

Code of Practice on the Operation of Unmanned Aircraft Systems (UAS)

Policy

1. Introduction

Unmanned Aircraft Systems (UAS, also known as "drones") are becoming increasingly popular, with rapidly growing applications in both military and civilian fields. Some applications include aerial surveillance, photography, goods delivery, and search and rescue. With the advent of technology, UAS are becoming more affordable and more versatile, thus further advancing their capabilities and broadening the scope of applications. As the technology further develops, it also becomes increasingly necessary for the operations to be regulated through legislation or codes of practice to ensure it does not bring to society undesirable impacts.

At the time of compiling this Code, there is currently no legislation in Hong Kong regulating specifically the operations of UAS. However, a number of issues need to be addressed. There are both safety concerns and privacy issues. In order to maintain UAS operations safe and orderly on campus, this Code of Practice has been drawn up to provide guidelines to those who intend to operate UAS for teaching and research purposes as well as for other non-commercial activities within the campus.

This Code of Practice applies to all UAS operations on campus, regardless whether the operator concerned is from the University community or an external party.

2. Approval and Responsibilities

No operation of UAS within the airspace of the University campus is allowed unless the operator has obtained prior approval to do so from the relevant approving authority. Only operations for legitimate purposes related to University activities will be allowed. Applications to operate UAS for pure pleasure will normally not be approved. Applications should be submitted to the following offices, depending on the identity of the applicant:

2.1 Internal Applicants

All internal applications should be submitted to the Security and Parking Unit (SPU) of the Estates Office at least 5 working days before the intended operation. A copy of the application form is attached as Appendix 1 to this Code. Electronic copies are also available from the Estates Office's homepage.

2.2 External Applicants

External applications, such as external organisations hired by the departments/offices of the University, should approach the Communications and Public Affairs Office (CPAO) at least 7 working days before the intended operation. Among other matters, they should be able to demonstrate to the University that their operations are covered by the

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appropriate insurance policy. Operations of UAS for pure commercial purposes will not be allowed.

Upon receiving an application, the SPU or CPAO should consult relevant offices on matters of Safety (Safety Office) and Privacy (University Data Protection Officer) if necessary, particularly when the operation concerned may deviate from provisions given in this Code.

If the submitted application is complete and the operation is approved, notification of approval is

to be given in writing to the applicant at least 24 hours before the intended operation.

Policing of the UAS operation will be carried out by the Security Staff on campus, to ascertain that the operation complies with the guidelines in this Code and any other conditions of approval given by the approving authority. Security Staff on duty can consider suspending the operation immediately if the UAS is operated in a way that deviates from the approval conditions, endangers people or facilities, or causes disturbance to normal campus activities.

Guidance

All operations of UAS on campus should follow the guidelines below, which are based on those of the HKSAR Civil Aviation Department (CAD). In general, these set of guidelines also apply to UAS operated by University personnel off campus.

1. Area of Operations

- (a) UAS shall normally not be flown within the Aerodrome Traffic Zone (ATZ) or within 5 km of any aerodrome.
- (b) UAS shall not be flown over or within 50 m of any person, vessel, vehicle or structure not under the control of the UAS operator; except that during take-off and landing, the UAS must not be flown over or within 30 m of any person other than the person in charge of the UAS or a person necessarily present in connection with the operation of the UAS. Further conditions on flight safety clearance

may be imposed on the operation of the UAS as necessary.

- (c) The UAS operation site (including emergency operation zone and any safety zone for the operation of the UAS) shall be under the operator's full control.
- (d) The take-off and landing area should be properly segregated from public access.

2. Control of UAS

The UAS operator shall be on site and keep the UAS within Visual Line of Sight (VLOS) during the period of the flight. Operating within VLOS means that the UAS operator is able to maintain direct, unaided (other than corrective lenses) visual contact with the UAS, and is able to monitor the UAS flight path in relation to other aircrafts, persons, vessels, vehicles and structures for the purpose of avoiding collisions.

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3. Other Related Issues

- (a) The UAS operator is responsible for ensuring that no person and property would be endangered by the UAS, and shall not fly the UAS unless he has reasonably satisfied himself that the flight can be safely made.
- (b) No hazardous material may be carried nor objects be dropped from the UAS in order to avoid endangering persons or property on the ground.
- (c) The person in charge of the UAS shall not fly the UAS unless before the flight he has satisfied himself that the mechanism that causes the UAS to home and land in the event of a failure of or disruption on any control systems, including the radio link, is in working order.
- (d) The UAS operator shall maintain records of each flight and makes such records available to the University or CAD on request.
- (e) A site safety assessment of each flight should be completed by the UAS operator before the operation, and made available to the University or CAD on request.
- (f) The operation is carried out in accordance with the Operations Manual submitted to University.

4. Altitude of Operations

The altitude of UAS shall not exceed 300 feet above ground level.

5. Altitude Keeping Performance Capability

The UAS operator shall describe the means of altitude keeping to ensure that the actual altitude flown is accurate.

6. Time of Operations

- (a) UAS operations shall be conducted during daylight hours only.
- (b) No more than one UAS will normally be permitted at any one time within the same block of designated airspace.

7. Weather Criteria

- (a) ground visibility of not less than 5 km - visibility of more than 5 km may be required depending on the nature and area of operations;
- (b) cloud base not lower than the approved altitude of operations;
- (c) surface wind of no more than 20 knots, unless otherwise specified by the manufacturer (the surface wind speed limit may be reduced if the controllability of the UAS is in doubt);
- (d) the UAS operator shall have a hand-held anemometer to monitor surface wind speed on site; and
- (e) the UAS operator must not launch the UAS when Rainstorm Warning, Tropical Cyclone Warning or Strong Monsoon Signal is in force.

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8. Pilot Qualification

Evidence of competency to operate UAS (such as documentary evidence of relevant training) is required when making an application for permission to operate UAS.

9. Operations Manual

The UAS operator is required to submit an operations manual covering the procedures to be followed for all envisaged operations of the UAS. This document is a key requirement to enable the University to accurately assess the application.

10. Frequency Spectrum and Radio Frequency Interference (RFI)

The UAS operator is required to seek approval from the Office of the Communications Authority on the use of radio frequencies and to ensure that no RFI is caused to air traffic operations and air navigation equipment.

Other Concerns and Legal Requirements

The UAS operator may need to comply with other legislation in Hong Kong such as Personal Data (Privacy) Ordinance. Information on personal data privacy associated with UAS is available in the following websites:

- Homepage of Office of the Privacy Commissioner for Personal Data (PCPD)
 - PCPD's media statement on 31 March 2015
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Application for Permission to Operate Unmanned Aircraft System

無人機系統許可申請

(1) Faculty/Department: _____

學系/部門:

(2) Name of Operator: _____

操作員姓名:

(3) Date(s) and Time(s) of Flight: _____

飛行日期及時間:

(4) Area(s) of Operation: _____

操作範圍:

(5) Purpose of Flight(s): _____

飛行目的:

(6) Type of Unmanned Aircraft: _____

無人駕駛飛機 (無人機) 種類:

Applicant: _____ Title: _____

申請人:

職位:

Telephone Number: _____ Email Address: _____

電話號碼:

電郵地址:

Signature and Chop: _____ Date: _____

簽名及印章:

日期:

Authorizing Officer: _____ Date: _____

批予人員:

日期:

Breach of any conditions set out in the University's "Code of Practice on the Operation of Unmanned Aircraft Systems (UAS)" renders this approval invalid.

違反 "Code of Practice on the Operation of Unmanned Aircraft Systems (UAS)" 任何條件會致使此許可證無效。

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