



ADVISORY CIRCULAR AC-05-006

VALIDATION OF AIRCRAFT NOISE CERTIFICATE

SECTION 1 GENERAL

1.1 PURPOSE

The Advisory Circular provides guidance to operators and aircraft owners when applying for validation of aircraft noise certificates.

1.2 Status of this Advisory Circular

This is an original issue of this AC

1.3 BACKGROUND

A. ICAO Standards in Annex 16, Environmental Protection, Volume 1, Aircraft Noise require that the Bahamas issue or validate a noise certificate for aircraft in international operation.

B. In support of its international safety oversight obligations, the Bahamas has safety legislation and guidance regarding the requirements that apply to the noise certification of aircraft, including—

- 1) BASR, Schedule 5.060 and Schedule 10.051 and Schedule 17.100
- 3) This advisory circular

C. The Bahamas Civil Aviation Department (BCAD) has delegated the Flight Standards Inspectorate the responsibility and authority for the validation of aircraft noise certificate.

1.4 APPLICABILITY

This Advisory Circular is applicable to all Bahamas registered aircraft involved in international operation.

1.5 RELATED REGULATIONS

The following regulations are directly applicable to the guidance contained in this advisory circular—

- BASR Schedule 5, Continuing Airworthiness
- BASR Schedule 10, Operation of Aircraft

1.6 RELATED PUBLICATIONS

For further information on this topic, individuals, organizations and other entities are invited to consult the following publications—

- 1) International Civil Aviation Organization (ICAO)
 - o Annex 16, Volume 1 Aircraft Noise

1.7 DEFINITIONS

Aeroplane. A power-driven heavier-than-air aircraft, deriving its lift in flight chiefly from aerodynamic reactions on surfaces which remain fixed under given conditions of flight.

Aircraft. Any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the earth's surface.

Associated aircraft systems. Those aircraft systems drawing electrical/pneumatic power from an auxiliary power unit during ground operations.

Auxiliary power-unit (APU). A self-contained power-unit on an aircraft providing electrical/pneumatic power to aircraft systems during ground operations.

Bypass ratio. The ratio of the air mass flow through the bypass ducts of a gas turbine engine to the air mass flow through the combustion chambers calculated at maximum thrust when the engine is stationary in an international standard atmosphere at sea level.

Derived version of a helicopter. A helicopter which, from the point of view of airworthiness, is similar to the noise certificated prototype but incorporates changes in type design which may affect its noise characteristics adversely.

Derived version of an aeroplane. An aeroplane which, from the point of view of airworthiness, is similar to the noise certificated prototype but incorporates changes in type design which may affect its noise characteristics adversely.

External equipment (helicopter). Any instrument, mechanism, part, apparatus, appurtenance, or accessory that is attached to or extends from the helicopter exterior but is not used nor is intended to be used for operating or controlling a helicopter in flight and is not part of an airframe or engine.

Helicopter. A heavier-than-air aircraft supported in flight chiefly by the reactions of the air on one or more power-driven rotors on substantially vertical axes.

Human performance. Human capabilities and limitations which have an impact on the safety and efficiency of aeronautical operations.

Recertification. Certification of an aircraft with or without a revision to its certification noise levels, to a Standard different to that to which it was originally certificated.

Self-sustaining powered sailplane. A powered aeroplane with available engine power which allows it to maintain level flight but not to take off under its own power.

State of Design. The State having jurisdiction over the organization responsible for the type design.

Type Certificate. A document issued by a Contracting State to define the design of an aircraft type and to certify that this design meets the appropriate airworthiness requirements of that State.

SECTION 2. ACCEPTABILITY OF AIRCRAFT FOR VALIDATION OF NOISE CERTIFICATE

2.1 GENERAL INFORMATION

2.1.1 GENERAL POLICIES

A. A person who wishes to have an aircraft noise certificate validated or issued in the Bahamas shall apply to the FSI by submitting a duly completed FSI Form 300 - Application for A Noise Certificate to the FSI.

