

**Administrative Arrangement
on Certification under JAR-21 Subpart N**

between

Departamento de Aviação Civil (DAC)

Centro Técnico Aeroespacial (CTA)

of Brazil

and

the Civil Aviation Administration (CAA)

of the Republic of Macedonia

**Issue 0
09 October 2003**

1 Introduction

This Administrative Arrangement for Certification under JAR 21 Subpart N paragraph JAR 21N5 (Arrangement) has been agreed upon between the Departamento de Aviação Civil (DAC), the Centro Técnico Aeroespacial (CTA) of Brazil, hereafter called DAC/CTA, and the Civil Aviation Administration (CAA) of the Republic of Macedonia, being a candidate member of the Joint Aviation Authorities (JAA), hereafter called CAA-MK.

DAC/CTA and the CAA-MK (hereafter called the Parties) have agreed as follows.

- 1.1 The Parties have agreed to this Arrangement with regard to airplanes, parts and appliances for these airplanes designed and manufactured by Embraer (or its subcontractors), which confirms that the DAC/CTA is prepared to support the CAA-MK as airworthiness authority of the importing country when JAR-21 Subpart N applies.
- 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 Agreement or revoked by one of the Parties.
- 1.3 Any existing agreement or other (technical) arrangement for acceptance of airworthiness and environmental approval might remain in force except when this Arrangement is operating to fulfil obligations with the CAA-MK as airworthiness authority of the importing country under JAA auspices. In the event of any inconsistency between existing agreement or other (technical) arrangement and this Arrangement, the Parties should resolve such inconsistency in writing.

2 General

The CAA-MK have 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 JAR 21 as required by JAR 21 Subpart N paragraph JAR 21N5.

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 CAA-MK.
- 2.2 To define the detailed procedures to be followed for the various Sub-Subparts of JAR-21 Subpart N.



- 2.3 The CAA-MK recognises the 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 CTA. CTA understands that there may be occasional situations where, upon prior communication to CTA, the CAA-MK may interact directly with an individual designee. In advance of designees travelling to the Republic of Macedonia to make findings of compliance and/or perform conformity inspections, CTA will co-ordinate designee activities with the CAA-MK.
- 2.4 In accomplishing their regulatory responsibilities, 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 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.
- 2.5 The CTA agrees that it will comply with following conditions relative to utilising the assistance of other authorities:
- (a) The 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, CTA must accept full responsibility for all findings of compliance made on behalf of the CAA-MK, 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 CTA or CAA-MK and any other authorities used in the process, the CAA-MK 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 airplane, 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 JARs and Brazilian Aviation Regulations (RBHA) definitions.

- 3.1 **"Approved by the Authority"** means the approval, acceptance, authorisation, certification or licensing of the organisation, person, airplane, 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 airplane, 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 airplanes, parts or appliances as prescribed by the CAA-MK to enable it to find that the design, manufacture and condition of these airplanes, 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 airplane 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 airplanes prescribed by the CAA-MK to ensure compliance with the laws, regulations, standards and requirements concerning airplane noise and airplane engine exhaust emissions.
- 3.7 **"JAA Airplane"** means an airplane designed and manufactured by Embraer and certificated by the JAA applying the Joint Certification/Validation Procedures (JCVP).
- 3.8 **"Type Design"** as defined in JAR 21.31.
- 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 airplane.
- 3.10 **"Validation"** means Type Certification, or equivalent, of an aircraft following a simplified investigation process by the JAA Team on behalf of the National Aviation Authorities, based on CTA Type Certification and focusing on the JAA LOD.
- 3.11 **"The JAA initial List of Differences (JAA initial LOD)"** means the list of those conditions in the JAA Certification Basis which are different from the CTA Certification Basis that are necessary to account for all differences between the applicable certification regulations of the CTA and JAA requirements and published technical policy material.



- 3.12 **“The JAA List of Differences (JAA LOD)”** means the list of those conditions in the JAA Certification Basis which are different from the CTA Certification Basis that are necessary to account for all differences between the applicable certification regulations of the CTA and JAA requirements, associated technical policy material and means of compliance.
- 3.13 **“The JAA List of important Differences (JAA LOID)”** means the list of those conditions in the JAA Certification Basis which are different from the CTA Certification Basis that are necessary to account for all important differences between the applicable certification regulations of the CTA and JAA requirements, associated technical policy material and 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 JAA 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 JAA Team.
3. To provide the CTA adequate material to verify compliance demonstrations with JAA Differences.

