



U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

# Advisory Circular

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**Subject:** Means of Compliance Process for  
Remote Identification of Unmanned Aircraft

**Date:** 12/22/20

**AC No:** 89-1

**Initiated By:** AIR-600

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- 1     **PURPOSE OF THIS ADVISORY CIRCULAR (AC):** This AC provides guidance on the Means of Compliance (MOC) process described in Title 14, Code of Federal Regulations (14 CFR) part 89, *Remote Identification of Unmanned Aircraft*. This AC outlines the required information for submitting a MOC.

**Effects of Guidance:** The contents of this document do not have the force and effect of law and are not meant to bind the public in any way. This document is intended only to provide clarity to the public regarding existing requirements under the law or agency policies.

- 2     **AUDIENCE:** This AC is of interest to persons or entities who develop MOC for meeting the performance requirements of part 89, subpart D, for the design and production of standard remote identification unmanned aircraft or remote identification broadcast modules.

This AC addresses the development and process for submission of a MOC for standard remote identification unmanned aircraft and remote identification broadcast modules. The FAA will publish a list of FAA-accepted MOCs on the FAA website that are available to producers of standard remote identification unmanned aircraft under part 89 or part 21 and producers of remote identification broadcast modules under part 89. This AC only addresses MOCs for complying with the remote identification performance requirements of part 89. It does not address submission of MOCs for any other purpose.

- 3     **RELATED READING MATERIAL (CURRENT EDITIONS)**

The following regulations, guidance, and standards are applicable to this AC. Refer to the FAA's website for the current list of FAA-accepted MOCs that may be used to comply with part 89.

### 3.1 **FAA ACs**

- AC 89-2, *Declaration of Compliance Process for Remote Identification of Unmanned Aircraft*
- AC 107-2, *Small Unmanned Aircraft Systems*

### 3.2 **FAA Orders**

- Order 8000.71, *Aircraft Make, Model, and Series Taxonomy*
- Order 8100.11, *Requirements for Finding Undue Burden and No Undue Burden Under 14 CFR Part 21*
- Order 8110.4, *Type Certification*
- Order 8130.2, *Airworthiness Certification of Aircraft*
- Order 8130.34, *Airworthiness Certification of Unmanned Aircraft Systems and Optionally Piloted Aircraft*

### 3.3 **Title 14, Code of Federal Regulations (14 CFR)**

- Part 21, *Certification Procedures for Products and Articles*
- Part 47, *Aircraft Registration*
- Part 48, *Registration and Marking Requirements for Small Unmanned Aircraft*
- Part 89, *Remote Identification of Unmanned Aircraft*
- Part 91, *General Operating and Flight Rules*
- Part 107, *Small Unmanned Aircraft Systems*

## 4 **BACKGROUND**

- 4.1 The remote identification of unmanned aircraft promotes public safety, accountability, and the safe and efficient use of U.S. airspace by enabling new technologies to furnish data specific to individual unmanned aircraft to people on the ground and other airspace users. Remote identification information allows the public and law enforcement to identify unmanned aircraft, as well as locate the corresponding control station or take-off location. Remote identification enables the FAA to monitor unmanned aircraft operations for compliance with applicable regulations and to oversee the safety and security of U.S. airspace. Standard remote identification unmanned aircraft broadcast the remote identification message elements directly from the unmanned aircraft. The remote

identification broadcast module is a retrofit option that provides flexibility to achieve remote identification for operators of unmanned aircraft that do not qualify as standard remote identification unmanned aircraft.

- 4.2 Under part 89, persons or entities may develop MOCs for use in the design and production of standard remote identification unmanned aircraft or remote identification broadcast modules to document and demonstrate compliance with the remote identification requirements of part 89, subpart D.
- 4.3 Pursuant to part 89, producers of standard remote identification unmanned aircraft and remote identification broadcast modules must comply with the applicable remote identification performance requirements of subpart D. A person or entity must meet these requirements by following an FAA-accepted MOC for:
- The production of standard remote identification unmanned aircraft under § 89.510 for unmanned aircraft under part 21 or under § 89.515 for all other unmanned aircraft covered under part 89, subpart F.
  - The production of remote identification broadcast modules under § 89.520.
- 4.4 Unmanned aircraft systems certificated under part 21 may be subject to either the type certification or supplemental type certification procedures of part 21 and applicable design and production standards for all systems on the unmanned aircraft or that comprise the unmanned aircraft system. Part 89 remote identification requirements apply during the type and supplemental type certification procedures. Additionally, part 89 requirements will be applied during the special airworthiness certification process under part 21.
- 4.5 Once the FAA accepts a MOC, producers may use the MOC to meet the requirements of part 89. Producers submit a Declaration of Compliance (DOC) to the FAA declaring the standard remote identification unmanned aircraft or remote identification broadcast module meets the requirements of part 89 because they have followed an FAA-accepted MOC. Submitters of DOCs must include the tracking number of the MOC used in the production on their DOC. See AC 89-2, *Declaration of Compliance Process for Remote Identification of Unmanned Aircraft*, for further information about the DOC submittal process.

