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The Government of the Hong Kong Special Administrative Region

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DEPARTMENT

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APPENDIX 14

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By Fax and Email
06 January 2025

Ms Shirley Chan
Clerk to the Public Accounts Committee
Legislative Council
Legislative Council Complex
1 Legislative Council Road
Central
Hong Kong

Dear Ms Chan,

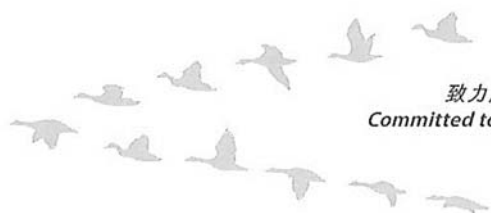
Public Accounts Committee
Director of Audit's Report No. 83 Chapter 4
Regulation of Operations of Small Unmanned Aircraft

Thank you for your letter ref CB3/PAC/R83 dated 17 December 2024. In consultation with the Transport and Logistics Bureau, our responses to your enquiries are set out in the Appendix.

Yours sincerely,

(Raymond Ng)
for Director-General of Civil Aviation

c.c. Secretary for Transport and Logistics (Email: stlooffice@tlb.gov.hk)
Secretary for Financial Services and the Treasury (Email: sfst@fstb.gov.hk)
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致力於安全、有效率及可持續發展的航空運輸系統
Committed to a Safe, Efficient and Sustainable Air Transport System

**Director of Audit's Report No. 83 Chapter 4
Regulation of Operations of Small Unmanned Aircraft
Enquiries and Information Requested**

Part 1: Introduction

- 1) According to Director of Audit's Report No. 83 ("Audit Report") Paragraph 1.5(a), as at 30 June 2024, there were 24,070 registered small unmanned aircraft ("SUA"). Please advise the number of SUA owners who were (i) a natural person of at least 18 years of age, (ii) body corporate and (iii) unincorporated body.

As at 30 June 2024, there were 24,070 registered small unmanned aircraft ("SUA"). 20,670 registrants were a natural person of at least 18 years of age, 2,896 registrants were body corporate, and 504 registrants were unincorporated body.

- 2) According to Audit Report Paragraph 1.5(a) and 1.5(b), remote pilots for advanced operations are required to undergo advanced training and assessment from an SUA approved training organization, unless they are able to demonstrate an alternative means of compliance. Please advise:
 - (a) What are "alternative means of compliance"?
 - (b) Among the 25,721 registered remote pilots, (i) how many remote pilots underwent advanced training and assessment from an SUA approved training organization and were assigned advanced rating by the Civil Aviation Department ("CAD"); (ii) how many remote pilots were assigned advanced rating by alternative means of compliance?
 - (c) How many remote pilots were registered for Category A2 operations and advanced operations?; and
 - (d) Since the commencement of the SUA Order, how many remote pilots have applied for, and been assigned, advanced rating every year? What were the number of rejected applications and the reason of rejection?
- (a) Alternative means of compliance include:
 - (i) Apart from undergoing advanced training and assessment from an SUA approved training organization, in order to facilitate experienced remote pilots as well as those who have already gone through similar training and assessment in other

jurisdictions, the Civil Aviation Department (“CAD”) may issue advanced rating to them subject to the proof of competency and possession of experience (e.g. relevant certification, SUA qualification issued by other jurisdictions and records of SUA operations recognised by CAD).

- (ii) Apart from the above, as a transitional arrangement (until 30 November 2023) to facilitate the transition to the SUA Order, experienced remote pilots, who possessed proof of experience of SUA operations in certain organization together with the relevant records, may also apply to CAD for assignment of advanced rating.

(b) Among the 25,721 registered remote pilots, 1,712 remote pilots underwent advanced training and assessment from an SUA approved training organization and were assigned advanced rating by CAD, while 635 remote pilots were assigned advanced rating by alternative means of compliance.

(c) 25,721 remote pilots were registered for Category A2 operations while 2,347 remote pilots were registered for advanced operations.

(d) Since the commencement of the SUA Order on 1 June 2022, 1,100, 822 and 425 remote pilots have applied for, and been assigned, advanced rating in June – December 2022, 2023 and the first half of 2024 respectively. So far, CAD has not rejected any application for the assignment of advanced rating.

- 3) According to Audit Report Paragraph 1.7(b), please advise the details of the effort on publicity campaigns after the full commencement of the SUA Order in December 2022:

- (a) The number, content and type of the effort on publicity campaigns every year;
- (b) The reach of the effort on publicity campaigns; and
- (c) The expense of the effort on publicity campaigns.

