



Requirements for the Use of Small Unmanned Aircraft Systems (UAS) when Filming on State Property

Rev. November, 2018

On August 29th, 2016, the FAA's permanent regulations for the commercial operation of drones – small Unmanned Aircraft Systems (UAS) in the National Airspace System went into effect. These regulations under Title 14 Code of Federal Regulations (14 CFR) Part 107, establish the minimum safety standards for small UAS operations in the United States.

These rules establish certification requirements for small UAS pilots under 14 CFR Part 107, establishing a category of pilot referred to as the Remote Pilot. A person holding a traditional pilot certificate under Part 61 may also operate small UAS under Part 107 if they meet certain requirements outlined in the rule. Both category of pilots may supervise the operation of a small UAS operated by someone without any pilot certification under Part 107 or Part 61.

Section 333 Exemptions Are No Longer Valid

Prior to the establishment of Part 107 Rules – the FAA's regulations for the commercial use of small UAS, filming activities using UAS were sanctioned under Section 333 Exemptions. As the FAA has recently repealed Section 333 Exemptions, they are no longer valid, and all UAS remote pilots should now be operating under Part 107 Rules.

For those familiar with Section 333 guidelines, be aware that the following requirements are **no longer mandatory**:

- The use of a visual observer*
- A private pilot certificate and medical certificate
- A 500-ft. perimeter from non-participants

*Although a visual observer is no longer required, the California Film Commission recommends the use of a visual observer for safer UAS operations.

Under Part 107 Rules, the FAA no longer requires:

- A Certificate of Authorization (COA)
- A Plan of Activities (POA)
- Notice to Airmen (NOTAMS)

While some of the other Section 333 Exemption guidelines are the same as Part 107 Rules, the biggest change is that Part 107 Remote Pilots **may not fly directly over people**, and that includes cast and crew. The only circumstance in which flying over people is allowed is with an FAA waiver, and to date, very few waivers to fly over people have been issued. (See below for other operations that require waivers.)

Information Questionnaire

The CFC requires that a questionnaire be completed by the Remote Pilot when he/she is retained by a production to fly UAS over state property. The completed form and all accompanying documentation must be submitted with the production's permit application.

UAS Operating Authority

In addition to Part 107 Rules, Title 49 United States Code (U.S.C.) Section 44809 is another operating authority that will now be recognized, albeit it for students enrolled at accredited educational institutions. 49 U.S.C. 44809 describes the means by which small UAS may be operated without specific certification or operating authority from the FAA under a community-based set of safety guidelines and within the programming of a nationwide community-based organization, or what are commonly referred to as “hobbyist” rules.

Educational Use of UAS

Students enrolled at an accredited educational institution may now operate small UAS for school projects. Educational use is considered non-commercial, and students may operate under hobbyist rules. Film permits are still required, but the commercial requirements of Part 107 are not.

Before a permit will be issued, students must submit:

- Proof of UAS registration
- A certification letter from the accredited educational institution (written on school stationery to verify enrollment)
- Required insurance coverage, including \$2 million in aviation coverage
- A thorough description of all proposed filming activities (including a detailed description of proposed UAS operations)
- The name of the community-based model aviation organization’s safety guidelines under which the student will be operating

Student filmmakers must:

- Use a registered model aircraft
- **Avoid flying directly over people, animals, vessels, vehicles or structures, so as not to endanger the life and property of others**
- Avoid flying in a careless or reckless manner or at locations where UAS activities are prohibited, or in close proximity to crowds of people at outdoor sporting events, music festivals, political gatherings, firework displays or beaches
- Fly within visual line-of-sight
- Follow community-based safety guidelines and fly within the programming of a nationwide community-based organization
- Use an aircraft under 55 lbs., unless certified by a community-based organization
- Never fly near other aircraft
- Notify the airport and air traffic control tower prior to flying within 5 miles of an airport
- Never fly near emergency response efforts

A complete list of community-based safety guidelines can be found on The Academy of Model Aeronautics (AMA)’s website at: <https://www.modelaircraft.org/sites/default/files/550.pdf>

NOTE: Within the next six (6) months, student filmmakers enrolled at an accredited educational institution may be required to take an aeronautical knowledge test before operating a UAS and may also be required to show proof of membership in the community-based model aviation organization under which they are operating. More information will be forthcoming as soon as it’s available.

