

IMPLEMENTATION PROCEDURE

FOR

**DESIGN APPROVAL, EXPORT AIRWORTHINESS CERTIFICATION,
POST DESIGN APPROVAL ACTIVITIES AND TECHNICAL
ASSISTANCE BETWEEN AUTHORITIES**

UNDER THE MEMORANDUM OF UNDERSTANDING ON AIRWORTHINESS

BETWEEN

**AIRCRAFT ENGINEERING DIRECTORATE
DIRECTORATE GENERAL OF CIVIL AVIATION, INDIA**

AND

**AIRWORTHINESS SUPERINTENDENCY
AGÊNCIA NACIONAL DE AVIAÇÃO CIVIL, BRAZIL**

**IMPLEMENTATION PROCEDURE
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The Directorate General of Civil Aviation (DGCA), of the Republic of India and the Agência Nacional de Aviação Civil - Brazil – ANAC of the Republic of Brazil, through their respective branches, Aircraft Engineering Directorate (AED) and Airworthiness Superintendency (Superintendência de Aeronavegabilidade – SAR), as civil aeronautical product certification authorities, referred in this document, for convenience, as the Authorities, considering that:

- A) The Annex 8 to the Convention on International Civil Aviation, as signed at Chicago on 7 December 1944, to which the Republic of India and the Federal Republic of Brazil are signatories;
- B) Each Authority has considered that the regulations and standards used by and the system of the other Authority for airworthiness and environmental certification, approval or acceptance of the aeronautical products, covered by this Implementation Procedure – IP (hereinafter referred to as “IP”), are sufficiently equivalent to its own regulations and standards to make this IP practicable; and
- C) In the interest of promoting aviation safety and preservation of the environment, each Authority will cooperate to reduce, to the minimum, the economic burden imposed on the Authority and the aviation industry and operators by avoiding redundant technical evaluations, tests and inspections;

have reached the following procedures:

1. GENERAL

1.1 Purpose

This document sets forth the Authorities' procedures for implementing the airworthiness and environmental approvals, with regard to aircraft noise and aircraft engine emission regulations and standards and testing procedures of aeronautical products.

The objective of this IP is to outline the terms and conditions under which the Authorities accept each other's airworthiness and environmental approvals of aeronautical products, and environmental testing, thereby reducing redundant technical inspections, evaluations and testing.

1.2 Basis

This IP is pursuant to Article III of the Memorandum of Understanding on Airworthiness and in that respect, the Authorities have assessed each other's regulations, standards and systems relating to the airworthiness and environmental approvals of aeronautical products, and the environmental testing and as a result, have established an understanding of such laws, regulations, standards and systems, and have agreed that they are sufficiently equivalent or compatible to make this IP practicable.

1.3 Definitions

The definitions in Article I of the Memorandum of Understanding are incorporated by reference in this IP. As used in this IP, the following terms and definitions are provided to supplement those definitions. The definitions apply for this document and are not always consistent with other regulation definitions from the Authorities.

- a) "Additional technical conditions" means the terms notified by the Importing Authority for the acceptance of the design of an aeronautical product, or for the acceptance of an aeronautical product, to account for differences between the Authorities in:
 - 1) Adopted or adapted airworthiness and environmental requirements;
 - 2) Special conditions relating to novel or unusual features of the aeronautical product design which are not covered by the adopted/adapted airworthiness and environmental requirements;

- 3) Exemptions or equivalent safety findings from the airworthiness and environmental requirements;
- 4) Design-related operational requirements; and
- 5) Mandatory airworthiness actions taken to correct unsafe conditions.

A difference will be considered as important if its application may affect design or will require additional compliance demonstrations.

