

ICAO MODEL UAS REGULATIONS

This document is an example that member States may consider for implementation to regulate the operation of Unmanned Aircraft Systems (UAS).

June 23, 2020

Part 149

Description

These regulations were developed for Member States to provide assistance with UAS operations. This model regulation, Part 149, aligns with the ICAO model regulations Parts 101/102 and was drawn from current UAS regulations in effect in Vanuatu, New Zealand and Australia, Canada and the United States. Part 149 addresses Approved Aviation Organizations (AAO).

The comment period for these model regulations closed February 28, 2020. All comments have been adjudicated by the ICAO Secretariat. A summary of the adjudicated comments can be found on ICAO's public website (link noted in the last paragraph of this page).

In this document, words and phrases indicating that the Civil Aviation Authority (CAA) may wish to insert pertinent national requirements or otherwise align the reference to their existing regulatory structure are identified by brackets “[]”.

Part 149 is not intended to be prescriptive, mandatory, or construed in any way as to pre-empt individual States' legal structures. They are meant to offer model language for States to facilitate the establishment of UAS regulations. In developing this document, it was recognized that the specific national legislative requirements might not be the same for all States, and therefore the States are free to adapt the model regulations, as appropriate, to meet their specific needs. These model regulations do not supersede or replace applicable Annexes to the Chicago Convention. Also, whether the clauses included in this document should have the force of primary legislation (e.g., law) or secondary legislation (e.g., regulation, decree, decision, etc.) remains a matter for each State to decide in light of its existing domestic legislation.

The ICAO Model UAS regulations, Part 149, will be accompanied by guidance material and tools to assist CAA personnel in the implementation and oversight of UAS operations. When available, the guidance material and tools will serve as an example for consideration by ICAO member States to create, add, or amend, future or existing national UAS guidance material by the respective CAA.

These model regulations and the associated guidance materials are available for download on ICAO's public website: <https://www.icao.int/safety/UA/>. These documents are intended to be living documents and are subject to change without notice.

PART 149 Approved Aviation Organizations (AAO) Certification

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Subpart A — General

149.1 Applicability

- (a) This Part prescribes rules governing the certification and operation of approved aviation organizations (AAO).

149.2 Scope

- (a) This instrument sets out requirements to be met by an applicant for a self-administering AAO certificate under Part 149 of [CAA] regulations to perform an aviation administration function.
- (b) This instrument also sets out matters relating to:
 - (1) aviation administration functions for an AAO;
 - (2) key personnel of an AAO;
 - (3) requirements of an AAO's safety management system;
 - (4) requirements of an AAO's audit and surveillance system; and
 - (5) content of an AAO's application submission.

149.3 Requirement for certificate

- (a) Each AAO shall administer the issuance of an aviation document required by the [CAA] Rules for the certification or rating of personnel in accordance with the provisions of:
 - (1) An AAO certificate issued under this Part.

149.5 Application for certificate

- (a) Each applicant for the issuance of an AAO certificate shall complete [CAA] form (specify form number) and submit it to the [CAA] with:
 - (1) [payment of the appropriate application fee prescribed by the CAA].

149.7 Issue of certificate

- (a) An applicant may be issued an AAO certificate if the [CAA] is satisfied with:
 - (1) the qualified person or persons required by 149.21(a)(1), (2) and (3);
 - (2) the applicant's ability to meet the requirements of Subpart B; and
 - (3) the assurance that aviation safety will not be compromised by the issuance of the certificate.

149.9 Privileges of certificate holder

- (a) The holder of an AAO certificate may:
 - (1) administer the issuance of the personnel certificates and ratings that are specified on that certificate and for which a qualified person or persons hold a delegation;
 - (2) appoint persons to give instruction to persons operating the controls of an unmanned aircraft (UA);
 - (3) authorize a person to notify the aeronautical information service provider for the issuance of a NOTAM of a UA operation;
 - (4) inspect and approve the construction of a UA;
 - (5) authorize the operation of a UA where authorization to the certificate holder has been issued;
 - (6) organize aviation events, in accordance with [Part 91 (general aviation operating regulations)], where that privilege is specified on the certificate; and
 - (7) exercise any other privileges required by the [CAA] to be exercised by a [Part 149] organization, where that privilege is specified on the certificate.

149.11 Duration of certificate

- (a) An AAO certificate may be issued or renewed for a period of up to [5 years].
- (b) An AAO certificate remains in force until it expires or is suspended or revoked.
- (c) The holder of an AAO certificate that is revoked shall forthwith surrender the certificate to the [CAA].
- (d) The holder of an AAO certificate that is suspended shall forthwith produce the certificate to the [CAA] for appropriate endorsement.

149.13 Renewal of certificate

- (a) An application for the renewal of an AAO certificate shall be made on form [specify form number].
- (b) The application shall be submitted to the [CAA] before the application renewal date specified on the certificate or, if no such date is specified, not less than [30 days] before the certificate expires.

