

**Administrative arrangement on product certification between
Departamento de Aviação Civil (DAC), Centro Técnico Aeroespacial (CTA)
of Brazil**

And

The European Aviation Safety Agency (EASA)

February 2006



1 Introduction

This Administrative Arrangement for Certification under Regulation (EC) 1592/2002, article 18, has been agreed upon between, on the one part, the Departamento de Aviação Civil (DAC), the Centro Técnico Aeroespacial (CTA) of Brazil, hereafter called DAC/CTA, and the European Aviation Safety Agency (EASA) on the other part.

DAC/CTA and the EASA (hereafter called the Parties) have agreed as follows.

- 1.1 The Parties have agreed to this Arrangement with regard to aeroplanes, parts and appliances for these aeroplanes designed and manufactured by Embraer (or its subcontractors), which confirms that the DAC/CTA is prepared to support the EASA as airworthiness authority of the importing Member States of the European Community (EC).
- 1.2 The Parties will work in accordance with the procedures of this Arrangement from the date at which it has been signed by the Parties, until it is revised by mutual agreement of the Parties or replaced by some other Arrangement or terminated by one of the Parties.
- 1.3 This Arrangement has been developed to satisfy Commission Regulation (EC) No 1702/2003 of 24 September 2003, in particular its Annex, Part 21.

2 General

The EASA has determined that the rules, standards, practices, procedures and system for the DAC/CTA approval and monitoring of design, production organisations and continued airworthiness are an acceptable alternative to Part 21, in accordance with Commission Regulation (EC) No 1702/2003, articles 3.2 and 4.2.

Therefore and without prejudice to the obligation of each Party under its own regulations, the purpose of this Arrangement is:

- 2.1 To eliminate redundant review of reports, duplication of inspections, tests and test demonstrations, evaluations and approvals, thereby enabling maximum acceptance of DAC/CTA findings by the EASA.
- 2.2 To define the detailed procedures to be followed for the various Subparts of Part 21.
- 2.3 The EASA recognises the DAC/CTA designee approval system as part of the overall aircraft certification system. Findings made pursuant to this Agreement by the designee approval system are given the same validity as those made directly by DAC/CTA. DAC/CTA understands that there may be occasional situations where, upon prior communication to DAC/CTA, the EASA may interact directly with an individual designee. In advance of designees travelling to the Member States of the

European Community to make findings of compliance and/or perform conformity inspections, DAC/CTA will co-ordinate designee activities with the EASA.

- 2.4 In accomplishing their regulatory responsibilities, DAC/CTA, as exporting authority, may seek assistance from other competent airworthiness authorities in making type, production and airworthiness findings of compliance, and in conducting routine production and surveillance and audits, as long as the conditions stated in paragraph 2.5 are met in all programs. The use of other competent authorities in no way diminishes the responsibility of DAC/CTA for assuring full compliance with their obligations under this Arrangement, and in no way diminishes its responsibilities under the Chicago Convention on International Civil Aviation (ICAO).
- 2.5 The DAC/CTA agrees that it will comply with following conditions relative to utilising the assistance of other authorities:
- (a) The DAC/CTA, as exporting authority, must be accountable for all certification work which uses other authorities, including the resolution of all technical and program issues. Also, DAC/CTA must accept full responsibility for all findings of compliance made on behalf of the EASA, as importing authority, whether made by itself or other competent authorities staff utilised in the process.
 - (b) Where a bilateral agreement or arrangement document does not exist between the DAC/CTA or EASA and any other authorities used in the process, the EASA, has the right to review and accept the technical capabilities of the other assisting authorities' staff.
 - (c) The other authorities staff used for assistance must have previous experience with the class and category of aeroplane, part or appliance being assessed.

3 Definitions

The definitions listed below apply also to the Appendices to this Arrangement. The definitions apply for this document and are not always consistent with other EASA/EC and Brazilian Aviation Regulations (RBHA) definitions.

- 3.1 **"Approved by the Authority"** means the approval, acceptance, authorisation, certification or licensing of the organisation, person, aeroplane, part or appliance or document either directly or in accordance with a delegation procedure.
- 3.2 **"Airworthiness Approval"** means granting an airworthiness certificate, approval or acceptance, as appropriate, by or on behalf of the Authority for a particular aeroplane, new parts, including modifications and/or replacements parts, to permit its use consistent with its applicable laws, regulations, standards and requirements.
- 3.3 **"Airworthiness Requirements"** means requirements governing the design, performance, materials, workmanship, manufacture, maintenance or modification of aeroplanes, parts or appliances as prescribed by the EASA to enable it to find that the

design, manufacture and condition of these aeroplanes, parts or appliances comply with its own laws, regulations, standards and requirements concerning airworthiness.

- 3.4 **"Critical Component"** 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, or when failure analysis shows that the component must achieve and maintain a particular high level of integrity if hazardous effects are not to occur at a rate in excess of extremely remote.
- 3.5 **"Design-related Operational Requirements"** means operational or environmental requirements related to design features of an aeroplane or data on its design relating to its operation or maintenance that make it eligible for a particular kind of operation.
- 3.6 **"Environmental Requirements "** means requirements governing the design, performance, materials, workmanship, manufacture, maintenance and modification of aeroplanes prescribed by the EASA to ensure compliance with the laws, regulations, standards and requirements concerning aeroplane noise and aeroplane engine exhaust emissions.
- 3.7 **"JAA Aeroplane"** means an aeroplane designed and manufactured by Embraer and certificated by the JAA applying the Joint Certification/Validation Procedures (JCVP).
- 3.8 **"Type Design"** as defined in 21A.31 of Part 21.
- 3.9 **"Type Design Approval"** means granting a certificate, approval or acceptance by or on behalf of the Authority for the type design of an aeroplane.
- 3.10 **"Validation"** means Type Certification, or equivalent, of an aircraft following a simplified investigation process by the EASA, based on DAC/CTA Type Certification and focusing on the EASA LOD.
- 3.11 **"The EASA initial List of Differences (EASA initial LOD)"** means the list of those conditions in the EASA Certification Basis which are different from the DAC/CTA Certification Basis that are necessary to account for all differences between the applicable certification regulations of the DAC/CTA and the EASA implementing rules and airworthiness codes.
- 3.12 **"The EASA List of Differences (EASA LOD)"** means the list of those conditions in the EASA Certification Basis which are different from the DAC/CTA Certification Basis that are necessary to account for all differences between the applicable certification regulations of the DAC/CTA and EASA implementing rules, airworthiness codes and acceptable means of compliance.
- 3.13 **"The EASA List of important Differences (EASA LOID)"** means the list of those conditions in the EASA Certification Basis which are different from the DAC/CTA Certification Basis that are necessary to account for all important differences between the applicable certification regulations of the DAC/CTA and EASA implementing rules, airworthiness codes and acceptable means of compliance. A difference will be

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

- 3.14 “Certification Action Items (CAI)”** means a method for describing and tracking the resolution of type certification items requiring special attention occurring during the EASA validation program and post TC activities.

