

Advisory Circular

Subject: Exception for Limited Recreational Operations of Unmanned Aircraft

Date: 5/31/19 AC No: 91-57B Initiated by: AFS-800 Change:

1 PURPOSE OF THIS ADVISORY CIRCULAR (AC). This AC provides interim safety guidance to individuals operating unmanned aircraft, often referred to as drones, for recreational purposes under the statutory exception for limited recreational operations of unmanned aircraft (Title 49 of the United States Code (49 U.S.C.) § 44809). This AC restates the statutory conditions to operate under the exception and provides additional guidance on adhering to those conditions. Per 49 U.S.C. § 44809, recreational flyers may only operate under the statutory exception if they adhere to all of the conditions listed in the statute.

- 1.1 Effect of Guidance. This guidance is not legally binding in its own right and will not be relied upon by the Department of Transportation (DOT) or the Federal Aviation Administration (FAA) as a separate basis for affirmative enforcement action or other administrative penalty. Regardless of whether you rely on this guidance, you are independently required to comply with all existing laws applicable to the operation of unmanned aircraft. Conforming your actions with this guidance is voluntary and nonconformity will not affect any right or obligation under any existing statute or regulation.
 - **2 AUDIENCE.** This AC provides guidance to individuals operating unmanned aircraft for recreational purposes in the National Airspace System (NAS) of the United States. The use of the term "recreational operations" in this AC refers to operations described in 49 U.S.C. § 44809(a).
 - **3** WHERE YOU CAN FIND THIS AC. You can find this AC on the FAA's website at http://www.faa.gov/regulations policies/advisory circulars.
 - **4 WHAT THIS AC CANCELS.** AC 91-57A CHG 1, Model Aircraft Operating Standards, dated January 11, 2016, is canceled.
 - **5 REFERENCES.** This guidance relates to 49 U.S.C. § 44809.
 - **6 RELATED READING MATERIAL (current editions):**
 - Title 49 U.S.C. Subtitle VII.
 - Title 14 of the Code of Federal Regulations (14 CFR).
 - AC <u>107-2</u>, Small Unmanned Aircraft Systems (sUAS), which contains 14 CFR part <u>107</u> guidance.

- Pilot's Handbook of Aeronautical Knowledge (PHAK).
- FAADroneZone: https://faadronezone.faa.gov/.
- Unmanned Aircraft System (UAS) Data Delivery System: https://faa.maps.arcgis.com/apps/webappviewer/index.html.
- Temporary Flight Restriction (TFR) listing: http://tfr.faa.gov/tfr2/list.html.
- The FAA's Airspace Restrictions website: https://www.faa.gov/uas/recreational_fliers/where_can_i_fly/airspace_restrictions/.
- Notices to Airmen (NOTAM): https://www.faa.gov/air_traffic/publications/notices/.
- Academy of Model Aeronautics (AMA) Safety Handbook: https://www.modelaircraft.org/sites/default/files/100.pdf.
- FAA National Aviation Events Program website: https://www.faa.gov/about/initiatives/airshow/.
- FAA Unmanned Aircraft Registration website: https://www.faa.gov/licenses_certificates/aircraft_certification/aircraft_registry/UA/.
- Federal Register (FR) Notice <u>84 FR 22552</u>, Exception for Limited Recreational Operations of Unmanned Aircraft.
- 7 RECREATIONAL UNMANNED AIRCRAFT OPERATIONS. Unmanned aircraft are aircraft without a human pilot on board; they are controlled by an operator on the ground. Operators flying unmanned aircraft can endanger other aircraft, people, or property when flying recklessly or without regard to risks. Additionally, most unmanned aircraft manufactured for recreational use are not tested to any FAA standards for airworthiness, meaning they come with no assurance they will stay airborne or fly in a predictable manner, especially when encountering unexpected circumstances such as radio interference, winds, or power failures. When you fly an unmanned aircraft in the United States, it is your responsibility to ensure the safety of the flight, and to understand and follow the appropriate Federal, state, and local laws.
 - 1. The FAA assumes owners and operators of unmanned aircraft are generally concerned about safety and willing to exercise good judgment when flying their aircraft. However, basic aeronautical knowledge and awareness of responsibilities in shared airspace are not common knowledge.
 - 2. The FAA intends to provide a process for recognizing community-based organizations (CBO) and their safety guidelines for recreational flyers in consultation with manufacturers of UAS, CBOs, and other industry stakeholders upon full implementation of 49 U.S.C. § 44809. In the meantime, this interim guidance provides information on the statutory conditions and basic safety guidelines for recreational flyers. Nevertheless, recreational flyers must always remain aware that any operations endangering the safety of the NAS (particularly careless or reckless operations, those endangering persons or property, and/or those that interfere with or fail to give way to any manned aircraft) will be subject to FAA compliance action.

