Unmanned Aircraft System/Drone Program

Responsible Administrator: Fire Safety Specialist
Revised: June 2021

Summary: This section outlines the policy and procedures related to the Unmanned Aircraft System/Drone Program that is administered through the Environmental Health & Safety (EH&S) Department.

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

- **Designated Local Authority** – A single-point of contact or committee appointed by the Executive Officers or their designee at an individual University Location to oversee the development, implementation, and enforcement of any University Location-specific UAS related policies and procedures.
- **Executive Officer** – The term “Executive Officer” means any of the University of California’s Chancellors, Medical Center Chief Executive Officers, Director of Lawrence Berkeley National Laboratory, and Vice President for Agriculture and Natural Resources.

- **Federal Aviation Administration (FAA)** – A division of the Department of Transportation that inspects and rates civilian aircraft and pilots, enforces the rules of air safety, and installs and maintains air-navigation and traffic-control facilities.

- **Model Aircraft** – The term “model aircraft” means an unmanned aircraft that is capable of sustained flight in the atmosphere, flown within visual line of sight of the person operating the aircraft, and flown for hobby or recreational purposes.

- **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.

- **Recreational Use** – The term “recreational use” or its derivatives, means operations conducted strictly for hobby or recreational purpose. Flights that are commercial in nature, are in furtherance of a business, or incidental to a person’s business, regardless of compensation, are not considered “recreational.”

- **Small Unmanned Aircraft System (SUAS)** – The term “small unmanned aircraft system” means an unmanned aircraft weighing less than 55 lbs. and associated elements that are required to operate safely and efficiently in the national airspace system.

- **Systemwide Designated UAS Authority** – The individual designated by the UCOPEH&S Executive Director as authorized to provide oversight for Unmanned Aircraft Systems.

- **University Business** – The term “University Business” means the official activities of a University that contribute to any one of the University’s major functions of teaching, research, patient care, or public service, or to any other non-recreational University purpose.

- **University Location** – The term “University Location” means any property or building that is owned or leased by the University where University Business or activities take place.

- **University Location Address** – The term “University Location Address” means the address which shall appear on the ownership and registration documents for all UAS owned by that University Location.

- **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.

- **Geofence** – Range in which the UAS cannot exceed.

- **Ground Control Station** – Facility for humans or computers to operate UAS

- **Hexacopter** – 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. UCI Environmental Health and Safety as the Systemwide Designated UAS Authority 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. Providing UAS regulatory interpretation and assistance with compliance.
   c. Ensuring Policy compliance with applicable laws and regulations.
   d. Providing assistance with requests for UAS activities consistent with applicable laws and regulations and Policy requirements, unless a Designated Local Authority has been selected and delegated this task for specific University Locations.
   e. Providing support in communication with regulatory authorities, and when appropriate, acting on behalf of University faculty and staff as a point of University of California – Policy Unmanned Aircraft System (Drone) Policy 5 of 8 contact to the applicable aviation authority for UAS registration and flight operations.
   f. Providing a central repository for all applicable regulations and policies, including international, federal, state and local regulations, and University Location-specific policies and other agency policies, as appropriate.
   g. Maintaining a record of UAS activity covered under this Policy.
   h. Implementing effective mechanisms for reporting in order to remain in compliance with applicable laws and policies.
   i. Providing a forum to communicate and share UAS-related information and best practices.
   j. Coordinating the development of University UAS policies through taskforces/working groups.
   k. Coordinate schedule with Campus Building Facility Managers for flight locations.
   l. Oversee post flight reports completed and submitted through the UCOP Drone web application.
   m. Contact UC Irvine Police Department of all approved UAS/Drone flights on campus. Police department will respond to any and all unauthorized flights.
   n. Manage correspondences sent to dronesafety@uci.edu.
   o. Oversee any drone related incident reports through the UC Irvine Online Incident Report System and the UCOP Drone web application.
   p. Coordinate Drone events that may or may not be using airspace.
q. Create and oversee online course for all Engineering students to obtain a certificate to fly their course made drones within a secure cage.

r. Serve as a liaison to Federal Aviation Administration (FAA) and John Wayne Airport.

2. UCI Faculty, Staff, Students and Departments are responsible for:
   a. All UCI Faculty, Staff, Students and departments seeking to operate a University-Owned UAS, a UAS for University Business or at University Locations must first submit a complete UAS Request form through the UCOP Drone web app.
   b. Oversee of small UASs used by students or employees during university-related activities or research overseen by the Department.
   c. Inform EHS regarding the creation or assignment of Drone use; syllabus must be sent to EH&S.
   d. Ensure that employees and/or students are submitting UAS Use Flight Requests. https://ehs.ucop.edu
   e. Abide by FAA regulations for UAS operators, which include obtaining a Drone Pilot License and registering any and all drones.
   f. Report all incidents to EHS Safety Incident and Safety Concern and through the UCOP Drone web app.
   g. Maintain documentation that certifies that small UAS operators have been trained in the proper and safe use of applicable aircraft; and
   h. 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.
   i. A post flight report must be submitted within 3 days of flight through UCOP Drone web app for EHS review. A new drone flight cannot be submitted until previous flight report has been submitted.

3. Non-UC Irvine 3rd 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 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 and reviewed by UCI Risk Services; flight request is reviewed by EHS dronesafety@uci.edu.
5. Program Components

- All persons seeking to operate a University-Owned UAS, a UAS for University Business, or at University Locations must first submit a completed UAS Request Form to the Designated Local Authority or Systemwide Designated UAS Authority in advance of any UAS activity.

- Registration of all UC-owned UAS must be registered in accordance with all applicable laws, regulations, and requirements.

- Registration documents for UC-owned UAS must be submitted to the Designated Local Authority or Systemwide Designated UAS Authority and must reflect the following ownership data: The Regents of the University of California (University Location Address)

- Registration documents for all UAS used for University Business must be submitted to the Designated Local Authority or Systemwide Designated UAS Authority.

- All Pilots, Ground Station, Ground Crew, Trainee, and Instructors must be registered in UCOP Drone web application.

- All flight requests must be submitted through UCOP Drone web app.

- A post flight report must be submitted within 3 days of flight through UCOP Drone web app for EHS review. A new drone flight cannot be submitted until previous flight report has been submitted.

- 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 UCOP Drone web app, and an email notification sent to dronesafety@uci.edu, should occur within 24 hours of incident.

- 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 Requirements

• Post flight report must be submitted through the UCOP Drone web app after each flight within 3 days and prior to submitting a new flight request.

• Incidents should also be reported through Environmental Health and Safety Incident Report system EHS Safety Incident and Safety Concern and dronesafety@uci.edu.

7. References

• Email EH&S and Risk Services – dronesafety@uci.edu
• Environmental Health and Safety – https://www.ehs.uci.edu 949-824-6200
• UCOP Drone Web Application – https://ehs.ucop.edu
• UCOP Center of Excellence website – UCOP Center of Excellence for Drones
• Federal Aviation Administration UAS information – www.faa.gov/UAS
• Pilot Certificate Exam – https://catsdoor04.com/cbt/online/UAG.jsp
• UAS Registration https://registermyuas.faa.gov/