CAIs shall be developed and issued for the following:

1. To review the suitability of a proposed demonstration of compliance for specific requirements.
2. To identify areas and justify extent of direct involvement in the compliance finding process by the EASA.
3. To provide the DAC/CTA adequate material to verify compliance demonstrations with EASA Differences.

Note: The corresponding DAC/CTA document is called “Ficha de Controle de Pendência” (FCP).

- 3.15 “Certification Review Item (CRI)”** means a major certification subject and will be raised in the following cases:

1. To record the process followed to define and record the content of the EASA certification basis identifying the nature of each requirement.
2. To develop and administer EASA Special Conditions.
3. To administer new EASA policies, e.g. means of compliance, interpretations.
4. To administer equivalent safety findings or exemptions.
5. To identify the EASA LOD items.
6. To deal with novel and unusual design features.
7. To record the application of new EASA requirements, if different from DAC/CTA requirements.
8. To record controversial subjects.
9. To list specific design changes required for compliance with the EASA certification basis.

Note: The corresponding DAC/CTA document is called: “Ficha de Controle de Assuntos Relevantes” (FCAR)

- 3.16 “DAC/CTA Findings of Compliance”** means the normal DAC/CTA certification and approval process of evaluating the aeroplane to verify compliance with the Certification Basis.

4 Scope

This Arrangement covers under the provisions set forth in the following paragraphs and appendices:

1. the acceptance of new and used aeroplanes produced by Embraer Empresa Brasileira de Aeronáutica S.A. for which the EASA has issued a Type Certificate or recognised a Type Certificate issued under the auspices of JAA procedure,

2. aeroplane types/models for which EASA Type Certification has been applied for, and
3. new parts and appliances for these aeroplanes.

In addition this Arrangement covers the approval of Supplemental Type Certificates issued in the name of Embraer for the aeroplane types/models whose approval is listed in Appendix 1 of this Arrangement.

5 Working Procedures

See Appendices 1, 2, 3, 4, 5, 6, 7 and 8.

6 Continued Airworthiness

- 6.1 DAC/CTA shall undertake the responsibilities for support of the continuing airworthiness of the aeroplanes identified in Appendix 1 that these are in accordance with ICAO Annex 8, Part II.
- 6.2 All relevant design and production information, drawings and test reports, including inspection records for the aeroplanes tested, shall be held by the design or production approval holders at the disposal of the DAC/CTA and shall be retained in order to provide the information necessary to ensure the continued airworthiness of the aeroplanes. This information is available from the design or production approval holders via the DAC/CTA upon request from the EASA.

7 Mutual Co-operation and Assistance

- 7.1 In respect of aeroplanes designed and manufactured by Embraer, the DAC/CTA shall on request assist the EASA in determining whether the design of major changes, or repairs made under the control of the EASA, comply with the applicable airworthiness and environmental standards of the EASA.
- 7.2 The DAC/CTA and the EASA recognise that revision by the DAC/CTA 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 Arrangement. Accordingly, upon notice of such changes by the DAC/CTA, the EASA may request a meeting to review the need for amendment to this Arrangement.
- 7.3 The DAC/CTA and the EASA agree to meet as necessary to review this Arrangement 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.
- 7.4 When either the DAC/CTA or EASA needs information for the investigation of service incidents, accidents, or suspected unapproved parts involving an aeroplane imported under this Arrangement, the request for information shall be directed to the

appropriate office of the Parties. In turn, upon receipt of the request for information the Party shall immediately do everything necessary to make sure the requested information is provided in a timely manner. If urgency requires that the EASA requests the information directly from the manufacturer because immediate contacts cannot be made with the DAC/CTA, the EASA shall inform the DAC/CTA of this action as soon as possible.

8 Interpretation

Any disagreement regarding the interpretation or application of this Arrangement shall be resolved by common accord, in the following order, between:

- 8.1** The persons in charge of the implementation of this Arrangement within DAC/CTA and the EASA.

For this purpose the following persons are identified herewith (to be communicated in writing between the contracting Parties):

For DAC/CTA: The Head of the Aeronautical Certification Division (CTA-IFI-FDH)

For the EASA: The Certification Director

- 8.2** The executive agents (or their successors) who signed this Arrangement.

- 8.3** In the case of conflicting interpretations of the laws, airworthiness regulations/standards, requirements, or acceptable means of compliance pertaining to certifications, approvals or acceptance under this Arrangement, the interpretation of the airworthiness authority whose law, regulation/standard, requirement, or acceptable means of compliance is being interpreted shall prevail.

9 Implementation

In implementation of this Arrangement the DAC/CTA and the EASA will develop and apply principles/procedures relating to specific Subparts of Part 21 which will be added to this Arrangement as Appendices.

When these principles/procedures have been agreed between the DAC/CTA and the EASA this Arrangement will be implemented in accordance with its provisions.

In addition, validation project specific information procedures may be developed, when found necessary.

The Parties will jointly review this Arrangement from time to time and may amend it as appropriate by written agreement.

For any activity under this Arrangement in accordance with Brazilian law, any expense is deemed to be supported by Embraer as the applicant for the TC, STC or major change thereof.

10 Entry into Force

This Arrangement shall enter into force at the date of signature by all concerned Parties of this Arrangement.

11 Duration and Termination

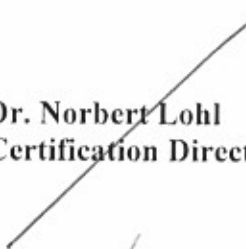
Either Party may at any time give written notice to the other Party of its decision to terminate this Arrangement. This Arrangement shall terminate twelve months following the date of receipt of the notice by the other Party, unless the said notice of termination has been withdrawn by mutual agreement before the expire of this period.

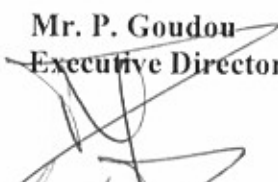
12 Authorities

The Parties agree to the provisions of this Arrangement as indicated by the signature of their duly authorised representatives or executive agents.


