

ANTIGUA AND BARBUDA



**THE CIVIL AVIATION (FLIGHT CHECKING ORGANISATIONS APPROVAL)
REGULATIONS, 2024**

STATUTORY INSTRUMENT

No. 21 of 2024

*Published in the Official Gazette Vol. XLIV No. 14
dated 27th February, 2024.]*

Printed at the Government Printing Office, Antigua and Barbuda,
by Noel F. Abraham, Government Printer
— By Authority, 2024.

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PART I

PRELIMINARY

IN EXERCISE of the powers conferred by section 49 of the Civil Aviation Act of Antigua and Barbuda, the Director General responsible for Civil Aviation makes the following Regulations:

1. Short title

These Regulations may be cited as the Civil Aviation (Flight Checking Organisations Approval) Regulations, 2024.

2. Application of Regulations

These Regulations shall apply to all civil aviation matters in the State of Antigua and Barbuda.

These Regulations prescribe:

- (a) The requirements of flight calibration organisations with respect to their organisational structure, equipment, maintenance and safety management.
- (b) The requirements are the means by which the applicant will be able to satisfy the Authority as to their fulfilment of their legal and technical obligations in respect of the design, commissioning and operation of a flight calibration organisation.
- (c) The issue of a certificate, licence or approval indicating only that the holder is considered competent to secure the safe provision flight calibration or flight checking service. The possession of such a document does not relieve the provider from the responsibility for compliance with any other legislation in force.

3. Interpretation

In these Regulations-

“**Act**” means the Civil Aviation Act of Antigua and Barbuda.

“**Applicant**” means a person, company or other organisation who has applied to the Authority for approval to provide flight checking or flight calibration services.

“**Aeronautical Information Publication**” or “**AIP**” means a publication issued by or with the authority of a State and containing aeronautical information of a lasting character essential to air navigation;

“**Aeronautical Information Service**” or “**AIS**” means a service established with the defined area of coverage for the provision of aeronautical information/data necessary for the safety, regularity and efficiency of air navigation;

“**Air Traffic Service**” or “**ATS**” includes flight information service, alerting service, air traffic advisory service, air traffic control service (area control service, approach control service or aerodrome control service).

“**Agreement**” means the Agreement establishing the Eastern Caribbean Civil Aviation Authority made on 21st day of October, 2003.

“**Authority**” means the Eastern Caribbean Civil Aviation Authority as established by Article 3 of the Agreement;

“**Director General**” means the Director General of Civil Aviation appointed under Article 11 of the Agreement;

“**ECTEL**” means the Eastern Caribbean Telecommunications Authority established by Agreement dated 4th May 2000;

“Minister” means the Minister with responsibility for Civil Aviation;

“NOTAM” means a notice distributed by means of telecommunication containing information concerning the establishment, condition or change in any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential to personnel concerned with flight operations.

PART II

GENERAL

4. Use of English

All documentation, written communications and data (electronic or otherwise) for submission to the Authority in support of an application for an approval shall be provided in English.

5. Laws, Regulations and Procedures

Each holder of an approval shall take reasonable care to ensure that all persons employed by, engaged, or sub-contracted by the holder to perform flight calibration activities, are familiar with the appropriate sections of legislation, any applicable conditions on the approval and the procedures specified in the approval holder’s Operations Manual.

6. Procedure compliance

Each person performing duties in relation to an approval shall conform with the applicable procedures specified in the Operations Manual of the approval holder which authorizes the operation.

7. Power to inspect

Each holder of an approval shall ensure that any person authorised by the Authority shall have access to any documentation relating to the flight checking operation. The approval holder shall be responsible for ensuring that, if requested to do so by an authorised person, documentation is produced within a reasonable period of time.

8. Application for approval

(a) An applicant for a flight checking service organisation approval shall apply to the Authority with:

- (i) an Operations Manual; and
- (ii) any required payment.

(b) Unless the Authority is satisfied that the applicant has provided adequate evidence that it has been approved to conduct flight calibration in another State, the applicant shall:

- (i) demonstrate position fixing accuracy using a process agreed by the Authority; and
- (ii) demonstrate overall system performance by making a trial commissioning inspection of a navigational aid using a process agreed by the Authority; and
- (iii) include trial results in the Operations Manual.

(The Authority reserves the right to require a practical demonstration to provide evidence of compliance with this Part).

9. Privileges of an approval holder

- (a) A flight checking organisation approval may include any conditions that the Authority may consider appropriate.
- (b) The applicant shall submit any proposed changes to the flight inspection system, operation or organisation to the Authority for approval before further flight inspections are conducted.

10. Duration of approval

- (a) The approval remains in force unless it is suspended or revoked by the Authority.
- (b) The approval holder shall surrender an approval certificate or any other such document if the approval has been suspended or revoked.

