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Regulation of operations of small unmanned aircraft

The Audit Commission ("Audit") conducted a review on the regulation of operations of small unmanned aircraft ("SUA") by the Civil Aviation Department ("CAD").

- 2. SUA, more commonly known as "drone", is defined as unmanned aircraft weighing 25 kilograms or less according to CAD. SUA has been gaining popularity both locally and worldwide. To cater for the applications and developments of SUA while safeguarding aviation and public safety, the SUA Order (Cap. 448G), a piece of subsidiary legislation made under the Civil Aviation Ordinance (Cap. 448), came into effect on 1 June 2022.
- 3. Under the SUA Order, there are three types of SUA, namely Category A1 SUA (with weight not exceeding 250 grams), Category A2 SUA (with weight exceeding 250 grams but not exceeding 7 kilograms) and Category B SUA (with weight exceeding 7 kilograms but not exceeding 25 kilograms). Moreover, there are two types of SUA operations, namely Standard Operations (i.e. operations of Category A1 and Category A2 SUA within the applicable operating requirements as specified by CAD) and Advanced Operations (e.g. operations of Category B SUA). While prior permission from CAD is not required for conducting Standard Operations, prior permission from CAD is required for conducting Advanced Operations.
- 4. The Committee noted the following Audit's findings:
 - under the registration system administered by CAD, both SUA and remote pilots for Category A2 Operations and Advanced Operations were required to be registered. As at 30 June 2024, there were 24 070 registered SUA and 25 721 registered remote pilots. During registration, the remote pilot registrant was required to go through safety information and know-how on safe SUA operations to enhance their safety awareness. In addition, remote pilots for Advanced Operations were required to undergo advanced training and assessment from an SUA Approved Training Organization ("ATO") at their own cost, unless they were able to demonstrate an alternative means of compliance. As at 30 June 2024, there were 8 SUA ATOs that could offer advanced training and assessment;
 - in order to prepare for the implementation of the SUA Order, various publicity campaigns targeting the mass public had also been rolled out

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with an aim to promulgating the new Order to the public. Large-scale briefings were also provided to the industry, including existing and interested SUA operators, professional bodies, SUA associations, etc., and government bureaux and departments between March and May 2022;

Registration, training and assessment requirements

- according to CAD's guidelines, if an account holder of Electronic Portal for Small Unmanned Aircraft ("eSUA") applied for deletion of his account, unless the reason was already known from any prior communications, CAD would contact the account holder to confirm the intention to delete the account. There was no mention of the handling of valid SUA held under deleted eSUA accounts. As at 30 June 2024, there were 30 valid SUA held under 22 deleted accounts. If an eSUA account had been deleted, there might no longer be any responsible person for the valid SUA held under the deleted account;
- CAD officers would, on a daily basis, scrutinize a list of new applications for registration of SUA with a view to identifying any odd data (e.g. unreasonable weight). Applications with odd data should not be processed further. Audit examined the 6 030 (25%) registered SUA of the top five common models of Category A2 SUA in eSUA and found that there were odd data which might warrant further investigation by CAD;
- as at 30 June 2024, besides the eight SUA ATOs, one SUA ATO had obtained the approval in principle granted by CAD for providing training courses. Of the 10 applications (involving six initial applications and four renewal applications submitted by six SUA ATOs) approved in the period from 1 June 2022 to 30 June 2024, there was room for improvement in the assessment of initial applications and renewal applications. Deficiencies included experience and qualifications of instructors and practical assessors of the concerned SUA ATOs not verified, number of questions for each theoretical knowledge examination paper not specified in application, as well as inadequacies in vetting guidance documents on reporting procedures and handling of occurrences. However, there was no documentary evidence showing that CAD had followed up with the concerned SUA ATOs before granting approvals to them;

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Advanced Operations Permission ("AOP") and insurance requirements

- according to CAD records, 94 AOP granted for initial applications and renewal applications by CAD had expired on or before 30 June 2024. Of these 94 cases, scheduled oversight audits had not been conducted at least once within their AOP validity period for some cases: (a) no scheduled oversight audit had been conducted for nine (10%) cases, but the subsequent renewal of AOP of two cases had been granted by CAD. This was contrary to CAD's guidelines that an AOP would only be renewed if a scheduled oversight audit had been performed in the past 12 months; and (b) for 11 (12%) cases, the scheduled oversight audits were conducted after the expiry of the respective AOP instead of within the respective validity periods, ranging from 2 to 43 days;
- according to CAD's guidelines, an AOP holder should conduct a self-assessment covering all aspects of operations at least once every six months with a view to identifying any internal deficiencies and procedures that had not been properly implemented or that required further enhancement. Self-assessment records would be subject to CAD's inspection during scheduled oversight audits and renewal applications of AOP. Audit sample check of the scheduled oversight audits conducted for 10 cases revealed that in six (60%) cases, there was no documentary evidence showing that CAD staff had inspected the self-assessment records; and in one (10%) case, while the pertinent AOP holder should have conducted two self-assessments during the one-year AOP validity period, only one self-assessment record had been inspected by CAD staff;
- according to CAD's guidelines, for AOP covering a specified period of time, the AOP holder might submit an application to renew the pertinent AOP at least 30 calendar days prior to the expiry of the existing AOP (i.e. the specified date for submission of renewal applications). Of the 79 renewal applications for AOP approved by CAD as at 30 June 2024, there were time intervals, ranging from 1 day to 270 days, between the expiry dates of the previous AOP and the effective dates of the renewed AOP for 47 (59%) cases;
- when enacting the SUA Order, a phased approach was adopted for the mandatory insurance requirements in respect of third party liability for bodily injury and/or death. The first phase was mandatory insurance for Advanced Operations, which had taken effect immediately upon commencement of the SUA Order (i.e. 1 June 2022). For the second

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phase relating to the mandatory insurance for Category A2 Operations, the readiness of the SUA operators and the insurance market in offering sufficient choices of third party insurance products had yet to be developed;

Other related issues

- as at 30 June 2024, while 13 cases of suspected violations of the SUA Order had been concluded, the investigation of 25 cases were in progress. Of the 25 cases, 14 (56%) cases had been received by CAD for handling for more than 180 days. In eight (57%) cases, the relevant key milestones showed that after collecting the relevant information and evidence, CAD took more than three months, ranging from 108 to 165 days, to proceed to the next follow-up actions; and
- from time to time, there were media reports on breaching the SUA Order by visitors. Moreover, according to CAD, of the 38 cases of suspected violations of the SUA Order handled by CAD as at 30 June 2024, visitors were involved in 13 (34%) cases. These indicated that visitors might not be well aware of the requirements under the SUA Order.
- 5. The Committee did not hold any public hearing on this subject. Instead, it asked for written responses to the issues raised by Audit. The replies from the **Director-General of Civil Aviation** are in *Appendix 14*.
- 6. The Committee wishes to be kept informed of the progress in implementing Audit's recommendations.