香 港 大 學
THE UNIVERSITY OF HONG KONG

Operations of Small Unmanned Aircraft (SUA)

1. Introduction

Small Unmanned Aircraft (UA, 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, SUA are becoming more affordable and more versatile, thus further advancing their capabilities and broadening the scope of applications.

The Civil Aviation Department HKSAR (CAD) has announced the Small Unmanned Aircraft Order (Cap. 448G), with effect from June 1, 2022. Anyone who intend to operate UAS for teaching and research purposes as well as for other non-commercial activities within the campus should comply with these regulations.

2. Approval and Responsibilities

Operation of SUA raises concerns including safety and protection of personal privacy. The Campus is densely occupied, is used by members of the public as well as staff and students and provides residential accommodation. These factors will be considered when reviewing applications for SUA use on campus.

All applicants should read and comply with the Small Unmanned Aircraft Order (Cap.448G) and the Small Unmanned Aircraft Advisory Circular AC-009. AC-009 covers SUA use within the boundaries of educational institutions.

No operation of SUA within the airspace of the University campus is allowed unless the operator has signed the attached undertaking (Appendix 1) and obtained prior approval to do so from the relevant offices of HKU. Submission of a **description of the operation** and a **risk assessment** is also required. Only operations for legitimate purposes related to University activities will be allowed. All SUA operations need to be logged, including the date, time and nature of the flight. The log should include the registration number of class A2 SUA's if used. Any accidents or incidents occurring involving SUA's on campus should be reported to Safety Office for further investigation. Applicants need to consider if there is a possibility of the SUA moving outside of campus (for example after loss of control) or whether its presence over campus could cause a visual distraction off campus eg. at a traffic intersection on a public road. The description of operations and risk assessment will need to demonstrate how these risks, if they apply, will be managed. 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 for use on campus should be submitted to the Security and Parking Unit (SPU) of the Estates Office at least 10 working days before the intended operation. A copy of the application form is attached as Appendix 1. Electronic copies are also available from the Estates Office's homepage.

Those wishing to use SUA's off campus for teaching or research should contact Safety Office for advice.

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 14 working days before the intended operation. 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.

An application may be approved conditional on the SUA operating within a delineated boundary and/or respecting specified no fly zones. 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 Cap 448G 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

The CAP448G regulatory regime is tiered, with increasing requirements as risks increase. Size of the SUA and the situation in which it is used determine the risk level.

Advanced Operations require detailed submissions to CAD to obtain permits in advance including evidence of accredited pilot training, extensive risk assessments, detailed flight plans, operation manuals etc. An advanced operation is involved if overflight of persons, vehicle/vessels and buildings not involved in the flight operations/under the control of the SUA operator is required. Use of large "category B" SUA's (more than 7kg) is an advanced operation. The use of Category B SUA's on campus is not covered by AC-009.

Standard Operations are those where all persons within 10 meters of the SUA are involved in flight operations, and any structures, vehicles or vessels within 10 meters of the SUA are under control of the remote pilot.

"**Involved in flight operation**" means a person who takes part in or is 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 practical terms, this means that an involved person must:
- be clearly notified about and aware of the SUA operations;
- understand the risks involved;
- have reasonable safeguards introduced for them by the venue manager or the SUA operating crew during SUA operation;
- be expected to follow the directions and safety precautions provided.

A vehicle or vessel is considered to be "**under the control of the remote pilot**" if:
- The remote pilot shall be satisfied that a permission has been granted by appropriate persons which have an interest in the vehicle or vessel (e.g. the operator or the owner) for an SUA to operate within a distance less than the required lateral separation; and
- Persons on board can reasonably be expected to follow directions and safety precautions to avoid unplanned interactions with the SUA; and
- Persons on board should be adequately briefed or informed about the SUA operations.

A **structure** is considered to be "**under the control of the remote pilot**" if:
- The remote pilot shall be satisfied that a permission has been granted by appropriate persons which have an interest in the structure (e.g. the management party of the structure) for an SUA to operate within a distance less than the required lateral separation; and
- Occupants of the structure can reasonably be expected to follow directions and safety precautions to avoid unplanned interactions with the SUA; and
- Occupants of the structure should be adequately briefed or informed about the SUA operations.

As well as the application form (appendix 1) the SUA operator is required to submit a **description of the operation** and a **risk assessment** covering all envisaged operations of the SUA. For use on campus the **description** should provide sufficient detail to demonstrate how the proposed operation will meet the requirements outlined in Small Unmanned Aircraft Advisory Circular AC-009, regarding

- Remote pilot registration,
- Operating area,
- Remote pilot and visual observer,
- Equipment,
- Risk assessment and emergency procedures,
- Privacy concerns,
- Incident recording and reporting
- The safety guidance issued by CAD

There are a number of further requirements for SUA operation that are not covered in this brief summary of some important aspects of the regulations. A few examples are avoidance of operation in restricted flying zones (RFZ), maintenance of line of sight with the SUA, and not conducting operations close to areas where the SUA may cause a distraction, such as at busy traffic intersections. SUA operators are required to be familiar with the contents of CAP448G and all the associated guidance.

Other Requirements

The UAS operator needs 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

(Appendix 1)

Undertaking for Application for Permission to Operate Unmanned Aircraft 無人機系統許可申請

To: Security and Parking Unit, Estates Office / Communications and Public Affairs Office, HKU
致: 香港大學物業處保安部/ 傳訊及公共事務處

☐ I undertake that we have fully understood all regulations under Small Unmanned Aircraft Order (Cap.448G) and agreed to comply with the regulations stated.
本人已閱讀及明白《小型無人機令》第 448G 章 內各條文，並同意遵守所有規則。

Details of application 申請詳情

Name of Applicant 申請人姓名	
Organisation 機構	
Name of Operator 操作員姓名 **Please provide proof of Remote Pilot Certificate* **請提供操作員證書證明文件*	
Type of Unmanned Aircraft **Please provide the registration number* 無人駕駛飛機 (無人機) 種類 **請提供無人機註冊編號*	
Category of Operations 操作類別	☐ Standard Operations 標準操作 ☐ Advanced Operations 進階操作
Date(s) and Time(s) of Flight 飛行日期及時間	

Area(s) of Operation on HKU Campus 校園內操作範圍	
Purpose of Flight(s) 飛行目的	
Signature of Applicant 申請人簽署	
Telephone number and email of Applicant 申請人聯絡資料	
Organisation chop (if applicable) 申請人機構印章 (如適用)	
Date of Application 申請日期	

Approved by 批核部門:

Authorising Unit:_____ Date: _____

授權部門: 日期