



香港特別行政區政府
The Government of the Hong Kong Special Administrative Region

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Ms Connie SEZTO
Clerk to Establishment Subcommittee
Legislative Council
Legislative Council Complex
1 Legislative Council Road
Central, Hong Kong

15 November 2018

Dear Ms SEZTO,

**Legislative Council
Establishment Subcommittee
Follow-up to the Meeting on 31 October 2018**

Thank you for your letter of 31 October 2018 to the Financial Services and the Treasury Bureau (Treasury Branch). At the meeting of the Establishment Subcommittee of the Legislative Council on 31 October 2018, the Government proposed the creation of one permanent directorate post of Chief Air Traffic Control Officer (“Chief ATCO”) and one supernumerary directorate post of Chief ATCO in the Civil Aviation Department (“CAD”). This document sets out the supplementary information provided by the CAD in respect of the relevant follow-up items.

Latest progress of discussion with the Mainland and Macao on the airspace arrangement upon commissioning of the Three-Runway System (“3RS”)

2. The Civil Aviation Administration of China, the CAD of Hong Kong and the Civil Aviation Authority of Macao jointly drew up the “Pearl River Delta Region Air Traffic Management Planning and Implementation Plan (Version 2.0)” (“the Plan”) in 2007. The Plan, under which the whole Pearl River Delta (“PRD”) airspace is considered in a holistic manner, sets out various air traffic management enhancement measures to be adopted, with an ultimate aim of achieving a more seamless, effective and optimised regional air traffic management model. In formulating the Plan, the operational needs of the future 3RS of the Hong Kong International Airport (“HKIA”) and the future development needs of various airports in the PRD have been taken into account, so as to maximise the effectiveness of airports within the region. This is a plan that can achieve mutual benefits.

3. Through the collaborative efforts of the three sides, progress has been made and a number of enhancement measures in the Plan have been implemented, including the establishment of peripheral flight paths in the PRD region, the establishment of additional handover points, the adjustment of the Zhuhai airspace structure, the promotion of automated work processes and the establishment of an enhanced air traffic flow management mechanism etc. These measures have helped enhance the efficiency in flight operations and air traffic management within the region. Moreover, in 2016, the three sides signed an agreement on establishing a strengthened liaison mechanism to enhance co-operation and exchange. Under the mechanism, senior management of the three sides meet regularly to further strengthen tripartite co-operation.

4. In 2017, the three sides entered into a Memorandum of Co-operation. The main areas covered include enhancing the regular and emergency exchange and co-ordination mechanism on air traffic flow management to enhance operational efficiency of flights; promoting automated work processes on flight co-ordination; and initiating the modelling and simulation of the airspace and air traffic (hereinafter referred to as fast-time simulation (“FTS”)) in the Guangdong-Hong Kong-Macao Bay Area by using advanced technology to provide reliable, precise and detailed analysis for planning and formulating air traffic management procedures and measures.

5. The FTS, which is underway, involves data integration and analysis work from various airports in the PRD and is a priority of the three sides. The three sides are striving to complete the FTS as early as possible and it is expected that the assessment and analysis work will be completed by next year, so that the three sides can continue with the optimisation of the effectiveness of airspace planning for the 3RS of the HKIA, so as to progressively achieve the target runway capacity of 102 air traffic movements per hour in the long run.

6. The three sides have informed the public of the successful phased implementation of the key initiatives under the Plan from time to time through press releases. We will continue to announce the major progress made in relation to the PRD airspace management through press releases in a timely manner.

Current and anticipated overtime work situation of ATCOs

7. The Air Traffic Management Division (“ATMD”) is the biggest division of the CAD comprising around 480 posts at present. The ATCOs work on roster to provide 24 hours non-stop air traffic control (“ATC”) services. In recent years, frontline ATCOs of the CAD were occasionally required to work overtime to meet operational needs, including receiving the necessary transitional training for the implementation of the new Air Traffic Management System (“ATMS”) and coping with the air traffic growth. According to the Civil Service Regulations, overtime should normally be compensated by time-off-in-lieu and the ceiling on the accumulation of uncompensated overtime hours by a civil servant should normally be set at 180 hours.

8. The overtime work situation has already greatly improved with the full commissioning of the new ATMS in November 2016 and the CAD’s active implementation of various measures, including speeding up the training for student ATCOs and junior ATCOs, streamlining the work procedures and engaging retired ATCOs on a contract basis to provide back-office support. With these measures in place, more ATCOs can execute daily frontline tasks and the tight manpower situation of the frontline ATCOs has thus been relieved. The average uncompensated overtime hours accumulated by a frontline ATCO dropped significantly from the peak of 140 hours in end-October 2015 to 63 hours in 2018 (as at end-September), representing a 55% decrease. Detailed figures are as follows.