Signed inon 22 February 2006 on behalf of:

European Aviation Safety Agency (EASA)

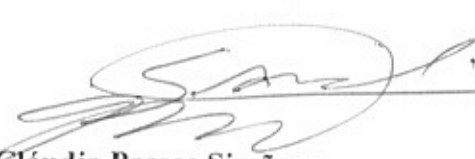

Dr. Norbert Lohl
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Mr. P. Goudou
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Mr. Marcos Tarcísio M. dos Santos
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Division Chief

Sebastião G. M. Cavati
Ten Cel Av
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APPENDICES WITH DETAILED PRINCIPLES/PROCEDURES

Appendix 1 (Issue 1)

Listing of Applicable Aeroplane Types/Models

Appendix 2 (Issue 1)

Type Certification of imported Aeroplanes Reference Part 21, Section A, Subpart B

Appendix 3 (Issue 1)

Changes to Type Certificates Reference Part 21, Section A, Subpart D

Appendix 4 (Issue 1)

Supplemental Type Certificates Reference Part 21, Section A, Subpart E

Appendix 5 (Issue 1)

Conformity with Design..... Reference Part 21, Section A, Subparts F and G

Appendix 6 (Issue 1)

Certificates of Airworthiness for imported Aeroplanes.....Reference Part 21, Section A, Subpart H

Appendix 7 (Issue 1)

Imported Parts and AppliancesReference Part 21, Section A, Subpart K

Appendix 8 (Issue 1)

Identification of Products, Parts and AppliancesReference Part 21, Section A, Subpart Q

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Appendix 1 (Issue 1)

Listing of Applicable Aeroplane Types/Models

1. Eligible Types/Models

This Arrangement is applicable to EASA acceptance of DAC/CTA export certificates of airworthiness for the following aeroplane types/models listed as approved:

EMB-145/135 family

Model	JAA Application	JAA 'Approval'
EMB-145	23 November 1993	20 May 1997
EMB-145ER	23 November 1993	20 May 1997
EMB-145EP	12 August 1997	14 November 1997
EMB-145EU	23 November 1993	20 May 1997
EMB-145LR	10 October 1997	18 December 1998
EMB-145LU	08 March 1999	19 April 1999
EMB-145MP	09 February 1999	12 June 2000
EMB-145MK	03 March 2000	19 December 2001
EMB-145XR	15 December 2000	---
EMB-135ER	14 April 1998	25 October 1999
EMB-135LR	5 June 1998	25 October 1999
EMB-135KE	23 November 1999	---
EMB-135KL	23 November 1999	---
EMB-135BJ	05 January 2000	05 July 2002

EMB 170/190 family

Model	JAA Application	EASA 'Approval'
EMB 170-100SL	21 May 1999	---
EMB 170-100ECJ	21 May 1999	---
EMB 170-100STD	21 May 1999	---
EMB 170-100LR	21 May 1999	---
EMB 170-100IGW	21 May 1999	---
EMB 170-200STD	21 May 1999	---
EMB 170-200LR	21 May 1999	---
EMB 170-200IGW	21 May 1999	---
EMB 190-100SU	21 May 1999	---
EMB 190-100LU	21 May 1999	---
EMB 190-100STD	21 May 1999	---
EMB 190-100LR	21 May 1999	---
EMB 190-100IGW	21 May 1999	---
EMB 190-100ECJ	21 May 1999	---
EMB 190-200SU	21 May 1999	---
EMB 190-200LU	21 May 1999	---
EMB 190-200STD	21 May 1999	---
EMB 190-200LR	21 May 1999	---
EMB 190-200IGW	21 May 1999	---

EMB-500/505 family

Model	EASA Application	EASA 'Approval'
EMB-500	7 November 2005	---
EMB-505	7 November 2005	---

Appendix 2 (Issue 1)

Type Certification of imported Aeroplanes

1. Introduction

The procedures described in this Appendix are applicable to Embraer aeroplanes (to be) certificated by DAC/CTA as the authority of the State of Design and validated by EASA applying the Joint Certification/Validation Procedures, amended as necessary to satisfy the provisions of the EASA Regulation and its Implementing Rules.

2. Application for EASA Type Certification

An application for EASA Type Certificate for an aeroplane from Embraer shall be made in accordance with Part 21, Section A, Subpart B and Joint Certification/Validation Procedures. Applications may be submitted for aeroplanes with DAC/CTA Type Certificate, or for aeroplanes where application for type certification has been accepted by DAC/CTA. DAC/CTA shall ensure the application has the following information:

1. The DAC/CTA Type Certificate and TC Data Sheet, if available, and a definition of the national airworthiness standards upon which the DAC/CTA design approval was (or is to be) based, and the EASA airworthiness standards DAC/CTA believes to be satisfied by its own standards; and
2. A planning date for EASA type certification.

Also the application shall contain the following information if known at the time of the application:

3. A description of all novel or unusual design features known to Embraer and DAC/CTA at the time of application which might necessitate issuance of EASA special conditions under 21A.16B of Part 21, or which might require a special review of acceptable means of compliance; and
4. All known or expected exemptions or equivalent level of safety findings relative to the DAC/CTA's national standards for design approval that might affect compliance with the applicable EASA airworthiness standards.

The DAC/CTA shall forward the application to EASA in the manner prescribed by EASA.

3. DAC/CTA and EASA Communications and Procedures

All formal correspondence between DAC/CTA and EASA will be between the DAC/CTA Type Certification Co-ordinator and EASA Project Certification Manager (PCM), as nominated for each project for which EASA certification has been applied for by Embraer.

Direct informal discussion at the technical specialist level is necessary and may include the exchange of technical information.

The EASA will notify the DAC/CTA of any meeting(s) it has with Embraer and/or its suppliers as arranged through Embraer on certification matters. The EASA shall indicate those meetings particularly warranting CTA attendance. For all other meetings, CTA has the right to attend, and CTA will notify EASA of their attendance.

4. EASA Responsibilities

The EASA Certification Basis will be notified to the DAC/CTA and Embraer.

The EASA will establish the EASA List of Differences (LOD) and notify the DAC/CTA and Embraer in writing of that LOD and changes thereto (see Figure 1). The EASA will provide the DAC/CTA with appropriate acceptable means of compliance and guidance material to enable the DAC/CTA to find compliance, on behalf of the EASA, with these conditions.

The DAC/CTA and EASA will agree upon a date by which the delegation to the DAC/CTA for findings of compliance with the LOD items must be complete.

For the purpose of administering the findings of compliance (e.g. the interpretations to be applied, the means of compliance agreed, and the stage at which the compliance finding was delegated to the DAC/CTA) with LOD items, the EASA shall issue Certification Action Items (CAIs).

The EASA will identify as early as possible from the LOD the subjects for which the EASA wish to be involved to some degree directly in the demonstration of compliance findings, by issuing a CAI. The EASA will inform the DAC/CTA in writing of the EASA conclusions concerning its investigation. The EASA is to notify DAC/CTA and Embraer of any test witnessing in which it elects to participate.

The EASA will provide a Summary List and a copy of all Certification Review Items (CRIs) and CAIs, and revisions thereof, to the DAC/CTA, including copies of EASA correspondence with Embraer relating to CRIs and CAIs.

The EASA will notify the DAC/CTA (with copy to Embraer) concerning the status of each CRI or CAI and will request formal DAC/CTA and Embraer position statements.