UAS Facility Maps

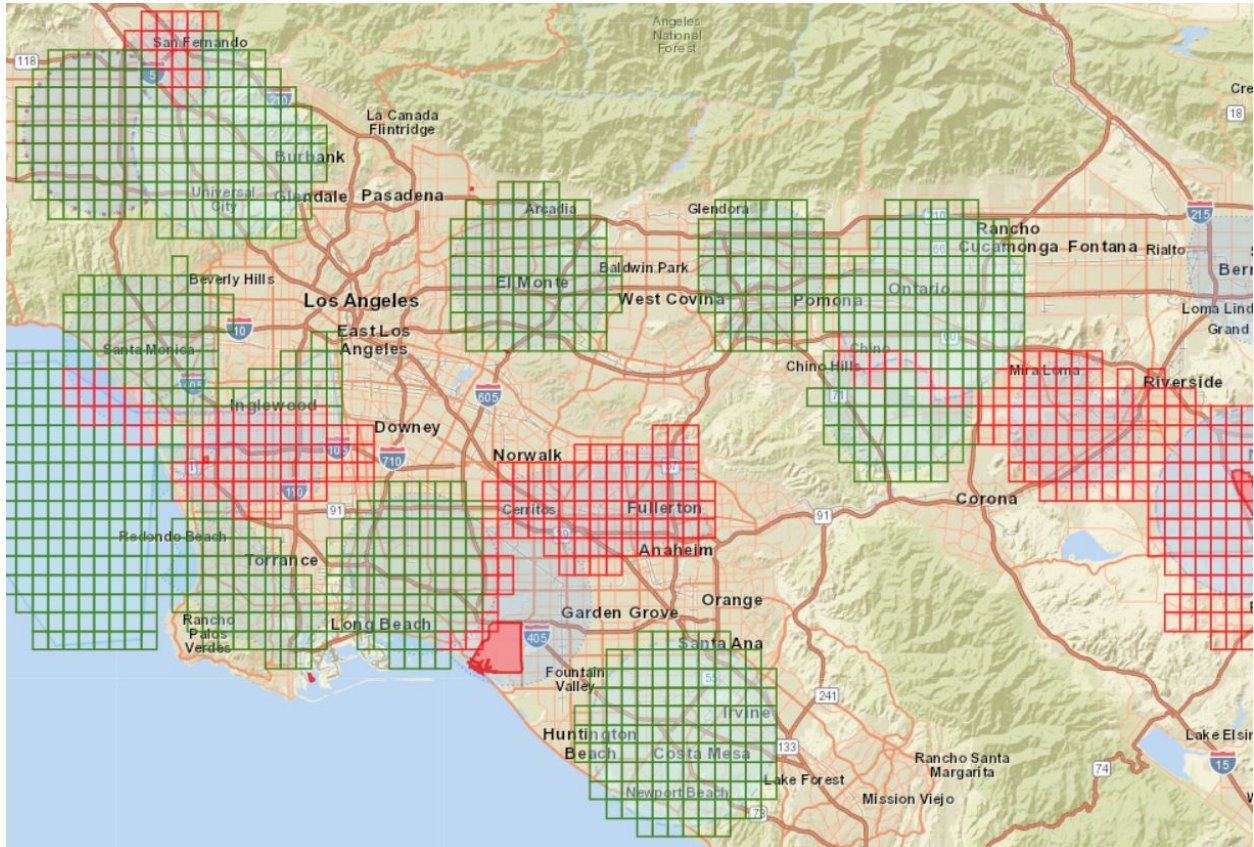
UAS Facility Maps show the maximum altitudes around airports where the FAA may authorize Part 107 UAS operations without additional safety analysis. The maps should be used to inform request for Part 107 airspace authorizations and waivers in controlled airspace. NOTE: these maps DO NOT authorize

