

立法會
Legislative Council

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seen by the Administration)

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Finance Committee of the Legislative Council

Minutes of the 25th meeting
held at Conference Room 1 of the Legislative Council Complex
on Friday, 24 April 2020, from 9:01 am to 10:43 am; and
from 3:15 pm to 6:59 pm

Members present:

Hon CHAN Kin-por, GBS, JP (Chairman)
Hon CHAN Chun-ying, JP (Deputy Chairman)
Hon James TO Kun-sun
Hon LEUNG Yiu-chung
Hon Abraham SHEK Lai-him, GBS, JP
Hon Tommy CHEUNG Yu-yan, GBS, JP
Prof Hon Joseph LEE Kok-long, SBS, JP
Hon Jeffrey LAM Kin-fung, GBS, JP
Hon WONG Ting-kwong, GBS, JP
Hon Starry LEE Wai-king, SBS, JP
Hon CHAN Hak-kan, BBS, JP
Dr Hon Priscilla LEUNG Mei-fun, SBS, JP
Hon Mrs Regina IP LAU Suk-yee, GBS, JP
Hon Paul TSE Wai-chun, JP
Hon Claudia MO
Hon Michael TIEN Puk-sun, BBS, JP
Hon Steven HO Chun-yin, BBS
Hon Frankie YICK Chi-ming, SBS, JP
Hon WU Chi-wai, MH
Hon YIU Si-wing, BBS
Hon MA Fung-kwok, SBS, JP
Hon Charles Peter MOK, JP
Hon CHAN Chi-chuen

Hon CHAN Han-pan, BBS, JP
Hon LEUNG Che-cheung, SBS, MH, JP
Hon Kenneth LEUNG
Hon Alice MAK Mei-kuen, BBS, JP
Dr Hon KWOK Ka-ki
Hon KWOK Wai-keung, JP
Hon Dennis KWOK Wing-hang
Hon Christopher CHEUNG Wah-fung, SBS, JP
Dr Hon Fernando CHEUNG Chiu-hung
Dr Hon Helena WONG Pik-wan
Hon IP Kin-yuen
Hon Elizabeth QUAT, BBS, JP
Hon Martin LIAO Cheung-kong, GBS, JP
Hon POON Siu-ping, BBS, MH
Dr Hon CHIANG Lai-wan, SBS, JP
Ir Dr Hon LO Wai-kiwok, SBS, MH, JP
Hon CHUNG Kwok-pan
Hon Alvin YEUNG
Hon Andrew WAN Siu-kin
Hon CHU Hoi-dick
Hon Jimmy NG Wing-ka, BBS, JP
Dr Hon Junius HO Kwan-yiu, JP
Hon HO Kai-ming
Hon LAM Cheuk-ting
Hon Holden CHOW Ho-ding
Hon SHIU Ka-fai, JP
Hon SHIU Ka-chun
Hon Wilson OR Chong-shing, MH
Hon YUNG Hoi-yan, JP
Dr Hon Pierre CHAN
Hon Tanya CHAN
Hon CHEUNG Kwok-kwan, JP
Hon HUI Chi-fung
Hon LUK Chung-hung, JP
Hon LAU Kwok-fan, MH
Hon Kenneth LAU Ip-keung, BBS, MH, JP
Dr Hon CHENG Chung-tai
Hon KWONG Chun-yu
Hon Jeremy TAM Man-ho
Hon Vincent CHENG Wing-shun, MH, JP
Hon Tony TSE Wai-chuen, BBS
Hon CHAN Hoi-yan

Member absent:

Hon WONG Kwok-kin, SBS, JP

Public officers attending:

Ms Alice LAU Yim, JP	Permanent Secretary for Financial Services and the Treasury (Treasury)
Mr Raistlin LAU Chun, JP	Deputy Secretary for Financial Services and the Treasury (Treasury) 1
Mr Mike CHENG Wai-man	Principal Executive Officer (General), Financial Services and the Treasury Bureau (The Treasury Branch)
Mr Gary POON Wai-wing, JP	Deputy Secretary for Commerce and Economic Development (Commerce and Industry) 2
Miss LAU Sum-ye	Assistant Director of the Hong Kong Observatory (Aviation Weather Services)
Mr CHAN Ying-wa	Senior Scientific Officer (Radar and Satellite Meteorology), Hong Kong Observatory
Mr CHEUNG Ping	Senior Scientific Officer (Meteorological Forecast Systems), Hong Kong Observatory
Miss Emma LAU Yin-wah, JP	Judiciary Administrator
Ms Wendy CHEUNG Shuk-ting	Deputy Judiciary Administrator (Operations)
Miss Patricia SO Pui-sai, JP	Deputy Judiciary Administrator (Development)
Mr Jock TAM Wai-yuen	Assistant Judiciary Administrator (Corporate Services)
Mr Sonny AU Chi-kwong, PDSM, PMSM, JP	Under Secretary for Security
Miss Kathy MA King-fan	Assistant Secretary for Security A1
Captain Trevor Keith MARSHALL	Chief Pilot (Training and Standards), Government Flying Service
Captain Bowie FUNG Po-yin	Senior Pilot (Helicopter-Technical Support), Government Flying Service
Mr Michael LI Kiu-yin	Project Director 2, Architectural Services Department

Ms Lilian CHEUNG Sui-lun	Senior Project Manager 229, Architectural Services Department
Mr Alfred SIT Wing-hang, JP	Secretary for Innovation and Technology
Ms Annie CHOI Suk-han, JP	Permanent Secretary for Innovation and Technology
Mrs Millie NG KIANG Mei-nei, JP	Deputy Secretary for Innovation and Technology (1)
Ms Rebecca PUN Ting-ting, JP	Commissioner for Innovation and Technology, Innovation and Technology Commission
Mr Ivan LEE Kwok-bun, JP	Deputy Commissioner for Innovation and Technology, Innovation and Technology Commission

Other persons attending:

Mr Aldous MAK	Chief Financial Officer, Hong Kong Science and Technology Parks Corporation
Ir Dr YIU Hing-leung	Head of Advanced Manufacturing, Hong Kong Science and Technology Parks Corporation

Clerk in attendance:

Ms Anita SIT	Assistant Secretary General 1
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Staff in attendance:

Ms Angel SHEK	Chief Council Secretary (1)1
Miss Bowie LAM	Council Secretary (1)1
Miss Queenie LAM	Senior Legislative Assistant (1)2
Mr Frankie WOO	Senior Legislative Assistant (1)3
Miss Mandy POON	Legislative Assistant (1)1
Miss Yannes HO	Legislative Assistant (1)7

The Deputy Chairman reminded members of the requirements under Rule 83A and Rule 84 of the Rules of Procedure. The Deputy Chairman declared that he was an advisor of the Bank of China (Hong Kong) Limited.

**Item 1 — FCR(2019-20)49
RECOMMENDATION OF THE ESTABLISHMENT
SUBCOMMITTEE MADE ON 22 JANUARY 2020**

**EC(2019-20)14
HEAD 53 — GOVERNMENT SECRETARIAT :
HOME AFFAIRS BUREAU
Subhead 000 Operational expenses**

2. The Deputy Chairman said that this item invited the Finance Committee ("FC") to approve the recommendation of the Establishment Subcommittee ("ESC") made on 22 January 2020 on the retention of one supernumerary post of Administrative Officer Staff Grade C (D2) in the Home Affairs Bureau ("HAB") to continue to head the Recreation and Sport Division (2) of Recreation and Sport Branch in the HAB, i.e. the proposal in the paper EC(2019-20)14.

Voting on FCR(2019-20)49

3. At 9:02 am, the Deputy Chairman put item FCR(2019-20)49 to vote. The Deputy Chairman declared that he thought the majority of the members present and voting were in favour of the item. The item was approved.

**Item 2 — FCR(2019-20)10
CAPITAL WORKS RESERVE FUND**

**HEAD 708 — CAPITAL SUBVENTIONS AND MAJOR
SYSTEMS AND EQUIPMENT**

Hong Kong Observatory

**New Subhead "Replacement of the Storm-detecting Weather
Radar at Tai Mo Shan"**

**New Subhead "Procurement of a High Performance Computer
System"**

4. The Deputy Chairman said that this item invited FC to approve the creation of the following two new commitments for the Hong Kong

Observatory ("HKO") (a) \$48 million for the replacement of the storm-detecting weather radar at Tai Mo Shan ("TMS"); and (b) \$90 million for the procurement of a high performance computer ("HPC") system.