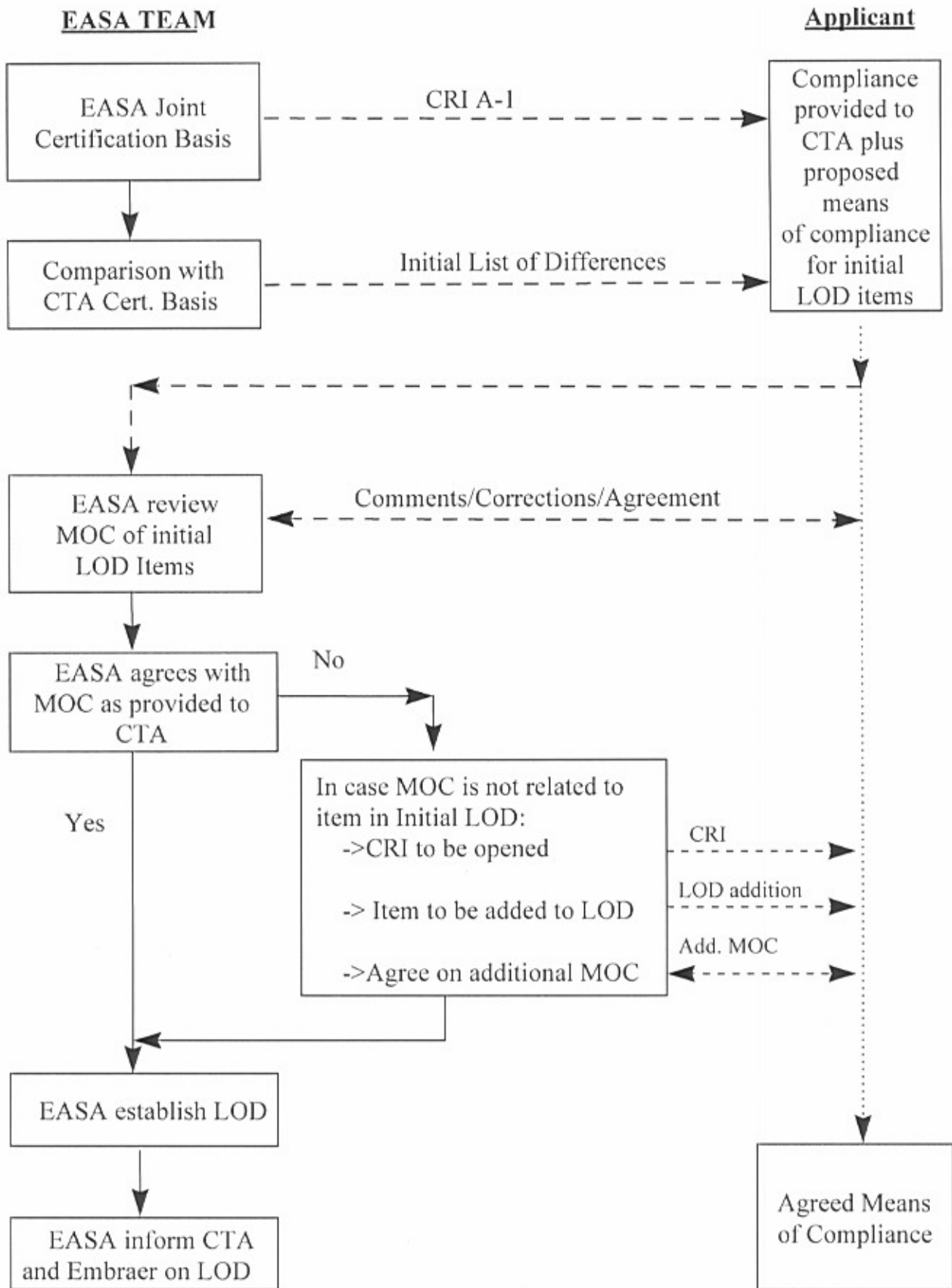
The EASA will contact the DAC/CTA to discuss or clarify any aspect of FCAR's and FCP's raised by the DAC/CTA and reissues thereof, which are of specific interest.

The EASA will provide Embraer and the DAC/CTA with the List of important Differences (LOID). The only purpose of this list is to have an accessible overview of all important differences as noted by the EASA for the type validation of the aeroplane.

See Figure 1 for communications route: EASA LOD items.

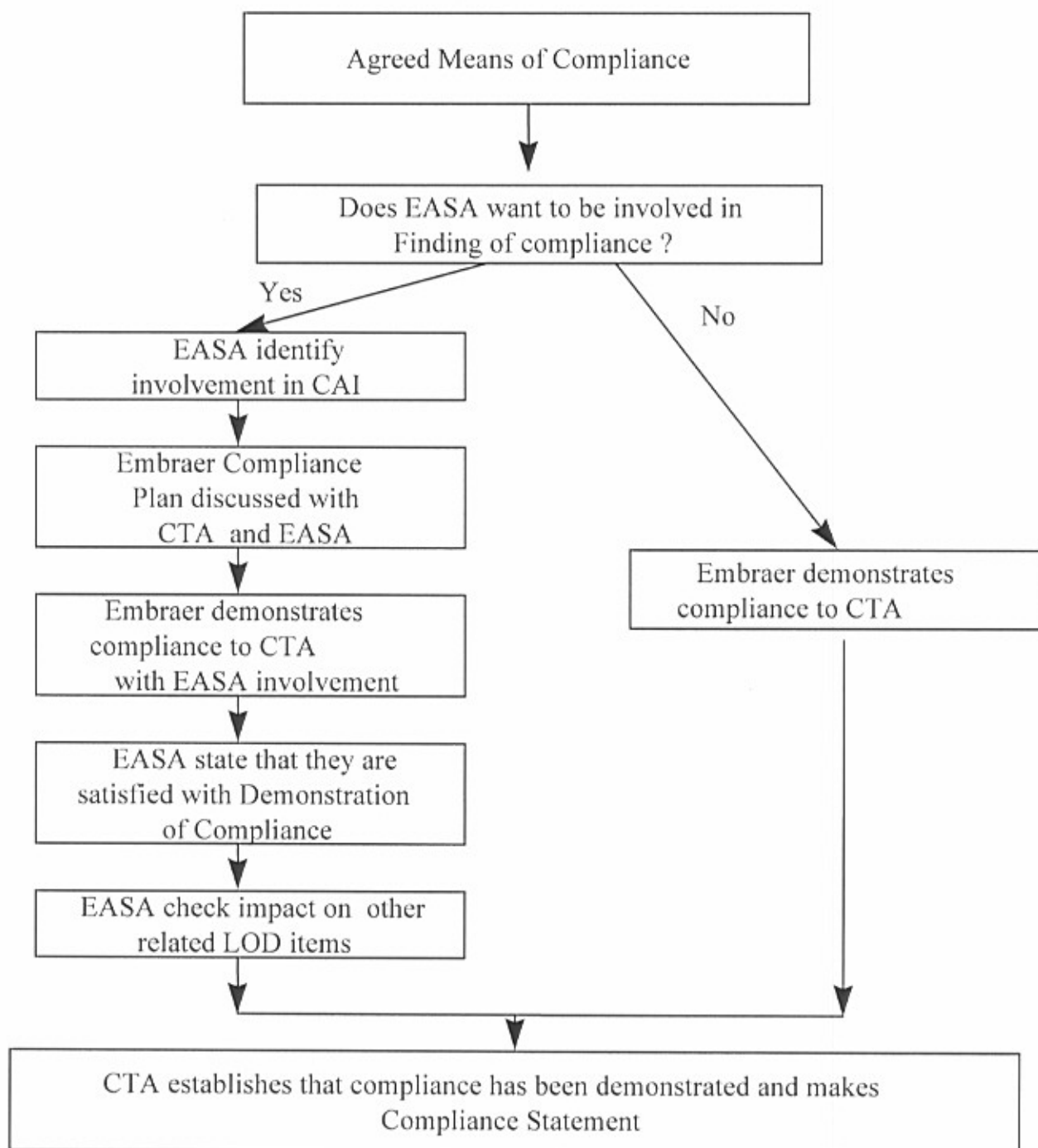
See Figure 2 for communications route: EASA Involvement

FIGURE 1: COMMUNICATIONS ROUTE - EASA LOD ITEMS



CAW
H

Figure 2: COMMUNICATIONS ROUTE - EASA INVOLVEMENT



5. DAC/CTA Responsibilities

DAC/CTA will find compliance with EASA LOD items using EASA acceptable means of compliance and guidance material (see paragraph 3 above).