## 5 MEANS OF COMPLIANCE—REQUIRED INFORMATION

- 5.1 The information described in this section is required pursuant to § 89.405.
- 5.2 **Name:** The submitter of a MOC for acceptance must provide the name of the individual or entity submitting the MOC. For an entity, this could be the name of a standards setting organization (SSO), a manufacturer of standard remote identification unmanned aircraft

or remote identification broadcast modules, or any other entity that has developed a MOC.

- 5.3 **Point of Contact (POC):** The submitter of the MOC must identify the individual designated as the main point of contact for communications with the FAA.
- 5.4 **Address:** The submitter must provide the mailing address for the individual or entity submitting the MOC. For an SSO, this address is the address of the SSO's headquarters, rather than an address for a particular committee responsible for the development of the MOC. For a producer of standard remote identification unmanned aircraft or remote identification broadcast modules submitting a MOC, the FAA expects that the address would be the headquarters of the company as opposed to a production facility where the entity intends to produce the unmanned aircraft or broadcast modules.
- 5.5 **POC's Email Address:** The submitter must provide a valid email address for the point of contact listed in the MOC. The FAA will use this email address for MOC submission confirmation or for any other email communication related to the MOC.
- 5.6 **Description of the MOC:** The application must include: (1) detailed description of the means of compliance; and (2) justification, including any substantiating material showing the means of compliance fulfills the standards of §§ 89.310 and 89.320.
- 5.7 **Supporting Documentation and Data Submission:** When submitting a MOC, the submitter should include any supporting documentation (e.g., design, testing, analyses, and validation data) and justification that demonstrates that a standard remote identification unmanned aircraft or remote identification broadcast module produced in accordance with the MOC would meet all of the applicable performance requirements of part 89, subpart D. Please state "Contains proprietary information" on any document where any of the information provided is a trade secret or confidential commercial information.
- 5.8 **Testing and Validation Procedures:** A means of compliance submitted for acceptance by the FAA must include testing and validation procedures to demonstrate through analysis, ground test, or flight test, as appropriate, how the standard remote identification unmanned aircraft or the remote identification broadcast module performs its intended functions and meets the requirements of part 89, subpart D, including any applicable FAA performance requirements for radio station operation.
- 5.9 **Means of Compliance Cover Page:** Submitter of a MOC for a standard remote identification unmanned aircraft or a remote identification broadcast module to the FAA for acceptance should include a cover page that contains the information listed in sections 5.2 through 5.5 above, as well as a list of all documentation submitted in support of the MOC.

- 5.10 **Data and Documentation Retention:** In accordance with § 89.420, the individual or entity that submits a MOC for acceptance must retain and make available upon request the following information for as long as the MOC is FAA-accepted, plus an additional 24 calendar months:
- All documentation and substantiating information submitted to the FAA for acceptance of the MOC.
  - All records of MOC test procedures, methodology, and other procedures, as applicable.
  - Any other information necessary to justify and substantiate how following the MOC would allow a producer to manufacture standard remote identification unmanned aircraft or remote identification broadcast modules that comply with the remote identification requirements of part 89, including any referenced standards such as broadcast specifications that may be within the MOC.
- 5.11 **Electronic Submission:** A person or entity may electronically submit a complete MOC package, including the cover page and supporting documentation, to the FAA for acceptance. The email address for submission of MOC packages may be found on the FAA's website.

## 6 FAA ACCEPTANCE OF A MOC

- 6.1 An individual or entity submitting a MOC for FAA acceptance must provide the required information and documentation described in section 5 of this AC to the FAA for review and consideration by the Administrator, pursuant to § 89.405.
- 6.2 Before the FAA will accept a MOC for use under part 89, the individual or entity requesting acceptance of a MOC must demonstrate to the FAA that the MOC addresses all of the applicable requirements of part 89, subparts D and E, and that any standard remote identification unmanned aircraft or remote identification broadcast module designed and produced in accordance with the MOC would meet the applicable performance requirements of part 89, subpart D. If the FAA determines the individual or entity has demonstrated that the MOC meets the requirements of part 89, subparts D and E, the FAA will notify the individual or entity that the FAA has accepted the MOC. If the FAA determines the individual or entity has not provided sufficient evidence to demonstrate the MOC meets the requirements of part 89, subparts D or E, the FAA will notify the individual or entity that the FAA has not accepted the MOC and will identify the areas in which the submission or the MOC is deficient. See § 89.410.
- 6.3 The FAA will assign a unique tracking number to each FAA-accepted MOC. The tracking number will be included in the notice sent to the submitter of the MOC, stating the FAA has accepted the MOC. The MOC tracking number should be included on all communications with the FAA.