Subpart B — Certification Requirements

149.21 Personnel requirements

- (a) Each applicant for the issuance of an AAO certificate shall engage, employ, or contract:

- (1) a qualified person identified as the Chief executive who has the authority within the applicant's organization to ensure that all activities undertaken by the organization can be carried out in accordance with the requirements prescribed by this Part;
 - (2) a qualified person or persons who will hold any delegation from the [CAA] for the issue of personnel certificates and ratings;
 - (3) a qualified person or group of qualified persons who are responsible for ensuring that the applicant's organization complies with the requirements of this Part. Such nominated person or persons shall be ultimately responsible to the Chief executive; and
 - (4) secure sufficient personnel to carry out the activities listed in the applicant's submission.
- (b) The applicant shall:
- (1) establish procedures to assess and maintain the competence of those personnel who are responsible for carrying out the activities listed in the applicant's application; and
 - (2) establish procedures for the exercise of any delegation held by a qualified person or persons; and
 - (3) provide personnel with responsibilities under this Rule with written authorization to fulfill those responsibilities.

149.23 Facility requirements

- (a) Each applicant for the issuance of an AAO certificate shall ensure the provision of facilities and resources appropriate to the activities listed in the applicant's application.

149.25 Documentation

- (a) Each applicant for the issuance of an AAO certificate shall hold copies of all relevant equipment manuals, technical standards and practices, technical bulletins and instructions, legislation, and any other document that is necessary to establish procedures for the activities listed in the applicant's application. This documentation shall include human factors material relevant to management and organizations.
- (b) The applicant shall establish a procedure to control and amend all applicable documents required by paragraph (a).

149.27 Records

- (a) Each applicant for the issuance of an AAO certificate shall establish procedures to identify, collect, index, store, maintain, and dispose of the records that are necessary for the activities listed in the applicant's application.
- (b) The procedures shall ensure:

- (1) there is a record of each internal safety management action performed by the applicant's organization in accordance with the procedures specified in 149.33;
- (2) there is a record for each person who conducts activities on behalf of the applicant's organization. The record shall include details of their experience, qualifications, training, and competency assessments;
- (3) there is a record of each personnel certificate and rating issued by the organization;
- (4) all records are legible; and
- (5) all records are retained for a period of at least [3 years] from the date of the last entry made on that record.

149.29 Personnel certification

- (a) Each applicant for the issuance of an AAO certificate for the issuance of personnel certificates or ratings shall establish procedures for:
 - (1) assessing the competency of persons, including holders of equivalent qualifications;
 - (2) issuing the certificates and ratings listed in the applicant's submission; and
 - (3) reviewing and maintaining the competency of persons holding certificates or ratings issued under delegated authority from the [CAA].

149.31 Aviation events

- (a) An applicant for the issuance of an AAO certificate that authorizes them to organize aviation events must establish procedures:
 - (1) for ensuring compliance with [Part 91 (general aviation operating regulations)]; and
 - (2) for identifying hazards to aviation safety and ensuring that the associated risks are evaluated and managed.

149.33 Internal Safety Management

- (a) Each applicant for the issuance of an AAO certificate shall establish an internal safety management system to ensure compliance with, and the adequacy of, the procedures required by this Part.
- (b) The internal safety management system shall include:
 - (1) a **safety policy** and safety policy procedures that are relevant to the applicant's organizational goals and the expectations and needs of its members;
 - (2) a procedure to ensure **quality indicators**, including personnel and member feedback, are monitored to identify existing problems, or potential causes of problems, within the system;

- (3) a procedure for **corrective action**, to ensure existing problems that have been identified within the system are corrected;
 - (4) a procedure for **preventive action**, to ensure that potential causes of problems that have been identified within the system are remedied;
 - (5) an **internal audit** programme to audit the applicant's organization for conformity with its safety policy; and
 - (6) procedures for **management review** to ensure the continuing suitability and effectiveness of the internal quality assurance of the safety management system in satisfying the requirements of this Part.
- (c) The safety policy procedures shall ensure that the safety policy is understood, implemented, and maintained at all levels of the organization.
- (d) The procedures for corrective action shall specify how:
- (1) existing problems are corrected;
 - (2) corrective action is reviewed to ensure the action is effective;
 - (3) procedures are amended as a result of corrective action; and
 - (4) management will review the effectiveness of any corrective action taken.
- (e) The procedure for preventive action shall specify how:
- (1) potential problems are corrected;
 - (2) preventive action is reviewed to ensure the action is effective;
 - (3) procedures are amended as a result of preventive action; and
 - (4) review by management to determine the effectiveness of any preventive action taken will be documented.
- (f) The internal audit programme shall:
- (1) specify the frequency and location of the audits taking into account the nature of the activity to be audited;
 - (2) ensure audits are performed by trained auditing personnel who are independent of those having direct responsibility for the activity being audited;
 - (3) ensure the results of audits are reported to the personnel responsible for the activity being audited and the manager responsible for internal audits;
 - (4) require preventive or corrective action to be taken by the personnel responsible for the activity being audited if problems are found by the audit; and