- b) "Applicable requirements" means those airworthiness requirements which are effective on the date of the application for certification of the aeronautical product by the Importing Authority, or such airworthiness requirements as the Importing Authority finds acceptable in the particular case.
- c) "Approved by the Authority" means the approval, acceptance, authorisation, certification or licensing of the organisation, person, aeronautical product or document either directly or in accordance with a delegation procedure.
- d) "Compliance" means that, after examination by analysis, test, etc., the design of an aeronautical product is found to satisfy the specified airworthiness or environmental requirements.
- e) "Conformity" means that an aeronautical product is examined against pertinent design, test and quality system data and is found to meet those data.
- f) "Critical Part" means a part for which a replacement time, inspection interval, or related procedure is specified in the Airworthiness Limitations section of the manufacturer's maintenance manual or Instructions for Continued Airworthiness.
- g) "Design-Related Operational Requirements" means the operational or environmental requirements affecting either the design features of the aeronautical product or data on the design relating to the operations of the product that make it eligible for a particular kind of operation in a State.
- h) "Equivalent Level of Safety – ELOS" means a finding that alternative action taken provides a level of safety equal to that provided by the requirements for which equivalency is being sought.

- i) "Exemption" means a grant of relief from requirements of a current regulation when processed through the appropriate regulatory procedure by the Authorities and found to have a level of safety at least equal to the regulation for which the relief is granted.
- j) "Ficha de Controle de Assunto Relevante – FCAR" means a major certification subject and may be raised in the following cases:
 - 1) To record the process followed to define and record the content of the ANAC Certification Basis identifying the nature of each requirement.
 - 2) To develop and administer ANAC Special Conditions.
 - 3) To administer new ANAC policies, e.g. means of compliance, interpretations.
 - 4) To administer equivalent safety findings or exemptions.
 - 5) To identify the ANAC additional technical conditions items.
 - 6) To deal with novel and unusual design features.
 - 7) To record the application of new requirements of ANAC, if different from the requirements of the DGCA.
 - 8) To record controversial subjects.
 - 9) To list specific design changes required for compliance with the ANAC certification basis defined as Importing Authority.

Note: The corresponding DGCA document is called "ISSUE PAPER" (see 1.3 q) of this IP).

- k) "Finding" means the result of an Authority's review, investigation, inspection, test, analysis, etc., to determine compliance of a design with law, regulation and standards requirements, or the conformity of an aeronautical product with approved design data.
- l) "Manufacturer" means the person responsible for the final assembly of an aeronautical product under an Authority approved production quality system, which ensures conformity of the product to an approved design. Final assembly includes the activities of producing or fabricating,

notwithstanding that portions of the product may have been manufactured by other persons at other locations.

- m) "Person" means any individual, firm, co-partnership, corporation, company, association, joint stock association, or governmental entity, and includes a trustee, receiver, assignee, or other similar representative thereof.
- n) "Priority Part" means any part or assembly in an approved design, that, if it were to fail, could reasonably be expected to cause an unsafe condition in an aircraft, aircraft engine, or propeller.
- o) "Product airworthiness approval" means the airworthiness certification, approval, or acceptance, as appropriate, by or on behalf of an Authority for a particular aeronautical product to permit operation or use of the product under the laws, regulations and standards requirements of the issuing Authority.
- p) "Production Quality System" means a systematic process which provides confidence that aeronautical products will conform to the approved design and will be in a condition for safe operation.
- q) "ISSUE PAPER " means a major certification subject and may be raised in the following cases:
 - 1) To record the process followed to define and record the content of the DGCA Certification Basis identifying the nature of each requirement.
 - 2) To develop and administer DGCA Special Conditions.
 - 3) To administer new DGCA policies, e.g. means of compliance, interpretations.
 - 4) To administer equivalent safety findings or exemptions.
 - 5) To identify the DGCA additional technical conditions items.
 - 6) To deal with novel and unusual design features.
 - 7) To record the application of new requirements of DGCA, if different from the requirements of the ANAC.
 - 8) To record controversial subjects.

- 9) To list specific design changes required for compliance with the DGCA certification basis defined as Importing Authority.

Note: The corresponding ANAC document is called “Ficha de Controle de Assunto Relevante – FCAR”, see 1.3 j) of this IP).

