

# INSTRUÇÃO SUPLEMENTAR - IS

IS Nº 21-010

Revision B

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<b>Approved by:</b>	Portaria ANAC Nº 1.056/SAR, dated April 25 <sup>th</sup> , 2013, published in Diário Oficial da União nº 80, S/1, page 4, dated April 26 <sup>th</sup> , 2013.
<b>Subject:</b>	Procedures for Approval of Imported Civil Aeronautical Products

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	<b>Source:</b> SAR/GTPN
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## 1. OBJECTIVE

This “Instrução Suplementar” – IS provides guidelines on the special requirements and procedures for export of civil aeronautical products to Brazil.

## 2. REVOCATION

This “Instrução Suplementar” substitutes the IS nº 21-010 Revision A.

## 3. LEGAL BASIS

- 3.1 The 3<sup>rd</sup> paragraph of art. 68 of Law nº 7.565, dated December 19<sup>th</sup>, 1986 (“Código Brasileiro de Aeronáutica” – CBAer), establishes the need for aeronautical products certification, including those imported to Brazil.
- 3.2 The RBAC 21.29 establishes requirements regarding the validation of foreign type certificates. The RBAC 21.500 defines requirements for importing engines and propellers. The RBAC 21.617 deals with imported products that comply with a Technical Standard Order – TSO. Finally, the RBAC 21.502 reaches the other imported products.
- 3.3 And the RBAC 01 define the wording “I approve” like approved by the ANAC or by any other person which approval competence is recognized by the ANAC, in the subject matter, including other Civil Aviation Authorities.

## 4. DEFINITIONS

- 4.1 **State of Design:** the country which has jurisdiction over the organization responsible for the aeronautical product type design.
- 4.2 **Product:** An aircraft, engine or propeller, and its components.
- 4.3 **Validation:** the process performed by ANAC to issue its own certificate equivalent to the original type certificate (or supplemental type certificate), in order to find compliance with Brazilian airworthiness and environmental protection requirements.

## 5. SUBJECT DEVELOPMENT

### 5.1 Applicability

This IS is applicable to:

- a) All aircraft and all aircraft engines and propellers, including their design changes, to be exported to Brazil, when Brazil is not the State of Design; and
- b) All imported components to be installed in aircraft registered in Brazil.

### 5.2 General Information

5.2.1 According to RBAC 21.183 (c), to be eligible for a Brazilian Standard Airworthiness Certificate, an aircraft to be exported to Brazil, whether new or used, must:

- a) Be in accordance with a Type Certificate validated in Brazil (see guidelines in subsection 5.3 of this IS), except as described in paragraph 5.2.3; and
- b) Have an export airworthiness approval (usually, an export airworthiness certificate) issued by the exporting country.

5.2.2 To be eligible for installation in an aircraft with a Brazilian Standard Airworthiness Certificate, issued in accordance with the RBAC 21.183, an engine, propeller or any component exported to Brazil must:

- a) Be in accordance with a Type Certificate validated in Brazil (see guidelines in subsection 5.4 of this IS), except as described in paragraph 5.2.3; and
- b) Have an export airworthiness approval issued by the exporting country.

5.2.3 Certain aircraft models, aircraft engines or propellers exported to Brazil, when a Brazilian type certification was not required yet, may be eligible to an exemption from such certificate, in accordance with RBAC 21.29. In order to benefit from such exemption, the applicant should have an ANAC statement, recognizing the State of Design type certificate as equivalent to the Brazilian certificate. These provisions may be extended to another aircraft, engine or propeller model, as long as such model is considered by the ANAC as substantially similar, with respect to design and certification, to an aircraft, engine or propeller model considered as exempt. In order to make use of this treatment, the applicant must present all technical data that may be required by the ANAC.

5.2.4 A list of products that received the Brazilian type certificate and a list of products for which a foreign type certificate was recognized in Brazil are available at <http://www.anac.gov.br/certification>.