DAC/CTA will initiate comments on CRIs and CAIs for which EASA has requested DAC/CTA position statements, or as considered appropriate by the DAC/CTA.

DAC/CTA will provide EASA with a formal statement attesting that DAC/CTA has determined that compliance has been demonstrated with DAC/CTA certification basis plus the EASA LOD as notified by EASA.

DAC/CTA will provide EASA with the FCAR's and revisions thereof and will keep EASA informed on the status of the certification program, including progress, schedules, problems and significant certification issues.

6. EASA Test Witnessing

The EASA will notify DAC/CTA and Embraer concerning requests for conducting or witnessing tests by DAC/CTA on behalf of EASA and will identify the EASA approved test program to be used. DAC/CTA will verify the reported certification test results and will forward them to the EASA. The EASA will review these test results and notify DAC/CTA (with copy to Embraer) of their conclusions.

The EASA may request DAC/CTA to approve the test program and/or the test results report on behalf of the EASA.

7. Documentation

7.1 Documents associated with Type Certification requiring formal approval by EASA

During the certification process, there are documents which require formal approval by the EASA. These documents are:

1. Test Programs for which the test witnessing has been retained by EASA;
2. Compliance documents on subjects which have been retained by the EASA;
3. EASA Aeroplane Flight Manual (AFM);
4. EASA Airworthiness Limitations; and
5. EASA Certification Maintenance Standards and Requirements.

7.2 Aeroplane Flight Manual Approval Procedure

The AFM will be processed under the applicable EASA certification procedures. The EASA will review the relevant DAC/CTA AFM, including any Supplements or Appendices. The EASA will provide comments on the content to Embraer and the DAC/CTA.

Embraer will collate the comments and produce EASA AFM pages where relevant.

A complete EASA AFM (DAC/CTA AFM amended with the relevant EASA AFM pages) will then be submitted to the EASA for further review. When EASA is satisfied that this AFM meets the specific EASA requirements, it will request the DAC/CTA to sign approval on behalf of EASA.

Appendix 3 (Issue 1)

Changes to Type Certificates

1. Introduction

These procedures apply to aeroplanes for which the EASA has issued the recommendation letter for type approval based on the results of the Type Certification of imported aeroplanes, as required by Appendix 2 of this Arrangement.

Purpose of this Appendix is to lay down procedures for the approval of changes to Type Designs, Type Certificates and associated Flight Manual amendments that are voluntarily generated by Embraer.

2. Post Type Certification Procedures

2.1 Design Changes other than AFM Revisions

For the purpose of this procedure Design Changes are classified as **Major or Minor**. Embraer proposed classification of the Design Change shall be reviewed and agreed by DAC/CTA.

Major Design Changes are design changes as defined by RBHA 21.93 and 21A.91 of Part 21. For example design changes which have an effect on:

1. Approved Airworthiness Limitations;
2. Type Certificate Data Sheet;
3. The Master Minimum Equipment List (MMEL);
4. Certification Maintenance Requirement (CMR);
5. Level of safety demonstrated for Type Certification;
6. Means of Compliance.

Minor Design Changes are all other changes not classified as a Major Design change.

Design Changes classified as Major will be further categorised by DAC/CTA as **Level 1 Major Design Change** or **Level 2 Major Design Change** as defined below.

Level 1 Major Design Changes:

1. Design Changes having an effect on the DAC/CTA or EASA Type Certification Basis or involving new interpretations of the requirements, new special conditions new equivalent safety findings or novel methods of compliance.

Note: A method of compliance would be considered to be 'novel' if it had not been applied previously in a similar context by both the DAC/CTA and the EASA.

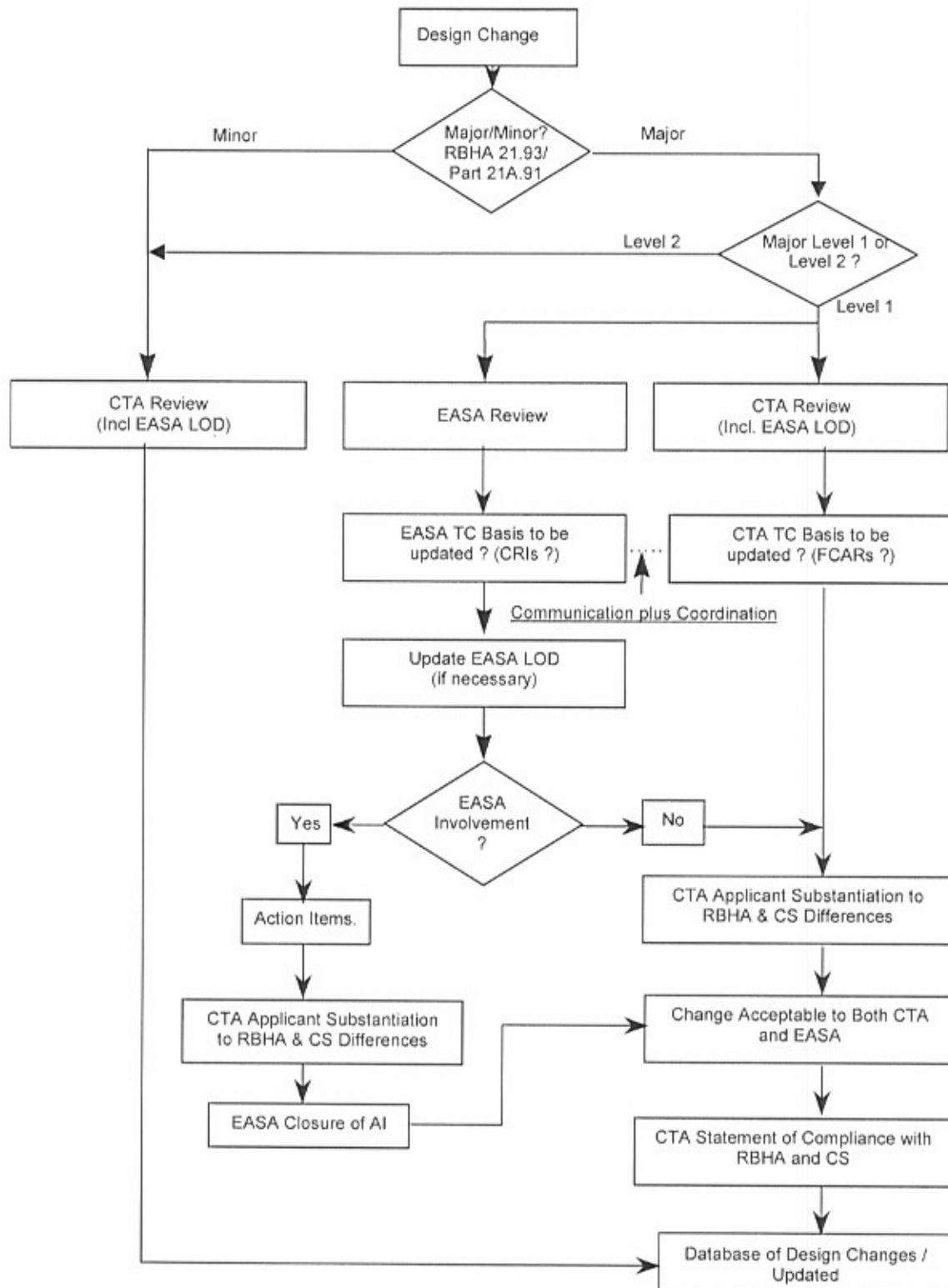
2. Design Changes involving a EASA LOD Item and involving the use of a method of compliance different from those agreed by DAC/CTA and the EASA for use in the basic certification/validation.
3. Design Changes involving a EASA LOD Item for which the EASA has retained the responsibility for the compliance determination.
4. Design Changes involving approved manual revisions covering:
 - (a) Initial issues of new manuals, appendices or supplements.
 - (b) Introduction of configurations not previously approved by the EASA.
 - (c) Existing differences between DAC/CTA and EASA approved manual content.
5. Changes having an effect on the environmental approval.
6. Any other Design Change categorised as Level 1 Major by EASA after consultation with DAC/CTA.

