Reply Serial No.

CONTROLLING OFFICER'S REPLY

(Question Serial No. 0480)

Head:	(28) Civil Aviation Department
Subhead (No. & title):	(-) Not Specified
Programme:	(1) Flight Standards
Controlling Officer:	Director-General of Civil Aviation (Victor LIU)
Director of Bureau:	Secretary for Transport and Logistics

Question:

Hong Kong has been relying on expatriate pilots. Due to the epidemic, there is a high wastage of expatriate pilots and technical personnel. Will the Civil Aviation Department (CAD) promote localisation of the aviation industry in Hong Kong? In this connection, please advise this Committee on:

- 1. the implementation details of the relevant plan and the preparation work, resources and manpower required for the plan; and
- 2. whether there is any plan to allocate resources to support and assist local licensed pilots and aviation practitioners to return to work in Hong Kong.

Asked by: Hon CHAN Hak-kan (LegCo internal reference no.: 33)

Reply:

The COVID-19 pandemic in the past few years had reduced the demand for passenger services hence the number of pilots required to operate these services. With the easing of the pandemic and gradual recovery of the aviation industry, local airlines have been gearing up their efforts to reactivate their pilots and recruit new pilots since mid to end 2022 to support the resumption of passenger services. Noting that pilots are in high demand, local airlines have also resumed their cadet pilot training programme since April 2022. CAD encourages and is supportive of the local airlines' initiatives on the localisation of pilots and personnel, and their enhanced collaboration with local institutes on the training of pilots. According to information provided by local airlines, it is estimated that more than 800 local cadet pilots will be trained by 2025.

In the meantime, CAD has been proactively responding to the industry's needs by working closely with local airlines as well as flying training institutes to facilitate consideration and approval for pilot training programmes and conversion of overseas professional licences to Hong Kong licences for local airlines. Amongst others, through processes of continuous evaluation, CAD has optimised the personnel training requirements and approval procedures, such that local airlines may refine and implement the reactivation and revalidation processes

for pilots and other technical personnel returning to service in a more timely and effective manner.

With a view to promoting and supporting the development of the Hong Kong aviation industry and maintaining Hong Kong's status as an international aviation hub, CAD will continue its efforts to encourage young people of Hong Kong to join the local aviation industry.

The above work is undertaken by the existing CAD staff as part of their normal duties under Programme (1).

Reply Serial No.

CONTROLLING OFFICER'S REPLY

(Question Serial No. 2836)

Head:	(28) Civil Aviation Department
Subhead (No. & title):	(-) Not Specified
Programme:	(2) Airport Standards
Controlling Officer:	Director-General of Civil Aviation (Victor LIU)
Director of Bureau:	Secretary for Transport and Logistics

Question:

Regarding the friction values of aerodrome runway surface at test speed of 65 kilometres per hour, the average friction values in all weather shall not be lower than 0.53 in accordance with the guidance of the International Civil Aviation Organization (ICAO) to avoid slippery due to substandard surface friction conditions of runway, jeopardising the safety of aircraft taking-off and landing.

In the past, there had been an incident of aircraft veering off the runway in heavy rain at the Hong Kong International Airport (HKIA) and there were also media reports revealing that the maintenance of the runways was suspected to be affected by busy air traffic movements. Will the Government inform this Committee of:

- 1. the expenditure for maintaining the HKIA's runway surface friction over the past 5 years;
- 2. the numbers of times that the friction values of each of the HKIA's runways were lower than the minimum standards of the ICAO's guidance in each of the past 5 years;
- 3. the numbers of reports on substandard conditions of runway surface friction and pilot's reports on slippery wet runways received by the Civil Aviation Department (CAD) respectively in each of the past 5 years;
- 4. the effective measures of the CAD in monitoring runway conditions while it is the Airport Authority Hong Kong (AA) which conducts regular self-measurement of runway's surface friction conditions with own devices and clearing of aircraft tyre debris on the runways; and
- 5. whether the maintenance of runways will be improved after the commissioning of the Third Runway of the airport?

<u>Asked by</u>: Hon LEUNG Hei, Edward (LegCo internal reference no.: 48)

Reply:

In order for AA to operate the HKIA as an independent statutory body, AA is required to obtain an aerodrome licence from CAD. CAD is responsible for the safety oversight on the performance of AA to ensure its compliance with the aerodrome licensing requirements (including the establishment of a runway maintenance programme by AA). AA's runway

maintenance works include, but are not limited to, runway surface friction measurement and runway rubber removal.

1.

The implementation of a runway maintenance programme is undertaken by AA. CAD does not have a breakdown of expenditure for such work.

2. and 3.

In the past five financial years (i.e. from 2018-19 to 2022-23), the measured runway surface friction values at HKIA fully complied with the minimum friction level as specified by ICAO for the corresponding friction test equipment and test speed. For the number of pilot reports received by CAD concerning slippery wet runway at HKIA in the past five financial years, two pilot reports were received in 2018-19 while no such report had been received in the subsequent four financial years. At the time of the two pilot reports received, there were heavy showers. As per established procedure, inspection on runway surface condition and / or measurement on runway surface friction were conducted by AA shortly after the reports were received, and no anomaly was observed.

4. and 5.

Through implementing audit and inspection plans, CAD has maintained a system of monitoring the performance of AA as far as airport operations and aviation safety are concerned, and ensuring its compliance with the runway maintenance programme. Such monitoring system has already been extended to cover the Third Runway at HKIA. With such a runway maintenance programme and monitoring system in place, AA and CAD will continue to maintain the safe and efficient runway operations as HKIA handles the projected increase in air traffic.

Reply Serial No.

