

香港特別行政區政府 民航處

Civil Aviation Department The Government of the Hong Kong Special Administrative Region

Small Unmanned Aircraft Advisory Circular No. AC-009

Date: 18 July 2025

Guidelines for Small Unmanned Aircraft Operations within School Premises

1. Background

- 1.1 The Small Unmanned Aircraft Order ("SUA Order"), Chapter 448G of the Laws of Hong Kong, comes into operation on 1 June 2022. Under the SUA Order, small unmanned aircraft ("SUA") operations are regulated under a risk-based approach and be classified according to the weight of the SUA and the operational risk level. The SUA Order is a piece of subsidiary legislation made under the Civil Aviation Ordinance that aims to provide a flexible and forward-looking regime for the regulation and development of SUA operations in Hong Kong.
- 1.2 Considering that operations of SUA by schools or educational institutions (hereafter referred to as "school operations") are normally within school premises under the supervision of educational institutions, and with a view to facilitating the continual development of SUA applications like STEM education, school operations **under the specific conditions** are not subject to most of the requirements under the SUA Order (section 9 of the SUA Order refers). This will allow education institutions to, among others, design and operate SUAs in accordance with their own curriculum as part of the STEM education or for research and development purposes.
- 1.3 The above notwithstanding, offences related to various endangering acts, such as the offence of operating an SUA dangerously or the offence of recklessly or negligently causing or permitting an SUA to endanger any person or property still apply to school operations for educational or research purposes in any case.
- 1.4 This Advisory Circular ("AC") is issued to provide guidance for the operations of SUA within school premises for educational or research purpose from the aviation safety perspective.

2. Applicability

2.1 This AC applies to administrators (or coordinators) of a school or an educational institution (hereafter referred to as "school") who is responsible for the organisation, arrangement, coordination and management of the school operations in support of the educational and research initiatives.

3. <u>Definition</u>

- "Category A1 SUA" is the SUA with its weight¹ does not exceed 250 grams at all times during the flight.
- "Category A2 SUA" is the SUA with its weight¹ exceeds 250 grams at any time during the flight but does not exceed 7 kilograms at all times during the flight.
- "Category B SUA" is the SUA with its weight¹ exceeds 7 kilograms at any time during the flight but does not exceed 25 kilograms at all times during the flight.
- "Category C SUA" is the SUA with its weight exceeds 25 kilograms at any time during the flight but does not exceed 150 kilograms at all times during the flight.
 - ¹Note: In determining the weight of an SUA, regardless of its category, everything installed in, carried by or attached to the SUA is to be taken into account.
- **"Enclosed area"** within which a flight is operated is an area surrounded on all sides by fixed or movable walls, ceiling, structures or other barriers that effectively prevent the aircraft from leaving the area during the flight.
- "School premises" includes school recreation rooms, residential facilities, playing fields and playing grounds, and any other places used for the propose of a school.

"Specific school" means -

- a) a primary school as defined by section 3(1) of the Education Ordinance (Cap. 279);
- b) a secondary school as defined by that section;
- c) a special school as defined by that section;
- d) a school that is approved under section 18A(1) of that Ordinance to provide post secondary education;
- e) an institution set out in section 2 of that Ordinance; or
- f) a school operated or managed by the Hong Kong Arts Centre referred to in section 3 of the Hong Kong Arts Centre Ordinance (Cap. 304).
- "Visual Line of Sight (VLOS)" is direct and unaided (other than by way of corrective lenses and sunglasses) visual contact with the SUA and the surrounding airspace in which the SUA is operating. VLOS can be maintained by:
 - a) the remote pilot of the SUA, and/or

b) a visual observer, chosen by the remote pilot, who is at the same location as the remote pilot, has good eyesight and is capable of communicating timely and effectively with the remote pilot of the SUA to avoid collision.