5.2.5 Except in the situations described in paragraph 5.2.6, to be eligible for installation in an aircraft with a Brazilian Standard Airworthiness Certificate, any change approved according to a foreign Supplemental Type Certificate must be validated in Brazil through the issuance of a Brazilian Supplemental Type Certificate (CST) as established in RBAC 21, based on the State of Design change approval (see guidelines in subsection 5.5 of this IS).

- 5.2.6 Major changes approved in accordance with foreign Supplemental Type Certificate, and already installed in the aircraft at the moment of the import, may be acceptable to the ANAC (see more guidelines in subsection 5.6 of this IS).
- 5.2.7 In order to be eligible for use in an aircraft with Brazilian Standard Airworthiness Certificate, or in an engine and a propeller operating in Brazil, the installation of any TSO / ETSO (or equivalent) article or component must be approved by the ANAC through (see more information in subsections 5.7 and 5.8 of this IS):
- a) A brazilian type certificate; or
  - b) A type certificate validated or recognized in Brazil; or
  - c) A brazilian supplemental type certificate (see IS-21-004); or
  - d) A validated foreign supplemental type certificate (see subsection 5.5 of this IS); or
  - e) A foreign supplemental type certificate, according to subsection 5.6 of this IS.

### **5.3 Procedures for Validation of Type Certificate for Imported Aircraft**

- 5.3.1 The ANAC application form F-300-11 (available at <http://www.anac.gov.br/certification>) or an application letter with the same information required by the form shall be completed by the foreign manufacturer of the concerned aircraft and forwarded to the ANAC through the State of Design Authority together with sufficient engineering information to permit ANAC to become acquainted with the type design.
- 5.3.2 The text of all special conditions issued by the State of Design Authority, as well as equivalent levels of safety and exemptions from airworthiness, noise or emissions requirements shall be made available to the ANAC for review and approval.
- 5.3.3 A compliance check list with the certification basis indicating, for each item of each requirement, how it was complied with (by test, analysis, calculation, design provisions, etc.) and the title and number of the corresponding substantiation document (report, drawing, specification, etc.) shall be made available to the ANAC for review. Additionally, these substantiation documents shall be presented, if required.
- 5.3.4 According to RBAC 21.41-I, the required markings and placards installed in passenger cabin, cargo, baggage or stowage compartments and in the aircraft exterior shall be presented in Portuguese or bilingual (Portuguese and English).
- 5.3.5 The Aircraft Flight Manual shall be identified as a Brazilian Aircraft Flight Manual and shall include a statement regarding its applicability to aircraft registered in Brazil. Alterations occasionally required to be incorporated in the Aircraft Flight Manual will be included directly on the affected pages of the Brazilian Aircraft Flight Manual.
- 5.3.6 The barometric setting units of the altitude indication instruments, including standby altimeters and cabin altitude indicators, shall be presented in "mbar" or "hpa". All other instruments must display usual and traditionally accepted units. However, the units used in the instruments shall be consistent with those presented in the Flight and Service Manuals. For the required markings and placards in Portuguese, the International System of Units or the

traditionally accepted alternative units (such as psi) shall be used.

- 5.3.7 An engineering review of the type certification program conducted in the foreign country shall be performed by the ANAC to establish the Brazilian requirements and special conditions for acceptance of the aircraft model. This review shall be conducted through meetings or by correspondence with the manufacturer and with the State of Design Authority representatives. At the end of such process, the ANAC will present a final validation report listing the requirements for acceptance of that aircraft model.
- 5.3.8 The data required by the ANAC are listed in the validation report mentioned in the previous paragraph and shall include all published documents (Aircraft Flight Manual, Maintenance and Repair Manuals, Illustrated Parts Catalogs, Wiring Diagrams, Weight and Balance Manuals, Service Bulletins, etc.) and non-published documents (engineering reports, drawings, manufacturer specifications etc.) deemed necessary to substantiate the Brazilian approval and support the continued airworthiness of the aircraft in Brazil.
- 5.3.9 The published documents shall be supplied in duplicate, one copy of which sent to the ANAC library in Rio de Janeiro – RJ and the other to the ANAC library in São José dos Campos – SP. Both addresses must be included in the manufacturer's mailing list to receive regular updates of such documents. The corresponding mail addresses are available at <http://www.anac.gov.br/certification>.
- 5.3.10 At least the following documents are also required for each delivered aircraft:
- a) Weight and Balance report;
  - b) Electrical load analysis alterations (with respect to the basic approved model);
  - c) List of applicable Airworthiness Directives (or equivalent document) indicating compliance status; and
  - d) Summary of maintenance, repairs and alterations performed during the aircraft life (for used aircraft only).
- 5.3.11 For the aircraft to operate, the compliance with the ANAC operational requirements and special applicable requirements for the intended flight operations in Brazil shall be established. These requirements may demand additional equipment installation. Such installations will be analyzed and approved by the ANAC during the engineering analysis mentioned in paragraph 5.3.7 above.
- 5.3.12 A Brazilian CT – "Certificado de Tipo" (Type Certificate) and the corresponding EA – "Especificação de Aeronave" (Type Certificate Data Sheet) will be issued upon compliance with the requirements established on the validation report referred to in paragraph 5.3.7 above.