CONTROLLING OFFICER'S REPLY

(Question Serial No. 2730)

Head:	(28) Civil Aviation Department
Subhead (No. & title):	(-) Not Specified
Programme:	(3) Air Traffic Management
Controlling Officer:	Director-General of Civil Aviation (Victor LIU)
Director of Bureau:	Secretary for Transport and Logistics

Question:

Following the HKSAR Government's lifting of most of the anti-epidemic restrictions, demand for flights picks up and more flights will be flying to and from Hong Kong. Will the Government inform this Committee:

- 1. of the specific plan and expenditure involved to "improve the efficiency of air traffic management in order to further enhance the runway capacity of the Hong Kong International Airport" in 2023-24; and
- 2. given that the numbers of flights are expected to gradually pick up after a drop in the past 3 years under the impact of the epidemic, whether the current estimates and staff establishment will suffice in coping with the rising demand; and whether the Civil Aviation Department (CAD) has formulated any specific deployment plan in this regard?

Asked by: Hon LEUNG Man-kwong (LegCo internal reference no.: 37)

Reply:

1.

With the implementation of enhanced Wake Turbulence Separation (eWTS) in 2020 and commencement of operational trials using the Approach Spacing Management System (ASMS), air traffic controllers are provided with an augmentation tool in conjunction with the eWTS scheme to deliver a more efficient and accurate final approach sequence into the Hong Kong International Airport (HKIA), while maintaining high safety standards. The enhancement in final approach spacing under eWTS would marginally increase the runway The capacity of HKIA has been increased from the previous maximum capacity of HKIA. of 68 air traffic movements (ATM) per hour to the current maximum of 69 ATM per hour for busy hours, and will progressively increase to other hours in the coming years. Since eWTS and ASMS have already been implemented, no additional expenses will be involved in Upon commencement of the Three-Runway System (3RS) financial year 2023-24. operations, the capacity of HKIA could further increase accordingly to satisfy the growing traffic demands in longer term.

Based on the Airport Authority Hong Kong's traffic forecast, HKIA is expected to recover to pre-pandemic levels by 2024-25. The current Interim Two-Runway System mode of operations is capable of handling such traffic demand. In preparation for the 3RS operations in 2024, CAD will continue to make robust effort in recruiting and training air traffic personnel to ensure that there is sufficient manpower to meet the increased traffic demand in the longer term.

- End -

2.

Reply Serial No.

CONTROLLING OFFICER'S REPLY

TLB004

(Question Serial No. 1236)

Head:	(28) Civil Aviation Department
Subhead (No. & title):	(-) Not Specified
Programme:	(5) Air Services and Safety Management
Controlling Officer:	Director-General of Civil Aviation (Victor LIU)
Director of Bureau:	Secretary for Transport and Logistics

Question:

The Civil Aviation Department (CAD) is responsible for monitoring the noise and flight tracks of aircraft and implementing the noise abatement programme. However, this Council has received reports from residents in the vicinity of Siu Lam, Tai Lam and So Kwun Wat from time to time about long term aircraft noise impacts. In this connection, please advise this Committee on:

- a) the number of aircraft departures and arrivals of each runway per hour before and after the commissioning of the three-runway system;
- b) the details and expenditure involved in implementing aircraft noise and flight tracks in the past and in the future, and the effect of such;
- c) the data recorded monthly by each aircraft noise monitoring terminal between 11 pm and 7 am the following day on aircraft noise levels reaching 70 to 74 decibels (dB), 75 to 79 dB and 80 dB or above in each of the past 5 years;
- d) the number of complaints lodged by residents of Castle Peak Road and Tuen Mun Road, including but not limited to those in the vicinity of Siu Lam, Tai Lam and So Kwun Wat, in each of the past 5 years and their percentages in the total number of aircraft noise complaints in Hong Kong;
- e) further to the above, the number of confirmed noise cases, noise emission time and the ways of handling;
- f) whether regular reviews will be made on the impact of flight tracks on the residents. If yes, what is the progress? If no, what are the reasons?
- g) whether flight tracks will be changed to prevent residents from being affected by aircraft noise. If yes, what is the progress? If no, what are the reasons?

Asked by: Hon TIEN Puk-sun, Michael (LegCo internal reference no.: 17)

Reply:

The Three-Runway System (3RS) project of Hong Kong International Airport (HKIA) is vital to maintaining Hong Kong's competitiveness as an international aviation hub and meeting growing air traffic demand. In taking forward the project, CAD and the Airport Authority

Hong Kong (AA) attach great importance to the environmental issues arising from the 3RS project, including potential impact of aircraft noise on relevant stakeholders. To this end, with due consideration of relevant factors, CAD and AA have been taking a balanced approach and various mitigating measures to alleviate the aircraft noise issues.

(a) to (e)

As part of the 3RS project of HKIA, the Third Runway has commenced operation familiarisation since 8 July 2022 and was officially commissioned on 25 November 2022. In order to facilitate the development of the 3RS project, the Centre Runway has been temporarily closed for reconfiguration. The whole 3RS project is targeted for completion in 2024. In the meantime, an Interim Two-Runway System (I-2RS) is in place whereby HKIA will maintain its two-runway operation (i.e. the Third Runway and South Runway). Currently, the maximum capacity of the I-2RS is 69 air traffic movements (ATM) per hour (i.e. total number of aircraft departures and arrivals per hour). The ultimate target runway capacity of HKIA under 3RS operation would be about 102 ATM per hour.