Date	Average uncompensated overtime hours accumulated by a frontline ATCO (hours)	Year-on-year change
End-October 2015	140	-
End-October 2016	132	-5.7%
End-October 2017	92	-30.3%
End-September 2018 ¹	63	-31.5%

9. As ATC is subject to various factors, including the air traffic growth, actual operational needs, manpower and weather etc, we are unable to estimate accurately the uncompensated overtime hours to be accumulated by frontline ATCOs in future.

¹ The figure for end-September 2018 is just a preliminary estimate. The figure for end-October is under compilation.

Having said that, from the figures above, CAD's measures have achieved some effect in relieving the overtime work situation. The CAD will continue to strive to increase manpower and further reduce overtime hours of ATCOs. Details of the relevant measures are set out below.

Recruitment and training plans for ATCOs between now and up to 2024

10. To cope with the increasing demand for air traffic services and the work associated with ATC projects of the 3RS, the ATMD of CAD will create 40 non-directorate posts, including 20 posts of student ATCOs in 2018-19. It is expected that the new ATCOs will join the CAD in batches starting from the second quarter of next year the earliest. After receiving the necessary basic on-the-job training (about three years²), these new recruits will be able to relieve the pressure of manpower shortage on frontline staff to a certain extent. Moreover, as it takes time to train ATCOs, the CAD co-operated with the Airport Authority Hong Kong so that the latter will hire a service contractor to recruit experienced and licensed ATCOs from overseas to be seconded to the CAD to help provide some of the ATC services under the "Air Traffic Control Specialist Scheme". Such arrangement will allow the CAD to flexibly speed up the training process and replenish the ATC workforce to cater for the anticipated growth in air traffic. The arrangement is transitory in nature, which will last for six to eight years with the total number of officers to be involved capped at 80. The first batch of eight expatriate ATCOs has reported duty at the CAD. They are familiarising themselves with relevant work procedures/systems. It is expected that they will undertake full duties early next year.

11. In the next few years, the CAD will continue to increase its manpower progressively in the light of the need for air traffic services, recruitment and training situations, etc. in order to strengthen its frontline ATC manpower resources, with a view to supporting the daily ATC operations of the existing two-runway system, and planning, training and implementation work associated with the 3RS project. According to our current estimation, after the creation of the above 40 non-directorate posts up to 2024, the total manpower in the ATMD still needs to be increased substantially. The 3RS project is highly complicated with various parts of the works being closely linked. Therefore, we propose the creation of a Chief ATCO (3RS) post,

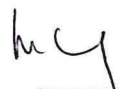
² After completing the basic on-the-job training, student ATCO may be promoted to ATCO III. However, only after obtaining the necessary air traffic controller licence can an ATCO III complete the advanced training and become an ATCO II. The duration of the whole training process depends on the training progress of individual ATCOs and it generally takes about five to seven years.

who will ensure all the 3RS critical milestones related to the CAD will be completed in a safe, orderly and timely manner (see EC(2018-19)15 for details). Subject to Members' support of the proposed creation of the Chief ATCO (3RS) post, one of the foremost tasks of Chief ATCO (3RS) is to review the above manpower requirements and fine-tune the relevant planning work in the light of the actual situations (e.g. the CAD is conducting studies, including "European Wake Vortex Re-categorisation"³ and "Performance-based Capacity Declaration"⁴, so as to enhance the capacity of the two-runway system). In future, the CAD will strive for the requisite resources through the Government's established internal mechanism.

12. In addition, the ATMD of CAD is studying ways to enhance the training courses for ATCOs to ensure the quality of ATCOs while shortening the training period as far as possible, so that student ATCOs who meet the competency requirements could obtain an air traffic controller licence and undertake frontline ATC duties within a shorter period of time. At present, on-the-job training for ATCOs takes about five to seven years. The CAD is exploring ways to streamline some of the basic training courses. If it is proven to be feasible, it is estimated that the overall training time can be shortened to five to six years. The CAD hopes that the streamlined training courses will be launched when the student ATCOs join the CAD next year.

13. On the premise of ensuring aviation safety, the CAD will actively speed up the recruitment and training for ATCOs to cater for the increasing workload arising from the 3RS.

Yours sincerely,



(Mona CHEUNG)

for Director-General of Civil Aviation

c.c.: Transport and Housing Bureau
Financial Services and the Treasury Bureau

³ European Wake Vortex Re-categorisation (RECAT-EU) is a project jointly undertaken by the Federal Aviation Administration and the European Organisation for the Safety of Air Navigation (EUROCONTROL) in 2005, with the aim of re-considering the current wake turbulence separation minima between aircraft set by the International Civil Aviation Organization and optimising the wake turbulence separation classes from the existing four categories to six categories, in order to achieve higher efficiency of runway capacity.

⁴ Performance-based Capacity Declaration (PBCD) is a capacity management solution which utilises computer simulation software to consider various operational conditions such as runways and air traffic management, as well as different combinations of flight mix, to develop a schedule which enhances the capacity and efficiency of airport operation. PBCD has already been implemented in London Heathrow Airport.