5. The Deputy Chairman said that the Panel on Economic Development discussed the replacement of storm-detecting weather radar at TMS and procurement of an HPC for enhancing high-impact weather forecast at the meeting on 25 February 2019. In general, the Panel supported the proposal to enhance the meteorological equipment and system for the provision of more accurate weather forecast for the public.

Replacement of storm-detecting weather radar

6. Ms Tanya CHAN noted that the installation of a new TMS radar scheduled for March 2022 was to replace the existing one the serviceable life of which had been extended to around 20 years. Ms CHAN sought clarification on the serviceable life time of weather radars including that of Tate's Cairn ("TC") commissioned in 2015. Mr KWONG Chun-yu also enquired about the normal serviceable life time of weather radars.

7. Deputy Secretary for Commerce and Economic Development (Commerce and Industry)2 ("DS(C&I)2") and Assistant Director of the Hong Kong Observatory (Aviation Weather Services) ("AD/HKO") advised that the serviceable life time of a radar normally ranged from 10 to 15 years, during which the manufacturer would supply spare parts of the radar. HKO had extended the serviceable life of the existing TMS radar by stocking up critical spare parts for the radar before the cessation of supply. Proposal for replacement of weather radars would take into account the market availability and HKO's stock of spare parts.

8. Mr Holden CHOW expressed concern about the serviceability of the existing TMS radar before the completion of replacement project scheduled for August 2022. He asked whether global traffic halt amid the COVID-19 pandemic would affect the availability of spare parts from suppliers for maintenance of the existing radar. Mr Charles Peter MOK said that HKO should take early action to replace weather radars as and when needed. It was not necessary to keep extending the life time of weather radars until no spare parts were available in the market.

9. DS(C&I)2 said that HKO had stocked up on critical spare parts which should support the operation of the existing TMS radar until 2022. Depending on the spare part concerned, multiple suppliers might be available in the market. HKO would endeavour to source sufficient spare

parts from the market to support the maintenance and operation of its weather radars.

10. Dr KWOK Ka-ki asked whether the new TMS radar with dual-polarization feature was the first to be installed by HKO and whether other weather radars of HKO would be replaced subsequently with similar latest technology. Dr KWOK also asked about other functions of the new radar besides predicting rainstorm. Mr CHAN Chi-chuen asked about the differences between the existing TMS radar and the new one to be installed.

11. AD/HKO advised that the TC weather radar was the first HKO radar with dual-polarization feature, which could provide additional information to allow for more accurate estimation of rain intensity and enhanced detection of hailstorm. Dual-polarization had become a standard common feature of new generation weather radars, and was adopted by a number of other meteorological services. The existing Terminal Doppler Weather Radars (TDWRs) for aviation were not yet equipped with the dual-polarization feature. HKO might consider acquiring a new TDWR with dual-polarization feature for the future Third-Runway.

Installation of a new high performance computer system

12. Mr KWONG Chun-yu and Dr Helena WONG enquired about the serviceable period of the HPC system and the justification for the need to install a new HPC. AD/HKO advised that proposal for a new HPC system would take into consideration the serviceable life and the processing capacity of the existing system, the need for enhancement of computing power to catch up with development of the Numerical Weather Prediction ("NWP") model, and the demand for weather service enhancement.

13. Mr Charles Peter MOK asked about the location of the installation of the new HPC system and the future use of the existing HPC system after replacement. Mr WU Chi-wai considered that the Administration should make an effort to enhance the connectivity among the computer units of government departments with a view to formulating a super-computer for data processing. Mr WU asked about:

- (a) the details of the NWP model for the new HPC system; the transitional arrangement between the existing and the new systems to be installed; and the provision in the tender specifying the supply of the new HPC system should be one

of the latest technology;

- (b) the capability of the proposed HPC system to cluster with the existing HPC systems for expansion and enhancement purposes; and
- (c) the capability of the HPC system to support computing requirements of other government departments, and the comparison of the new system with other government or non-government computer systems.

14. DS(C&I)2 and AD/HKO advised that:

- (a) a new NWP model developed in the US would replace the existing operational Non-Hydrostatic Model ("NHM") adapted from the Japan Meteorological Agency. Networked with existing HKO computers used for acquisition of data, including weather data from other meteorological authorities and other units such as that of the Multi-functional Smart Lamppost Pilot Scheme, the new HPC system would be responsible for data processing, modelling and generation of weather forecast products. The Administration would specify in the tender that the new HPC system should adopt the latest relevant technology;
- (b) one of HKO's existing HPC systems was commissioned in 2010 to support public weather forecast. The other system was commissioned in 2013 to support aviation weather services. Due to advancement in technology and rapid evolution of computer processing units, both existing HPC systems had slower computing speed than the new HPC system and could not meet latest technical requirements. As such, HKO did not plan to cluster the existing HPC systems with the new HPC system for expansion or enhancement purposes; and
- (c) the new HPC system was expected to have the highest computing power amongst existing government systems, though there might be systems with higher computing powers outside the government. The new HPC system could run NWP at a higher resolution with higher computing power (1.3 petaFLOPS). The new system should be capable of clustering with other computer systems using similar technology.

15. In response to Mr Charles Peter MOK, AD/HKO advised that the new HPC system would be installed at the new government data centre complex administered by the Office of the Government Chief Information Officer ("OGCIO") at Cheung Sha Wan due to be commissioned. The existing HPC would be used for conducting other research work until it was no longer serviceable.

16. Mr WU Chi-wai requested information related to the computing power (i.e. by teraFLOPS) of the HPCs/super computers of respective departments/Bureaux. DS(C&I)2 agreed to liaise with the Innovation and Technology Bureau ("ITB") for the relevant information.

17. Mr Charles Peter MOK asked about the quality standard of the new HPC system compared to similar technology available overseas. AD/HKO advised that while there were more powerful HPC systems overseas, it was difficult to compare the proposed HPC system with those used by other meteorological services, which might have varied data processing requirements. HKO considered it prudent to take into account the principle of cost effectiveness in proposing the procurement of HPC system.

Weather services of HKO

18. Mr WU Chi-wai asked whether, in addition to the TMS radar, other supplementary facilities were required for more accurate capture of regional weather conditions in Hong Kong. Mr WU also asked if the data collected via aviation meteorological facilities could be linked and used in the proposed systems to contribute to HKO's local weather forecast services for the public.

19. AD/HKO advised that:

- (a) the computing power of the new HPC system, with an enhanced NWP model, would contribute to enhanced urban-scale weather forecast when combined with the data from the Multi-functional Smart Lamppost Pilot Scheme;
- (b) apart from local data, weather data shared by other meteorological services would be inputted into the new HPC system, and in turn be beneficial to HKO's enhanced services;

- (c) the new HPC system would enable the running of NWP model at higher resolution to better capture spatial differences and the detailed topography of Hong Kong and hence enhance regional weather forecasts; and
- (d) the weather radar used for aviation weather services covered only a small area which was also covered by the TMS radar. As such, only TMS radar data would be inputted into the new HPC system for running the NWP model.

20. Mr LEUNG Yiu-Chung asked whether meteorological information provided by aircrafts during navigation was an essential part to support weather forecast of HKO, if so, whether the halt of the aviation industry due to COVID-19 pandemic would have impacted weather prediction of HKO.

21. AD/HKO advised that meteorological data downlinked from aircrafts was mainly related to air temperature, wind speed or direction and turbulence data in the upper atmosphere. On the other hand, the storm-detecting weather radars collected data on the location and intensity of rainfall. HKO, together with local airlines (namely, Cathay Pacific Airways and Hong Kong Dragon Airlines), had joined the Aircraft Meteorological Data Relay ("AMDAR") programme of the World Meteorological Organization ("WMO"). AMDAR data were important for NWP to accurately forecast the upper air wind condition for airlines to assess its fuel consumption, while the storm-detecting weather radars were important for public weather forecasts.