Level 2 Major Design Changes are all other Major Design Changes not categorised as a Level 1 Major Design Change.

All Design Changes shall be approved by DAC/CTA before an aeroplane, with such a Design Change installed, is exported to a Member State of the European Community. The EASA may specify the requirements for the acceptance of Major Design Changes.

See figure 1 for Communications Route for Design Changes

**Design Changes Communications Route
Under EASA-CTA Arrangement**



Handwritten signature/initials

2.2 AFM Revisions

The DAC/CTA will review all proposed revisions to DAC/CTA AFM pages and EASA pages. In conjunction with Embraer, DAC/CTA will categorize revisions into **Significant** or **Minor**.

Significant revisions shall be submitted to EASA for review and acceptance before DAC/CTA signature on behalf of EASA. In this case EASA will take primary responsibility for ensuring that the data fully meets EASA requirements and regulations. DAC/CTA will only carry out an overview and highlight to EASA an unacceptable situation that is noted.

Minor revisions shall be submitted to DAC/CTA for review and approval/signature on behalf of EASA. In this case DAC/CTA will take primary responsibility for ensuring that the data meets EASA requirements and regulations.

2.3 Classification of AFM Revisions

The initial classification will be made by Embraer and agreed by the DAC/CTA. During the review of a minor revision the DAC/CTA shall, if necessary, change the classification to significant.

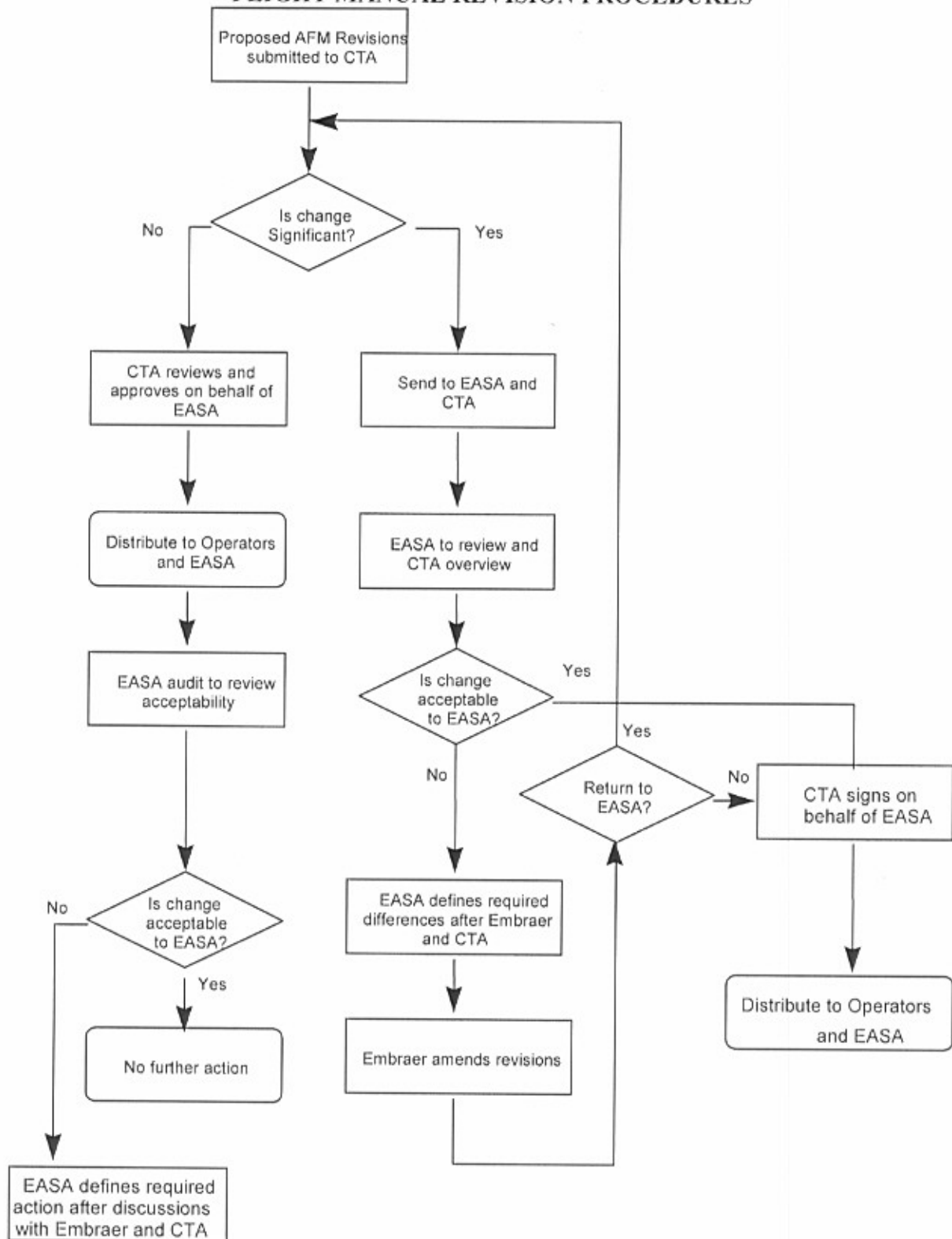
Significant revisions: The following criteria shall be used to identify significant revisions of the AFM:

1. AFM revisions which affect the Type Certificate Data Sheet.
2. Initial issues of new Supplements or Appendices to the AFM
3. AFM revisions associated with major modifications of the EASA approved Type Design.
4. Revisions related to paragraphs where CS 25 and RBHA 25 are significantly different (EASA LOD Items) and DAC/CTA have not previously been involved in the finding compliance on behalf of the EASA.
5. Revisions which may impact on known Interim Policies & Temporary Guidance Material, differences in Type Design, or existing AFM differences.
6. Other revisions deemed by the DAC/CTA to require EASA review.