4. <u>Conditions for School Operations</u>

- 4.1 According to Section 9 of the SUA Order, school operations are not subject to such requirements as remote pilot registration/rating, safety system and insurance under Section 11 if:
 - a) The flight is conducted with a Category A1 and A2 SUA;
 - b) The aircraft is operated for the flight for educational or research purposes;
 - c) The flight is wholly within the **school premises** of a **specified school**;
 - d) The remote pilot of the aircraft for the flight is within the school premises of the school at all times during the flight;
 - e) The flying altitude of the aircraft is not higher than the flight altitude specified in the Gazette Notice at any time during the flight¹;
 - f) The aircraft is not carrying any dangerous goods at any time during the flight;
 - g) For a Category A2 SUA, the SUA must be registered and labelled (please refer to paragraph 5 below); and
 - h) For a flight within a restricted flying zone, the flight is wholly within **an enclosed area**; or the SUA is operated for the flight in accordance with a permission granted under section 37 in respect of the restricted flying zone.
- 4.2 The flexibility given by the regulation notwithstanding, the administrator who is nominated by the school has the responsibility to put in place an administrative, control and safety oversight mechanism for ensuring the SUA operations are safe and in compliance with the conditions and all other requirements set forth in the SUA Order and this AC.

5. Requirements for Aircraft Registration and Labelling

- 5.1 The SUA Order does not mandate Category A1 SUA to be registered. They may however be registered on a voluntary basis.
- 5.2 For Category A2 SUA, registration can be submitted to the CAD electronically via "eSUA", the CAD's the electronic portal for small unmanned aircraft (https://esua.cad.gov.hk/). The registration label issued by the CAD in respect of the aircraft must be displayed on the external surface of the aircraft and is clearly visible.

¹ The flying altitude as specified in the Gazette Notice issued under section 9(2) of the SUA Order is 100 feet above ground level for Category A1 aircraft and 300 feet above ground level for Category A2 aircraft.

5.3 The SUA registration by school should be made under the name of the school.

Note: When doing registration on the eSUA portal, "School" or "Higher Education Institution" should be selected in the "User Type" field.

- 5.4 If the SUA is <u>not</u> under the ownership of the school, the administrator of the school should ensure that the SUA is registered by its owner (be it the training service provider, contractor, teaching staff or other party whose SUA would be used for school operations), and the CAD registration label in respect of the aircraft is displayed on the external surface of the aircraft and is clearly visible before the SUA operations within the school premises.
- 5.5 A log of all school operations, including the date, time, nature of flight by respective SUA (CAD registration or serial number, as applicable), should be kept for record purposes.
- 5.6 In relation to paragraph 5.2 above, it is noted that SUAs to be used in school operations for educational and research purposes (e.g. STEM education within a school curriculum) could be subject to modification after they have been registered. In accordance with the guidelines provided in Chapter 3 of the Safety Requirements Document ("SRD"), so long as the SUA modification is not to a substantial extent that the SUA can no longer be reasonably considered to be the same originally registered SUA, re-registration of the SUA concerned is not required. Some examples of the acceptable parts replacement not requiring re-registration can be found in Chapter 3 of the SRD.

6. Permission for Operations

6.1 A permission under Section 37 of the SUA Order from the CAD is required prior to conducting any SUA operations in school premises under the following scenarios:

6.2 Operations within Restricted Flying Zone ("RFZ")

In case the school is located within an RFZ, a flight can be conducted without a permission if it is wholly within an enclosed area. However, for outdoor operations, prior permission under Section 37 of the SUA Order must be sought from the CAD with respect to flights within an RFZ. Refer to the Drone Map published by the CAD.

6.3 Operations of Category B SUA and Category C SUA

Due to higher weight and operational complexity, operations of Category B SUA and Category C SUA would be subject to a higher level of risk. According to Section 9(1) of the SUA Order, the limited application for school operations mentioned in paragraph 4.1 above <u>does not</u> apply to Category B SUA and Category C SUA. In other words, requirements stipulated under Part 2 of the Order must be observed if a Category B SUA

and/or a Category C SUA is operated within school premises. Under Section 11(g) of the SUA Order, prior permission must be sought from the CAD under Section 37 of the SUA Order for flights conducted by a Category B SUA and a Category C SUA.

Note 1: For Category B SUA operation, please refer to AC-007 Permission for Category B SUA or Oversized Small Unmanned Aircraft Operations.

Note 2: For Category C SUA operation, please refer to AC-014 Permission for Category C Small Unmanned Aircraft Operations and Pre-defined Scenario #1

6.4 The administrator of the school should contact the Unmanned Aircraft Office of the CAD at sua@cad.gov.hk if such permission is required.