- r) “Special Condition” means an additional airworthiness requirement prescribed by the Authority when the airworthiness requirements for the category of aeronautical product do not contain adequate or appropriate safety requirements due to novel or unusual design features. Special Conditions contain such safety requirements as the Authorities find necessary to establish a level of safety equivalent to that established in the applicable regulations.
- s) “Validation” means the importing State’s process for design approval (or type design approval) of an aeronautical product certificated by either Authorities.
- t) “Supplier” means a person who is contracted to provide an appliance or special process to manufacturer to be incorporated into the manufacturer’s aeronautical product.

2. SCOPE OF COVERAGE

This IP applies to:

- a) The acceptance by the Importing Authority of the design approval, including changes to the design, and the findings of compliance made by the Exporting Authority with the Importing Authority’s design-related operational requirements, for aeronautical products for which the Exporting Authority is the responsible for the design;
- b) The acceptance by the Importing Authority of the airworthiness and environmental certification, approval or acceptance of aeronautical products for which the Exporting Authority is the responsible for the design or the manufacture, including both new and used products;
- c) Cooperation and assistance on the continuing airworthiness of in service aeronautical products and providing technical evaluation and assistance to the other Authority, including the exchange of information, towards maintaining sufficiently equivalent airworthiness and environmental requirements and certification systems between the Authorities;

- d) In the interest of promoting aviation safety and preservation of the environmental, each Authority will cooperate to reduce, to the minimum, the economic burden imposed on each Authority's aviation industry and operators by avoiding redundant technical evaluations, tests and inspections;
- e) It is recognized that the Exporting Authority is responsible, along with their respective liabilities, for the primary certification of the aeronautical products exported to the other country, regarding compliance with the airworthiness requirements and regarding conformity with the approved design.

3. PROCEDURES

3.1 General

Each Authority will develop and will employ procedures for granting airworthiness and environmental certification to imported aeronautical products whose design or, where applicable, manufacture is under the responsibility of the other Authority so as to give maximum practicable credit for technical evaluations, tests results, inspections, quality system monitoring, conformity statements, marks of conformity and certificates accepted or issued by the Exporting Authority in granting its own domestic certification for such aeronautical products.

3.2 Design Approval

- a) If the Exporting Authority certifies to the Importing Authority that the design of a aeronautical product, including the design-related operational requirements subject to paragraph 3.2 e) below, or a change to a aeronautical product design previously approved by the Importing Authority, complies with airworthiness and environmental criteria prescribed by the Importing Authority, the Importing Authority, in finding compliance with its own laws, regulations and standards requirements for granting type design approval, shall give the same validity to the technical evaluations, determinations, tests and inspections made by the Exporting Authority as if it had made them itself.
- b) The Importing Authority shall prescribe the airworthiness and environmental criteria for the design approval of a particular aeronautical product, in terms of the laws, regulations, standards, requirements and

certification system applied by the Exporting Authority in granting its own design approval together with the Additional Technical Conditions identified by the Importing Authority.

- c) To this end, the Importing Authority shall have the right:
- 1) To become familiar with the aeronautical product to be imported and with the laws, regulations and standards requirements and certification system applied by the Exporting Authority;
 - 2) To identify the Additional Technical Conditions which it finds necessary to ensure that the aeronautical product meets the airworthiness and environmental standards equivalent to that which would have been required for a similar product designed or manufactured in the Importing State at the time the application was received for the approval of the product design by the Exporting Authority; and
 - 3) To perform such additional analysis and testing as judged necessary.
- d) The airworthiness and environmental criteria specified by the Importing Authority for its design approval of an aeronautical product shall be communicated to the Exporting Authority as soon as practicable after becoming familiar with the design of the product.
- e) The Importing Authority, on request from the Exporting Authority, shall advise the latter of its current design-related operational requirements.