B. Application for aircraft noise certificate validation or issuance is accepted only for aircraft engaged in international operations and of a type that is acceptable to the FSI.

2.1.2 ADDITIONAL DOCUMENTATION TO BE SUBMITTED

A. It is required on application for aircraft noise certificate validation or issuance to submit to the FSI the full specification of the aircraft including—

- 1) The full description of the type, model and serial number;
- 2) Type certificate data sheet;
- 3) Noise Certificate issued by the state of manufacturer, state of design or from a competent authority from the former state of register.
- 4) Airplane Flight Manual or Rotocraft Flight Manual (Helicopters)

B. For aircraft type or model that is new on the Bahamas aircraft register, the applicant should submit the application form and the documents listed in paragraph 2.1.2 above before the aircraft is registered.

2.2 DOCUMENTS EVALUATION

A. The application evaluation exercise is carried out to establish that the documents presented are authentic, genuine, valid and relate to the subject aircraft.

B. It also allows the FSI to verify that the aircraft Noise Certificate complies with ICAO Annex 16 Volume 1.

SECTION 3. INFORMATION AND GUIDANCE

3.1 BASR Schedule 5.060 requires that all Bahamas registered aircraft involved in international operation be issued a noise certificates.

3.2 Annex 16 to the Chicago Convention specifies the chapter classification of the aircraft to be issued with a noise certificate or a suitable statement attesting noise certification contained in another document approved by the State of registry and required by that State to be carried in the aircraft.

3.3 Aircraft registered in Bahamas and falling in the classifications as detailed in Annex 16 shall be issued with a noise validation certificate based on the noise certificate issued by the State of manufacture or State of design or a competent authority of former State of registry.

3.4 Evaluating the noise certificate for validation

- 3.4.1 Except for the initial implementation of the regulatory requirements on aircraft already operating in the Bahamas without a noise certificate or its validation, all aircraft to which the carriage of a noise certificate is applicable will be evaluated for noise certification during importation, registration and certificate of airworthiness issue.
- 3.4.2 **For aircraft already registered in Bahamas** and not issued with a noise validation certificate, at the time of the certificate of Airworthiness renewal, operators and registered owner will be required to produce noise certificate or copies issued by the manufacturer, State of design or a competent authority from state of registry from which the aircraft was originally imported from. Where such copies cannot be obtained, the Authority may look for an alternative method to comply with the requirement on issuance of a suitable statement attesting noise certification either based on certificate or statement issued on similar aircraft type.
- 3.4.3 Applicants for the initial certification of aircraft are required to ensure the presence of a noise certificate or a suitable statement attesting noise certification issued by the relevant competent authority. Applicants are to ensure that such certificate or statement confirms compliance with **ICAO Annex 16 Noise Standards**.

3.5. Procedures

- 3.5.1 All applicants are required to submit an application (FSI form 300) when applying for validation of noise certificate and attach where applicable, the following documents;
- (a) Noise certificate issued by state of manufacturer, state of design or a competent Authority or
 - (b) a statement attesting noise certification status of the aircraft from a competent Authority.
- 3.5.2 Applicants are to verify the authenticity of the certificate and that it clearly states that the aircraft meets Annex 16 noise requirements specified for the aircraft classification.
- 3.5.3 Applicant are to check the statement attesting noise certification and verify that the relevant authority where the aircraft was designed or manufactured or registered approved the document containing such statement or the statement itself. Verify that the statement specifies that the aircraft meets Annex 16 noise requirements for the aircraft classification.
- 3.5.4 Applicant is to observe all of the limitations or conditions stated on the noise certificate or the statement attesting noise certification.
- 3.5.5 The Applicant is to pay the applicable fees
- 3.6. The Authority would require 10 working days to review the application and issue a new noise certificate to all qualifying aircraft.

End of Advisory Circular