In order to prepare for the implementation of the SUA Order, CAD has launched a series of publicity campaigns on SUA, including launching promotional campaign in various modes of public transport, broadcasting promotional videos on television, broadcasting online promotional videos, displaying promotional banners at the restricted flying zones designated under the SUA Order, distributing leaflets (including promotional souvenirs) at the tourists’ hotspots, conducting online promotion and briefing stakeholders from different sectors, so as to enhance the public

awareness of the SUA Order and the safety awareness of SUA operations. Effort on publicity campaigns continued after the full commencement of the SUA Order in December 2022. Details (up to December 2024) are as follows:

	Arrangement and Reach (if applicable)	Expense (Hong Kong Dollars)
Public transport	Advertisements displayed at the interior and exterior of buses, and at the bus stops and tram stops for six to eight weeks since December 2022	1,200,000 (one-off)
Promotional videos on television	Since May 2022	565,000 (one-off)
Online promotional videos	Since June 2022	
Banners	Displayed at various locations in Hong Kong	151,000 (one-off)
Leaflets (including promotional souvenirs)	Distributed to nearly 4,000 people on 17 occasions	
Online promotion	e-Banner displayed online (Note)	95,000 (Note)
Briefing for stakeholders from different sectors	Participation in 18 events (including exhibitions, open days, etc.)	No additional expenses were involved

Note: At least 90,000 hit rates according to the contract.

- 4) According to Audit Report Paragraph 1.7(c), large-scale briefings were provided to the industry between March and May 2022. Please advise:
- (a) The number of briefings;
 - (b) The number of participants and participating organizations; and
 - (c) The expense of each briefing.

During March and May 2022, CAD organized two online briefing sessions for the SUA community and government departments. The briefing session on 18 March 2022 was targeted for the SUA community and attended by around 230 participants from some 100 organizations, while the briefing session on 13 May 2022 was targeted for the government departments and was attended by around 390 participants from some 30 government departments. No additional expenses were involved.

Part 2: Registration, Training and Assessment Requirements

- 5) According to Audit Report Paragraph 2.3, please advise the number of registered manufactured SUA and registered privately-built SUA.

As at 30 June 2024, there were 22,100 registered manufactured SUA and 1,970 registered privately-built SUA.

- 6) According to Audit Report Paragraph 2.4(b), please advise the reason why the requirement for uploading a photograph of the pertinent SUA affixed with the registration label was withdrawn by CAD, including the details of various considerations taken into account.

Since August 2023, CAD had conducted an internal review. From 31 May 2024, CAD withdrew the requirement for uploading a photograph of the SUA affixed with the registration label. The internal review took into account various considerations, including:

(a) the legal aspect: According to section 11(1)(b) of the SUA Order, the SUA label shall be displayed on the external surface of the aircraft and clearly visible. In order to ensure compliance with the above requirement, it is the view of CAD that it will be more effective to check the compliance of affixing the registration labels through other means (e.g. during the audits on advanced operations permission holders and SUA approved training organizations as well as flight demonstrations).

(b) the experience gained regarding the effectiveness in the monitoring of the labelling requirement during SUA operations: As observed by the staff

of CAD responsible for oversight of SUA operations, the labelling requirement has been complied with in general.

(c) the feedback from the public regarding the compliance with the labelling requirement: After the implementation of the labelling requirement for more than two years since the full commencement of the SUA Order in December 2022, the members of the public are increasingly familiar with the labelling requirement as observed by the staff of CAD responsible for oversight of SUA operations.

7) According to Audit Report Paragraph 2.5 and 2.6, if a holder of an eSUA account applies for deletion of his account, unless the reason is already known from any prior communication, CAD will contact the account holder by phone or by any other appropriate means to confirm the intention to delete the account. As at 30 June 2024, there were 22 deleted accounts. Please advise:

- (a) The number of accounts deleted by CAD with the reason already known from prior communication to confirm the intention to delete the account;
- (b) The number of accounts deleted by CAD through contacting the account holder by phone to confirm the intention to delete the account;
- (c) The number of accounts deleted by CAD through contacting the account holder by other appropriate means to confirm the intention to delete the account, and what are “other appropriate means”?; and
- (d) When the account holder cannot be contacted, how does CAD handle the registered SUA held under deleted accounts?

As at 30 June 2024, there were 22 deleted accounts, in which 14 deleted accounts were internal simulation or test accounts, while eight deleted accounts were held by the members of the public.

