

# UC Irvine Environmental Health & Safety

SECTION:	TITLE: Unmanned Aircraft Systems/Drone Program
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## 1. Program Description

UC Irvine Environmental Health and Safety Small Unmanned Aircraft Systems (UAS)/Drone Program constitutes guidelines to be followed when all UC Irvine faculty, staff, students, and affiliates operate a UAS/Drone on campus property. This program establishes minimum performance requirements for safe operation of a small UAS/Drone on UC Irvine property, abides by all Federal Aviation Administration safety regulations, and John Wayne Airport mandatory restrictions.

## 2. Scope

The Small Unmanned Aircraft Systems/Drone Program applies to all UC Irvine faculty, staff, students, affiliates, and all other individuals on UCI property. This program defines small UASs as recreational and non-recreational aircrafts that are less than 55 pounds. **The requirements of this program do not overrule new or updated safety regulations established by the Federal Aviation Administration (FAA) or any other local government agency.** The FAA and John Wayne Airport have granted UC Irvine Campus a Certificate of Authorization (COA) given its close proximity to an airport.

To comply with the COA, this program establishes the minimum performance requirements for the safe operation of small UASs at UC Irvine. All faculty, students, and staff must create a profile and submit all UAS information to the University of California Office of the President (UCOP) UC UAS Safety Management System through the Drone web application <https://ehs.ucop.edu>.

## 3. Definitions and Acronyms

- ATC- Air Traffic Control
- Autonomous Flight - UAS operations without human control
- COA- Certificate of Authorization
- Department - Academic Units of UC Irvine responsible for faculty, staff, and students.
- FAA Class C Airspace - Class C Airspace is generally that airspace from the surface to 4,000 feet above the airport elevation (charted in mean sea level MSL) surrounding those airports that have an operational control tower, are serviced by a radar approach control, and have a certain number of instrument flight rules (IFR) operations or passenger enplanements.
- Geofence – Range in which the UAS cannot exceed.
- Ground Control station – Facility for humans or computers to operate UAS
- Hexicopter – Copter with six propellers
- Non-Affiliate- Any person who is not a student, officer, official volunteer, employee, or emeritus of the University of California or a member of a household authorized to reside in University property. Examples include vendors and visitors.
- PIC – Pilot in command
- Quadcopter – Copter with four propellers
- RPAS- Remotely piloted aircraft system
- UAS/Drone– Unmanned aircraft systems; remote controlled pilot-less aircraft.
- UC Irvine Affiliate - Vendor that has been contracted to perform services for a UC Irvine entity.
- UCI Property- Any University-owned, operated, or leased property including all University grounds and Structures.

- VLOS- Visual line of site
- VO- Visual observer

#### 4. Responsibilities

1. Environmental Health and Safety is responsible for:
  - a. The implementation of the Small Unmanned Aircraft Systems Safety Program to faculty, staff and students, refers all Drone flight requests to the UCOP Drone web application, requests will be submitted and reviewed by EH&S.
  - b. Coordinate schedule with Campus Building Facility Managers for flight locations.
  - c. Oversee post flight reports completed and submitted through the UCOP Drone web application.
  - d. Contact UC Irvine Police Department of all approved UAS/Drone flights on campus. Police department will respond to any and all unauthorized flights.
  - e. Manage correspondences sent to [dronesafety@uci.edu](mailto:dronesafety@uci.edu).
  - f. Oversee any drone related incident reports through the UC Irvine Online Incident Report System and the UCOP Drone web application.
  - g. Coordinate Drone events that may or may not be using airspace.
  - h. Create and oversee online course for all Engineering students to obtain a certificate to fly their course made drones within a secure cage.
  - i. Serve as a liaison to Federal Aviation Administration (FAA) and John Wayne Airport.
  
2. UCI Faculty, Staff, Students and Departments are responsible for:
  - a. Oversee of small UASs used by students or employees during university-related activities or research overseen by the Department.
  - b. Inform EHS regarding the creation or assignment of Drone use; syllabus must be sent to EH&S.
  - c. Ensure that employees and/or students are submitting UAS Use Flight Requests. <https://ehs.ucop.edu>
  - d. Abide by FAA regulations for UAS operators, which include obtaining a Drone Pilot License and registering any and all drones.
  - e. Report all incidents to Online Incident Report System and UCOP Drone web application.
  - f. Maintain documentation that certifies that small UAS operators have been trained in the proper and safe use of applicable aircraft; and
  - g. Maintain a list of all trained and registered small UAS operators that use small unmanned aircrafts during university related activities or research overseen by the department.