22. Mr Kenneth LEUNG asked whether there was any interface between the HPC system and the aviation control system of the Civil Aviation Department ("CAD") and whether the HPC system would contribute to enhancing air traffic control. Mr LEUNG also asked how far the new HPC system would enhance forecast of clear-air turbulence.

23. AD/HKO advised that there was no direct interface between the TMS weather radar and HPC system of HKO with the computer system of CAD, but data from the radar and NWP model were made available through another HKO system for air traffic control and assessment of plane arrival time respectively. Turbulence was monitored with the help of meteorological satellites. The new enhanced HPC system could improve HKO's forecasts of turbulence, which were made available to flight crews (viz. of Cathay Pacific Airways and Hong Kong Dragon Airlines) through the "MyFlightWx" mobile application developed by HKO.

24. Mr KWONG Chun-yu, Ms Claudia MO and Dr Fernando CHEUNG called on HKO to enhance the accuracy of its local weather forecasts.

25. AD/HKO responded that the main reason for HKO to acquire a new HPC system was to deliver service enhancement through the introduction of new services such as probabilistic forecasts of high-impact weather (e.g. tropical cyclone and heavy rain). As for accuracy of weather forecasts, HKO attained a forecast accuracy of 90% as verified by objective means in 2019. HKO was recognized for its quality forecast services and its weather forecast performance was on par with that of other meteorological services. That said, HKO would keep in view as to how far performance could be further enhanced pursuant to the commissioning of the proposed items and strive to maximize its accuracy in future.

Climate services

26. Mr CHAN Chi-chuen enquired how far weather forecasts could be enhanced in terms of providing year-long weather prediction. Ms Claudia MO and Dr Fernando CHEUNG enquired about the possibility to provide local weather forecast by quarter. Ms MO asked about enhancing next-day forecast for severe weather such as the on-set of tornado, waterspout or hailstorm. Dr Helena WONG sought clarification as to whether the new HPC system could generate detailed local weather forecast for more than five days.

27. AD/HKO advised that given its computing power, the new HPC system could generate detailed local weather forecast for up to at least five days and at a finer horizontal resolution up to 24 hours. It was technically difficult to predict severe weather events such as tornado, waterspout or hailstorm one-day ahead due to the small-scale and usually short-lived nature of these weather phenomena. The dual-polarisation feature of the new weather radar would facilitate the detection of hailstorm. The two proposed items, which were among the many systems used for weather forecast, would be used for weather forecast over the next few days rather than for long-range weather forecast. That said, the climatological information services webpage of HKO had provided the public with information related to seasonal forecasts of temperature and rainfall of Hong Kong.

28. Mr HUI Chi-fung said that HKO should upgrade its technology with a view to enhancing its capability for assessing the impact of climate change on weather conditions in tandem with the Hong Kong's Climate Action Plan 2030+ of the Steering Committee on Climate Change ("the

Steering Committee") to mitigate climate change. Mr HUI asked whether the Steering Committee and the Environment Bureau had been consulted on the procurement of the items.

29. DS(C&I)2 responded that policy related to mitigating climate change was under the ambit of the Environment Bureau. The proposed items with enhanced capacity for processing weather information would contribute to the provision of HKO's weather forecast services against the backdrop of more extreme weather due to climate change. AD/HKO advised that HKO, as a member of the Steering Committee, had contributed by sharing its research on climate change impact to Hong Kong. The upgrading of the HPC system would enable the extension of weather forecast from three to five days ahead, and at a finer horizontal resolution 24 hours ahead. Climate change prediction, which required assessment over a much longer period of time, was simulated using another computer system.

Meteorological cooperation and data exchange

30. Ir Dr LO Wai-kwok called on HKO to enhance mutual cooperation with adjacent areas on a regular basis with a view to enhancing weather forecast services in the region.

31. AD/HKO said that HKO had on-going meteorological cooperation with different meteorological services, including those in the Mainland. Under relevant cooperation arrangements, annual meetings and technical seminars involving HKO, the Guangdong Meteorological Service ("GMS") and the Macao Meteorological and Geophysical Bureau were held to discuss regional cooperation matters such as real-time data exchange, including that of NWP data, and sharing of professional knowledge and technology on weather forecasting.

32. Mr MA Fung-kwok asked how the proposed systems compared to those used by GMS, and whether there was any cooperation between Hong Kong and GMS.

33. AD/HKO said that there was on-going cooperation between HKO and GMS, including collaboration in NWP and real-time weather data exchange which was very useful during tropical cyclones and rainstorm situations. AD/HKO remarked that the HPC systems of the Mainland authorities, such as the National Supercomputer Tianhe Centre in Guangdong, had higher computing power but also served functions beyond meteorological services. It would therefore be difficult to make a direct

comparison between the HPC system to be installed by HKO and those systems.

34. Mr Kenneth LEUNG enquired whether HKO's enhanced meteorological facilities would contribute to fostering the coordinating role of HKO in respect of regional and global meteorological cooperation.

35. DS(C&I)2 and AD/HKO said that Hong Kong was a member territory of WMO and HKO was designated by the WMO as a Regional Specialized Meteorological Centre for Nowcasting, providing meteorological organizations in the Asian region with products and techniques related to nowcasting of high-impact weather. HKO had also developed a platform to support coordination in the issuance of weather warnings for international air navigation. Senior staff of HKO held key positions in various WMO's Technical Commissions and regularly participated in WMO conferences and meetings. HKO also had a number of cooperation agreements with other meteorological services. As requested by Mr LEUNG, the Administration would provide in writing a list of the meteorological services of Mainland cities/provinces and other jurisdictions which had signed cooperation agreement with HKO; and the name of such agreements.

[Post-meeting note: The supplementary information provided by the Administration was issued to members vide LC Paper No. FC 196/19-20(01) on 25 May 2020.]

Public information sharing

36. Mr CHAN Chi-chuen enquired about the provision of public weather/climate information, such as movement of thunderstorm. AD/HKO said that short-term forecasts of lightning and rainfall were provided through "MyObservatory", the mobile application of HKO. HKO had enhanced its provision of gust information associated with thunderstorm this year. Intense gust reaching 88km/hour or higher would be specifically mentioned in thunderstorm warnings.

37. Dr KWOK Ka-ki asked whether dual-polarization data of weather radars could be made accessible to the public or the relevant meteorology/astronomy societies via weather mobile applications. Mr Charles Peter MOK enquired about the sharing of data and research outcome of HKO with tertiary institutions with studies on meteorology and astronomy.

38. AD/HKO said that limited by the large data size of raw weather radar data, only processed information in the form of images was uploaded on to "MyObservatory" for public information. Should tertiary and research institutions require more detailed information for research purposes, HKO would provide the relevant information free of charge.

39. Noting that a text version of the website and an audio web page were available to facilitate accessibility by the visually impaired, Dr Fernando CHEUNG called on HKO to update and improve its services for the visually impaired by initiating a mobile application for them with weather warning information. Dr CHEUNG suggested that HKO should invite participation of the visually impaired group in designing and testing such applications. AD/HKO responded that HKO had invited the participation of the visually impaired when designing and launching the Weather Information for Senior Citizens page on HKO's website. She noted the members' suggestion.

Implementation plan

40. Ms Tanya CHAN noted that the installation of the new HPC system was scheduled for July 2022, while the installation of the new TMS radar was scheduled for March 2022. Ms CHAN expressed concern about smooth transition of the installation of the respective items. Dr KWOK Ka-ki said that the Administration might need to expedite installation of the new HPC system to ensure no disruption in the availability of weather data.

41. DS(C&I)2 and AD/HKO advised that as the weather radar data format was standardized, there was no cause for concern about data processing during the transitional period of the respective installations.

42. Mr CHAN Chi-chuen and Dr Helena WONG noted that the existing TMS radar would no longer be serviceable in 2022. They queried as to whether the testing and commissioning of the new TMS radar planned for completion in August 2022 would be on time. Noting that the tender invitation and award of contract for the weather radar was originally scheduled for completion by the end of 2019, Mr CHAN Chi-chuen asked about the updated progress of the tendering procedure. He expressed concern that the installation of new radar might not be on schedule as procurement might be delayed due to the COVID-19 pandemic.