Minor revisions: All revisions of the AFM that do not fall within the agreed guidelines for significant revisions of the AFM as detailed above.

See Figure 2 for Communication Route for Flight Manual Revision Procedures

Figure 2
FLIGHT MANUAL REVISION PROCEDURES



3. EASA Responsibilities

The EASA may prescribe EASA Differences complementary to the EASA LOD used for the certification of the basic model. The EASA will notify DAC/CTA in writing of these Differences.

Where the EASA has determined the need for the EASA involvement in a Major Level 1 Design Change, the EASA will notify DAC/CTA in writing accordingly of the actions to be taken by means of a CAI. If no involvement is required, the EASA will notify it to DAC/CTA.

4. DAC/CTA Responsibilities

DAC/CTA will notify the EASA in writing, with DAC/CTA endorsement, of all Design Changes classified as Level 1 Major by DAC/CTA. Unless the EASA determines the need for EASA involvement in a Major Level 1 Design Change, DAC/CTA will verify and state to the EASA that compliance has been demonstrated with the DAC/CTA certification basis plus the EASA LOD plus the Differences as notified by the EASA.

For Minor Design Changes DAC/CTA will ensure that compliance with the DAC/CTA certification basis plus the EASA LOD has been determined prior to their incorporating in the EASA approved type design of the aeroplane.

In addition DAC/CTA shall approve the following documents taking into account the EASA Certification Basis and the EASA approved Type Design of the aeroplane:

1. Service Bulletins,
2. Continuing Airworthiness Instructions, including Airworthiness Directives (ADs), and
3. Approval of the Structural Repair Manual and Major Repairs.

DAC/CTA shall report to the EASA on a regular basis on the occurrence and the follow-up actions related to service difficulties, incidents and accidents. The frequency and extent of these reports are to be agreed by the EASA.

When considered appropriate by EASA, DAC/CTA or Embraer, a meeting shall be organised between EASA, DAC/CTA and Embraer to review and discuss these service difficulties, incidents and accidents and agree on appropriate actions.

5. Delivery of an aeroplane to a Member State of the European Community

Timely in advance of the aeroplane delivery to a Member State of the European Community the build standard, including the embodiment of all Minor and Major Design Changes, should be made available by Embraer to the EASA.

If compliance of a Design Change with the applicable Certification Specifications (CSs) cannot be shown at the date of aeroplane delivery, Embraer should notify the customer that, for these Design Changes, exceptions of the applicable CSs must be obtained from the EASA.

Appendix 4 (Issue 1)

Supplemental Type Certificates

1. Introduction

This appendix only covers STC applications from Embraer on Embraer aeroplanes.

2. Application to EASA for Supplemental Type Certification

An application for EASA Supplemental Type Certificate from Embraer shall be made in accordance with 21A.113 of Part 21 and EASA STC Procedures. The application may be submitted for Supplemental Type Certificates already approved by DAC/CTA, or for Supplemental Type Certificates where application for approval has been made to DAC/CTA. DAC/CTA shall ensure the application has the following information:

1. The DAC/CTA Supplemental Type Certificate and a definition of the national airworthiness standards upon which the DAC/CTA design approval was (or is to be) based, and the EASA airworthiness standards DAC/CTA believes to be satisfied by its own standards; and
2. A planning date for EASA supplemental type certification.

Also, the application shall contain the following information if known at the time of the application:

3. A description of all novel or unusual design features known to Embraer and DAC/CTA at the time of application which might necessitate issuance of EASA special conditions under 21A.16B of Part 21, or which might require a special review of acceptable means of compliance; and
4. All known or expected exemptions or equivalent level of safety findings relative to the DAC/CTA's national standards for design approval that might affect compliance with the applicable EASA airworthiness standards.

The DAC/CTA shall forward the application to the EASA in the manner prescribed by the EASA.



Appendix 5 (Issue 1)

Conformity with Design Serial Production and Surveillance Activities

1. Production Quality System

All aeroplanes, parts and appliances exported under the provisions of these Procedures shall be produced in accordance with a production quality system which ensures conformity to the approved design of the EASA and ensures that completed aeroplanes are in a condition for safe operation. This production quality system covers the fabrication of aeroplanes, parts and appliances within and outside of Brazil.

2. Surveillance of Production Activities

2.1. DAC/CTA, as exporting authority, shall conduct regulatory surveillance of Embraer, and its suppliers, in accordance with the DAC/CTA's specific policies, practices, and/or procedures. Both ongoing and scheduled evaluations shall be conducted to verify that Embraer is in continued compliance with its production quality system, manufacturing aeroplanes, parts and appliances which fully conform to the approved design, and are in a condition for safe operation.

2.2. Production surveillance includes the surveillance of Embraer and its suppliers who may be fabricating prototype or pre-production parts for aeroplanes which are still undergoing type certification. These parts must be produced by Embraer, or its approved suppliers, with the concurrence of the DAC/CTA using an existing approved production quality system for similar type certificated aeroplanes. The approved production quality system must ensure the prototype or pre-produced parts are properly controlled so that a final determination of airworthiness can be undertaken prior to their export.

2.3. DAC/CTA production approval and supplier surveillance programs and manufacturer's responsibilities for surveillance of suppliers are described in CTA MPH-300 (Production Certification and Surveillance Procedures Manual).

3. Extensions of Production Approvals

3.1 When a production approval has been granted or extended by DAC/CTA as exporting authority, to include manufacturing sites and facilities for parts, components, and subassemblies, in a Member State of the European Community or in a third country, the DAC/CTA remains responsible for the surveillance and oversight of these manufacturing sites and facilities.

3.2. DAC/CTA may seek assistance from the civil airworthiness authority of a third country in the undertaking of DAC/CTA regulatory surveillance and oversight functions when a production approval has been granted or extended by formal agreement/Arrangement to that third country.