3.3 Changes to the Approved Type Design

- a) The Exporting Authority shall notify the Importing Authority of changes in the approved type design that significantly affects the configuration of the aeronautical product that the Importing Authority has certified, approved or accepted under this IP. Examples of changes that the Certification Authorities shall consider as significantly affecting the approved type design are provided in Appendix A of this IP.
- b) Following the review of the changes, the Importing Authority shall notify the Exporting Authority of its acceptance, modification or non-acceptance of these changes.

3.4 Acceptance of Product Airworthiness Approval

- a) If the Exporting Authority, or a person designated in accordance with the regulations of the Exporting Authority, certifies to the Importing Authority that an aeronautical product, for which a design approval has been issued or is in the process of being issued by the Importing Authority, conforms in construction to a design definition notified by the Importing Authority and is in a condition for safe operation, the Importing Authority shall give the same validity to the technical evaluations, determinations, tests and inspections made in accordance with the regulations of the Exporting Authority, as if it had made them itself on the date of the certification by the Exporting Authority.
- b) Additional inspections may be made or specified by the Importing Authority, as it deems necessary, at the time of its airworthiness and environmental certification, approval or acceptance of an aeronautical product.
- c) The airworthiness release document for civil aircraft, aircraft engine, and propeller, granted by ANAC, according to paragraph 3.4.a) shall be provided in the format of an ANAC Form F-100-12, Export Certificates of Airworthiness. The Certificate of Airworthiness for Export does not authorize the operation of the aircraft.
- d) The airworthiness release document for appliances, granted by ANAC or an ANAC designated person, according to paragraph 3.4.a) of this IP shall be provided in the format of an ANAC Form SEGV00 003.
- e) The airworthiness release document for civil aircraft, aircraft engine, and propeller, granted by DGCA, according to paragraph 3.4 a) of this IP shall be provided in the format of DGCA Export Certificate of Airworthiness (available on www.dgca.nic.in), as applicable. The Certificate of Airworthiness for Export does not authorize the operation of the aircraft.
- f) The airworthiness release document for appliances, granted by DGCA, according to paragraph 3.4 a) of this IP shall be provided in the format of DGCA Form CA-1 Airworthiness Approval Tag, as applicable.

3.5 Production Overview

- a) By mutual agreement, an Authority will, on behalf of the other Authority:

- 1) Monitor the quality system for the production of aeronautical products, accepted by both Authorities, to evaluate the need for improvement, to initiate corrective action and/or to assure conformance to the approved type design; and
 - 2) Certify conformity of parts and assemblies produced.
- b) Each Authority shall make available to the other Authority all data, drawings, reports, norms, specifications, instructions, guidelines, policies, and other information necessary to perform the activities referred to in paragraph 3.5 a) of this IP.
 - c) By mutual agreement, an Authority may participate, with the other Authority, on production control and engineering activities as necessary, and to participate periodically in audits conducted by the other Authority on the manufacturers' quality system.

4. MUTUAL COOPERATION AND TECHNICAL ASSISTANCE

4.1 Continuing Airworthiness

- a) Each Authority are prepared to undertake the responsibilities for support of the continuing airworthiness of the aeronautical products in accordance with ICAO Annex 8, Part II.
- b) All relevant design and production information, drawings and test reports, including inspection records for the aeronautical product, must be held by the design or production approval holders at the disposal of the Authorities and shall be retained in order to provide the information necessary to ensure the continued airworthiness of the aeronautical product. This information is available from the design or production approval holders via the Authority upon request.
- c) Each Authority shall provide full support in analyzing airworthiness aspects of accidents and incidents occurring on aeronautical products to which this IP applies and which would raise questions concerning the airworthiness of such products.
- d) The Exporting Authority shall, in respect of aeronautical products designed or manufactured in its State, specify any appropriate action it deems necessary to correct any unsafe condition that may be discovered after such product is placed in service, including any actions in respect of

components designed and/or manufactured by a supplier under contract to a prime contractor.