During the design stage of the 3RS project, AA conducted a statutory Environmental Impact Assessment (EIA) study, covering a wide range of aspects including aircraft noise and air quality. To gauge the views of stakeholders and foster proactive engagement with the community, AA had organized various engagement activities during the EIA study stage such as meetings with District Councils and setting up of Community Liaison Groups (CLGs) in the neighbouring districts of HKIA, including Tuen Mun (Siu Lam / Tai Lam Chung / So Kwun Wat). As part of AA's engagement activities, briefings to Tuen Mun District Council and CLGs on the 3RS project and initial flight path designs were conducted. Relevant details can be found in the 3RS EIA study report published under AA's 3RS website (https://env.threerunwaysystem.com/en/index.html).

Separately, CAD monitors the aircraft noise situation through a computerized Aircraft Noise and Flight Track Monitoring System (ANFTMS). The ANFTMS comprises multiple outdoor noise monitoring terminals (NMTs) which are located along or close to the flight paths operating into and out of HKIA, as well as a computer which correlates noise data collected with the aircraft flight tracks detected by CAD's radar system. In view of the commencement of operation familiarisation of the Third Runway from 8 July 2022 and its official commissioning on 25 November 2022, CAD has expanded the ANFTMS through installation of additional NMTs at locations close to the flight paths of the Third Runway. Specifically, two new NMTs in Tuen Mun and Siu Lam respectively have been put into operation since July 2022. CAD will continue with the expansion of ANFTMS in order to monitor the aircraft noise situation. Summary of the latest data measured at the NMTs is uploaded every three months onto CAD's website for information of general public. The aircraft noise events recorded between 11 pm and 7 am the following day by the NMTs between 2018 and 2022 are set out at Annex I.

In 2023-24, the estimated expenditure for maintenance of ANFTMS and procurement / installation of additional NMTs are \$2.45 million and \$6.0 million respectively. The monitoring and implementation of the above noise mitigating measures are undertaken by the existing CAD staff as part of their normal duties under Programme (5).

As for complaint handling, CAD will follow the established procedures to timely investigate and follow up on each complaint and advise the complainant of the details of the investigation

results. The aircraft noise complaint figures handled by CAD between 2018 and 2022 are set out at <u>Annex II</u>.

(f) and (g)

All flight paths for HKIA were developed through careful and comprehensive studies. In accordance with international standards and recommended practices, their development must take into account various safety and operational factors including but not limited to runway direction, terrain environment, obstacle clearances, location of navigation aids, aircraft operating criteria, environmental consideration and airspace co-ordination with nearby airports, etc. When designing flight paths for the 3RS, a balanced approach has been adopted with due regard to the aforesaid factors as well as its potential impact on different stakeholders including the effect of aircraft noise. Nonetheless, Hong Kong is small in size, hilly in topography and densely populated. All things considered, it is not feasible to design flight paths which are completely clear of residential developments without compromising aviation safety, while still being able to meet all international aviation safety requirements.

CAD and AA have initiated and implemented various aircraft noise mitigating measures based on the guidelines of the International Civil Aviation Organization to reduce the potential noise disturbance to local communities, including Tuen Mun (Siu Lam / Tam Lam Chung / So Kwun Wat). These measures include:

- aircraft that do not comply with the noise standards stipulated in Chapter 3 of Annex 16 Volume I, Part II to the Convention on International Civil Aviation ("Chapter 3 noise standards") are not allowed to land or take off in Hong Kong;
- (2) airlines are not allowed to schedule aircraft whose noise levels only marginally meet Chapter 3 noise standards to land or take off in Hong Kong;
- (3) airlines are forbidden from scheduling aircraft that do not comply with the more stringent noise standards stipulated in Chapter 4 of Annex 16 Volume I, Part II to the Convention on International Civil Aviation, or equivalent, to land or take off in Hong Kong between 10 pm and 7 am;
- (4) to further restrict aircraft operation with higher noise level during the abovementioned night period, i.e. between 10 pm and 7 am, a Noise Quota Count Scheme imposing restrictions on operating hours has been implemented with a view to augmenting the above and further reducing noise disturbance to local communities; and
- (5) subject to acceptable wind direction and safety consideration, arriving aircraft between midnight and 7 am are normally instructed to land from the southwest over the water. This measure aims to reduce the number of aircraft overflying populated areas including Tuen Mun (Siu Lam / Tai Lam Chung / So Kwun Wat) during the overnight period.

With the advancement of aviation technology, aircraft engines are quieter than before and the improved design of airframe has also helped reduce noise significantly. It is noted that more airlines have introduced quieter passenger and cargo aircraft, and the ratios of newer-model aircraft in their fleets are on the rise. This will alleviate the aircraft noise impact in the long run. Apart from taking the above noise mitigating measures, CAD will also continue to monitor the progress made by airlines in their aircraft fleet replacement and their deployment of quieter aircraft.

Annex I

Noise Events Recorded by the Noise Monitoring Terminals between 2018 and 2022
(between 11 pm and 7 am the following day)

						20	18						
Noise Monitoring Terminal	Noise Level (dB)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	70 - 74	0	0	0	4	43	37	26	85	11	0	1	0
Kwai Chung	75 - 79	0	0	0	0	1	0	1	0	1	0	0	0
	≥ 80	0	0	0	0	0	0	0	0	0	0	0	0
	70 - 74	0	0	0	0	1	0	1	2	1	0	0	0
Tai Wai	75 - 79	0	0	0	0	0	0	0	0	0	0	0	0
	≥80	0	0	0	0	0	0	0	0	0	0	0	0
	70 - 74	0	0	0	0	1	0	0	3	0	0	0	0
Shau Kei Wan	75 - 79	0	0	0	0	0	0	0	0	0	0	0	0
	≥80	0	0	0	0	0	0	0	0	0	0	0	0
	70 - 74	2	0	0	1	0	0	0	2	0	0	1	0
North Point	75 - 79	0	0	0	0	0	0	0	0	0	0	0	0
	≥80	0	0	0	0	0	0	0	0	0	0	0	0
	70 - 74	0	0	0	0	0	1	1	1	1	0	0	0
Mid-Levels	75 - 79	0	0	0	0	0	0	0	0	0	0	0	0
	≥ 80	0	0	0	0	0	0	0	0	0	0	0	0
Tsing Lung Tau	70 - 74	147	189	154	88	479	568	492	587	153	96	183	115
	75 - 79	7	8	4	2	19	21	23	26	8	4	14	7
	≥80	0	0	0	0	0	0	0	0	0	0	0	0