3. Operators who do not fulfill the criteria of 49 U.S.C. § 44809(a) (e.g., those who wish to fly small unmanned aircraft for commercial purposes) or who wish to obtain an FAA-issued Remote Pilot Certificate, should review part 107 and the associated guidance in AC 107-2. The guidance in AC 91-57 applies to flyers who only operate recreationally under the statutory exception.

- **Statutory Conditions.** Until further notice, paragraphs 7.1.1 through 7.1.8 provide guidance on how a person may meet the eight statutory conditions of the statutory exception of 49 U.S.C. § 44809 to operate a UAS for recreational purposes. A person who fails to meet any of the statutory requirements of 49 U.S.C. § 44809 may not operate UAS under the statutory exception and would need to operate them under part 107 or any other applicable FAA authority.
- **7.1.1** The Aircraft is Flown Strictly for Recreational Purposes. Any use of unmanned aircraft for commercial purposes must be conducted under part 107 or other applicable FAA regulations (e.g., 14 CFR part 91, 135, or 137).
- 7.1.2 The Aircraft is Operated in Accordance With or Within the Programming of a CBO's Set of Safety Guidelines That are Developed in Coordination With the FAA. Once the FAA has developed the criteria for recognition of CBOs and started officially recognizing CBOs, those CBOs' safety guidelines will be available for use. During this interim period, the FAA offers two means to satisfy this statutory condition. Recreational flyers should be able to explain to an FAA inspector or law enforcement official which safety guidelines they are following.
 - 7.1.2.1 The FAA acknowledges that existing aeromodelling organizations have developed safety guidelines that are helpful to recreational flyers. An example is the AMA safety guidelines, which have previously been reviewed by the FAA as part of the organization's Recognized Industry Organization (RIO) status for participation in the National Aviation Events Program (refer to FAA Order 8900.1, Volume 5, Chapter 9, Section 6, Issue/Renew/Reevaluate/Rescind an Air Boss Letter of Authorization). These or existing safety guidelines of another aeromodelling organization may be used for recreational operations, provided the guidelines do not conflict with the other statutory conditions of 49 U.S.C. § 44809(a).
 - **7.1.2.2** The FAA has existing basic safety guidelines for recreational operations, which are available on its website (https://www.faa.gov/uas/) that may be used.
- 7.1.3 The Aircraft is Flown Within the Visual Line of Sight (VLOS) of the Person Operating the Aircraft or a Visual Observer Co-Located and in Direct Communication With the Operator. This means that either the recreational flyer or the visual observer must have eyes on the aircraft at all times to ensure it is not a collision hazard to other aircraft or people on the ground. The assistance of a visual observer is generally optional but is helpful in ensuring the recreational flyer is able to check instruments for extended periods. The assistance of a visual observer is necessary if the recreational flyer wants to

use first person view (FPV) devices that allow a limited view of the surrounding area from the perspective of a camera aboard the aircraft.

- **7.1.3.1** Visual observers need to be co-located with the recreational flyer, and able to communicate directly with the recreational flyer without the use of technological assistance.
- 7.1.4 The Aircraft is Operated in a Manner That Does Not Interfere With, and Gives Way to,

 Any Manned Aircraft. This makes the recreational flyer responsible for knowing the
 altitude and position of their aircraft in relation to other aircraft, and responsible for
 maintaining a safe distance from other aircraft by giving way to all other aircraft in all
 circumstances.
- 7.1.5 In Class B, C, or D Airspace or Within the Lateral Boundaries of the Surface Area of Class E Airspace Designated for an Airport, the Operator Obtains Prior Authorization From the Administrator or Designee Before Operating and Complies With all Airspace Restrictions and Prohibitions.
 - 7.1.5.1 The FAA has created different classes of airspace to reflect whether aircraft receive air traffic control (ATC) services (these are called controlled or uncontrolled), and to note levels of complexity, traffic density, and equipment requirements that exist for aircraft flying through different parts of controlled airspace. Recreational flyers can learn more about the classes and types of airspace in PHAK Chapter 15, Airspace.
 - For now, recreational flyers may fly in controlled airspace only at fixed sites specifically authorized by the FAA, which are posted at the FAA's interactive map on the UAS Data Delivery System. On the map, small blue circles depict the location of these sites in controlled airspace, and the altitude limits imposed on those sites. The altitude restrictions are derived from the UAS Facility Maps (UASFM) which form the basic structure of the Low Altitude Authorization and Notification Capability (LAANC) and its operating procedures. Recreational flyers can access site-specific information by clicking on the blue circle. Recreational flyers may also refer to the actual airspace authorization and a list of sites on the FAA's UAS website at www.faa.gov/uas.