7. General Guidelines for SUA Operations within School Premises

- 7.1 Responsibilities of the administrator(s)
- 7.1.1 The administrator of the school has the overall responsibility for the operations, and shall be accountable for ensuring that no person and property would be endangered by the SUA.
- 7.1.2 School administrator is advised to formulate safety policy or code of practice based on this AC. Careful considerations should be given to educational or research initiatives that warrant SUA operations exceeding operating requirements applicable to non-school operations, e.g. outside daylight hours, visual line of sight cannot be maintained, dropping² of objects, etc.³ Please refer to other ACs (https://esua.cad.gov.hk/) which detail the safety requirements and common mitigating measures for different types of operations.
- 7.1.3 Some general safety guidance is provided in the ensuing paragraphs for consideration and reference by the school administrator as appropriate.

7.2 Remote Pilot Registration

7.2.1 Although remote pilots of school operations are not normally required by the SUA Order to be registered, teaching staff conducting and/or supervising SUA operations for the school are encouraged to be registered remote pilot so that they would acquire and have access to the most up-to-date safety knowledge required for a remote pilot from the eSUA to safely conduct or supervise the SUA operations within the school premises.

² Drop includes project and lower.

³ Operating requirements are specified in the Gazette Notice issued under section 17(2) of the SUA Order. For more details, please refer to the SRD.

7.3 Operating Area

- The operating area should be properly segregated from the uninvolved 4 people, 7.3.1 structures, vehicles by appropriate means.
- 7.3.2 Overflight of uninvolved people should be avoided.
- 7.3.3 For operations within an **enclosed area**, the following should be considered in choosing the venue:
 - a) Sufficient space should be provided for SUA to manoeuvre;
 - b) SUA operations close to the wall should be avoided as the flow of air is impeded as the SUA gets closer to a wall; and
 - c) A safe distance should be maintained between the SUA and the participants.
- 7.3.4 For drone racing or any form of competition in which the SUA are operated at high speed,
 - a) the operating area should be segregated by:
 - a closed cage or safety net that encloses all sides including the cover on top (i.e. enclosed operations); or
 - safety net that surrounds the race course on lateral sides only (non-enclosed operations) that is sufficiently high to prevent the SUA from flying out of the net;
 - b) barriers, with at least 1 m height, should be placed alongside the safety net or cage to keep the spectators or any uninvolved people at a safe distance from the net or cage (in case the SUA hit on the net at full speed); and
 - c) access to the operating area should be controlled.
- 7.3.5 The administrator of the school should, subject to their risk assessment (see paragraph 7.7 below) taking into account the location of the school premises and its surroundings (e.g. railways), delineate operating boundary or no flying zones for SUA operations such that any risk of endangering operations could be mitigated.
 - Note 1: Please refer to AC-008 for Guidelines for Small Unmanned Aircraft Operations within Enclosed Area.

⁴ Uninvolved Person means any person other than "involved person". Involved Person means a person who takes part in or well aware of the SUA operation, understands the risk, and is aware of the instructions and safety precautions in regard to the SUA operation. In principle, this means that an involved person must:

[•] be clearly notified about and aware of the SUA operations;

[•] broadly understand the risks involved;

[•] have reasonable safeguards introduced for them by the accountable person during SUA operation; and

[•] be expected to follow the directions and safety precautions provided.

7.4 Remote Pilot and Visual Observer

- 7.4.1 The remote pilot should possess, or be under supervision of persons (e.g. the teaching staff, training service provider or contractor) who possess, the necessary skills and knowledge for conducting safe operation of the SUA.
- 7.4.2 If the remote pilot operates the SUA with First-Person View ("FPV") (e.g. flying with immersive FPV goggles, real-time video feeds displayed on remote controller or mobile phone, etc.), corresponding mitigating measures should be in place. Common measures include deploying a visual observer to maintain visual line of sight as defined in paragraph 3 above.
- 7.4.3 The remote pilot and visual observer should be familiar with the standard and emergency procedures described in paragraph 7.6 below.
- 7.4.4 Notwithstanding the administrative and safety policy should be established for school operations by the administrator, prior to each operation, the teaching or supervising staff should make sure a risk assessment is conducted and all necessary safety measures are in place to ensure the safe operation on site.

7.5 Equipment

- 7.5.1 To minimize the risk, the highest speed, mass, kinetic energy, and size of the SUA must be no more than necessary to complete the operation.
- 7.5.2 The use of rotor blade guards should be considered if the SUA operation might get close contact to the participants or uninvolved persons.
- 7.5.3 All emitters used in the SUA should comply with the regulations set by Office of the Communications Authority ("OFCA"). Please refer to Schedule 2 of Telecommunications (Telecommunications Apparatus) (Exemption from Licensing) Order (Cap. 106Z) for the frequency band, output level and spurious emission level within which the exemption from licensing applies. Operations that exceed the limits set out in Schedule 2 would require the license from OFCA.