- (5) ensure there are follow up audits to review the effectiveness of any preventive or corrective action taken.
- (g) The procedure for management review shall:
 - (1) specify the frequency of management reviews of the safety management system taking into account the need for the continuing effectiveness of the system;
 - (2) identify the responsible manager who shall review the safety management system; and
 - (3) ensure that the results of the review are evaluated and recorded.
- (h) The qualified person who has the responsibility for internal safety management shall have direct access to the Chief Executive on matters affecting safety.

149.35 Approved Aviation Organization application

- (a) An applicant for the issuance of an AAO certificate must provide the [CAA] with an application which must contain, where applicable:
 - (1) a statement signed by the chief executive on behalf of the applicant's organization confirming that the application and any included manuals:
 - (i) define the organization and demonstrate its means and methods for ensuring ongoing compliance with this Part;
 - (ii) are enforced at all times; and
 - (2) the titles and names of the qualified person or persons required by rule 149.21(a)(1), (2), and (3);
 - (3) the duties and responsibilities of the qualified person or persons specified in rule 149.21(a)(1), (2), and (3), including matters for which they have responsibility to deal directly with the [CAA] on behalf of the organization;
 - (4) an organization chart showing lines of responsibility of the qualified person or persons specified in rule 149.21(a)(3) and extending to each location listed under paragraph (a)(6) of this rule;
 - (5) a description of the activities to be conducted under the certificate;
 - (6) the principal locations at which each activity will be conducted;
 - (7) a description of the facilities required by rule 149.23;
 - (8) details of the procedures required by:
 - (i) rule 149.21(b)(1) regarding the competence of personnel;
 - (ii) rule 149.21(b)(2) regarding the exercise of any delegation held by a qualified person or persons;

- (iii) rule 149.25(b) regarding the control and amendment of documentation;
 - (iv) rule 149.27(a) regarding the identification, collection, indexing storage, maintenance, and disposal of records;
 - (v) rule 149.29(a) regarding the assessment of personnel, the issuance of certificates and ratings, and the review and maintenance of competency of certificate and rating holders;
 - (vi) rule 149.31 regarding the organization of aviation events including the processes for hazard identification and risk management;
 - (vii) rule 149.33 regarding the internal safety management of the organization; and
- (9) procedures to control, amend, and distribute the application.
- (b) The applicant's application must remain acceptable to the [CAA].

Subpart C — Operating Requirements

149.41 Continued compliance

- (a) Each holder of an AAO certificate shall:
- (1) hold at least one complete and current copy of their application at each principal location specified in their application;
 - (2) comply with all procedures detailed in the application;
 - (3) make each applicable part of their application available to personnel who require those parts to carry out their duties;
 - (4) continue to meet the standards and comply with the requirements of Subpart B; and
 - (5) forthwith notify the [CAA] of any change of address for service, telephone number, or facsimile number required by completing [CAA] form [specify form number].

149.43 Changes to certificate holder's organization

- (a) Each holder of an AAO certificate shall ensure that their organization application is amended so as to remain a current description of the holder's organization.
- (b) The certificate holder shall ensure that any amendment made to the holder's application meets the applicable requirements of this part and complies with the amendment procedures contained in the holder's application.
- (c) The certificate holder shall provide the [CAA] with a copy of each amendment to the holder's application as soon as practicable after it is incorporated into the application.

- (d) Subject to paragraph (e), where a certificate holder proposes to make a change to any of the following, prior notification to and acceptance by the [CAA] is required:
- (1) the Chief executive specified in rule 149.21(a)(1);
 - (2) the listed qualified persons specified in rule 149.21(a)(3);
 - (3) the holder or holders of any delegation made by the [CAA] pursuant to rule 149.21(a)(2);
 - (4) the activities authorized by the certificate;
 - (5) the principal locations at which the activities may be carried out;
 - (6) the procedures for personnel assessment and certification;
 - (7) the procedures for organizing aviation events.
- (e) Where a change to (d)(1) or (d)(2), above, results from an election, the holder shall notify the [CAA] of the change within [7 days] of the election.
- (f) The [CAA] may prescribe conditions under which a certificate holder may operate during or following any of the changes specified in paragraph (d).
- (g) A certificate holder shall comply with any conditions prescribed under paragraph (f).
- (h) Where any of the changes referred to in this Rule requires an amendment to the certificate, the certificate holder shall forward the certificate to the [CAA] as soon as practicable.
- (i) The certificate holder shall make such amendments to the holder's application as the [CAA] may consider necessary in the interests of aviation safety.

— END —