	2018													
Noise Monitoring Terminal	Noise Level (dB)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
	70 - 74	630	424	493	567	474	573	514	587	694	548	500	374	
Sha Lo Wan	75 - 79	305	75	127	271	107	173	200	194	264	153	178	262	
	≥ 80	36	4	4	32	6	19	14	15	34	10	6	24	
	70 - 74	115	89	57	52	43	15	38	33	69	92	101	161	
Tung Chung	75 - 79	0	5	3	1	1	0	3	0	2	5	1	3	
	≥ 80	0	0	0	0	0	0	0	0	0	0	0	0	
	70 - 74	6	20	36	8	255	330	215	318	80	5	26	11	
Ting Kau	75 - 79	0	0	0	0	4	5	5	10	3	0	0	0	
	≥ 80	0	0	0	0	0	0	0	0	0	0	0	0	
	70 - 74	404	364	384	332	471	369	355	557	317	286	390	419	
Ma Wan	75 - 79	53	72	31	30	72	64	59	95	66	28	53	44	
	≥ 80	4	2	2	2	2	2	1	1	3	1	1	0	
	70 - 74	16	8	9	0	1	5	2	9	4	8	19	17	
Tai Lam Chung	75 - 79	0	0	0	0	0	0	0	0	0	0	0	0	
	≥ 80	0	0	0	0	0	0	0	0	0	0	0	0	
	70 - 74	0	7	23	4	152	222	137	228	63	4	11	0	
Tsuen Wan	75 - 79	0	0	2	1	7	6	4	6	2	0	1	0	
	≥ 80	0	0	0	0	0	0	0	0	0	0	0	0	
	70 - 74	0	1	0	9	149	135	96	234	52	0	8	4	
Tsing Yi #1	75 - 79	0	0	0	0	3	5	5	11	2	0	0	0	
C .	≥ 80	0	0	0	0	0	0	0	0	0	0	0	0	
	70 - 74	270	222	307	236	63	45	101	76	79	179	249	304	
Sunny Bay	75 - 79	5	1	4	1	0	0	1	1	2	2	2	13	
	≥80	0	0	0	0	0	0	0	0	0	0	0	0	

		2018												
Noise Monitoring Terminal	Noise Level (dB)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Jardine's Lookout	70 - 74	1	0	1	0	0	1	0	2	2	0	0	0	
	75 - 79	0	0	0	0	0	0	0	0	0	0	0	0	
	≥80	0	0	0	0	0	0	0	0	0	0	0	0	
Tsing Yi #2	70 - 74	1	0	0	4	37	46	27	57	21	0	1	1	
	75 - 79	0	0	0	0	0	0	0	1	1	0	0	0	
	≥80	0	0	0	0	0	0	0	0	0	0	0	0	

	2019													
Noise Monitoring Terminal	Noise Level (dB)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
	70 - 74	9	0	6	15	4	54	65	59	20	7	0	1	
Kwai Chung	75 - 79	0	0	0	0	0	1	0	1	0	0	0	0	
	≥80	0	0	0	0	0	0	0	0	0	0	0	0	
	70 - 74	0	0	1	0	0	0	4	4	0	0	0	0	
Tai Wai	75 - 79	0	0	0	0	0	0	0	0	0	0	0	0	
	≥80	0	0	0	0	0	0	0	0	0	0	0	0	
	70 - 74	2	1	2	3	1	0	0	1	1	0	0	0	
Shau Kei Wan	75 - 79	0	0	0	0	0	0	0	0	0	0	0	0	
	≥80	0	0	0	0	0	0	0	0	0	0	0	0	
	70 - 74	2	1	5	3	0	0	1	4	2	0	0	0	
North Point	75 - 79	0	0	1	1	0	0	0	0	0	0	0	0	
	≥80	0	0	0	0	0	0	0	0	0	0	0	0	
	70 - 74	0	0	1	0	1	0	0	0	0	0	0	1	
Mid-Levels	75 - 79	0	0	0	0	0	0	0	0	0	0	0	0	
	≥ 80	0	0	0	0	0	0	0	0	0	0	0	0	
	70 - 74	179	71	204	366	324	789	983	606	96	90	113	151	
Tsing Lung Tau	75 - 79	12	4	13	24	20	33	36	24	4	2	2	6	
	≥80	0	0	0	0	0	1	0	0	0	0	0	0	
	70 - 74	530	460	535	432	523	355	384	558	665	418	737	748	
Sha Lo Wan	75 - 79	175	105	172	59	97	72	38	117	165	66	186	165	
	≥80	12	5	5	2	4	4	4	7	11	1	14	11	
	70 - 74	131	92	72	84	26	32	35	71	18	40	74	91	
Tung Chung	75 - 79	1	2	0	1	0	0	2	0	0	0	1	1	
	≥80	0	0	0	0	0	0	0	0	0	0	0	0	