- e) The Exporting Authority shall, in respect of aeronautical products designed or manufactured in its State, assist the Importing Authority in determining any action considered to be necessary by the Importing Authority for maintaining the continuing airworthiness of such product.
- f) Each Authority shall keep the other Authority informed of all mandatory airworthiness modifications, special inspections, special operating limitations or other actions which it deems necessary for maintaining the continuing airworthiness of relevant aeronautical products designed or manufactured in either States and that have been imported or exported under this IP, or prior to the effective date of this IP.

4.2 Technical Assistance and Cooperation

- a) At the request of the Importing Authority, the Exporting Authority shall, in respect of aeronautical products designed or manufactured in its State, assist the Importing Authority in determining whether the design of major changes or repairs made under the control of the Importing Authority comply with the airworthiness and environmental standards under which such product was originally approved by the Exporting Authority.
- b) Each Authority shall make available to the other Authority all its relevant airworthiness and environmental laws, regulations and standards requirements, and its system for airworthiness and environmental certification or approval.
- c) Each Authority shall, to the maximum extent practicable:
 - 1) Ensure that the other Authority is notified of proposed significant revisions to its standards and system for airworthiness and environmental certification or approval, that may affect the terms of this IP;
 - 2) Offer the other Authority an opportunity to comment; and
 - 3) Give due consideration to the comments made by other Authority on the proposed revisions.

- d) By mutual agreement and upon request, each Authority shall, as practicable, provide technical evaluation and assistance to the other Authority.
- e) Both Authorities may undertake joint type design approval projects in respect of products covered by this IP when it is in the interest of both Authorities.
- f) Amendments to certification procedures for aeronautical products covered by this document shall be implemented by mutual agreement through an exchange of letters between the Authorities.
- g) When either Authorities needs information for the investigation of service incidents, accidents, or suspected unapproved appliance imported under this IP, the request for information should be directed to the appropriate office of the Authorities. In turn, upon receipt of the request for information from the other Authority, the Authority under request should immediately do everything necessary to make sure the requested information is provided in a timely manner. If urgency requires that one Authority requests the information directly from the manufacturer located in the territory represented by the other Authority because immediate contacts cannot be made with the other Authority, the Authority that made the said request shall inform the other Authority of this action as soon as possible.
- h) Both Authorities recognise that data submitted by the manufacturer(s), either located in the State represented by the Authorities, is the property of manufacturer(s), and release of that data by the Authorities to any third Authority without consent of the manufacturer is restricted. Both Authorities commit that they will not copy, release or show proprietary data that obtained from the other Authority, or from the manufacturer(s) located in the State represented by the other Authority, to anyone other than an employee of its own without written consent from the manufacturer(s) or from the other Authority. This written consent should be obtained by one Authority from the manufacturer(s) through the other Authority or from manufacturer(s) directly.

5. SPECIAL PROCEDURES

It is anticipated that urgent or unique situations may develop – with respect to design approval, export airworthiness certification, or technical assistance –

which have not been specifically addressed in this IP, but which are anticipated by the Memorandum of Understanding. When such a situation arises, it shall be reviewed by the respective Authorities and a procedure developed to address the situation. The procedure shall be mutually agreed upon by the Authorities by revising this IP. If it is apparent that the situation is unique, with little possibility of repetition, then the procedure shall be of limited duration.. The special procedures co-developed between Authorities may be in Appendix B of this IP.

6. PREVAILING INTERPRETATION

- 6.1 In the case of conflicting interpretations of the laws, regulations, standards, airworthiness, environmental criteria or design-related operational requirements prescribed by the Importing Authority pertaining to the certification, approval, or acceptance of aeronautical product under this IP, the interpretation of the Importing Authority shall prevail.
- 6.2 Any disagreement regarding the interpretation or application of this IP will be resolved by consultation between the responsible branches in charge of the implementation of this document within the Authorities.

7. PERIODIC EVALUATION

- 7.1 The Authorities recognise that revision by one Authority to its regulations, policies, procedures, statutory responsibility, organisational structure, production quality control oversight, or delegation system may affect the basis and the scope of this IP. Accordingly, upon notice of such changes by the other Authority, each Authority may request a meeting to review the need for amendment to this document.
- 7.2 The Authorities agree to meet as necessary to review this IP and its continued validity. The frequency of these meetings will be mutually agreed by both Authorities, and will depend on the number and significance of the issues to be discussed between the Authorities.