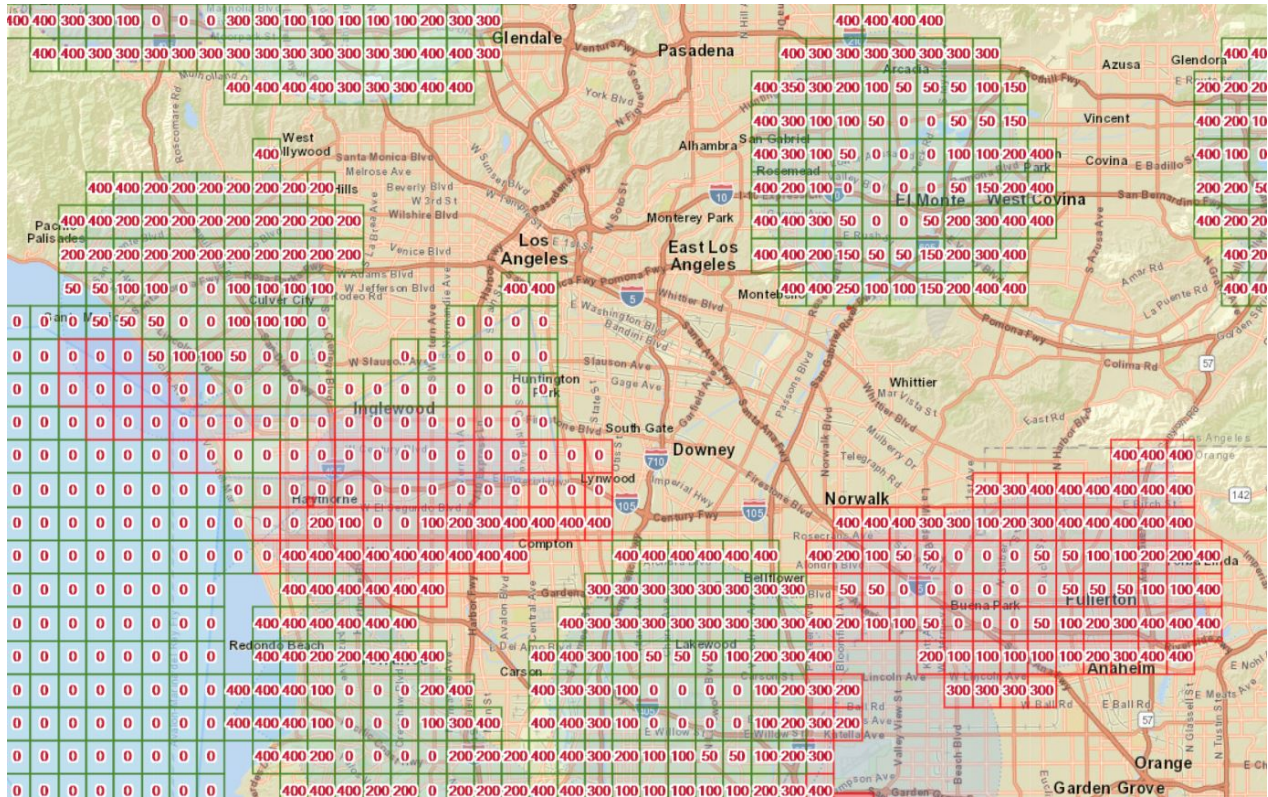
operations in these areas at the depicted altitudes – they are for informational purposes ONLY. Operators must still apply to operate in controlled airspace (Class B, C, D or surface area E) by completing a Part 107 Airspace Authorization or Waiver Application in the *FAA DroneZone* (<https://faadronezone.faa.gov/#/>).

Individuals who request a Part 107 airspace waiver and authorization are encouraged to consult the maps prior to submitting a request to determine locations and altitudes that can be approved quickly.

If you apply for authorization to operate at or below 300-feet, your request will be expedited. If you apply for authorization to operate over 400-feet, your request will necessitate a safety review.

These are sample facility maps:





The FAA has forged partnerships with several companies that provide mobile apps providing near real-time processing of airspace authorizations for Part 107 drone operators who fly in controlled airspace. It's part of what's called the Low Altitude Authorization and Notification Capability (**LAANC**) initiative.

LAANC uses airspace data, including [UAS facility maps](#), which shows the maximum altitude around airports where the FAA may authorize operations under Part 107 in controlled airspace. The program gives UAS operators the ability to interact with industry-developed applications and obtain near real-time authorization from the FAA. LAANC, a foundation for developing the [Unmanned Aircraft Systems Traffic Management System \(UTM\)](#), is now available at nearly 300 FAA air traffic facilities across the country, covering approximately 500 airports.

Two of the mobile apps now being used by UAS remote pilots are **AIRMAP** and **Skyward**.

For a list of FAA facilities participating in LAANC, go to:
https://www.faa.gov/uas/programs_partnerships/uas_data_exchange/airports_participating_in_laanc/

For a list of approved LAANC UAS Service Suppliers, go to:
https://www.faa.gov/uas/programs_partnerships/uas_data_exchange/

To view all UAS Facility Maps and grids, go to:
https://www.faa.gov/uas/request_waiver/uas_facility_maps/

For basic questions about Facility Maps, go to: UAShelp@faa.gov

For Frequently Asked Questions pertaining to Facility Maps:
https://www.faa.gov/uas/request_waiver/uas_facility_maps/faq/

Permitting Timeframe

Please allow **up to** seven (7) business days for the CFC to process requests for film permits that include the use of small UAS, and be aware that the process will not begin until all required documentation has been submitted.