For the eight deleted accounts held by the members of the public, two account holders made telephone calls to CAD to confirm the intention to delete the accounts. The staff of CAD subsequently issued an email message to the account holders to record their intention and notify that their accounts had been deleted.

For the remaining six deleted accounts held by the members of the public, deficiencies were noted in the supporting documents submitted. The staff of CAD issued an email message to the account holders to request for further details before the deadline. Otherwise, their applications would be regarded as “withdrawn”. As the six account holders did not respond by

the deadline, the staff of CAD subsequently issued an email message to the account holders to notify that their accounts had been deleted.

(a) There was not any account deleted with the reason already known from prior communication confirming the intention to delete the account (i.e. before CAD contacted the account holder by phone or by any other appropriate means).

(b) There were two deleted accounts, in which two account holders made telephone calls to CAD to confirm the intention to delete the accounts.

(c) There were six deleted accounts, in which CAD contacted the account holders by other appropriate means to confirm the intention to delete the accounts. Other appropriate means referred to the issue of email messages.

(d) As an eSUA account holder cannot delete its own account, the account holder must contact CAD to confirm the intention, so that the staff of CAD will handle the account as well as the SUA registration / remote pilot registration.

8) According to Audit Report Paragraph 2.9(a) and 2.9(b), for the odd data in the database of eSUA, please advise:

- (a) For the 25 registered SUA recorded with weights not matching SUA models and incorrectly recorded as Category A2 SUA, have such SUA applied to CAD to conduct advanced operations? , 22 had been recorded as 250 grams or below (ranging from 168 to 250 grams) and 3? If so, what are the details?; and
- (b) For the 130 registered SUA with duplicate serial numbers, what are the number of serial numbers, the duplication and the registrants involved?

(a) Of the 6,030 registered SUA examined, 25 (0.4%) registered SUA been incorrectly recorded as Category A2 SUA. According to section 3 of the SUA Order, in respect of a flight at all times, in determining the weight of an SUA, everything installed in, carried by or attached to the SUA is to be taken into account. As such, the weight of an SUA refers to its weight during a flight, rather than the weight recorded in eSUA which is for general reference only. Operations of Category A1 or A2 SUA exceeding operating requirements, or operations of Category B SUA are classified as advanced operations and prior permission from CAD is required. When an applicant submits to CAD an application for advanced operations, the applicant is also required to provide a list of SUA to be deployed, including SUA models and weights. In assessing the application, CAD will review

the list of SUA and request for rectification by the applicant when incorrect information is identified.

(b) Of the 6,030 registered SUA examined, 130 (2.2%) had duplicate serial numbers recorded in eSUA. For 130 SUA with duplicate serial numbers, 42 serial numbers and 129 registrants were involved. Details of 42 serial numbers are as follows:

Serial Number (total 42 serial numbers involved)	Number of Duplication
1-7, 13-15, 18-23, 25, 27-34, 36-39, 42 (total 30 serial numbers involved)	2
8-9, 12, 16, 35 (total 5 serial numbers involved)	3
10, 41 (total 2 serial numbers involved)	4
11 (total 1 serial number involved)	10
17 (total 1 serial number involved)	7
24, 26 (total 2 serial numbers involved)	8
40 (total 1 serial number involved)	14

CAD is now liaising with the concerned registrants to rectify the duplicate serial numbers.

- 9) According to Audit Report Paragraph 2.22 and 2.34, according to the SUA Order, the approved training courses shall consist of theoretical knowledge instruction, theoretical knowledge examination, practical training and practical assessment, and eight SUA approved training organizations are approved to conduct advanced training courses. Please advise:
- (a) The CAD requirements on the number of hours of each of the above training modules; and
 - (b) The number of hours of each of the above training modules provided by the eight approved training organizations, and the fees for the training courses.

(a) The approved training organizations shall provide at least 20 hours of theoretical knowledge instruction, at least one hour of theoretical knowledge examination and at least four hours of practical training.

Although the number of minimum hours required of practical assessment has not been specified by CAD, a training organization must apply to CAD and obtain an approval to conduct practical assessment.

(b) The approved training organizations presently provide 20 – 22 hours of theoretical knowledge instruction, one hour of theoretical knowledge examination and 4 – 12 hours of practical training. For practical assessment, approved training organizations presently arrange for around 30 – 60 minutes for each student. Approved training organizations may offer training courses with different duration, depending on their respective training course structure. The fees for the training courses range from around 3,000 to 11,000 Hong Kong Dollars.

