Guidelines for Operation of Unmanned Aircraft Systems (Drones) and Other Airborne Objects on Campus (October 2024)

These Guidelines are intended to ensure that all use of Unmanned Aircraft Systems and other airborne objects regulated by the Federal Aviation Administration (FAA) on Caltech property are operated safely and in compliance with applicable federal, state, and local laws and regulations.

Definitions:

Unmanned Aircraft System (UAS) – UAS is "an unmanned aircraft and its associated elements (including communication links and the components that control the unmanned aircraft) that are required for the safe and efficient operation of the unmanned aircraft in the airspace of the United States." 14 C.F.R. Part 1, §1.1.

Unmanned Aircraft (UA) – An UA is a component of a UAS and is "an aircraft operated without the possibility of direct human intervention from within or on the aircraft." 14 C.F.R. Part 1, §1.1. UA may have a variety of names, including drones, quadcopters, and quadrotors.

Other Airborne Objects (OAO) – OAOs are moored (or tethered) balloons, kites, parasail, amateur or unmanned rockets, hybrid robotic devices that incorporate flying mechanisms, and unmanned free balloons regulated by the FAA. *See* 14 C.F.R. Part 101.

UAS/UA and OAO Use on Campus for Educational or Commercial Purposes

To operate an UAS/UA or OAO on Caltech property for educational/research, commercial, or other business-related purposes, the following guidance must be followed:

1. Outdoor use of UAS/UA and OAO:

- a. Comply with all applicable federal, state, and local laws and regulations. This includes FAA registration requirements, operator certification/license (if any), and operating rules. See https://www.faa.gov/uas.
- b. Submit a <u>Campus Application (PDF) to Security</u> (Appendix A), attaching the FAA registration or, if applicable, exemption.
- c. If approved, Security will forward the approved application to the operator, Environment, Health & Safety (EH&S), the appropriate Division Operations Officer, Security Field Supervisors, and other offices as necessary, depending on where and when the UAS/UA or OAO will be flown.

2. Indoor use of UAS/UA and OAO:

- a. Indoor use of UAS/UA and OAO is not regulated by the FAA.
- b. Recreational indoor drone flying is prohibited.
- c. Educational/Researchers must notify the owner of the space where the indoor UAS/UA and OAO is flown.

Caltech's Restrictions on Recreational Use of UAS/UA and OAO:

Any UAS/UA and OAO that requires FAA registration (0.55 lbs. or greater) may not be flown for recreational purposes on Campus. Drones that do not require FAA registration may be flown for recreational purposes on the <u>North Athletic Field</u> only, if approved in advance by submitting the <u>Campus Application (PDF)</u>, in Appendix A.

Non-Caltech affiliated people cannot fly UAS/UA or OAO within or above Caltech property for any purpose.

FAA Registration Requirements:

Under <u>14 C.F.R. Part 107</u> ("Part 107" or "Small Unmanned Aircraft Systems Rule"), unmanned aircrafts must be <u>registered</u> with the FAA. There is an exception for drones that weigh 0.55 pounds (250 grams) or less on takeoff and are flown exclusively under the <u>Exception for</u> <u>Recreational Flyers</u>.¹ "Recreational" drones include "an unmanned aircraft system operated by an institution of higher education for educational or research purposes."²

The following registration guidelines apply to UAS/UA and OAO flown within or above Campus and see *Appendix B: Registration, Training, & Camera Requirements Flow Charts*:

1. Educational and Research Use

Weight at takeoff:

- 0 to 0.55 lbs. or less: No FAA registration required.
- Greater than 0.55 to 55 lbs.: FAA registration required. Drone registration covers all drones in inventory.³ Individual drone registration not required. All drones must be labeled with registration number.
- 55 lbs. or more: Traditional aircraft registration required (by mail).⁴

2. Recreational Use

Weight at takeoff:

• 0 to 0.55 lbs. or less: No FAA registration required.

¹ <u>49 U.S.C. § 44809; https://www.faa.gov/uas/getting_started/register_drone</u>

² 49 U.S.C. § 44809, <u>Statutory Notes</u> ("Use of Unmanned Aircraft Systems for Educational Purposes.").

³ <u>https://www.faa.gov/uas/getting_started/register_drone</u>

⁴ Drones weighing more than 55 lbs. may also operate from fixed sites if they fulfill other conditions specified in 49 U.S.C. § 44809(c)(2).

- Note: Drones that do not require FAA registration may be flown for recreational purposes on the <u>North Athletic Field</u> only, if approved in advance by submitting the <u>Campus Application (PDF)</u> in Appendix A.
- Greater than 0.55 lbs.: FAA registration required; but if purely recreational, these drones may not be flown for non-educational or non-research purposes on Campus.
- **3. Commercial or Other Business-Related Use** (Facilities, Planning Design & Construction, Contractors for roofing, Strategic Communications, etc.)
 - Less than 55 lbs.: FAA registration required for each drone. See Part 107.13.
 - 55 lbs. or more: Traditional aircraft registration required (by mail).