						20	19						
Noise Monitoring Terminal	Noise Level (dB)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	70 - 74	30	15	35	143	122	426	522	351	44	87	6	13
Ting Kau	75 - 79	1	1	2	3	1	10	3	11	1	0	0	0
	≥ 80	0	0	1	0	0	0	0	0	0	0	0	0
	70 - 74	425	232	474	425	274	419	485	443	253	298	319	378
Ma Wan	75 - 79	51	9	75	71	38	88	73	64	29	34	32	34
	≥ 80	6	0	4	4	0	1	6	2	0	0	1	2
	70 - 74	28	8	23	15	2	1	9	11	1	3	20	20
Tai Lam Chung	75 - 79	0	0	1	0	0	0	0	0	0	0	1	1
	≥ 80	0	0	0	0	0	0	0	0	0	0	0	0
	70 - 74	21	7	20	86	61	267	311	212	33	0	0	2
Tsuen Wan	75 - 79	0	0	1	6	2	9	2	14	0	0	0	0
	≥ 80	0	0	0	0	0	0	0	0	0	0	0	0
	70 - 74	27	2	35	60	18	163	154	181	54	40	0	2
Tsing Yi #1	75 - 79	15	0	1	2	0	5	6	4	3	1	0	0
	≥ 80	0	0	0	0	0	0	0	0	0	0	0	0
	70 - 74	251	129	216	183	124	86	48	69	79	117	192	182
Sunny Bay	75 - 79	5	4	4	9	1	2	0	3	2	3	6	5
	≥ 80	0	0	0	0	0	0	0	0	0	0	0	0
	70 - 74	0	0	1	1	0	1	0	0	0	0	0	1
Jardine's Lookout	75 - 79	0	0	0	0	0	0	0	0	0	0	0	0
	≥80	0	0	0	0	0	0	0	0	0	0	0	0
	70 - 74	7	0	5	6	1	22	28	33	3	3	0	0
Tsing Yi #2	75 - 79	0	0	0	0	0	0	0	0	0	0	0	0
	≥80	0	0	0	0	0	0	0	0	0	0	0	0

	2020													
Noise Monitoring Terminal	Noise Level (dB)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
	70 - 74	13	3	3	0	133	104	99	14	10	0	0	4	
Kwai Chung	75 - 79	0	0	0	0	1	1	0	0	0	0	0	2	
	≥80	0	0	0	0	0	0	0	0	0	0	0	0	
	70 - 74	2	1	0	0	0	3	0	0	0	0	0	1	
Tai Wai	75 - 79	0	0	0	0	0	0	0	0	0	0	0	0	
	≥80	0	0	0	0	0	0	0	0	0	0	0	0	
	70 - 74	0	0	0	0	0	0	0	0	0	0	0	0	
Shau Kei Wan	75 - 79	0	0	0	0	0	0	0	0	0	0	0	0	
	≥80	0	0	0	0	0	0	0	0	0	0	0	0	
	70 - 74	1	0	0	0	0	0	0	0	0	0	0	0	
North Point	75 - 79	0	0	0	0	0	0	0	0	0	0	0	0	
	≥80	0	0	0	0	0	0	0	0	0	0	0	0	
	70 - 74	0	1	0	0	0	0	0	1	0	0	0	0	
Mid-Levels	75 - 79	0	0	0	0	0	0	0	0	0	0	0	0	
	≥80	0	0	0	0	0	0	0	0	0	0	0	0	
	70 - 74	176	76	114	134	172	531	553	237	116	88	118	137	
Tsing Lung Tau	75 - 79	23	2	4	4	13	90	68	20	8	3	3	3	
	≥80	0	0	0	1	0	1	0	0	0	0	0	0	
	70 - 74	1,021	552	536	642	431	88	189	347	401	564	477	636	
Sha Lo Wan	75 - 79	271	188	156	274	96	12	25	68	74	142	104	190	
	≥80	22	30	9	27	14	2	1	4	4	8	3	20	
	70 - 74	86	47	22	46	43	13	8	19	28	40	44	71	
Tung Chung	75 - 79	0	1	0	1	1	0	0	0	0	0	0	0	
	≥80	0	0	0	0	0	0	0	0	0	0	0	0	

						20)20						
Noise Monitoring Terminal	Noise Level (dB)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	70 - 74	57	12	17	2	44	327	340	98	19	3	13	11
Ting Kau	75 - 79	7	0	1	0	0	7	5	3	0	0	0	0
	$\geq \! 80$	0	0	0	0	0	0	0	0	0	0	0	0
	70 - 74	371	143	354	282	284	400	356	210	237	284	339	454
Ma Wan	75 - 79	38	14	40	34	84	108	83	25	29	29	55	73
	≥80	0	0	0	3	4	5	1	2	3	0	1	3
	70 - 74	29	7	14	17	14	13	3	8	10	11	24	44
Tai Lam Chung	75 - 79	1	0	0	2	0	0	0	0	0	0	0	0
	≥ 80	0	0	0	0	0	0	0	0	0	0	0	0
	70 - 74	49	13	11	0	0	252	299	58	18	0	0	8
Tsuen Wan	75 - 79	1	0	1	0	0	4	3	0	0	0	0	0
	≥ 80	0	0	0	0	0	0	0	0	0	0	0	0
	70 - 74	21	18	8	1	381	249	262	40	23	0	0	6
Tsing Yi #1	75 - 79	4	0	2	0	34	27	15	4	4	0	0	4
	≥ 80	0	0	0	0	0	0	0	0	0	0	0	0
	70 - 74	168	108	136	102	55	17	21	61	64	145	172	247
Sunny Bay	75 - 79	4	3	1	7	4	2	0	3	5	6	9	8
	≥ 80	0	0	0	0	0	0	0	0	0	0	0	0
	70 - 74	0	0	0	0	0	0	0	0	0	0	0	0
Jardine's Lookout	75 - 79	0	0	0	0	0	0	0	0	0	0	0	0
	≥ 80	0	0	0	0	0	0	0	0	0	0	0	0
	70 - 74	10	8	3	2	69	69	50	7	5	0	2	10
Tsing Yi #2	75 - 79	1	0	0	0	1	1	0	0	0	0	0	0
	≥80	0	0	0	0	0	0	0	0	0	0	0	0