43. DS(C&I)2 advised that the tenders for the weather radar were invited in January 2020, and the contract would be awarded after FC's approval of this item. The Administration was positive that the commissioning of the new weather radar would be on schedule.

Safety measures

44. Ms Tanya CHAN expressed concern about the damage on TMS radar caused by super typhoon Mangkhut in 2018 and enquired about the protective measures to be implemented for the new weather radar.

45. AD/HKO said that the entrance gate, glass windows and radome of the TMS radar station were slightly damaged but the two weather radars at TMS and TC maintained normal operation during the passage of super typhoon Mangkhut. The Architectural Services Department had assisted in the repair and reinforcement of the damaged facilities at the radar stations. HKO planned to acquire a more robust radome to withstand stronger winds for the new TMS radar.

46. Mr Jeremy TAM called on HKO to take immediate measures, such as putting up warning signs, to warn against the use of drone camera devices in the vicinity of the TMS radar station, as the drone in the air would disturb air navigation. In response, AD/HKO said that drone shooting in the vicinity of the radar station might have an impact on the data quality of weather radars. AD/HKO agreed to follow up on Mr TAM's suggestion of putting up warning signs to warn the public against use of drone devices near the radar stations.

[Post-meeting note by the Administration: Warning signs have been put up outside HKO radar stations.]

Procurement

47. Mr SHIU Ka-fai and Mr James TO asked whether the proposed items would be procured via open tender or by invitation. Mr Kenneth LEUNG and Dr KWOK Ka-ki asked about the criteria for tender assessment.

48. DS(C&I)2 and AD/HKO advised that the items would be procured by way of open tenders. Fee and technical aspects would be given equal ratings in the tender assessment. HKO would adhere to the Government's Stores and Procurement Regulations in procuring the hardware and software required for the items.

49. Mr MA Fung-kwok and Mr Kenneth LEUNG remarked that the Administration should assess the impact of the US-China trade conflict on the procurement and export of computer items from overseas suppliers. Mr James TO and Mr Andrew WAN expressed concern on whether the

items to be procured from overseas would be classified as strategic commodities by exporting countries, such as the US, in view of the rising tension in international relationship. Mr TO asked whether the technical standard of Mainland manufacturers would meet the technical requirement of HKO on the items should there be no manufacturers overseas bidding for the items.

50. Mr Jeremy TAM remarked that radar of the Raytheon Company of the US might be products with strategic design but could be converted to non-strategic use. A case in point was the air navigation radar from Raytheon Company used by the Taiwan civil aviation management. In other words, a radar used for civil aviation purpose might be initially or potentially a strategic commodity. Referring to the report on CAD's procurement of Air Traffic Management System proposed by the Raytheon Company scrutinized by the Public Accounts Committee, Mr Kenneth LEUNG reminded HKO to be vigilant in handling the procurement of weather radar from the relevant manufacturer. Mr Jeremy TAM and Mr Kenneth LEUNG both expressed concern about the performance of air traffic management system manufactured by Raytheon Company and called on the Administration to take note.

51. DS(C&I)2 and AD/HKO advised that:

- (a) Hong Kong's strategic commodities control system was implemented in accordance with the standards adopted by various international non-proliferation regimes and conventions. The Administration would ensure that the procurement of items from overseas would be processed in compliance with the relevant import and export requirements in other jurisdictions and in Hong Kong;
- (b) weather radar used by HKO was not expected to be a strategic commodity and there had been no procurement issues in the past. Tender proposals were received from suppliers for the provision of weather radar after tenders were invited in January 2020; and
- (c) according to HKO's preliminary market research, the different computer processing units for assembling the proposed HPC system could be readily sourced in the market. Detailed information related to the supply of the new HPC system would only be available after the tender process had commenced.

52. AD/HKO further advised that the manufacturer of the existing TMS storm-detecting weather radar was based in Japan. Manufacturers or suppliers of weather radars might originate from the US, European countries or the Mainland China; while those of the HPC system might come from the US, Japan or the Mainland China.

Financial implications

53. Mr SHIU Ka-fai asked how the breakdown of the estimated cost of the two items was worked out. Mr SHIU noted that \$3.8 million was estimated under the non-recurrent expenditure for engaging contract staff for software development.

54. DS(C&I)2 and AD/HKO advised that the cost breakdown was based on HKO's preliminary market research. In respect of the HPC, an estimated \$3.8 million in non-recurrent expenditure was required for engaging contract staff to provide IT support for the development of NWP model and new software prior to the commissioning of the new HPC system. In reply to Mr CHAN Chi-chuen, AD/HKO said that the estimated recurrent expenditure of \$9.0 million for the maintenance of the new HPC system, which was about one tenth of the procurement cost of the item, was based on past experience and considered justifiable.

55. Mr Andrew WAN asked whether there were any expected variations in cost estimates of the two items as the discussion of the items by FC was delayed. DS(C&I)2 said that upon FC's approval of the proposed items, the Administration would proceed with the tendering procedure for the HPC system and award of contract for the weather radar. Variations in cost estimates could only be assessed based on outturn tender prices for both items.

56. At 10:43 am, the Deputy Chairman directed that the meeting be suspended. The meeting would resume at 3:15 pm.

57. At 3:15 pm, the meeting resumed. The Chairman declared that he was an Executive Director and the Chief Executive Officer of Well Link Insurance Group Holdings Limited.

Voting on FCR(2019-20)10

58. At 3:51 pm, the Chairman put item FCR(2019-20)10 to vote. The Chairman declared that he thought the majority of the members present and voting were in favour of the item. The item was approved.

**Item 3 — FCR(2019-20)25
RECOMMENDATION OF THE ESTABLISHMENT
SUBCOMMITTEE MADE ON 7 MAY 2019**

**EC(2018-19)37
HEAD 80 — JUDICIARY
Subhead 000 Operational expenses**

59. The Chairman said that this item invited FC to approve the recommendation of the ESC made on 7 May 2019 on the creation of five permanent posts, i.e. the proposal in the paper EC(2018-19)37:

- (a) three judicial posts of Judge of the District Court ("DJ") (JSPS 13) to strengthen the judicial establishment of the Family Court; and
- (b) two civil service posts of one Administrative Officer Staff Grade B1 (D4) ("AOSGB1 (D4)") to head a new Planning and Quality Division and one Administrative Officer Staff Grade C (D2) ("AOSGC (D2)") to strengthen directorate support for the Chief Justice's Private Office in the Judiciary Administration ("Jud Adm").

A request for separate voting on the recommendation at the FC meeting had been made by members. The time for the discussion of the item by ESC was 54 minutes. An information paper was provided by the Administration.

Creation of a permanent AOSGB1 (D4) post

Implementation of the Information Technology Strategy Plan

60. Mr Dennis KWOK asked whether the work of the proposed new directorate post (viz. Deputy Judiciary Administrator (Planning and Quality) ("DJA(PQ)")) would include the review of information technology ("IT") application in the Judiciary. Mr KWOK said that he had received a substantial amount of comments from the legal profession expressing disappointment with the response of the Jud Adm regarding the close down of the Judiciary due to the COVID-19 pandemic. The profession was dissatisfied with the situation of the Judiciary in employing IT for court proceeding which was far below par when compared to other jurisdictions. Dr Priscilla LEUNG remarked that the Judiciary lagged far behind overseas jurisdictions, such as the US, in respect of IT application in court services

conducive to reducing long waiting time for court hearings and sustaining the spirit of the administration of justice.

61. Judiciary Administrator ("JA") responded that:

- (a) the Judiciary had on-going communication with the legal professional bodies on devising and planning appropriate measures during the time of the COVID-19 pandemic, such as handling urgent and essential hearings during the General Adjourned Period ("GAP") and had actively considered alternative modes by hearing submissions by telephone or video-conferencing. Measures of the Judiciary during GAP, which was steered by the Chief Justice, Court of Final Appeal ("CJ"), were explained in the information paper to the Panel on the Administration of Justice and Legal services on 25 March 2020; and
- (b) the Judiciary had been taking an incremental approach starting with the use of video-conferencing facilities for remote hearings for suitable civil cases of the High Court. The Judiciary had written to the stakeholders regarding the feasibility of extending remote hearings to other civil courts including the District Court. Guidance note for Remote Hearings for Civil Business in the High Court (Phase 1: Video-conferencing facilities) for court users and related technical specifications were issued to stakeholders. As indicated by CJ, the use of technology to facilitate hearings should be permitted by applicable court rules and procedures, and the issues of IT security must be addressed.

