed to extend its catchment area via hassle-free multi-modal connectivity to the 40-million populated PRD to attract more Mainland passengers to fly via HKIA to other parts of the world. Given that pricing was one of the important considerations of passengers in deciding with which airlines to fly, AAHK had put in place conducive measures to attract low-fare airlines to join HKIA's extensive aviation network. These included the introduction of custom-built frontal parking and direct taxi-in/taxi-out stands for smaller aircrafts to facilitate quicker turnaround.

61. In reply to the Chairman, Dr David PANG assured that as an international aviation hub, HKIA had always been committed to meeting the needs of aircraft of different sizes. To facilitate the operation of the new giant A380 aircraft, HKIA had participated in A380's type certification. Improvement works including widening taxiway shoulders and upgrading the parking bay servicing facilities to comply with the aerodrome licensing requirements had been completed. Moreover, five gates had been enhanced to serve A380 aircrafts.

62. Mr Howard YOUNG was concerned that in order to finance the SkyCity development project, AAHK might consider raising landing and parking charges at HKIA, and increasing rentals on retail and catering facilities at T1, thereby adversely affecting HKIA's competitiveness.

63. Mr Abraham SHEK opined that the high landing charges of HKIA had discouraged aircraft from using the airport and resulted in high airfares for passengers. He enquired whether AAHK had considered imposing lower landing charges on budget airlines as an incentive to attract them to fly to Hong Kong.

64. Dr David PANG stressed that AAHK had no plan to raise any airport charges at present. He clarified that airport charges should take into consideration of landing, terminal and building charges. He assured that AAHK would endeavour to provide even better services to airlines and attract more passengers to use the airport. He also looked forward to seeing that HKIA would continue to create more economic and social values for Hong Kong.

65. Noting that T2 had been designed to serve as the fusion point for the different transport modalities, the Chairman was concerned that with the increased flow of people and goods, whether the airport charges could be reduced as a result. He was keen to ensure that HKIA could maintain its competitiveness among neighbouring airports.

66. Dr David PANG clarified that according to an independent study, the landing and terminal handling charges of HKIA were ranked 46<sup>th</sup> among 50 major airports in the world. He stressed that the landing charges of HKIA were not expensive vis-à-vis other operating costs of the airlines such as salaries and office rent. AAHK, as well as other companies in HKIA, would continue to enhance their productivity by upholding the user-pay and value-for-money principles. Dr PANG re-iterated that having operated under prudent commercial principles, AAHK had no plan to revise its airport charges.

67. Mr Abraham SHEK enquired about HKIA's plans to invest in neighbouring airports. Dr David PANG highlighted the need for Hong Kong to integrate with the Mainland in various aspects. To ensure the future growth of HKIA, AAHK had integrated closely with the Zhuhai Airport to become an insider in the Mainland's aviation system. He elaborated that AAHK had acquired 55% stake in Hong Kong-Zhuhai Airport Management Company Limited, which was a joint venture set up to operate Zhuhai Airport for 20 years from October 2006 onward. Over the last three months, the co-operation between HKIA and Zhuhai Airport showcased Hong Kong's ability to work with the Mainland to achieve win-win results. The increased passenger traffic at Zhuhai Airport so far had helped ensure that AAHK could obtain the projected internal rate of return for its acquisition project. To better integrate the flow of people, there were specific plans to expand the domestic network and capacity of Zhuhai Airport utilizing low-fare aircrafts which were becoming increasingly popular in the Mainland market. These passengers were then directed to HKIA to feed into its comprehensive international network with a view to maximizing HKIA's passenger throughput.

#### *Air traffic control*

68. With rapid expansion in air traffic since the opening of HKIA in 1998, Mr Fred LI was concerned whether the Administration would consider implementing measures to enhance air traffic control with a view to catering for further growth and ensuring aviation safety.

69. On air traffic control, PS/ED recalled that the issue of congested airspace had been raised by the Chief Executive of the Hong Kong Special Administration Region, during his duty visit to Beijing in December 2006. The Administration was reassured that the Central Government attached great importance to the issue. PS/ED further advised that in view of increasing air traffic in the PRD region, the PRD Air Traffic Management Implementation Working Group, which was a tripartite working group set up in 2004 by the civil aviation authorities of the

Mainland, Macao and Hong Kong to study the issue of airspace management in the PRD, had recently agreed to add a new handover point to cater for flights overflying Hong Kong and landing in Guangzhou. Moreover, the Civil Aviation Department would continue to improve the flight procedures for aircraft operating to and from Hong Kong with a view to optimizing the use of the airspace and enhancing the efficiency of aircraft operation. The EDLB would also continue to work towards concluding more air services agreements with new aviation partners so as to assist local airlines to expand their services, having regard to commercial considerations.

Summing up

70. The Chairman said that the Panel was supportive of the SkyCity development project at HKIA. He called on the Government and AAHK to monitor development of the aviation industry in Hong Kong and in neighbouring cities closely and if necessary, adjust the development plan accordingly. The Chairman also took the opportunity to thank Dr David PANG for his valuable contribution to Hong Kong's aviation industry and wished him a fruitful retirement life.

**VI Any other business**

71. There being no other business, the meeting ended at 12:35 pm.