<u>Training</u>

In addition to complying FAA registration rules, drone operators must obtain a FAA operator certification/license, if any, and comply with FAA operation rules, including flying only within visual line of sight and not operating in controlled airspace without authorization. *See Appendix B: Registration, Training, & Camera Requirements Flow Charts and C Regulations* below.

1. Educational and Research & Recreational Use

a. To fly a drone for Educational and Research Use, the FAA requires you to obtain The Recreational UAS Safety Test (TRUST) certificate. Flyers must keep their own copy of the test certificate. A list of approved Test Administrators of FAA Approved TRUST TA can be found <u>here</u>.

2. Commercial or Other Business-Related Use

a. To fly a drone for Commercial or Other Business-Related Use, the FAA requires a Drone Pilot to take an "Unmanned Aircraft General – Small (UAG)" test at an FAA-approved Knowledge Testing Center and keep current evert two years. For specific details, see FAA approved locations <u>here</u>.

Cameras on UAS/UA and OAO

To operate an UAS/UA or OAO with a camera on Caltech property for educational/research, commercial, or other business-related purposes, the following guidance must be followed. See *Appendix B: Registration, Training, & Camera Requirements Flow Charts:*

1. Educational and Research

a. Caltech Research Camera Guidelines, pending

2. Recreational, Commercial or Other Business-Related Use

a. Use of Safety and Security Camera Guidelines

NDAA's Prohibitions Against Drones Manufactured by a Covered Foreign Entity

Pursuant to the American Security Drone Act, effective December 22, 2025, government grant or award funds may not be used to procure or operate any unmanned aircraft system (including its associated elements) manufactured or assembled by a "covered foreign entity," as defined by <u>NDAA Section 1822</u>, which includes "any entity domiciled in the People's Republic of China or subject to the influence or control by the Government of the People's Republic of China or the Communist Party of the People's Republic of China, as determined by the Secretary of Homeland Security."

A cleared list of drone vendors can be found here.

NDAA Section 889's Prohibitions Against Telecommunication and Surveillance Equipment Produced or Provided by a Covered Foreign Entity

NDAA Section 889 also prohibits government awardees or contractors from providing the federal government with telecommunications or video surveillance equipment, systems, or services (or an essential component thereof) produced or provided by five Chinese companies and their subsidiaries and affiliates. Separately, Section 889 prohibits government awardees or contractors from using these prohibited items or services, regardless of whether they are used in the performance of work under a federal contract. Further information on Section 889 can be found <u>here</u>.

Questions and Compliance

All questions regarding use of UAS or OAO on campus should be directed to the Director of Security Administration and Clery Compliance, drones@caltech.edu, x3165 (626)-395-3165 or x4701 (626)-395-4701.

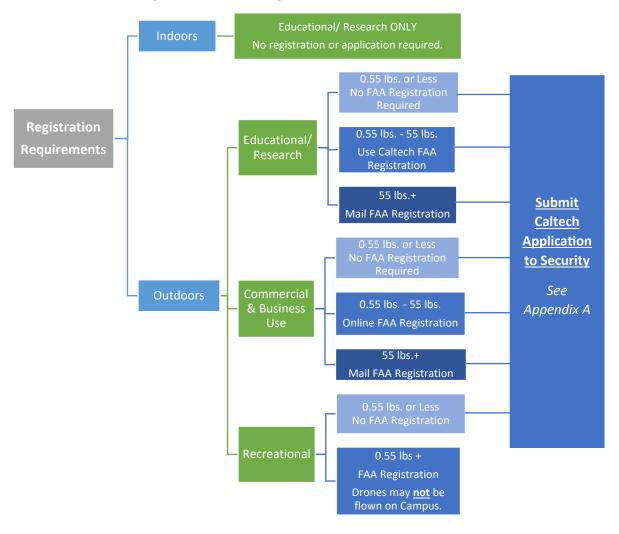
Questions regarding safety concerns please contact EH&S, <u>safety@caltech.edu</u> or x6727.

For questions regarding research drones contact the Office of Research Policy, <u>orc@caltech.edu</u>.

Non-compliance: Any use of UAS/UA or OAO not in compliance with these Guidelines may subject the user to appropriate disciplinary measures and/or being prohibited from using UAS/UA or OAO on Caltech property in the future. Anonymous reporting can be sent to the Institute Hotline at <u>hotline@caltech.edu</u> or <u>www.asic.caltech.edu/caltech-hotline</u>.

Appendix A: Security Registration Form

- Security Services: <u>https://security.caltech.edu/our-mission/services</u>
- Application:
 <u>Caltech Application for Use of Unmanned Aircraft Systems Final 9.23.24 ImZfEE4.</u>
 <u>pdf</u>



Appendix B: Registration, Training, & Camera Requirements Flow Charts

Appendix B: Registration, Training, & Camera Requirements Flow Charts, continued