4. Supplier Surveillance - Outside the Exporting Country.

4.1. DAC/CTA, as exporting authority, shall include in their regulatory surveillance and oversight programs a means of surveilling Embraer's suppliers who are located outside Brazil. This surveillance and oversight program for suppliers located outside of Brazil will be equivalent to that program for domestic suppliers. This surveillance activity will assist DAC/CTA in determining conformity to approved design and whether parts are safe for installation on type certificated aeroplanes

4.2. DAC/CTA may seek assistance from a third country civil airworthiness authority at the supplier's location when an agreement has been formalized with that authority in the undertaking of DAC/CTA regulatory surveillance and oversight functions at Embraer's suppliers.

4.3. Embraer may not use a supplier in a country where the DAC/CTA is denied unimpeded access, by either the supplier or the supplier's civil aviation authority, to the supplier's facility to perform surveillance activities.

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Appendix 6 (Issue 1)

Certificates of Airworthiness for imported Aeroplanes

1.1 Export Airworthiness Certificates.

DAC/CTA shall issue export airworthiness certificates for products exported to Member States of the European Community under the conditions defined in 1.2, 1.3 and 1.4.

1.2 New Aircraft.

a. DAC/CTA shall issue an "*Export Certificate of Airworthiness*", for a new aircraft certifying that the aircraft:

1. Conforms to a type design approved by the EASA and any additional supplemental type certificates approved/accepted by the importing authority;
2. Is marked in accordance with Appendix 8 of this Arrangement
3. Is in a condition for safe operation, including compliance with applicable importing authority Airworthiness Directives, as notified; and
4. Meets all additional requirements prescribed by the EASA, as notified.

b. Each aircraft exported to a Member State of the European Community with DAC/CTA airworthiness approval will have an DAC/CTA Form FDH-100-12 Export Certificate of Airworthiness, issued in accordance with the requirements of Subpart H RBHA 21. The DAC/CTA Form FDH-100-12 should contain a statement such as: "*This certifies that the product identified below and more particularly described in the relevant Type Approval / Certificate mentioned herein has been examined and as of the date of this certificate is considered to conform to the data forming the basis for the type approval, is in a condition for safe operation and complies with any additional airworthiness requirements specified by the importing country. This certificate does not constitute a flight authority.*"

1.3 Export Certificate of Airworthiness Exceptions.

The DAC/CTA shall notify the EASA prior to issuing an Export Certificate of Airworthiness in which a non-compliance to the EASA approved type design is to be noted under the "Exceptions" section of the Export Certificate of Airworthiness. This notification should help to resolve all issues concerning the aircraft's eligibility for an airworthiness certificate. This notification shall be to the EASA. A written acceptance from the EASA is required before the issuance of the DAC/CTA's Export Certificate of Airworthiness.

1.4 Used Aircraft for Which There Has Been a Design Approval Granted by the DAC/CTA or the EASA

- a. For a used aircraft which design has been approved by the EASA, DAC/CTA shall issue an "*Export Certificate of Airworthiness*" certifying that the aircraft:
 1. Conforms to a type design approved by the EASA and any additional supplemental type certificates approved/accepted by the EASA, as notified by the EASA to DAC/CTA;
 2. Is in a condition for safe operation, including compliance with all applicable importing authority Airworthiness Directives, as notified;
 3. Has been properly maintained using approved procedures and methods during its service life (evidenced by logbooks and maintenance records); and,
 4. Meets all additional requirements prescribed by the EASA, as notified.
- b. Acceptance of Used Aircraft Manufactured in Third Countries.
 1. The EASA shall also accept DAC/CTA Export Certificate of Airworthiness for used aircraft manufactured and/or assembled in a third country when that country has a bilateral agreement/Arrangement with both the DAC/CTA and the EASA covering the same class of product, and the conditions of paragraph 1.4(a)(1)-(4) have been met.
 2. When a used aircraft produced in Brazil is to be imported into a Member State of the European Community from a third country, DAC/CTA will, upon request, assist the Member State in obtaining information regarding the configuration of the aircraft at the time it left the manufacturer. The DAC/CTA will also provide, upon request, information regarding subsequent installations on the aircraft that have been approved by DAC/CTA.
- c. The Member State of the European Community, as importing country, may also request inspection and maintenance records which include, but are not limited to: the original or certified true copy of the Export Certificate of Airworthiness, or equivalent, issued by DAC/CTA; records which verify that all overhauls, major changes, and repairs were accomplished in accordance with approved data; and maintenance records and log entries which substantiate that the used aircraft has been properly maintained throughout its service life to the requirements of an approved maintenance program.

Appendix 7 (Issue 1)

Imported Parts and Appliances

1. New Parts and Appliances

1.1 Authorized Release Certificate

For a new part, including a modification and/or replacement part, DAC/CTA shall certify that each part designed and manufactured by Embraer (or its subcontractors):

- Is eligible and intended for installation in an Embraer aeroplane which has been granted an EASA Type Certificate;
- Conforms to EASA approved design data and is safe for installation;
- Is marked in accordance with Appendix 8 as applicable; and
- Meets all additional requirements prescribed by the EASA, as notified.

For articles shown to be in compliance with the applicable ETSO, the EASA shall accept a DAC/CTA Authorised Release Certificate on a new article, only when DAC/CTA certifies that each article:

- Is eligible and intended for installation in an Embraer aeroplane which has been granted an EASA Type Certificate;
- Conforms to EASA approved design data in accordance with the applicable ETSO and is safe for installation;
- Is marked in accordance with Part 21 Subpart Q; and
- Meets all additional requirements prescribed by the EASA, as notified.

1.2 Conformity Statement

All parts exported to a Member State of the European Community with DAC/CTA airworthiness approval shall have DAC/CTA Authorized Release Certificate FDH-100-01. The Authorized Release Certificate shall contain the following certifying statement:

"The referenced parts conform to the EASA approved design data as identified in [INSERT DOCUMENT IDENTIFIER] and are in condition for safe operation."

Appendix 8
(Issue 1)

Subpart Q: Identification of Products, Parts and Appliances

1. Each EASA certified / validated aircraft, engine, and propeller must be identified as required in Part 21 Subpart Q.
2. Each part or appliance produced in accordance with design data not belonging to the type certificate holder of the related product (i.e., replacement or modification part) must be marked in accordance with Part 21 Subpart Q. In addition, information concerning the model designation of the type certificated product for which the part is eligible for installation must be furnished.

**Appendix 1
(Issue 2)**

Listing of Applicable Aeroplane Types/Models

1. Eligible Types/Models

This Arrangement is applicable to EASA acceptance of DAC/CTA export certificates of airworthiness for the following aeroplane types/models listed as approved:

Type	ANAC TC	Date of first TC issuance within a EU Member State by CAA-UK
Embraer EMB-120	EA-8505-07	30 April 1986
Embraer EMB-121	EA-7905-04	02 July 1979

Type	EASA TC/Data sheet number	Date of EASA TC
Embraer EMB-145/135	EASA.IM.A.032	28 February 2005
Embraer ERJ-170	EASA.IM.A.001	20 February 2004
Embraer ERJ-190	EASA.IM.A.071	17 July 2006

Type	EASA Application	EASA Approval
EMB-500	7 November 2005	---
EMB-505	7 November 2005	---