- 10) According to Audit Report Paragraph 2.27(b), for the six applications without supporting documentation for the resumes of the instructors and practical assessors, please advise:
- (a) The details of the follow-up action by CAD on the six applications; and
 - (b) Whether a full investigation on the concerned SUA approved training organizations will be conducted to ascertain if false resumes had been involved. If so, what are the details? If not, why?

CAD has requested the concerned SUA approved training organizations to provide further details, and reviewed the concerned qualifications of instructors and practical assessors again. Nothing suspicious was identified. If CAD finds any qualification suspicious, CAD will request the concerned organization to provide further supporting documentation.

- 11) According to Audit Report Paragraph 2.27(c), please advise the number of questions and the time limit for each question of the theoretical knowledge examination paper of each of the eight approved training organizations.

The theoretical knowledge examination paper of each approved training organization contains 48 questions paper, with 75 seconds as the time limit for each question.

- 12) According to Audit Report Paragraph 2.27(d), for the four applications with inadequacies in reporting procedures and handling of occurrences, please advise the details of the follow-up action by CAD and the sanction against the concerned SUA approved training organizations.

For the four applications with inadequacies in reporting procedures and handling of occurrences, two SUA approved training organizations were

involved. During the subsequent audits or meetings with the SUA approved training organizations, CAD has already requested for rectification by the concerned SUA approved training organizations as a part of the continuous improvement process.

Part 3: Advanced Operations Permission and Insurance Requirements

- 13) According to Audit Report Paragraph 3.8 and 3.9, for the renewal applications of advanced operations permission, some holders had not been subject to CAD's scheduled oversight audits at least once within the validity period. CAD explained that some cases involved one-off night operations and that other monitoring method was adopted in other cases. Hence, scheduled oversight audits were not applicable. Please advise:

- (a) The criteria for which CAD will determine whether scheduled oversight audits are applicable;
- (b) How will CAD plan to conduct scheduled oversight audits for all advanced operations permission holder?; and
- (c) As CAD explained that the principle of "the advanced operations permission holders will be subject to CAD's scheduled oversight audits at least once within the validity period." is not applicable in some cases, does CAD plan to update the guidelines to specify the applicability? If so, what are the details? If not, why?

(a) The scheduled oversight audits are arranged under a risk-based approach by CAD. If one-off night operations are applied for, the applicant will be required to obtain prior permission from CAD. In submitting an application to CAD, the applicant is required to provide detailed information, including the remote pilot ratings, flight plan, policy of insurance for third-party liability (for bodily injury and/or death), safety risk assessment and risk mitigating measures. Based on the information provided, CAD will assess the application for night operations. Since such one-off night operations do not require renewal, the scheduled oversight audits by CAD do not apply to such one-off application. Generally speaking, scheduled oversight audits are applicable to the permission issued by CAD on a longer-term basis.

(b) At the start of each year, CAD will plan the schedule of the scheduled oversight audits to ensure that all the advanced operations permission holders will continue to comply with the permission conditions. Under a risk-based approach, CAD will schedule and prioritize the scheduled oversight audits to be conducted.

(c) CAD is reviewing internal procedures. In order to ensure that all advanced operations permission holders will receive scheduled oversight audits prior to the permission renewal, the internal procedures will formalize the practice of issuing reminders to advanced operations permission holders before the specified date for submission of renewal applications. The internal procedures will also specify the handling of cases where scheduled oversight audits cannot be conducted (including operational factors (such as unavailability of flight operations or the advanced operations permission holders)).

- 14) According to Audit Report Paragraph 3.12, please advise the reason of the staff of CAD not inspecting the self-assessment records of the advanced operations permission holders.

The scheduled oversight audits by CAD are to ensure that all the advanced operations permission holders will continue to comply with the permission conditions. Since the full commencement of the SUA Order in December 2022, CAD has conducted over 100 scheduled oversight audits. During the scheduled oversight audits, CAD will inspect the self-assessment records of advanced operations permission holders. According to the Audit Report, there was no documentary evidence showing that the staff of CAD had inspected the self-assessment records in six cases. In the meantime, such inspection arrangement was not reflected in the inspection checklist of CAD. As such, CAD has already revised the checklist for scheduled oversight audits to include the inspection of self-assessment records as one of the inspection items with a view to facilitating the inspection of self-assessment records by the staff of CAD.