8. COMMUNICATION

Communications between both Authorities, regarding the subjects covered by this IP, shall be forwarded to the address indicated below, unless otherwise specified by the Authorities:

8.1 AGÊNCIA NACIONAL DE AVIAÇÃO CIVIL - BRASIL

Superintendência de Aeronavegabilidade – SAR

Avenida Cassiano Ricardo, 521

Bloco B – 2º Andar – Jardim Aquários

12246-870 – São José dos Campos – SP - Brasil

Phone: 55 (12) 3797-2525

Fax: 55 (12) 3797-2330

Home page: www.anac.gov.br

E-mail: prodcert.arrang@anac.gov.br

8.2 DIRECTORATE GENERAL OF CIVIL AVIATION – DGCA

Aircraft Engineering Directorate

Directorate General of Civil Aviation – DGCA

Opposite Safdarjung Airport

New Delhi-110003

India

Phone: 91-11-24616853

Fax: 91-11-24623211

Home page: www.dgca.nic.in

E-mail: lalit.dgca@nic.in

9. LANGUAGE

Correspondence and documentation will be prepared and submitted in the English language unless otherwise specified by the Authorities by mutual agreement.

10. EXPENSE

According to each national legislation, government budget shall not be considered to cover any approval activities agreed upon this IP for both Authorities. Any expense is supposed to be supported by the applicant.

11. ENTRY INTO FORCE

This IP, or any amendment to its texts, shall go into effect upon the date of signature and will remain in force until terminated by either Authority. Such termination will be effected by sixty days written notification to the other Authority.

12. CERTIFICATION AUTHORITIES SIGNATURES

IN WITNESS WHEREOF, the undersigned, being duly authorized representatives of the respective Authorities have signed this Implementation Procedure done in duplicate in English and Portuguese. In case of divergence of interpretation the English version shall prevail.

FOR DIRECTORATE GENERAL OF
CIVIL AVIATION – DGCA

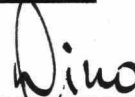
FOR SUPERINTENDÊNCIA DE
AERONAVEGABILIDADE – SAR
ANAC, BRAZIL

Original Signed by



Charan Dass
Joint Directorate General of Civil
Aviation

Original Signed by



Dino Ishikura
Airworthiness Superintendent

Date of signature: 13/6/ 2011

Date of signature: 29/04/ 2011

APPENDIX A

EXAMPLES OF CHANGES THAT SIGNIFICANTLY AFFECT THE APPROVED TYPE DESIGN

The following are examples of changes that are considered to significantly affect the type design approved by the Importing Authority:

- a) Significant changes to the cabin interior configuration;
- b) Modifications which would result in changes to the Importing Authority's Type Certificate Data Sheet;
- c) Modifications which would result in changes to the Limitations Section of the AFM or require an AFM supplement to be added as a result of aircraft modification;
- d) Modifications which result in aircraft configurations not addressed in the Importing Authority's accepted Flight Manual (including supplements);
- e) Modifications which results in changes to the Airworthiness Limitations of the Instructions for Continued Airworthiness;
- f) Modifications which have an impact on any Additional Technical Conditions prescribed by the Importing Authority;
- g) Modifications requiring (or affecting) Exemptions or Findings of Equivalent Safety; and
- h) Other modifications considered necessary by the manufacturer or the Exporting Authority.

APPENDIX B

SPECIAL PROCEDURES

B.1 VALIDATION OF DGCA CERTIFICATE OF AIRWORTHINESS

For the export of aircraft manufactured in Brazil, ANAC will receive a Standard Certificate of Airworthiness issued by DGCA, without date and after the airworthiness inspection done by ANAC-SAR, will validate the certificate with the date and give the same to the operator.