						20	21						
Noise Monitoring Terminal	Noise Level (dB)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	70 - 74	12	0	4	3	44	63	34	35	13	0	0	0
Kwai Chung	75 - 79	0	0	0	0	0	0	0	0	0	0	0	0
	≥80	0	0	0	0	0	0	0	0	0	0	0	0
	70 - 74	0	0	0	0	1	2	0	1	1	0	0	0
Tai Wai	75 - 79	0	0	0	0	0	0	0	0	0	0	0	0
	≥ 80	0	0	0	0	0	0	0	0	0	0	0	0
	70 - 74	1	0	0	0	0	0	1	0	0	0	0	0
Shau Kei Wan	75 - 79	0	0	0	0	0	0	0	0	0	0	1	0
	≥ 80	0	0	0	0	0	0	0	0	0	0	0	0
	70 - 74	1	0	0	1	0	0	0	0	0	0	1	1
North Point	75 - 79	0	0	1	0	0	0	0	0	0	0	1	0
	≥ 80	0	0	0	0	0	0	0	0	0	0	0	0
	70 - 74	0	1	0	0	0	0	1	0	0	0	1	0
Mid-Levels	75 - 79	0	0	0	0	0	0	1	0	0	0	0	0
	≥ 80	0	0	0	0	0	0	0	0	0	0	0	0
	70 - 74	138	69	114	91	483	575	401	375	179	189	154	89
Tsing Lung Tau	75 - 79	3	4	8	7	40	47	31	26	9	11	6	2
	≥80	0	0	0	0	0	0	0	0	1	0	0	0
	70 - 74	776	467	616	340	147	234	224	260	321	401	519	559
Sha Lo Wan	75 - 79	279	184	176	64	33	34	32	39	80	96	146	187
	≥80	27	14	9	6	3	0	4	2	4	6	4	9

						20)21						
Noise Monitoring Terminal	Noise Level (dB)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	70 - 74	33	27	24	15	5	9	7	14	17	1	13	35
Tung Chung	75 - 79	0	0	2	0	0	0	0	0	0	0	0	1
	≥ 80	0	0	0	0	0	0	0	0	0	0	0	0
	70 - 74	17	6	22	32	326	359	285	339	124	102	9	6
Ting Kau	75 - 79	1	0	1	2	13	5	10	11	0	0	1	0
	≥80	0	0	0	0	0	0	0	0	0	0	0	0
	70 - 74	356	241	246	179	243	294	248	188	277	249	377	319
Ma Wan	75 - 79	48	25	44	18	41	69	36	34	39	25	42	54
	≥ 80	0	0	1	0	1	2	2	1	0	4	2	0
	70 - 74	29	14	16	7	8	2	7	7	3	10	15	15
Tai Lam Chung	75 - 79	0	0	2	0	0	0	0	0	1	0	0	0
	≥ 80	0	0	0	0	0	0	0	0	0	0	0	0
	70 - 74	14	0	10	22	223	252	167	229	76	47	1	2
Tsuen Wan	75 - 79	0	0	0	2	3	9	6	8	1	3	0	0
	≥ 80	0	0	0	0	0	0	0	0	0	0	0	0
	70 - 74	13	0	14	3	103	170	75	74	110	0	0	0
Tsing Yi #1	75 - 79	4	0	0	2	3	4	5	2	2	0	0	0
	≥ 80	0	0	0	0	1	1	0	0	0	0	0	0
	70 - 74	169	117	100	46	12	25	39	38	30	65	75	97
Sunny Bay	75 - 79	4	11	6	0	1	1	3	1	1	2	2	7
	≥ 80	0	0	0	0	0	0	0	0	0	0	0	0
	70 - 74	0	0	1	0	0	0	0	0	0	0	1	0
Jardine's Lookout	75 - 79	0	0	0	0	0	0	0	0	0	0	0	0
	≥80	0	0	0	0	0	0	0	0	0	0	0	0

		2021													
Noise Monitoring Terminal	Noise Level (dB)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
Tsing Yi #2	70 - 74	13	1	1	1	15	21	8	13	9	1	1	0		
	75 - 79	0	0	0	0	0	0	0	0	0	0	0	0		
	≥80	0	0	0	0	0	0	0	0	0	0	0	0		