- 15) According to Audit Report Paragraph 3.15 – 3.17, CAD's guidelines require that the renewal application of an advanced operations permission is to be submitted at least 30 calendar days prior to the expiry of the existing permission. However, in some cases, expired permission was renewed, even though the time interval between expiry dates of previous permission and effective dates of renewed permission was more than 90 days. To avoid the renewal of a long overdue permission, will CAD update the guidelines to specify the maximum time interval between the above expiry dates and effective dates? If so, what are the details? If not, why?

CAD understands that in submitting renewal applications, the advanced operations permission holders may be obliged at times to consider the business needs and commercial decisions. In line with the spirit of partnership, CAD will facilitate and handle the renewal applications even if the applications were not submitted 30 days in advance due to various

reasons (including operational factors (such as unavailability of flight operations or the advanced operations permission holders)).

In addition, CAD will formalize the practice of issuing reminders to advanced operations permission holders before the specified date for submission of renewal applications. And in order to avoid the renewal of a long overdue advanced operations permission, CAD will only accept the expired advanced operations permission to be renewed within six months of its expiry. The request for renewing advanced operations permission expiring for more than six months will not be entertained.

- 16) According to Audit Report Paragraph 3.22 – 3.26, please advise the rollout timeline by the insurance industry of third party insurance products for Category A2 Operations, and the reason of inadequate market readiness after more than two years since the full commencement of the SUA Order.

In March 2023, CAD commissioned an organization to conduct a survey on the public use of SUA in Hong Kong with a view to, among others, collecting public views on different aspects (e.g. feedback on availability of third party insurance products in the market and the acceptable premium levels for such products) for the review on insurance requirements. The survey reflected that the readiness of the SUA operators and the insurance market in offering sufficient choices of third party insurance products for Category A2 Operations had yet to be developed.

CAD understands that generally speaking the insurance industry acknowledges the development potential of SUA. However, since SUA is a relatively new product, more time and information / statistics in relation to the use of SUA in Hong Kong will be required for launching new SUA-related insurance products, determining the premium level and introducing more Category A2 Operations-specific products. Presently, two insurers are offering Category A2 Operations-specific products in Hong Kong.

In consultation with the Transport and Logistics Bureau, CAD will conduct another survey from early 2025 to gauge the market readiness for the implementation of insurance requirements for Category A2 Operations. Throughout the process, CAD will continue its liaison with the insurance industry to share SUA-related information of registered SUA, registered remote pilots, SUA approved training organizations, etc., and monitor the development of the market readiness in conjunction with the insurance industry.

Part 4: Other Related Issues

- 17) According to Audit Report Paragraph 4.7, please advise the reason why it was not practicable for the investigation of the cases of suspected violations to be recorded in writing.

For the cases of suspected violations, during the investigation by CAD, CAD will retain the records of all important information and evidence associated with the case (such as the evidence collection and handling, and the communications with Police on case referral).

In addition, during the investigation, the staff of CAD may conduct internal discussions, but having regard to resources considerations, the staff of CAD are unable to keep written records of all internal discussions. That said, the staff of CAD will report in writing the detailed analysis of the case and summarize the internal discussions as appropriate process to the senior officers, with the report and summary serving as the written records of the investigation.

- 18) According to Audit Report Paragraph 4.16 – 4.18, for publicity campaigns and education targeting visitors, please advise:
- (a) The number, content and type of the effort on publicity campaigns every year;
 - (b) The reach and the expense of the effort on publicity campaigns; and
 - (c) Further plan to enhance the visitors' awareness of the SUA Order in order to avoid violation against the legislation. If so, what are the details? If not, why?

In order to enhance the public awareness of the SUA Order and the safety awareness of SUA operations, since the full commencement of the SUA Order in December 2022, CAD has continued its effort in conducting publicity campaigns targeting at visitors through distributing leaflets (including promotional souvenirs) at the tourists' hotspots (including Hong Kong International Airport, Lo Wu MTR Station, Hong Kong West Kowloon Station, the Peak, Victoria Harbour, Sunny Bay MTR Station, Ocean Park MTR Station and Ngong Ping Cable Car Station). In order to further expand the reach of the publicity campaigns, since October 2024, CAD has conducted online promotion (including both local and mainland websites) to further enhance the public and the visitors' awareness of the SUA Order. Details (up to December 2024) are as follows:

	Arrangement and Reach (if applicable)	Expense (Hong Kong Dollars)
Banners	Displayed at various locations in Hong Kong	151,000 (one-off)
Leaflets (including promotional souvenirs)	Distributed to nearly 4,000 people on 17 occasions	
Online promotion	e-Banner displayed online (Note)	95,000 (Note)

Note: At least 90,000 hit rates according to the contract.