PART III

APPROVAL REQUIREMENTS

11. Operations Manual

The applicant shall provide the Authority with an operations manual containing:

- (a) a policy statement signed by the person identified at paragraph 12. (a) attesting that:
 - (i) the Operations Manual demonstrates compliance with this Part; and
 - (ii) the organisation will comply with this Part at all times; and
- (b) the titles and names of the senior person or persons required under paragraphs 12; and
- (c) the duties and responsibilities of the senior person or persons in paragraph 12, including matters for which they have responsibility to deal directly with the Authority on behalf of the

- organisation; and
- (d) an organisational chart showing lines of responsibility between the persons specified in paragraph 12; and
 - (e) details of the organisation's staffing structure including job descriptions and safety responsibilities; and
 - (f) policy, procedures, evidence or references supporting the following requirements:
 - (i) paragraph 12 regarding the integrity of the organisation; and
 - (ii) paragraph 13 regarding the technical requirements for the flight calibration system; and
 - (iii) paragraph 14 regarding maintenance of the flight calibration system; and
 - (iv) Paragraph 15 regarding evidence as to meeting measurement uncertainty requirements; and
 - (v) paragraph 16 regarding flight calibration system aerials; and
 - (vi) paragraph 17 regarding the suitability of the aircraft and aircraft operator for the purpose of flight calibration; and
 - (vii) paragraph 18 regarding the use of aeronautical radio frequencies for the purpose of flight calibration; and
 - (viii) paragraph 19 regarding the operational implementation of the flight calibration system; and
 - (ix) paragraph 20 regarding the implementation of quality management procedures.

12. Personnel requirements

- (a) The Applicant shall employ an Accountable Manager acceptable to the Authority and authorised as ultimately accountable and responsible for:
 - (i) managing safety;
 - (ii) ensuring that the organisation complies with the requirements of these Regulations;
 - (iii) ensuring that safety is given the highest priority when assessing commercial, operational, environmental or social pressures; and
 - (iv) managing personnel in relation to safety and compliance with these Regulations.
- (b) The Applicant shall employ competent and qualified personnel in respect of carrying out flight checking duties.
- (c) The Applicant shall establish written records and procedures acceptable to the Authority in respect to the following aspects of the flight checking operation:
 - (i) assessing the competence of those authorised personnel;
 - (ii) maintaining the competence of those authorised personnel;
 - (iii) establish a means to provide those personnel with signed written evidence of the scope of their authorisation; and
 - (iv) establish the job descriptions of authorised personnel relating to safety responsibilities during flight checking operations.

13. General Technical Requirements

- (a) The applicant shall provide the Authority with:
 - (i) evidence that the flight calibration equipment can measure the parameters required for the navigational aid being inspected; and

- (ii) functional and technical descriptions, technical specifications and manufacturer's type number for all major items of the flight calibration equipment; and
 - (iii) functional and technical descriptions, technical specifications and manufacturer's type number for equipment used to calibrate the items referred in 13.(a)(ii); and
 - (iv) build state documentation for all measuring equipment; and
 - (v) the name of the design authority for all major items referred in 13.(a)(ii) and (iii); and
 - (vi) the location, characteristic and type of all fixed or temporary measurement aerials on the aircraft; and
 - (vii) the procedures used for the calibration of the equipment referred in 13.(a)(iii); and
 - (viii) details of the function and support of all software and firmware used in the measurement system; and
- (b) The equipment referred to in paragraph 13.(a)(ii) shall not interfere with the aircraft systems or normal navigation and general avionics equipment.
- (c) Identity transmissions should be verified throughout flight calibration operations.
- (d) The flight calibration system shall include an independent system that can continuously determine and record the horizontal position in space of a known reference point on the aircraft. The uncertainty of this position shall be no more than the uncertainty requirement for the parameter being measured.
- (e) The applicant shall notify the Authority of all proposed changes to flight checking equipment, modifications to or change of aircraft.
- (f) The flight calibration organisation shall comply with the guidance and recommendations given in ICAO Doc 8071, Manual on Testing of Radio Navigation Aids.

14. Maintenance

The applicant shall provide to the Authority with details for:

- (a) procedures for managing spares in relation to the flight calibration equipment; and
- (b) procedures for recording faults and taking subsequent action; and
- (c) procedures for planned maintenance of the flight calibration equipment.

15. Measurement uncertainty

- (a) A minimum measurement uncertainty of 95% probability shall be achieved by each parameter to be measured by the equipment.
- (b) Uncertainty calculations shall be recorded in the Operations Manual and shall account for all errors in the measurement and recording system and shall be combined using RSS (the square root of the sum of the squares).
- (c) Uncertainty calculations shall account for environmental conditions such as expected temperature and humidity range. Manufacturer's data shall be submitted if used as evidence of compliance.
- (d) When modifications are made which affect measurements the applicant shall submit new Operations Manual.

16. Antennas

Any antenna used for the purpose of flight checking shall be:

- (a) positioned so that it is not obscured from the navigation aid signal during all anticipated flying maneuvers; and

- (b) positioned so that the distance between its phase centre and the reference point of the independent positioning system (see paragraph 13.(d)) is accounted for when determining measurement uncertainty and crosswind limitations.
- (c) positioned so that propeller modulation is demonstrated to be reduced to an acceptably low level.