#### **5.4 Procedures for Validation of Type Certificates for Imported Aircraft Engine or Propeller**

- 5.4.1 The ANAC application form F-300-11 (available at <http://www.anac.gov.br/certification>) or an application letter with the same information required by the form shall be completed by the foreign manufacturer of the concerned aircraft, engine or propeller, and forwarded

to the ANAC through the State of Design authority, together with sufficient engineering information to permit the ANAC to become acquainted with the type design.

- 5.4.2 The text of all special conditions issued by the State of Design Authority, as well as equivalent levels of safety and exemptions from airworthiness, noise and emissions requirements shall be made available to the ANAC for review and approval.
- 5.4.3 A compliance check list with the certification basis indicating, for each item of each requirement, how it was complied with (by test, analysis, calculation, design provisions, etc.) and the title and number of the corresponding substantiation document (report, drawing, specification, etc.) shall be made available to the ANAC for review. Additionally, these substantiation documents shall be presented, if required.
- 5.4.4 An engineering review of the type certification program conducted by the State of Design will be performed by the ANAC to identify the compliance with the Brazilian requirements and special conditions for acceptance of the aircraft engine or propeller model. This analysis will be conducted through meetings or by correspondence with the manufacturer and with the State of Design Authority representatives. At the end of such process, the ANAC will present a final validation report listing the requirements for acceptance of the aircraft engine or propeller models.
- 5.4.5 The data required by the ANAC are listed in the validation report mentioned in the previous paragraph and shall include all published documents (Installation and Operation Manual, Maintenance and Overhaul Manual, Illustrated Parts Catalog, Service Bulletins, etc.) and non-published documents (engineering reports, drawings, manufacturer specifications, etc.) deemed necessary to substantiate the Brazilian approval and support the continued airworthiness of the aircraft engine or propeller in Brazil.
- 5.4.6 The published documents shall be supplied in duplicate, one copy of which sent to the ANAC library in Rio de Janeiro – RJ and the other to the ANAC library in São José dos Campos – SP. Both addresses must be included in the manufacturer's mailing list to receive regular updates of such documents. The corresponding mail addresses are available at <http://www.anac.gov.br/certification>.
- 5.4.7 A Brazilian CT – "Certificado de Tipo" (Type Certificate) and corresponding "Especificação de Motor ou Hélice" (Type Certificate Data Sheet) will be issued upon compliance with the requirements established in the validation report referred to in item 5.4.4 above.

**5.5 Procedures for Validation of Supplemental Type Certificate for Imported Aircraft, Engine or Propeller**

- 5.5.1 The ANAC application form F-300-11 (available at <http://www.anac.gov.br/certification>) or an application letter with the same information required by the form shall be completed by the foreign holder of the supplemental type certificate and forwarded to the ANAC through the State of Design Authority, together with sufficient engineering information to permit the ANAC to become acquainted with the change introduced in the type design.
- 5.5.2 A copy of the supplemental type certificate and its addendum together with the text of all special conditions, equivalent levels of safety and exemptions from airworthiness, noise and emissions requirements shall be made available to the ANAC for analysis and approval.