Also note that meeting all qualifications required of a Part 107 Remote Pilot does not guarantee permission to operate small UAS over State property. CFC State partners (Caltrans, State Parks, etc.) also review applications on a case-by-case basis and consent or deny requests based on their specific criteria. Applicants should consider checking with all applicable State agencies before submitting permit applications to the CFC.

UAS Pilot Certification Information

In order to obtain a Remote Pilot certificate under Part 107, applicants (who do not already hold a Part 61 pilot certificate) must pass an initial aeronautical knowledge test at an FAA-approved knowledge testing center and complete a security background check by the Transportation Security Administration (TSA). Pilots with a traditional Pilot Certificate under Part 61 (except Student Pilots) must have successfully completed a flight review within the previous 24 months and complete a Part 107 online training course.

Permit Applications: Operating Authority - 14 CFR Part 107

Those applying under Part 107 are required to submit:

- A copy of the Remote Pilot Certificate for the Remote Pilot in Command (Remote PIC)
- A copy of the Part 47 or Part 48 Registration Certificate for each UAS
- A detailed description of proposed flight activities (including maps)
- Copies of all necessary waivers or approvals
- Proof of insurance coverage (as detailed below)
- Copy/screen shot of ATC approval to operate in restricted airspace

Basic provisions of 14 CFR Part 107 include:

- UAS must weigh between .5 and 55 pounds.
- Use of Visual Observer (VO) is optional.
- The Remote Pilot and the person manipulating the flight controls must remain within visual line-of-sight of the UAS (unaided by any device other than corrective lenses), unless a waiver is obtained.
- UAS must be operated in daylight only – or civil twilight (generally 30 minutes before sunrise to 30 minutes after sunset, with appropriate anti-collision lighting), unless a waiver is obtained.
- Maximum altitude is 400 feet above ground level (or within 400 feet of a structure).
- Operations from a moving aircraft or vehicle are not permitted without Waiver.
- UAS operations require a preflight inspection by the remote pilot.
- Operations in Class G airspace is allowed, but operations in Class B, C, D and E airspace is only allowed with the required ATC (Air Traffic Control) authorization.
- No person may act as a Remote Pilot or Visual Observer for more than one UAS operation at one time.

Note: 14 CFR Part 107.205 identifies regulations under Part 107 that may be waived by the FAA. Those regulations include:

- 107.25—Operation from a moving vehicle or aircraft
- 107.29—Daylight operation
- 107.31—Visual line of sight aircraft operation
- 107.33—Visual observer
- 107.35—Operation of multiple small unmanned aircraft systems

- 107.37(a)—Yielding the right of way
- 107.39—Operation over people
- 107.41—Operation in certain airspace
- 107.51—Operating limitations for small unmanned aircraft

When applying for a waiver, applicants must prove how they will create an equivalent level of safety.

For International Filmmakers

Non-U.S. citizens who want to fly for commercial purposes may do so under the Small UAS rule (Part 107) by obtaining a Remote Pilot Certificate (RPC) issued by the FAA. The FAA does not currently recognize foreign Remote Pilot Certificates or equivalent, because globally-recognized RPC standards have not yet been developed. To obtain an FAA-issued RPC, they must submit an application for foreign air carrier licensing. Application instructions are specified in 14 C.F.R. Part 375 and should be submitted by electronic mail to the Department of Transportation (DOT) Office of International Aviation, Foreign Air Carrier Licensing Division. Additional information is available at: <https://cms.dot.gov/policy/aviation-policy/licensing/foreign-carriers>.

No Drone Zones

Local municipal codes may include specific “no drone zones.” If you see a posting for such, don’t assume it applies to the commercial use of UAS. Some of these regulations refer to model aircraft only. If unsure – ask for clarification.

There are times when the use of drones on state property will be prohibited – in some instances because of environmental conditions, in other instances, because it’s an area that’s too heavily populated. That’s why requests are evaluated on a case-by-case basis.

PLEASE NOTE: While the FAA controls U.S. airspace, individual jurisdictions (states, counties, cities) may regulate take-offs and landings within their jurisdictions. Additionally, the FAA does not regulate the use of UAS indoors (on a stage, in a building or other enclosed areas). Indoor drone activity will require other applicable approvals.

INSURANCE REQUIREMENTS

As the CFC website details “Insurance Requirements for Filming,” a production entity that wishes to film on State property must provide the CFC with a certificate of insurance evidencing coverage of General Liability, Workers Compensation and Automobile Liability (go to: <http://film.ca.gov/state-permits/insurance-requirements/> for specified limits and coverage requirements).