- 6.4 The FAA will post a notice of availability in the *Federal Register* identifying when the FAA has accepted a MOC. All FAA-accepted MOCs will be listed on the FAA website and producers may use them to show compliance with the remote identification requirements of part 89. If a person or entity submitting a MOC informs the FAA that the proposed MOC contains proprietary information and may not be available to the public, the FAA may indicate that on the FAA website.

## 7 RESCISSION OF A MOC

- 7.1 A MOC is subject to ongoing review by the Administrator (See § 89.415). If the FAA determines that an FAA-accepted MOC does not meet the requirements of part 89, subparts D or E, the FAA will rescind its acceptance of the MOC.
- 7.2 After the Administrator rescinds acceptance of a MOC, the FAA will publish a notice of rescission in the *Federal Register* and will update the FAA website to remove the MOC from the list of FAA-accepted MOCs (See § 89.415).
- 7.3 No one may use a MOC that the FAA no longer accepts in the design and production of standard remote identification unmanned aircraft or remote identification broadcast modules.
- 7.4 The FAA may rescind acceptance of any DOC that utilized a MOC that is no longer accepted by the FAA (See § 89.540). Rescission of a MOC is a basis for rescission of all associated DOCs; however, the rescission of a DOC is not automatic. AC 89-2, *Declaration of Compliance Process for Remote Identification of Unmanned Aircraft* describes the process for rescission of a DOC.
- 7.5 If a consensus standard body decides to “sunset” (i.e., retire) a standard the FAA previously received and accepted as a MOC, then the FAA will issue a rescission of its acceptance of the MOC if it determines the MOC no longer meets the requirements of part 89, subparts D and E. As indicated in section 7.4, the FAA may also rescind acceptance of any DOC that used a MOC that is no longer accepted by the FAA. See § 89.540.

ORIGINAL SIGNED by

/s/ Victor W. Wicklund  
for Dr. Michael C. Romanowski  
Aviation Safety  
Director, Policy and Innovation Division  
Aircraft Certification Service

**Appendix A. Means of Compliance Cover Page**

**EXAMPLE**

Means of Compliance Cover Page

Date: MM-DD-YYYY

Submitter's Name:

Address:

Point of Contact:

Point of Contact Email:

Type of Means of Compliance (check all that apply):

Standard Remote Identification Unmanned Aircraft \_\_\_\_\_

Remote Identification Broadcast Module \_\_\_\_\_

List of documentation included in submission:

[Please include sufficient documentation to demonstrate that the means of compliance meets the applicable performance requirements of part 89 and documentation of testing and validation.]

I, \_\_\_\_\_, hereby state that the attached documentation is true and correct to the best of my knowledge this \_\_[date]\_\_ day of \_\_[month]\_\_\_\_, \_\_[year]\_\_\_\_.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

12/20/20

## Appendix B. Advisory Circular Feedback Form

**Paperwork Reduction Act Burden Statement:** A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a currently valid OMB Control Number. The OMB Control Number for this information collection is 2120-0746. Public reporting for this collection of information is estimated to be approximately 5 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. All responses to this collection of information are voluntary to obtain or retain benefits per 14 CFR 77. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to: Information Collection Clearance Officer, Federal Aviation Administration, 10101 Hillwood Parkway, Fort Worth, TX 76177-1524.

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 (1) emailing this form to 9-AWA-AVS-AIR-DMO@faa.gov or (2) faxing it to the attention of the LOB/SO (202) 267-1813.

Subject: AC 89-1, Means of Compliance Process for Remote Identification of Unmanned Aircraft

Date: \_\_\_\_\_

*Please mark all appropriate line items:*

An error (procedural or typographical) has been noted in paragraph \_\_\_\_\_ on page \_\_\_\_\_.

Recommend paragraph \_\_\_\_\_ on page \_\_\_\_\_ be changed as follows:

In a future change to this AC, please cover the following subject:  
(Briefly describe what you want added.)

Other comments:

I would like to discuss the above. Please contact me.

Submitted by: \_\_\_\_\_ Date: \_\_\_\_\_