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- 5.5.3 A compliance check list, or similar document, showing compliance with the requirements affected by the change, indicating, for each item, how it was complied with (by test, analysis, calculation, design provisions, etc.), and the title and number of the corresponding substantiation document (report, drawing, specification, etc.), shall be made available to the ANAC for review. Additionally, these substantiation documents shall be presented, if required.
- 5.5.4 The required markings and placards installed in passenger cabin, cargo, baggage or stowage compartments and in the aircraft exterior shall be presented in Portuguese or bilingual (Portuguese and English), unless otherwise prescribed by the ANAC.
- 5.5.5 The Aircraft Flight Manual Supplement shall be identified as a Brazilian Aircraft Flight Manual Supplement and shall include a statement regarding its applicability to aircraft registered in Brazil, unless otherwise prescribed by the ANAC (the original Aircraft Flight Manual Supplement approved by the State of Design Authority may be considered acceptable to the ANAC).
- 5.5.6 An engineering review of the supplemental type certification program conducted by the State of Design will be performed by the ANAC to identify the compliance with the Brazilian requirements and special conditions for acceptance of the change. This review will be conducted through meetings or by correspondence with the holder of the supplemental type certificate, or equivalent document, and with the State of Design Authority representatives. At the end of such process, the ANAC will present a final validation report listing the requirements for acceptance of the changed aircraft, engine or propeller model.
- 5.5.7 The data required by the ANAC are listed in the validation report mentioned in the previous paragraph and shall include all published documents (Aircraft Flight Manual, Maintenance and Repair Manuals, Illustrated Parts Catalogs, Wiring Diagrams, Weight and Balance Manuals, Service Bulletins, etc.) and non-published documents (engineering reports, drawings, manufacturer specifications, etc.) developed by the holder of the supplemental type certificate deemed necessary to substantiate the Brazilian approval and support the continued airworthiness of the changed aircraft registered in Brazil.
- 5.5.8 The alterations of the published documents shall be supplied to the ANAC. The ANAC must be included in the mailing list of the STC holder to receive regular updates of such documents. The mailing address is available at [www.anac.gov.br/certification](http://www.anac.gov.br/certification).
- 5.5.9 At least the following documents are also required for each delivered aircraft:
- Updated weight and balance report;
  - Updated electrical load analysis alterations (with respect to the basic changed model);
  - List of applicable Airworthiness Directives (or equivalent document) indicating compliance status (for the basic TC model and for the changed STC model); and



- d) Summary of maintenance, repairs and alterations performed during the aircraft life (for used aircraft only).

- 5.5.10 A Brazilian CST – "Certificado Suplementar de Tipo" (Supplemental Type Certificate) and the corresponding "Folha de Continuação" (Continuation Sheet) will be issued upon compliance with the requirements established in the validation report referred to in item 5.5.6 above.
- 5.5.11 If the applicant is the aircraft, engine, or propeller manufacturer, the supplemental type certificate program review findings may be added to the validation report referred to in paragraphs 5.3.7 or 5.4.4 above, and the corresponding ANAC acceptance included in the type certificate data sheet – see paragraphs 5.3.12 and 5.4.7, as applicable. In this case, no Brazilian CST is issued.
- 5.5.12 All articles for installation in aircraft registered in Brazil or in aircraft engines and propellers operating in Brazil, as part of a validated STC, must be approved according to this IS.

## **5.6 Acceptance of major change already installed in aircraft at the moment of the import**

- 5.6.1 A major change with foreign approval (through supplemental type certificate) may have its installation considered acceptable to the ANAC, in accordance with the paragraph 3.3, without the need for a Brazilian validation, in the following cases (except those described in paragraph 5.6.2 of this IS):

- a) Exempt aircraft from the type certification in Brazil (see paragraph 5.2.3 of this IS);
- b) Aircraft with Brazilian type certificate, with a major change approved through a supplemental type certificate (or equivalent document) issued by the United States of America, Canada or European Union, since the records show that this change has been incorporated, in this same aircraft, for more than:

I- 6,000 flight hours, for helicopter with maximum take-off weight ("Peso Máximo de Decolagem" – PMD) greater than 7,000 pounds (3,175 kg) or airplane with PMD greater than 12,500 pounds (5,670 kg); or

II- 600 flight hours, for the other aircraft.