If the production’s proposed activities include the use of a small UAS, **additional aerial coverage must be provided by the UAS operator.** The additional requirements are to provide:

1. Proof of Unmanned Aircraft Systems (UAS) coverage (listing the specific aircraft to be used) with a **limit of at least \$2,000,000.** This can be submitted in one of two ways:
 - a. If UAS coverage is being added to a general liability policy, there must be a **separate endorsement** showing proof of UAS coverage.
 - b. If the coverage is coming from an *aviation-specific* insurance carrier (such as Global Aerospace), a separate policy endorsement is **not** necessary, as the entire policy represents the UAS coverage.

- c. A separate endorsement naming the State of California, its officers, agents and employees as Additional Insured.
2. Please note that all **separate endorsements** must be submitted as **separate attachments** (not included in the body of the certificate of insurance).

IMPORTANT NOTES

- UAS operators must have all pertinent documentation **on set with them at all times**, including documents related to Operating Authority, Pilot Qualifications, and Aircraft Registration.
- Operation of a small UAS is permitted only when all qualifications have been met, all necessary approvals have been obtained, and use of a small UAS is noted on the production's permit. If a production is found to be operating a small UAS without the proper permit, the assigned Fire Safety Officer or law enforcement official may immediately suspend the small UAS activities and/or the production may be subject to a fine.
- The use of a small UAS as a **PROP** (that is being flown) is subject to the same regulations as those used for filming.
- On October 9, 2015, Contract Services Administration Trust Fund issued Safety Bulletin #36, "Recommended Guidelines for Safely Working Around Unmanned Aircraft Systems." This document is posted on the [csatf.org](http://www.csatf.org) website, and may be accessed by clicking this link: <http://www.csatf.org/pdf/36UAS.pdf>

Note: A copy of this Safety Bulletin should be attached to your call sheet on days when a small UAS is being used.

GUIDELINES FOR THE USE OF UAS OVER CALTRANS PROPERTY

Submissions for permits that include the use of small UAS over Caltrans property will be reviewed on a case-by-case basis. Caltrans guidelines for the use of a UAS are as follows:

- Use of a small UAS will be treated as a complex shoot and will require a full road closure and/or ITC. There could therefore be up to a twelve (12) business day approval process. If, however, all required documents are submitted in a timely manner, and Caltrans is satisfied with the plan of activities, the turnaround time could be as short as seven (7) business days. Depending on the requirements, at least one meeting with Caltrans, CHP, CFC and other affected entities would be required to discuss logistics.
- Insurance requirements will be consistent with State guidelines (follow this [link](#) to review insurance requirements.)
- Requests for the use of small UAS over Caltrans property will not be considered without the submission of a detailed plan of proposed activities (including maps).
- Small UAS operators must adhere to all current and future FAA mandated rules with regard to distances from airports, military installations and any person(s) or property.
- It is the responsibility of the permittee to obtain all necessary jurisdictional approvals and to submit a description of proposed activities and proof of required insurance coverage within a timely manner.

If approved:

- Caltrans will determine the radius (extending beyond any point of the roadway) that will constitute the production's closed set during small UAS activities.
- Small UAS pilots (with the approval of Caltrans) may decrease the perimeter of the closed set if barriers or structures are present that would sufficiently protect non-participating persons from the small UAS and/or debris in the event of an accident. Please note however that permission to reduce the perimeter must also be granted by Caltrans.

- Intermittent Traffic Control (ITC) or closures will be enforced from both directions, creating full closures on both sides of the freeway/road. Please note that ITC shall be performed on conventional highways only, and filming with a small UAS must occur within 3- to 5-minute ITC windows. UAS filming on freeways is restricted to the ends of freeways where full freeway closures are feasible and adequate detours are available.
- No driving with the flow of traffic will be allowed when a small UAS is involved.
- Productions must work with all applicable City jurisdictions to facilitate the closing of all relevant over-crossings and under-crossings during filming with a small UAS.
- Caltrans has the right to assign a monitor to be on-set during small UAS flights over Caltrans freeways, highways and roads.

For a complete list of guidelines for operating UAS under Part 107, go to:

- [Complete Text of Part 107 Rule](#)
- [Summary of Part 107 Rule](#)

For information on obtaining a Remote Pilot Certificate under Part 107, or how to apply for a Waiver:

- [Becoming a Remote Pilot](#)
- [Applying for a Waiver](#)

If you have any questions about the use of drones when filming on state property, contact CFC Deputy Director, Eve Honthaner at 323-860-2960, ext. 136 - ehonthaner@film.ca.gov or CFC Permit Department Manager, Eric Klosterman at 323-860-2960, ext. 105 – eklosterman@film.ca.gov.

For more information on the use of UAS, go to: <http://www.faa.gov/uas/>