62. Mr Tony TSE enquired whether IT development was on the duty list of the proposed directorate post. Mr TSE said that had the FC been able to discuss the proposal earlier pursuant to the recommendation of ESC in April 2019, the Judiciary might have been better prepared to implement measures during the COVID-19 pandemic.

63. JA advised that DJA(PQ) would be designated to make long-term strategic planning for the application of IT in the Judiciary in the light of IT development and the unique operating environment of the Judiciary. The implementation of the Information Technology Strategy Plan ("ITSP") was only part of DJA(PQ)'s responsibilities. DJA(PQ) would also facilitate the on-going review on the accommodation strategy for courts and Judiciary premises. Apart from the development of two new mega accommodation projects, namely, the reprovisioning of the High Court, and

the reprovisioning of the District Court and the Family Court (which would be co-located with the Lands Tribunal), DJA(PQ) would also be responsible for regular duties such as security and property management of the existing court buildings and Judiciary premises.

64. Noting that the role of CJ was to uphold the rule of law and protect judicial independence, Mr WU Chi-wai sought clarifications as to what kind of strategic support was required of the senior directorate staff of Jud Adm as "think tank" of the JA as mentioned in para 10(a) of the Administration paper. Mr WU asked how the implementation of ITSP would abide by the principle that justice should not only be done but should be seen to be done.

65. Mr CHEUNG Kwok-kwan sought details of Jud Adm's strategic plan in respect of the implementation of ITSP, namely, details of the blueprint, updated progress of the integrated court case management system ("iCMS") under the steer of the existing directorate staff, and the impending tasks due to be taken up by DJA(PQ).

66. JA advised that:

- (a) the DJA(PQ) post was proposed as there was inadequacy of dedicated strategic advice to JA in the overall administration of the Jud Adm and provision of support for efficient and effective court operations. DJA(PQ) would be tasked to provide dedicated overview of the Judiciary's long-term and sustainable goals on infrastructural planning and support services including that of IT planning;
- (b) DJA(PQ) would be dedicated to formulate policies for implementing ITSP under the principles of the administration of justice as set out in the legislation, and at the same time addressing the operational and practicable needs and with reference made to approaches of overseas jurisdictions;
- (c) the IT Office was currently under the steer of Deputy Judiciary Administrator (Operations) who was also responsible for overseeing the court operation. DJA(PQ) would be designated the responsibilities for establishing iCMS for the Judiciary and enhancing the efficiency of court services through the application of IT. As iCMS would be applicable to court procedures, legislative amendments were involved. In this connection, the Judiciary had been

consulting the legal profession, the law enforcement agencies concerned and other stakeholders; and

- (d) there would be on-going adjustment to ITSP in response to new challenges; a case in point was the use of video-conferencing facilities for remote hearings for suitable civil cases of the High Court during the GAP. Projects planned would be constantly subject to review and adjustment.

67. Mr WU Chi-wai requested JA to provide written information listing the Judiciary's development plans by nature, implementation schedule, rank of officers in charge, and the key performance indicators for measuring service quality enhancement in comparison to the existing benchmarks, for example, in respect of the court waiting time, and the delivery of court services.

[*Post-meeting note:* The supplementary information provided by the Jud Adm was issued to members vide LC Paper No. FC 251/19-20(01) on 24 July 2020.]

Delivery of court services

68. Mr KWONG Chun-yu noted that there was an increase of domestic violence cases during the COVID-19 pandemic. Mr KWONG expressed concern that the adjournment of all hearings and court registry services since the end of January 2020 would lead to an accumulation of cases and further lengthening of the waiting time for hearing of the Family Court.

69. JA advised that court registries and offices would be reopened on 6 May 2020 in a staggered and progressive manner. In facing the challenges of the COVID-19 pandemic, the Judiciary had strived to seek alternatives in providing court services without compromising public health and safety. The court had handled urgent and essential hearings/matters including, among others, urgent applications to the courts in accordance with the established mechanism, including the Duty Judge system.

70. Dr Fernando CHEUNG called on JA to improve the quality of the courts' sign language interpretation service which was considered not satisfactory by the hearing impaired. JA said that the sign language interpretation at court proceedings was provided by freelance interpreters. She noted Dr CHEUNG's view and would look into members' suggestion as appropriate.

71. Noting that the proposed post would oversee the delivery of court services, Mr CHAN Chi-chuen asked whether there was any plan to enhance service provided by the Digital Audio Recording and Transcription Services Section so that service for public access to the relevant document could be more user-friendly. Mr CHAN noted that the cost for hard copy of the transcription was too high and the processing time for issuance of the copy was too long.

72. In response, JA said that at present, digital audio recording and transcription services were administered by a Principal Executive Officer (D1) who was directly responsible to her. With the creation of the directorate post and reengineering of the directorate structure, more long-term planning could be implemented to enhance the operation of court services. JA advised that the transcription was provided by outsourced service. The Judiciary had revised the charges by changing the basis from a “per page” to a “per word” basis.

Creation of a permanent AOSGC (D2) post

73. Mr Tony TSE noted that the post Deputy Administrative Assistant to the Chief Justice ("DAA/CJ") was proposed to strengthen directorate support for the CJ's Private Office. Mr Tony TSE expressed concern as to when the recommended appointment of the next CJ by the Judicial Officers Recommendation Commission ("JORC") with effect from January 2021 could be scheduled for endorsement by the Legislative Council.

74. JA explained that at present, Deputy Judiciary Administrator (Development) ("DJA(D)") took up a dual sets of duties as DJA(D) and AA/CJ (viz., dedicating 50% of time to the Development Division and 50% to head the CJ's Private Office). With the creation of a permanent DAA/CJ post to assist DJA(D) cum AA/CJ in overseeing the work of the CJ's Private Office, it would help to alleviate the heavy workload of DJA(D) and enable her to dedicate more time to the day-to-day business of the Development Division. As for the appointment of the next CJ, the Chief Executive had accepted the recommendation of the JORC. The constitutional process for the proposed appointment was being followed up by the Government under the established mechanism.

75. Mr James TO and Dr Fernando CHEUNG queried the need to create a permanent directorate level post for duties related to the provision of logistic support for the CJ's Private Office on exchange activities and public communication. Mr James TO requested JA to provide a written reply to his letter dated 23 April 2020 to the Chairman of FC seeking the Judiciary's response to his enquiry about details of the job duties of the

proposed DAA/CJ post.

[*Post-meeting note:* The supplementary information provided by the Jud Adm was issued to members vide LC Paper No. FC 251/19-20(01) on 24 July 2020.]

76. JA advised that:

- (a) the number of CJ's exchange activities with other jurisdictions held locally or abroad was around eight to 10 each year. The local activities officiated by CJ, which amounted to around 40 to 50 each year, were mostly related to the legal and education sectors. Information related to major activities officiated by CJ was available in the Hong Kong Judiciary Annual Report;
- (b) creation of the DAA/CJ post was proposed in view of the increasingly heavy workload of DJA(D) who was designated the dual role of DJA(D) cum AA/CJ. The proposed post was pitched at directorate level to ensure that the administrator communicating with representatives of overseas jurisdictions on behalf of CJ would be of similar level of the Judiciary's counterpart. DAA/CJ would also assist AA/CJ to advise CJ on matters related to Jud Adm's strategic work plan of the year; and
- (c) at present with the heavy workload of DJA(D) cum AA/CJ, Deputy/Assistant Judiciary Administrators of other divisions had often been deployed to share the workload of DJA(D) despite their own heavy schedule. As the senior directorate structure of the Jud Adm had remained unchanged for over 20 years since 1995, it was considered an opportune time to rationalize the directorate structure which was not sustainable as at today to meet the challenges in the years ahead.