- 5.6.2 The criterion described in paragraph 5.6.1 does not apply to cases in which the supplemental type certificate refers to fuel type exchange or to engines and/or propellers exchange to ones that do not have the Brazilian type certificate or are not exempt from the type certificate in Brazil. In these cases, there shall be validation of the type certificate of the propeller and engine and consequently validation of the supplemental type certificate.

- 5.6.3 It is important to feature that the acceptance described in this paragraph 5.6.1 is limited to the aircraft in which the major change is installed. The same major change, installed (or to be installed) in other situations not described in the above criterion shall be validated in Brazil.

- 5.6.4 Other modifications performed with foreign approval, using approved or acceptable tech-

nical data, not included in paragraphs 5.2.5 or 5.6.1, may be accepted during the initial airworthiness inspection, unless there is an identification of non-compliance with, within ANAC knowledge, the safety rules.

## **5.7 Procedures for OTP Marking or ANAC Design Approval for TSO/ETSO (or equivalent document) articles**

5.7.1 A Design Approval Letter – DAL may be issued when:

- a) The foreign manufacturer intends to mark its article as OTP (see RBAC 21.617 (d)); or
- b) The ANAC design approval has been requested, for products considered as critical or complex during the validation, type certification or supplemental type certification processes (see RBAC 21.617 (d)-I).

5.7.2 The Design Approval Letter may be issued if there is an import/export agreement for those articles between Brazil and the authority of the TSO/ETSO (or equivalent document) holder or, if there is no such agreement, if the ANAC finds that the requirements used in this country are equal to or exceed the performance requirements established in the applicable OTP, and that the article is produced according to quality control requirements similar to those established in RBAC 21.143.

5.7.3 The manufacturer must complete the ANAC form F-300-11 (available at <http://www.anac.gov.br/certification>), or send an application letter with the information required in the form, through the State of Design Authority. The application form or the application letter shall include the following information:

- a) All the required technical data/documentation pertaining to the proper installation, performance, operation, and maintenance of the TSO/ETSO (or equivalent document) article;
- b) Other specific technical data needed to demonstrate compliance with a TSO/ETSO standard (or equivalent document);
- c) Evidences of approval of all proposed deviations; and
- d) A statement from the applicant through its State of Design Authority, with certification by the State of Design Authority, that the performance of the article complies with the applicable TSO/ETSO (or equivalent document) or with other standards accepted by the ANAC as providing an equivalent level of safety.

5.7.4 The validation of a TSO/ETSO article (or equivalent) does not constitute automatic approval of the installation itself. The article installation shall be approved by the ANAC in accordance with paragraph 5.2.7 of this IS.

5.7.5 The import TSO/ETSO articles (or equivalent) shall come with an airworthiness approval for export (EASA Form 1, FAA Form 8130-3 or equivalent).



## **5.8 Aircraft, Engine or Propeller Components**

- 5.8.1 Aircraft, engine or propeller foreign components, with approval issued by a foreign authority (such as Parts Manufacturer Approval – PMA, TSO/ETSO, etc.), do not need a specific Brazilian approval. However, these products are eligible for installation in aircraft with Brazilian Standard Airworthiness Certificate or in aircraft engines and propellers operated in Brazil only when:
- a) Their approvals are issued by a foreign authority with an export/import agreement with the Brazilian authority; and
  - b) The product accompanies an Export Airworthiness Approval (EASA Form 1, FAA Form 8130-3 or equivalent).
- 5.8.2 The use of a component in an aircraft with a Brazilian Standard Airworthiness Certificate, or aircraft engines and propellers operated in Brazil, must have an installation approval (see paragraph 5.2.7 of this IS).