						20)22						
Noise Monitoring Terminal	Noise Level (dB)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	70 - 74	14	0	4	0	19	55	88	19	66	0	0	0
Kwai Chung	75 - 79	0	0	0	0	1	0	1	0	1	0	0	0
	≥80	0	0	0	0	0	0	0	0	0	0	0	0
	70 - 74	0	0	0	0	1	2	1	1	5	0	0	0
Tai Wai	75 - 79	0	0	0	0	0	0	0	0	0	0	0	0
	≥80	0	0	0	0	0	0	0	0	0	0	0	0
	70 - 74	0	0	0	0	1	0	0	0	0	0	1	0
Shau Kei Wan	75 - 79	0	0	0	0	0	0	0	0	0	0	0	0
	≥80	0	0	0	0	0	0	0	0	0	0	0	0
	70 - 74	1	1	0	0	1	0	0	0	1	0	1	0
North Point	75 - 79	0	0	0	0	0	0	0	0	0	0	0	0
	≥80	0	0	0	0	0	0	0	0	0	0	0	0
	70 - 74	0	0	0	0	0	0	0	0	0	0	0	1
Mid-Levels	75 - 79	0	0	0	0	0	0	0	0	0	0	0	0
	≥ 80	0	0	0	0	0	0	0	0	0	0	0	0
	70 - 74	119	62	109	72	121	559	136	6	7	10	14	27
Tsing Lung Tau	75 - 79	6	3	5	1	15	76	35	0	0	0	0	0
	≥80	0	0	0	0	0	1	0	0	0	0	0	0
	70 - 74	420	368	398	271	306	189	282	530	507	945	853	705
Sha Lo Wan	75 - 79	152	162	88	77	60	27	43	97	179	456	351	266
	≥80	19	23	5	6	1	1	1	3	16	49	41	26
	70 - 74	18	25	0	7	10	1	7	8	8	28	8	60
Tung Chung	75 - 79	0	0	0	0	0	0	0	1	0	1	0	1
	≥80	0	0	0	0	0	0	0	0	0	0	0	0

						20	22						
Noise Monitoring Terminal	Noise Level (dB)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	70 - 74	29	3	50	27	57	277	95	0	0	0	1	1
Ting Kau	75 - 79	11	0	2	0	4	2	0	0	0	0	0	0
	≥ 80	0	0	0	0	0	0	0	0	0	0	0	0
	70 - 74	307	212	143	205	174	275	306	128	228	161	129	310
Ma Wan	75 - 79	48	15	15	17	34	54	66	17	57	2	0	12
	≥ 80	1	0	0	0	0	2	3	0	1	0	0	0
	70 - 74	4	5	3	1	0	2	32	9	0	1	3	3
Tai Lam Chung	75 - 79	0	0	0	0	0	0	2	0	1	0	0	0
	≥ 80	0	0	0	0	0	0	0	0	0	0	0	0
	70 - 74	35	0	25	31	41	72	30	17	29	0	0	0
Tsuen Wan	75 - 79	1	0	0	0	1	1	0	0	0	0	0	0
	≥ 80	0	0	0	0	0	0	0	0	0	0	0	0
	70 - 74	25	0	3	23	47	152	182	71	138	0	0	0
Tsing Yi #1	75 - 79	2	0	2	3	4	5	4	0	16	0	0	0
	≥ 80	0	0	0	0	0	1	0	0	0	0	0	0
	70 - 74	63	74	37	32	27	22	14	37	19	113	87	171
Sunny Bay	75 - 79	1	2	1	0	0	0	1	0	2	1	0	3
	≥ 80	0	0	0	0	0	0	0	0	0	0	0	0
	70 - 74	0	0	0	0	0	0	0	0	0	0	1	0
Jardine's Lookout	75 - 79	0	0	0	0	0	0	0	0	0	0	0	0
	≥80	0	0	0	0	0	0	0	0	0	0	0	0
	70 - 74	10	1	1	5	9	18	5	1	59	0	0	1
Tsing Yi #2	75 - 79	0	0	0	0	0	0	0	0	0	0	0	0
	≥80	0	0	0	0	0	0	0	0	0	0	0	0

	2022													
Noise Monitoring Terminal	Noise Level (dB)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Tuen Mun^	70 - 74	-	-	-	-	-	-	-	0	0	0	0	1	
	75 - 79	-	-	-	-	-	-	-	0	0	0	0	0	
	≥80	-	-	-	-	-	-	-	0	0	0	0	0	
	70 - 74	-	-	-	-	-	-	-	7	1	0	1	17	
Siu Lam^	75 - 79	-	-	-	-	-	-	-	2	0	0	0	0	
	≥80	-	-	-	-	-	-	-	0	0	0	0	0	

^ Portable NMTs in Tuen Mun and Siu Lam have been put into operation since July 2022.

Year	Total (per thousand flight movements)
2018	0.8
2019	0.9
2020	1.7
2021	2.2
2022	3.6^

Number of Complaints Handled by CAD

^ The increase in 2022's figure is due to the decrease in the flight movements and the increase in the number of complaints, including Tuen Mun, after the Third Runway commenced operation familiarisation on 8 July 2022. CAD will continue to closely monitor the noise situation and implement noise mitigating measures to minimize aircraft noise disturbance.

Reply Serial No.

CONTROLLING OFFICER'S REPLY

TLB005

(Question Serial No. 1603)

Head:	(28) Civil Aviation Department
Subhead (No. & title):	(-) Not Specified
Programme:	(1) Flight Standards
Controlling Officer:	Director-General of Civil Aviation (Victor LIU)
Director of Bureau:	Secretary for Transport and Logistics

Question:

As indicated in the programme on flight standards, the estimated expenditure for 2023-24 is 8.5% higher than the revised estimate and 4.1% lower than the original estimate last year. As the current pandemic situation has notably improved, air operators are making preparation for the strong recovery of the aviation industry this year, thereby generating additional workload associated with flight standards for the Government. For example, as airlines recommence recruitment for flight crew, it is anticipated that the number of local and overseas flight crew examination papers to be processed by the Government will increase several times; the number of flight crew and aircraft maintenance licences to be processed by the Government and the number of flight operations and cabin safety inspections to be conducted by the Government will also increase significantly.

In this connection, please inform this Committee of how the Government should enhance efficiency to meet the increasing demand of the corresponding business in a high quality manner with limited expenditure.