77. Dr Priscilla LEUNG remarked that Jud Adm should make an effort to further the public's understanding of the role and work of the Judiciary, such as through enhancing the Judicial Assistants Scheme which had enabled fresh and bright law graduates of the tertiary institutions to familiarize with the operation of the Judiciary and motivate their dedication to a career in Judiciary.

78. JA responded that DAA/CJ would oversee public communication activities such as students' visits to the courts which amounted to around 10,000 annually. The Judicial Assistants Scheme, which provided opportunity for law graduates to assist appellate judges in the Court of Final Appeal in conducting research, was an on-going initiative of the Judiciary well received on both sides.

Creation of three judicial posts of the District Court

Judicial establishment

79. Dr Junius HO supported the overall direction to create three permanent judge and judicial officer ("JJO") posts in the Judiciary with a view to reducing the waiting time for hearing in the Family Court. Dr HO said that the Judiciary should increase more JJOs but he noted Jud Adm's recruitment difficulties. Dr HO requested JA to provide in writing the establishment and vacancies of JJOs of all levels of court (viz, substantive, deputy and non-substantive JJOs).

[*Post-meeting note:* The supplementary information provided by the Jud Adm was issued to members vide LC Paper No. FC 251/19-20(01) on 24 July 2020.]

80. Mr Jeremy TAM enquired about the performance indicator to gauge performance enhancement pursuant to adding the three judicial posts in the Family Court and the reason for not proposing more JJO posts to be created for the Family Court in view of the long waiting time.

81. JA advised that:

- (a) over the past years, the Judiciary had been conducting open recruitment exercises for filling judicial vacancies from time to time, having regard to the overall judicial manpower situation and operational needs at different levels of court. At the DJ level, five appointments had been made following the completion of the latest recruitment exercise. The Judiciary was planning to launch another round of recruitment for CFI Judges, DJs and Permanent Magistrates starting from the latter part of 2020-21 financial year. With the implementation of the new retirement age arrangements for JJOs which had taken effect from 6 December 2019, the Judiciary believed that it would have a positive impact on attracting the best legal talent and retaining experienced judicial manpower where appropriate;

- (b) the Family Court had an establishment of five Family Court judges since July 2008. To cope with the increasingly heavy workload of the Family Court, the Judiciary had deployed a total of 10 JJOs (including the deployment and engagement of Deputy Judges) to the Family Court since September 2015; and
- (c) in 2019, target waiting time from setting down of a case to hearing was largely met. As the Judiciary would further reform the procedures for the Family Court by introducing new Family Procedure Rules, the Judiciary considered it prudent to first create three permanent posts in the Family Court. The Judiciary would review the judicial establishment in due course, including the feasibility of an establishment of a Master system in the Family Court as proposed under the new Procedure Rules.

82. Mr CHAN Chi-chuen sought clarification on the respective number of JJOs deployed to sit in the Family court who were deployed within the Judiciary and from outside the Judiciary. He asked whether the Judiciary would exercise flexibility to adjust the number of JJOs deployed to meet the operational need of the Family Court.

83. JA advised that the engagement and deployment of temporary judicial manpower had been a long standing practice to help maintain court waiting times at reasonable levels. Judicial Officers at the magisterial level might be appointed from within the Judiciary to act as Deputy Judges. As for Deputy Judges appointed from outside the Judiciary, such appointments, where they could gain judicial experience from, were made on a short-term basis and subject to the availability of suitable private practitioners. The Judiciary had deployed additional number of Deputy Judges to meet the operational needs of the Family Court in the past few years. Additional temporary judicial manpower would continue to be engaged to cope with the workload of the Family Court upon the creation of the three permanent DJ posts if required. The proposed increase of substantive judges in the Family Court, supplemented by Deputy Judges, should help the handling of cases in the Family Court.

84. Mr Alvin YEUNG noted that the lack of court rooms and space in the Family Court might be a consideration which limited the judicial establishment of the Family Court, such as the number of Deputy or non-substantive Judges to be deployed. Mr YEUNG expressed concern as to whether there would be enough court space if a Master system was to be

established in the Family Court in future.

85. JA advised that the Judiciary sought to continually review its accommodation strategy to keep pace with court and office development initiatives. As the Judiciary was granted a site on Caroline Hill Road for the reprovisioning of the District Court, the Family Court and the Lands Tribunal, the Jud Adm would work out a comprehensive accommodation strategy to ensure all ancillary infrastructural support was in place to keep in pace with court and office development initiatives.

Appointment of JJOs

86. Mr Holden CHOW expressed concern about the appointment of judicial officer who had once been a member of a political party and engaged in public election and political activities. He expressed concern that a judicial officer having taken part in political activities might hamper the impartial image of the Judiciary. Mr CHOW remarked that the Judiciary should strictly adhere to the Guide to Judicial Conduct ("the Guide") when dealing with matters related to judicial officers' participation in political activities. Dr Junius HO and Mr Holden CHOW remarked that judicial officers should adhere to the Guide in dealing with conflicts of interest and circumstances that might give rise to apparent bias, and disqualify himself or herself from sitting in a case when deemed necessary.

87. Mr Dennis KWOK stressed that it was of utmost importance to avoid politicizing the Judiciary, such as in its appointment of judicial officers, to ensure that judicial independence and impartiality be upheld. Mr KWOK pointed out that as long as the fundamental principle of judicial independence and impartiality was upheld, there should be no concern as to whether a judicial officer appointed was a previous member of a political party. Mr CHAN Chi-chuen sought clarification as to whether there was any guideline stipulating that a judge who once was a member of a political party or had participated in public election should not sit in specific kinds of cases; and whether the Judiciary would require a judge to declare as to whether s/he had been/was affiliated with a political party.

88. JA advised that Article 92 of the Basic Law provided that "Judges and other members of the judiciary of the Hong Kong Special Administrative Region shall be chosen on the basis of their judicial and professional qualities and may be recruited from other common law jurisdictions." Appointment of JJOs was made upon the recommendation of the JORC. There were established guidelines and procedure stipulating as to when a judge/judicial officer should disqualify himself or herself from sitting in a particular case in line with the common law principles. The

Guide stipulated that judges should refrain from membership in or association with political organizations or activities. It was of fundamental importance that judicial independence and impartiality be maintained and be seen to be maintained. JJOs had always decided on cases according to the law. In addition, JJOs at all levels of court took judicial oath on assumption of office and swore to serve the Hong Kong Special Administrative Region in full accordance with the law, honestly and with integrity.

Voting on FCR(2019-20)25

89. At 5:31 pm, the Chairman put item FCR(2019-20)25 to vote. The Chairman declared that he thought the majority of the members present and voting were in favour of the item. The item was approved.

90. The Chairman directed that the meeting be suspended. The meeting would resume at 5:41 pm.

Item 4 — FCR(2019-20)21

**RECOMMENDATION OF THE PUBLIC WORKS
SUBCOMMITTEE MADE ON 26 APRIL 2019**

PWSC(2018-19)44

HEAD 703 — BUILDINGS

Support — Others

**190GK — Flight Simulator Training Centre of the Government
Flying Service**

91. The Chairman declared that he was an Executive Director and the Chief Executive Officer of Well Link Insurance Group Holdings Limited.

92. The Chairman said that this item invited FC to approve the recommendation of the Public Works Subcommittee ("PWSC") made on 26 April 2019 to upgrade 190GK to Category A at an estimated cost of \$112.1 million in money-of-the-day prices for the construction of a Flight Simulator Training Centre ("FSTC") in the car park area of the Government Flying Service ("GFS") Headquarters. A request for separate voting on the recommendation at the FC meeting had been made by members. The time for the discussion of the item by PWSC was 52 minutes. An information paper was provided by the Administration.

Usage of the Flight Simulator Training Centre

93. Mr Jeremy TAM supported the establishment of the proposed FSTC, which could give GFS more flexibility in deploying its manpower resources by enabling pilots to attend simulator training locally instead of abroad. Mr Jeremy TAM asked about the average simulator training hour for each pilot per day when the FSTC was put into operation. Mr Alvin YEUNG asked about the operation hours of the FSTC for simulator training and its usage in the evening hours. Mr YEUNG also asked whether the FSTC could be visited by the public such as schools and other agencies. Dr KWOK Ka-ki asked whether the flight simulator, after meeting the training needs, would have any vacant slots available for rental by other organizations or non-GFS pilots.