## **5.9 Continued Airworthiness**

The foreign manufacturer of a product which has received a Brazilian design approval according to subsections 5.3 through 5.7 shall be responsible for maintaining the ANAC informed of all relevant information regarding the continuous airworthiness of its product in Brazil. This shall include prompt remittance to ANAC of all information regarding hazardous service difficulties, corresponding design corrections, proposed operational precautions and Airworthiness Directives (or equivalent documents).

## **5.10 Export Airworthiness Approval**

- 5.10.1 According to sections 21.29, 21.500, and 21.502 of RBAC 21, each product exported to Brazil shall come along with an export airworthiness approval (Export Airworthiness Certificate, Authorized Release Certificate, or equivalent documents such as EASA Form 1 and FAA Form 8130-3), issued by the foreign authority according to its rules, stating the conformity with the Brazilian approved design (regarding the airworthiness, noise and emissions requirements) and with any other special requirements.
- 5.10.2 The following are considered Brazilian special requirements:
- a) The ones established in the final validation report or another document;
  - b) The operational requirements related to the intended operation, such as RBAC 91, 121 and 135; and
  - c) The operational requirements related to noise.
- 5.10.3 Certain non-conformities with the Brazilian requirements may be accepted by ANAC, as required. In case they are accepted, those non-conformities shall be evident in (or be attached to) the Export Airworthiness Approval.

**6. APPENDIX**

Appendix A – Reductions List.

Appendix B – Related Documents and Regulations List.

**7. FINAL DISPOSITIONS**

- 7.1 The neglected cases will be solved by the ANAC.
- 7.2 The content of this IS may not be completely applicable to situations whose subject is described in agreements between Brazil and other countries and between ANAC and another Civil Aviation Authority. In these situations, the corresponding agreement shall prevail.
- 7.3 This IS is enforced at its issuance date.

**APPENDIX A- REDUCTIONS LIST****A1. ABBREVIATIONS LIST**

a)	AN	<i>Army/Navy Specifications</i>
b)	ANAC	Agência Nacional de Aviação Civil
c)	CST	Certificado Suplementar de Tipo
d)	CT	Certificado de Tipo
e)	DA	Diretriz de Aeronavegabilidade
f)	DAL	<i>Design Approval Letter</i>
g)	EASA	<i>European Aviation Safety Agency</i>
h)	ETSO	<i>European Technical Standard Order</i>
i)	FAA	<i>Federal Aviation Administration</i>
j)	GGCP	Gerência-Geral de Certificação de Produto Aeronáutico
k)	GTPN	Gerência Técnica de Processo Normativo
l)	IS	Instrução Suplementar
m)	OTP	Ordem Técnica Padrão
n)	PMA	<i>Part Manufacturer Approval</i>
o)	PMD	Peso Máximo de Decolagem
p)	RBAC	Regulamento Brasileiro da Aviação Civil
q)	RBHA	Regulamento Brasileiro de Homologação Aeronáutica
r)	SAR	Superintendência de Aeronavegabilidade
s)	TSO	Technical Standard Order

**A2. UNITS LIST**

a)	mbar	Milibar
b)	hPa	Hectopascal
c)	lb	Pounds
d)	kg	Kilogram

**APPENDIX B – RELATED DOCUMENTS AND REGULATIONS LIST****B1. RELATED REGULATIONS LIST**

- a) RBAC 01 – Definições, regras de redação e unidades de medida (Definitions, writing rules and measurement units).
- b) RBAC 21 – Certificação de Produto Aeronáutico (Aeronautical Product Certification).
- c) RBHA 91 – Regras Gerais de Operação para Aeronaves Civis (General rules for civil aircraft operation).
- d) RBAC 121 – Requisitos Operacionais: Operações Domésticas, de Bandeira e Suplementares (Operating requirements: domestic, flag and Supplemental operations).
- e) RBAC 135 – Requisitos Operacionais: Operações Complementares e por Demanda (Operating requirements: commuter and on-demand operations).

**B2. RELATED DOCUMENTS LIST**

- a) MPR-900 volume 04 – Manual do Inspetor – Equipamentos de Aeronave e Autorizações Operacionais (Inspector Handbook – Aircraft Equipments and Operational Authorizations).