<u>Asked by</u>: Hon YIM Kong (LegCo internal reference no.: 1)

Reply:

In line with the safety management principles of the International Civil Aviation Organization and the industry's best practices, the Civil Aviation Department (CAD) adapts a risk-based approach and has in place a comprehensive safety oversight and surveillance programme to closely monitor the operating standards and safety performance of local airlines. To support the continuing recovery of air traffic from the impact of COVID-19, CAD has enhanced its safety oversight and surveillance activities on local airlines, including but not limited to stepping up the department's inspections and audits on their flight operations, cabin safety, maintenance, personnel training and checking arrangements, etc., so as to ensure that they maintain high safety and operational standards.

Noting that pilots are in high demand, local airlines have also resumed their cadet pilot training programme since April 2022. CAD encourages and is supportive of the local airlines' initiatives on the localisation of pilots and personnel, and their enhanced

collaboration with local institutes on the training of pilots. According to information provided by local airlines, it is estimated that more than 800 local cadet pilots will be trained by 2025.

In this connection, CAD has been proactively responding to the industry's needs by working closely with local airlines as well as flying training institutes to facilitate consideration and approval for pilot training programmes and conversion of overseas professional licences to Hong Kong licences for local airlines. Amongst others, through processes of continuous evaluation, CAD has optimised the personnel training requirements and approval procedures, such that local airlines may refine and implement the reactivation and revalidation processes for pilots and other technical personnel returning to service in a more timely and effective manner. Hence, the number of examinations to be administered and conducted under the respective training programmes will also increase. Amongst others, the number of local flight crew examination papers to be processed is expected to increase from 1 073 in 2022 to 4 900 in 2023.

The estimated expenditure for 2023-24 under the programme on flight standards has already taken into consideration CAD's anticipated increase in workload in light of the recovery of the aviation industry. CAD will continue its efforts to closely monitor the operational safety and standards of local airlines and facilitate their personnel training activities to support the recovery of air traffic from the impact of COVID-19.

Reply Serial No.

CONTROLLING OFFICER'S REPLY

TLB006

(Question Serial No. 1604)

Head:	(28) Civil Aviation Department
Subhead (No. & title):	(-) Not Specified
Programme:	(2) Airport Standards, (3) Air Traffic Management, (4) Air Traffic Engineering Services
Controlling Officer:	Director-General of Civil Aviation (Victor LIU)
Director of Bureau:	Secretary for Transport and Logistics

Question:

As indicated in the programmes this year, the estimated expenditures on airport standards, air traffic management and air traffic engineering services are merely 1.3%, 1.5% and 3.7% higher than the original estimates last year respectively. The Government should note the apparent post-pandemic recovery of air traffic volume and the continuous growth in air traffic handling capacity upon the commissioning of the Third Runway at the Hong Kong International Airport (HKIA) at the end of last year.

In this regard, please advise on how the Government should enhance efficiency to ensure that a high level of quality service can be maintained with a limited increase in expenditure despite a rise in the corresponding business.

<u>Asked by</u>: Hon YIM Kong (LegCo internal reference no.: 2)

Reply:

The Civil Aviation Department (CAD) has implemented various measures to enhance efficiency in providing a high level of quality service within the budget provided.

In order to maintain a high quality air navigation service to cope with the increasing traffic demand associated with post-pandemic recovery of the aviation industry as well as the implementation of the Three-Runway System (3RS) of HKIA, CAD has implemented new air navigation service equipment employing advanced technologies in accordance with the International Civil Aviation Organization (ICAO)'s Global Air Navigation Plan to further enhance safety and operational efficiency. CAD has also made good use of the low traffic environment during the pandemic to introduce more efficient operational procedures and to conduct operational trials on advanced technologies in a cost effective manner. For example, CAD has implemented the new initiatives of enhanced Wake Turbulence Separation (eWTS) and Digital Tower Facilities (DTF). eWTS is deployed to increase the hourly capacity of HKIA by reducing the final approach spacing between aircraft in a safe and efficient manner; while DTF utilizes advanced video processing and digital tower technologies to provide air traffic controllers with ultra-high resolution real-time panoramic

view of the airfield and runways of HKIA with aircraft and vehicle information displayed on the digitized video. With the enhancement in final approach spacing under eWTS, the capacity of HKIA has been increased from the previous maximum of 68 air traffic movements (ATM) per hour to the current maximum of 69 ATM per hour. For DTF, operational trials on the advanced digital tower technologies were conducted at HKIA during the low traffic periods in early 2020. With successful outcomes of the trials, DTF was implemented and commissioned to support operational familiarisation and official commissioning of the Third Runway of HKIA in July and November 2022 respectively. Implementation of DTF has further enhanced safety and operational efficiency in managing aircraft and vehicle movements at HKIA, especially during night time and in low visibility conditions.

CAD is also responsible for the regulatory functions in respect of airport safety and aviation security. For the implementation of the 3RS of HKIA, in light of CAD's advice as a regulator, the Airport Authority Hong Kong (AA) has established various taskforces to strengthen the co-ordination among its works departments responsible for HKIA's expansion to 3RS. With enhanced works site supervision from an airport safety management perspective effected by AA, CAD's regulatory manpower / resources can be more effectively deployed to other aspects relating to airport safety (such as the monitoring of airport safety at HKIA under the Interim Two-Runway System while 3RS-related construction works are ongoing).

In respect of aviation security, with the successful implementation of the ICAO's policy direction on air cargo security from July 2021, namely 100% security screening for export air cargo, Hong Kong's status as one of the most secure air cargo hubs in the world has been further enhanced. As the global aviation industry is recovering during the post-pandemic era, the volume of export air cargo is anticipated to show a strong growth. The enhanced air cargo security in Hong Kong's air cargo industry has facilitated CAD's effective deployment of regulatory manpower / resources to other aspects relating to aviation security (such as the assessment of aviation security enhancement initiatives associated with implementation of 3RS).