94. Under Secretary for Security("US for S") and Chief Pilot (Training and Standards), Government Flying Service (CP/GFS) ("CP/GFS") advised that:

- (a) each pilot was required to undergo helicopter simulator training and assessments on a half-yearly basis, which took about five days each time. That was to say, the new simulator would have been in use for more than 600 days in order to fulfil the annual simulator training and assessment requirements of 62 pilots;
- (b) the number of helicopter pilots who needed to use the FSTC frequently for training will reach 62 by mid-2021. It was estimated that the simulator in the FSTC would be used for training at least 80% of the daily operating time throughout the year;
- (c) It was expected that the FSTC would operate 16 hours per day (from 6am to 10 pm) for simulator training, and the rest of the hours would be used for daily maintenance, inspection and warranty. The simulator is expected to operate every day of the year and there would be no continuous idleness;
and
- (d) GFS had received visitors as a regular practice, and it would continue to do so upon request from local institutions, professional bodies and the relevant agencies. GFS has no plan to make available the simulator for rental by other agencies.

Flight simulator training and assessment

95. Dr Fernando CHEUNG sought confirmation as to whether GFS pilots still needed to attend overseas simulator training in France after the commissioning of the FSTC.

96. CP/GFS advised that:

- (a) GFS's new H175 helicopters had become fully operational in 2019. Each GFS pilot operating the new helicopter was required to undergo flight simulator training and pass the relevant assessments every six months for licence renewal, which was more frequent than the previous requirement of 12 to 18 months required of the Super Puma AS332 L2 and EC155B1 helicopters; and
- (b) upon the commissioning of FSTC, pilots could stay in Hong Kong for simulator training and the travelling time saved could be used for performing duties. GFS could have more flexibility in arranging and modifying the training and assessment carried out on the simulator to cope with operational needs and other emergency conditions.

97. Mr Alvin YEUNG asked whether the flight simulator device could be used for training pilots of other helicopter types such as those used in the Mainland. Mr Jeremy TAM asked:

- (a) whether the flight simulator device of FSTC to be installed would be used exclusively for GFS's H175 pilots to meet the training and assessment requirement of CAD; and whether simulator training of FSTC would be open to pilots certified by regulatory authority of other places, such as the Civil Aviation and Administration of China; and
- (b) whether GFS pilots receiving simulator training in FSTC would be assessed by instructor/examiner of the simulator training centre in France, or by in-house training captain/examiner. In case of the latter, how many instructors/examiners were designated for GFS's H175 simulator training and assessment; and whether a senior pilot would take up the dual role of simulator instructor cum examiner.

98. CP/GFS advised that:

- (a) CAD was the regulatory authority for initiating and renewing pilot licence and specifying aircraft/instrument rating in the pilot licence. In respect of the training and certification for pilot instructors for H175 simulator training in GFS, it was required that an instructor should first go through familiarization training at H175 simulator center in France prior to being qualified for conducting in-house simulator training and assessment for GFS pilots; and
- (b) GFS was currently formulating the training and operation manual for H175 simulator training subject to the approval of CAD. At present, there were five in-house Examiners who were at Chief/Senior Pilot level and 12 Training Captains providing role training for GFS's helicopter fleet, covering various major services of GFS such as in-shore and mountain search and rescue, air ambulance, and fire fighting etc.

99. In response to Mr Jeremy TAM's further question, CP/GFS said that no extra allowance was provided for GFS's in-house instructor/examiner as they usually held the rank of Senior Pilot or above and it was considered to be one of their normal duties at this rank. In response to Mr Alvin YEUNG, US for S and CP/GFS advised that flight simulator training centre in Texas, USA was still at its early stage of establishment. It was expected that its hourly charge for simulator training and assessment would be close to that charged by its counterpart in France (viz. Euro 2,150 per hour).

Establishment of FSTC

100. Mr Jeremy TAM asked whether there was any plan to expand the helicopter fleet in future, if so, there might be a need to further expand the FSTC to meet an increased demand for simulator training. Ms Tanya CHAN expressed concern as to whether GFS would need to procure additional simulator in the near future in view of the estimated 80% operation time of the one simulator device to be installed. Dr KWOK Ka-ki asked whether there was any plan to mark up space in the FSTC in case there was a need to procure additional H175 simulator for training in the near future. Dr Fernando CHEUNG asked whether the simulator device to be installed was exclusively for H175 helicopter or the device could be remodeled in future to extend the provision of simulator training to other helicopter type.

101. CP/GFS advised that:

- (a) the helicopter fleet which stood at seven at the moment was considered an appropriate size having taken into account the service demand in the past five years. One H175 simulator device would be sufficient for the purpose of pilot training and assessment at present. When the simulator became operational, some training and assessments which were currently conducted on operational helicopters could be conducted on the simulator instead; and
- (b) the construction site of the proposed FSTC could accommodate only one simulator device. GFS would continue to procure only H175 helicopters and not other new helicopter type should there be a need for expansion of the helicopter fleet in future. The proposed FSTC was considered sufficient to cope with the operational and training commitment of GFS.

US for S advised that the serviceable life of H175 simulator was expected to exceed 15 years, which was in line with the serviceable life of H175 helicopters recently put into operation.

102. Ms Tanya CHAN asked why the FSTC was to set up at the existing car park area of the GFS headquarters. She reminded GFS to provide parking space for voluntary medical officers when they joined the helicopter fleet's emergency services. She considered that the contribution by the voluntary medical officers should be recognized.

103. CP/GFS said that the car park area was marked as the construction site because the height of the hangar inside the GFS headquarters building at the Hong Kong International Airport at Chek Lap Kok could not meet the height requirement for installing the simulator device. GFS would keep in view the parking need of staff and other users during the construction period and liaise with the Airport Authority for allocation of additional parking space if needed. US for S noted Ms Tanya CHAN's suggestion.

Voting on FCR(2019-20)21

104. At 6:18 pm, the Chairman put item FCR(2019-20)21 to vote. The Chairman declared that he thought the majority of the members present and voting were in favour of the item. The item was approved.

Item 5 — FCR(2019-20)40

INNOVATION AND TECHNOLOGY FUND

HEAD 111 — INNOVATION AND TECHNOLOGY

New Subhead "Re-industrialisation Funding Scheme"

HEAD 184 — TRANSFERS TO FUNDS

Subhead 992 "Payment to the Innovation and Technology Fund"

Subhead 987 "Payment to the Capital Investment Fund"

CAPITAL INVESTMENT FUND

HEAD 962 — INDUSTRY

New Subhead "Equity in the Hong Kong Science and Technology Parks Corporation for developing a Microelectronics Centre"

105. The Chairman invited FC to approve:

- (a) a supplementary provision of \$2 billion under Head 184 Transfers to Funds Subhead 992 Payment to the Innovation and Technology Fund to enable the creation of a commitment for setting up a funding scheme to subsidize manufacturers to set up new smart production lines in Hong Kong; and
- (b) a supplementary provision of \$2 billion under Head 184 Transfers to Funds Subhead 987 Payment to the Capital Investment Fund to enable the creation of a commitment to inject \$2 billion as equity from the Capital Investment Fund to the Hong Kong Science and Technology Parks Corporation for developing the Microelectronics Centre ("MEC").

The Innovation and Technology Bureau ("ITB") had consulted the Panel on Commerce and Industry on the funding proposals at the meeting on 21 May 2019. The time for the discussion of the item by the Panel was 46 minutes.

Development of the proposed Microelectronics Centre

106. Mr CHAN Chun-ying asked whether the delay in commencing the modification of an old factory in the Yuen Long Industrial Estate into a

MEC initially scheduled for early 2020 would affect the business plan of the enterprises which had expressed interest in establishing production line in the modified factory; and whether the admission criteria would include a minimum investment requirement.

107. Secretary for Innovation and Technology ("S for IT") said that the Administration targeted to launch the Re-industrialisation Funding Scheme ("RFS") and commence the modification works of the MEC this year upon FC's approval of the funding proposals. Permanent Secretary for Innovation and Technology ("PS(IT)") said that the microelectronics-related industry had in prior consultation occasions indicated their keen interest in the MEC. Depending on the scale of the prospective tenants, the proposed MEC might accommodate around 10 enterprises. While there would be no requirement as to the investment amount to be made by applicant enterprises, factors such as the proposed mode and scale of operation and the business nature of the enterprise would be taken into account in assessing each application.