Note: These sites have existing letters of agreement (LOA) with the FAA. For the CBO to operate in controlled airspace, an agreement between the CBO and the FAA must be in place. Certain sites may have access restrictions or other operating limitations, which are available from the site sponsor.

- 7.1.5.3 Do not contact local FAA Air Traffic facilities for airspace authorizations.
- 7.1.5.4 In order to stay notified of airspace restrictions and prohibitions, recreational flyers can determine any restrictions or requirements in effect at the location where they want to fly by referencing the FAA's interactive map on the

- <u>UAS Data Delivery System.</u> On the map, semi-transparent polygons depict airspace information. UAS flight restrictions are shown as red polygons. UAS flight restrictions apply to all UAS flight operations, and remain in effect 24 hours a day, 7 days a week. Recreational flyers may also refer to:
- 1. The FAA's TFR listing; or

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- 2. The FAA's Airspace Restrictions website.
- 7.1.6 In Class G (Uncontrolled) Airspace, the Aircraft is Flown From the Surface to Not More Than 400 Feet Above Ground Level and Complies With all Airspace Restrictions and Prohibitions.
- 7.1.7 The Operator has Passed an Aeronautical Knowledge and Safety Test and Maintains
 Proof of Test Passage to be Made Available to the Administrator or a Designee of the
 Administrator or Law Enforcement Upon Request. The FAA is developing the test in
 consultation with stakeholders. Recreational flyers would have to pass the test, which
 could be administered electronically, and would be responsible for providing proof of
 passage upon request from FAA personnel or law enforcement. The FAA will provide
 additional guidance and notice when the test is available and the date on which adherence
 to this condition would be required.
- 7.1.8 The Aircraft is Registered and Externally Marked, and Proof of Registration is Made Available to the Administrator or a Designee of the Administrator or Law Enforcement Upon Request. Additionally, per the statutory requirements of 49 U.S.C. § 44809(a)(8), proof of registration would have to be carried and provided to FAA personnel or law enforcement upon request. Recreational flyers may register electronically under 14 CFR part 48 through the FAADroneZone.
 - **7.1.8.1** Persons 13 years of age or older may register aircraft. If the person is younger than 13, they may not register the aircraft, but another person 13 years of age or older may register the aircraft.
 - **7.1.8.2** A person will need an email address, credit or debit card, a physical address, and a mailing address (if different from the registrant's physical address) to register electronically under part 48.
 - **7.1.8.3** Under part 48, a person may only operate a small unmanned aircraft if the registration number or unique identifier of the aircraft is legibly displayed on an external surface of the aircraft.
 - 7.2 Upcoming Guidance.
- **7.2.1** CBO Requirements and Procedures. The FAA intends to provide further information on how organizations can be recognized by the FAA as official CBOs.
- **7.2.2** Basic Aeronautical Training and Test (BATT). The FAA is developing a training module with an accompanying test to provide basic aeronautical education to all recreational

flyers and enhance the safety of the NAS through greater education and awareness. The training and test will be developed in consultation with stakeholders. The FAA expects to provide the training module and test to recognized CBOs for online administration to their members and also to the general public.

- **7.2.3** <u>LAANC</u>. The FAA currently is upgrading the LAANC system, which will allow recreational flyers far greater flexibility in the future to obtain automated authorization to controlled airspace. The FAA also is exploring upgrades to FAADroneZone to enable access for recreational flyers.
 - **8 ADDITIONAL INFORMATION.** For additional information on unmanned aircraft, please visit the FAA's UAS website at http://www.faa.gov/uas/.
 - **9 AC FEEDBACK FORM.** For your convenience, the AC Feedback Form is the last page of this AC. Note any deficiencies found, clarifications needed, or suggested improvements regarding the contents of this AC on the Feedback Form.

Robert C. Carty

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Advisory Circular Feedback Form

If you find an error in this AC, have recommendations for improving it, or have suggestions for new items/subjects to be added, you may let us know by contacting the General Aviation and Commercial Division at 9-AFS-800-Correspondence@faa.gov or the Flight Standards Directives Management Officer at 9-AWA-AFS-140-Directives@faa.gov.

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