7.6 Risk Assessment and Emergency Procedures

7.6.1 Similar to the prevailing risk assessment guidance issued by the Education Bureau ("EDB"),⁵ the administrator should ensure the necessary risk assessment is conducted

⁵ School Activities Guidelines: https://www.edb.gov.hk/en/sch-admin/admin/about-activities/sch-activities-guidelines/index.html

prior to each operation (a risk assessment template is appended in **Appendix A**). Corresponding risk mitigation and emergency procedures (in case of a fire or battery explosion, loss of command and control link, bodily injury and etc.) should be established and adhered to during operation.

7.7 <u>Privacy Concerns</u>

- 7.7.1 Privacy concerns raised from the residents or occupants of nearby buildings should be taken into account when operating the SUA. Collection of personal data should be avoided. Furthermore, to avoid any disturbance to the neighborhood, it is recommended that the operation should be conducted below and shielded by the structures within the school premises.
- 7.7.2 The Office of the Privacy Commissioner for Personal Data ("PCPD") oversees the implementation and compliance with the provisions of the Personal Data (Privacy) Ordinance (Cap. 486) ("PDPO") for protecting the privacy of individuals in relation to personal data. Please refer to the "Guidance on CCTV Surveillance and Use of Drones" issued by PCPD for guidance and recommendations on the proper use of drones from the perspective of protection of personal data privacy.

7.8 <u>Incident Recording and Reporting</u>

- 7.8.1 In addition to prevailing reporting requirements specified by the EDB, the administrator should keep a record of any injuries in relation to the school operations.
- 7.8.2 In case of any incidents regarding the school operations in which the SUA has exited the school premises and caused death or bodily harm of any persons, the teaching or supervising staff on site shall immediately report the case to the Police, followed by an email notification to the CAD Unmanned Aircraft Office at sua@cad.gov.hk.
- 7.8.3 **Within 24 hours of the accident or incident**, the administrator shall provide details of the circumstances with preliminary findings in writing to the CAD Unmanned Aircraft Office by email to sua@cad.gov.hk.
- 7.8.4 **Within three (3) calendar days** from the accident or incident, the administrator shall submit a full investigation report by email to sua@cad.gov.hk.

7.9 Safety Information for SUA Operations

7.9.1 The safety information on SUA operations can be downloaded from the CAD's web portal for small unmanned aircraft (https://esua.cad.gov.hk/). The safety information contains the safety considerations for SUA operations. Teaching staff is recommended to go through the safety information for his/her knowledge. The safety information can

also be used as training material for students to inculcate safety awareness and airmanship, and better prepare them for SUA operations outside school premises.

8. Enquiries

- 8.1 This AC will be subject to review and update from time to time in the light of the advancement of technology and increasing popular use of SUA in different professional applications. It should also be noted that the safety requirements provided above are not meant to be exhaustive. It shall be the responsibility of the administrator to comply with all applicable regulatory requirements, put in place appropriate safety precautions and risk mitigating measures for the subject SUA operations, as well as to enforce the safety policy or code of practice formulated under paragraph 7.1.2 to ensure the safe operations of SUA within school premises at all times.
- 8.2 This AC should be read in conjunction with the SUA Order, SRD and other SUA related documents published by the CAD.
- 8.3 For enquiries, please contact the Unmanned Aircraft Office of the CAD at sua@cad.gov.hk.

9. <u>Notes</u>

9.1 This AC supersedes the version dated 31 May 2022.

Appendix A – Risk Assessment Template for School Operations

This template serves as a sample only. School can develop its risk assessment methodology based on the nature of the educational and research activities for which the SUA would be used, the operating area, knowledge and skills of participants, choice of SUA, and weather conditions, etc.

The remote pilot and/or responsible staff should identify the hazards associated with the specific operation or activity. The administrator(s) should ensure each hazard identified is mitigated to an acceptable level before the operation is conducted within the school premises.

Date Supervising Staff SUA used						
Risk No.	Identified Hazard		Associated Risk (What & How)		Mitigation Incorporated	Acceptable (Y/N)
1.	Loss of control of the SUA	f				
2.	SUA drops durin	g				
3.						
4.						
5.						
Co	onducted by:			_		
Name:			Signature:			
Position:				Date:		