108. In response to Mr Charles Peter MOK's enquiries about the latest position of the MEC proposal, S for IT said that the MEC would be located in Yuen Long Industrial Estate. PS(IT) supplemented that in planning for the proposal in the past year, there were both local and non-local enterprises expressing interest in the MEC. She believed that the enterprises would review their plans having regard to prevailing market development.

109. Ms Elizabeth QUAT said that while Hong Kong has strong upstream research and development ("R&D") capabilities, there was a lack of infrastructure and talent to dovetail upstream capability with midstream and downstream manufacturing processes. Production lines for advanced manufacturing using local research outcomes were often set up outside Hong Kong. Ms QUAT asked whether the Government's procurement policy would give priority to local manufacturers who would pilot-use research outcomes; and whether it had re-assessed overseas enterprises' investment interest in Hong Kong in the light of the impact of the China-US trade conflicts and the COVID-19 pandemic.

110. S for IT advised that to support the use of innovative technology by local enterprises, manufacturers and suppliers, the Government's pro-innovation procurement policy implemented in April 2019 had required that a minimum 20% of technical marks should be reserved for assessing innovative suggestions submitted by bidders, so that innovative tenders would stand a better chance of winning. PS(IT) advised that while some enterprises might want to further consider whether they should

relocate their production lines back to Hong Kong in view of the changing global situation, there were also investors newly expressing interest in establishing new production lines in Hong Kong.

Re-industrialisation Funding Scheme

111. Mr YIU Si-wing sought details about the assessment criteria in relation to the scale of operation, staff establishment, and ratio of local/overseas talents to be engaged by the manufacturer. Mr YIU asked whether the Government had set priority among Hong Kong, overseas, and Mainland enterprises in gauging the application of the advanced manufacturers.

112. S for IT said that with more production lines established in Hong Kong, it would create synergy to other supporting sectors, such as finance and logistics, in turn stimulating job creation in the local economy. Given that smart production lines usually involve highly or even fully automated processes and robotics, they would be less labour intensive. It would be difficult to assess the potential of an applicant by judging only the number of staff involved. PS(IT) said that while it was required that the companies applying for RFS must be incorporated in Hong Kong to contribute to the local development of high value-added technology industry, no limitation would be imposed on the origin of the shareholders coming from overseas or the Mainland. When formulating the RFS, the Government had engaged the industry and the major business chambers in Hong Kong. Some had expressed interests in setting up new production lines or moving the high value-added parts of their production lines to Hong Kong.

113. Mr CHAN Chun-ying noted that the funding under the RFS would be provided on a 1 (government):2 (enterprise) matching basis, with the Government covering a maximum of one-third of the total approved project expenditure or HK\$15 million per project, whichever was lower. Mr CHAN expressed concern that the creation of a legal charge in respect of the relevant production line might lessen attraction of the RFS. Mr CHAN asked whether a grantee of RFS could increase funding investment on the production line after the first legal charge, and whether the enterprise needed to seek prior approval of the Government for transfer of shareholding rights or adding new investors.

114. S for IT said that the industry had expressed support for the RFS which aimed at subsidizing manufacturers on a matching basis to set up smart production lines. PS(IT) advised that the aim of the legal charge, which would take effect over a few years, was to retain the funded

production line in Hong Kong for a reasonable period in order to bring substantive economic benefits to Hong Kong. There should be no problem for the grantee to create a second legal charge should there be an increase of funding investment on the production line. The grantees would need to inform the Administration of such changes in their business plan.

115. Mr YIU Si-wing asked how the RFS, with 1 (government):2 (enterprise) matching basis would enable Hong Kong to enhance its competitive edge against its counterparts in the Mainland, Singapore and Taiwan; and whether tax incentive would be introduced to enhance RFS's attraction to the enterprises.

116. S for IT responded that other than providing funding incentive, the Government adopted a holistic approach to encourage re-industrialization through the provision of infrastructural, technological, talent support and tax incentives. PS(IT) added that the independent legal system and intellectual property protection regime of Hong Kong were pertinent to attracting investment in advanced manufacturing.

Government support for re-industrialization

117. Mr Charles Peter MOK said that in view of the challenge of the COVID-19 pandemic to the global economy, some countries were rethinking about the issue of global supply chain and considering relocating their relevant production line set up offshore, such as in Mainland China. In this light, Mr MOK asked whether the Government would re-assess its re-industrialization policy and make adjustment to its plan for subsidizing manufacturing activities in Hong Kong, such as including traditional industry manufacturing in the subsidy scheme.

118. S for IT said that it was an opportune time to provide support to enterprises under the re-industrialization policy to relocate production lines to Hong Kong so as to leverage the independent judicial system and availability of outstanding R&D talents in Hong Kong. PS(IT) said that there was no change to the re-industrialization policy to develop high-end manufacturing industries based on previous consultation with the industry. The Government would continue to communicate with the industry to take forward the new initiatives while keeping in view changes of the economic environment. The ITB/Innovation and Technology Commission would also try to facilitate those companies that had expressed an interest in setting up production lines of anti-epidemic items in Hong Kong.

119. Mr Holden CHOW held the view that economic development of the Guangdong-Hong Kong-Macao Bay Area was demonstrative of the advantage of a "through-train" production line which was self-sufficient and no need to rely on other places for supply of industrial materials. Mr CHOW supported the re-industrialization initiatives to provide funding for high-value added and high-tech production, but he considered it most important for the Government to assist in the administration of marketing and branding of the new smart products and rejuvenate the "Made in Hong Kong" brand.

120. S for IT responded that it was the policy of the Government of the current term to support re-industrialization not just by means of infrastructure and funding, but also by strengthening R&D, grooming/pooling of talent, and providing marketing and branding support.

121. Mr HO Kai-ming said that the Hong Kong Federation of Trade Unions supported the funding proposal. Referring to his recent experience in establishing a local face mask production line, Mr HO noted that there was a lack of technician talent in the electrical and mechanical industry well equipped with knowledge for operating factory mechanics. Mr HO considered that the Electrical and Mechanical Services Department ("EMSD") should expand its apprenticeship scheme to train more electrical and mechanical expertise for the industry. Also, the Government's support for the establishment of Hong Kong-based production lines under the RFS should cover the manufacturing of basic industrial materials to minimize reliance on other places for such materials; and face mask production was a case in point. Ms Elizabeth QUAT expressed similar views about the need to consider establishing production lines from a strategic point of view, such as from the perspective of infection control. She expressed concern about the talent grooming policy of the Administration.

122. S for IT took note of Mr HO's view which was symptomatic of Hong Kong as a post-industrial society migrating into a smart city. The re-industrialization initiatives which aimed to encourage the setting up of Hong Kong-based production lines would need to be developed in tandem with manpower training and development. The Government policy to strengthen the teaching of Science, Technology, Engineering and Mathematics in schools was an effort to equip the young generation and unleash their talents in this aspect.

123. Mr KWONG Chun-yu enquired about the interaction between S for IT and the I&T Sector. S for IT said that the Government had collaborated closely with the I&T sector to take forward innovative

projects. A case in point was the establishment of electronic platforms to help connect and match business needs of government departments with innovative proposals of the industry to enhance public services. The "E&M InnoPortal" of EMSD published the technological needs of departments, and invited I&T organizations (including universities and start-ups) to provide electrical/mechanical-related solutions through the Portal for testing and verification. The "Smart Government Innovation Lab" established by OGCIO gathered government departments' needs and invited innovative solutions and product suggestions from the information technology sector. The initiatives were well received by various departments and the industry.

124. S for IT added that he would continue to strengthen the co-ordination with the industry, academia and research sectors to take forward the mission of the Government in respect of developing the Smart City initiatives, healthcare technology and technology talent in addition to providing funding and infrastructure support to foster commercialization of R&D results.

125. The Chairman declared that the meeting be concluded and FC would continue deliberation on the item at the next meeting.

126. The meeting ended at 6:59 pm.

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