17. Aircraft and aircraft operator

Aircraft used for the purpose of the flight checking shall be:

- (a) capable of safely flying the flight checking profile; and
- (b) operated under a certificate acceptable to the Authority; and
- (c) compatible with flight checking equipment/systems; and
- (d) adequately crewed (both flight crew and equipment engineer/operator) to conduct the flight checking mission safely.

18. Use of radio

The applicant, for the purpose of Radiotelephony (RTF) used during flight checking operations, shall hold relevant approval and licenses.

19. Operational flight calibration system

The applicant shall provide the Authority with:

- (a) a list of navigation aids that can be flight checked by the flight checking organisation in compliance with this Part; and

- (b) a sample flight inspection report compliant with PART IV Paragraph 21; and
- (c) a sample structure measurement for applicable navigation aids; and
- (d) a procedure to ensure communication with the navigation aid service provider of immediately modifiable deficiencies.
- (e) the flight calibration operating instructions for the inspector and flight crew including reference to:
 - (i) the flight profile to be used for individual measurements; and
 - (ii) pre-flight calibration of measuring equipment; and
 - (iii) siting of any necessary ground tracking or position fixing equipment; and
 - (iv) operation of measuring equipment; and
 - (v) production of the flight inspection report ; and
 - (vi) the production of records and graphs in compliance with PART IV Paragraph 22; and
 - (vii) production of a certificate attesting the result of a flight calibration; and
 - (viii) the method used to calculate results which are not output directly by the measuring equipment.

20. Quality procedures

The applicant shall establish a quality management system that is acceptable to the Authority.

PART IV

FLIGHT CHECK RESULTS

21. Flight Inspection Reports

All flight inspection results shall be documented using a format acceptable to the Authority. At minimum, the following shall be provided:

- (a) station name and facility designation; and
- (b) category of operation; and
- (c) date of inspection; and
- (d) unique serial number of report; and
- (e) type of inspection; and
- (f) aircraft registration; and
- (g) manufacturer's type of system being inspected; and
- (h) names and functions of all personnel involved in the inspection; and
- (i) results of all measurements made; and
- (j) method of making each measurement; and
- (k) details of associated attachments (recordings, etc.); and
- (l) details of extra flights made necessary by system adjustments; and
- (m) an assessment by the aircraft captain on the navigational aid performance; and

- (n) comments by the navigation aid inspector operator on the navigation aid performance; and
- (o) details of any immediately notifiable deficiencies; and
- (p) statement of conformance/non-conformance; and
- (q) navigation aid inspector's signature; and
- (r) pilot's signature; and
- (s) signature of the individual who is legally responsible.

22. Flight Inspection Records and Graphs

- (a) If recordings or graphs are used to present results for the flight inspection report, the scales shall be chosen so that it can be determined if the measurement is within the uncertainty parameters.
- (b) The raw data from which the records and graphs are produced shall be retained and archived in a form where it can be re-processed if necessary.
- (c) Recordings shall be marked so that they can be correlated with the aircraft's position at the time of the measurement.
- (d) The minimum identification on each record and graph shall be:
 - (i) serial number; and
 - (ii) date; and
 - (iii) description of type of flight; and
 - (iv) name of airport; and

- (v) designation of facility being inspected.

EXPLANATORY MEMORANDUM

The regulation-making section of the Civil Aviation Act empowers the The Director General to make Regulations for “ .the design, installation, inspection, maintenance, approval and certification of equipment and facilities, including telecommunication and air navigation equipment and facilities used to provide services relating to civil aviation”

Article 37 of the Chicago Convention 1944 provides for ICAO to adopt international standards and recommended practices and procedures dealing with communications systems and air navigation aids, including ground marking and flight checking. The Standards and Recommended Practices for Aeronautical Telecommunications are designated as Annex 10 to the Convention.

The Regulations consist of four parts and 22 regulations therein.

Part I contains the citation, the interpretation of words and expressions used in the Regulations and the purpose of the Regulations.


Part II of the Regulations consists of regulations 4 to 10. This Part is very important in that it sets out the initial requirements of the application process and the basic conditions for persons or companies who wish to apply to the Eastern Caribbean Civil Aviation Authority (“the Authority”) for approval to provide flight checking or flight calibration services.

The language of the application must be in English pursuant to regulation 4. Regulation 5 states that an approval holder must adhere to other regulations of laws in place. Regulation 6 introduces the need for an applicant to have an Operations Manual. Regulation 7 gives the Authority the power to inspect the approval holder’s processes or operations while regulation 8 states what documents etc. are require when submitting an application for approval. Regulation outlines what happens when an approval holder makes changes to their operation after receiving initial approval 9. Regulation 10 sets out the duration of approval as being as long as the Authority is satisfied that the applicant is maintaining the necessary conditions.

Part III of the Regulations contains regulations 11 to 20, which set out the more detailed technical requirements for applicants seeking an approval from the Authority to provide flight checking/flight calibration services.

Part IV contains regulations 21 and 22. These two regulations sets out how results of calibration or flight checking exercises must the presented and reported to the authority.

Made this 26th day of February, 2024



Anthony Whittier
Director General