3. Non UC Irvine 3<sup>rd</sup> Party Vendors, Small UAS Operators, Visitors, shall be responsible for:
  - a. Comply with all applicable federal, state, and local laws and regulations regarding the safe use and operation;
  - b. Obtain flight authorizations, pilot license, and register drone with the FAA and John Wayne Airport.
  - c. Submit temporary UAS flight request to EH&S prior to any operation to [dronesafety@uci.edu](mailto:dronesafety@uci.edu) with the following information:
    - Contact name
    - Contact email
    - Purpose of flight(s)
    - Name of pilot
    - UCI location of flight
    - Number of flights
    - Flight date(s)
    - Flight start time(s)
    - Flight end time(s)
  - d. The flight(s) may only proceed if and when items above have been completed; UCI's insurance requirements have been met; flight is reviewed by EHS [dronesafety@uci.edu](mailto:dronesafety@uci.edu).

## 5. Program Components

- All Pilots, Ground Station, Ground Crew, Trainee, and Instructors must be registered in UCOP Drone web application.
- All flight requests and reports must be submitted through UCOP Drone web app.
- Unmanned aircraft in use at UC Irvine must weigh less than 55 lbs. (25 kg).
- Unmanned aircraft must remain within VLOS (Visual line-of-sight) of the visual observer.
- UC Irvine is in class C controlled airspace. Operations within this airspace are allowed with the required Air Traffic Control permission and EH&S approval.
- All incidents must be reported through the Incident Report \*insert general link\*, UCOP Drone web app, and an email notification sent to [dronesafety@uci.edu](mailto:dronesafety@uci.edu), should occur promptly.
- Operators who use UAS within netting or are not using FAA regulated airspace must complete UAS flight request through UCOP Drone web app prior to use.
- Small unmanned aircraft should remain close enough to the remote pilot in command and the person manipulating the flight controls of the small UAS for those people to be capable of seeing the aircraft with vision unaided by any device other than corrective lenses.
- Per FAA regulation, Small unmanned aircraft may not operate over any persons not directly participating in the operation, not under a covered structure, and not inside a covered stationary vehicle.
- Daylight-only operations, or civil twilight (30 minutes before official sunrise to 30 minutes after official sunset, local time) with appropriate anti-collision lighting.
- Must yield right of way to other aircraft.
- May use visual observer (VO) but is not required.
- First-person view camera cannot satisfy “see-and-avoid” requirement but can be used as long as requirement is satisfied in other ways.
- Maximum groundspeed of 100 mph (87 knots).
- UAS must not exceed maximum altitude of 100 feet above ground level (AGL)

- No person may act as a remote pilot in command or VO for more than one unmanned aircraft operation at one time.
- No UAS operations from a moving aircraft.
- No UAS operations from a moving vehicle unless the operation is over a sparsely populated area.
- No UAS should be operated in a careless or reckless manner, including carrying of hazardous materials.

## 6. Reporting

- Post flight report must be submitted through the UCOP Drone Web App.
- Incidents should be reported through Environmental Health and Safety Incident Report system (<https://www.ehs.uci.edu/apps/hr/>) UCOP Drone web app <https://ehs.ucop.edu>, and emailed to [dronesafety@uci.edu](mailto:dronesafety@uci.edu).

## 7. Training Requirements and Competency Assessment

- Operation of small unmanned aircraft system is at the discretion of the operator. A preflight check should be completed prior to flight to ensure aircraft is safe to use.

## 8. Information and External References

- Email EH&S and Risk Services- [dronesafety@uci.edu](mailto:dronesafety@uci.edu)
- Environmental Health and Safety – <https://www.ehs.uci.edu> 949-824-6200
- UCOP Drone Web Application- <https://ehs.ucop.edu>
- UCOP Drone Center of Excellence - <http://ucop.edu/enterprise-risk-management/resources/centers-of-excellence/unmanned-aircraft-systems-safety.html>
- UAS – Drone Insurance: Aviation/ Aircraft Liability Insurance Option <http://uci.campusconnexionsuc.com/Constituency/Vendors-and-Contractors>
- UCOP Center of Excellence website - <http://tinyurl.com/UC-UAS-COE>
- Federal Aviation Administration UAS information - [www.faa.gov/UAS](http://www.faa.gov/UAS)
- Pilot Certificate Exam - <https://catsdoor04.com/cbt/online/UAG.jsp>
- Study Material for Pilot Certificate Exam - [https://www.faa.gov/regulations\\_policies/handbooks\\_manuals/aviation/media/remote\\_pilot\\_study\\_guide.pdf](https://www.faa.gov/regulations_policies/handbooks_manuals/aviation/media/remote_pilot_study_guide.pdf)
- UAS Registration <https://registermyuas.faa.gov/>