Note: The corresponding 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 JAA certification basis identifying the nature of each requirement.
2. To develop and administer JAA Special Conditions.
3. To administer new JAA policies, e.g. means of compliance, interpretations.
4. To administer equivalent safety findings or exemptions.
5. To identify the JAA LOD items.
6. To deal with novel and unusual design features.
7. To record the application of new JAA requirements, if different from CTA requirements.
8. To record controversial subjects.
9. To list specific design changes required for compliance with the JAA certification basis.
10. To record Additional National Design Requirements (for JAA Member Countries).

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

3.16 “CTA Findings of Compliance” means the normal CTA certification and approval process of evaluating the airplane 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 airplanes produced by EMBRAER Empresa Brasileira de Aeronáutica S.A. for which the CAA-MK has issued a Type Certificate under the auspices of JAA procedure,
2. airplane types/models for which JAA Type Certification has been applied for, and
3. new parts and appliances for these airplanes.

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

5 Working Procedures

See Appendices B; D; E; F/G; H; and K.

6 Continued Airworthiness

- 6.1 DAC/CTA is prepared to undertake the responsibilities for support of the continuing airworthiness of the airplanes identified in Appendix A 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 airplanes tested, shall be held by the design or production approval holders at the disposal of the CTA and shall be retained in order to provide the information necessary to ensure the continued airworthiness of the airplanes. This information is available from the design or production approval holders via the CTA upon request from the CAA-MK.

7 Mutual Co-operation and Assistance

- 7.1 In respect of airplanes designed and manufactured by Embraer, the DAC/CTA shall on request assist the CAA-MK in determining whether the design of major changes, or repairs made under the control of the CAA-MK, comply with the applicable airworthiness and environmental standards of the CAA-MK.



- 7.2 The DAC/CTA and the CAA-MK 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 CAA-MK may request a meeting to review the need for amendment to this Arrangement in co-ordination with the JAA.
- 7.3 The DAC/CTA and the CAA-MK 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 CAA-MK needs information for the investigation of service incidents, accidents, or suspected unapproved parts involving an airplane imported under this Arrangement, the request for information should be directed to the appropriate office of the Parties. In turn, upon receipt of the request for information the Party should immediately do everything necessary to make sure the requested information is provided in a timely manner. If urgency requires that the CAA-MK requests the information directly from the manufacturer because immediate contacts cannot be made with the DAC/CTA, the CAA-MK shall inform the DAC/CTA of this action as soon as possible.
- 7.5 Both Parties recognise that data submitted by Embraer is the property of Embraer, and release of that data by the CAA-MK is restricted. The CAA-MK agrees that they will not copy, release or show proprietary data obtained from CTA or Embraer to anyone other than an CAA-MK employee without written consent of Embraer or CTA. This written consent should be obtained by the CAA-MK from Embraer through CTA or from CTA directly.
- 7.6 Upon notification by CTA of a transfer request from Embraer as TC holder to a Brazilian applicant, the CAA-MK will transfer the TC only when it has been satisfied the applicant is prepared and able to undertake the responsibilities in JAR 21N44 and CTA has transferred the TC to the same applicant. The CAA-MK may request CTA to provide technical assistance in making the determination that the new TC holder will be able to execute the responsibilities of JAR 21N44.

8 Dispute resolution

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

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



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

For the DAC/CTA: CTA-IFI-FDH-Regulations Manager
Tel.: 55 (12) 3913-6131
Fax: 55 (12) 3941-4766
Email: hgr@ifi.cta.br

For the CAA-MK: Valentin Jovanovski
Head of Airworthiness Department
Tel.: 389 (2) 3117-298
Fax: 389 (2) 3117-298
Email: vjovanovski@dgca.gov.mk

- 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 CAA-MK will develop and apply principles/procedures for each specific part of JAR-21 which will be added to this Arrangement as Appendices.

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

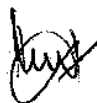
In addition, validation project specific information procedures may be developed, when found necessary.

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

For any activity under this arrangement in accordance with national legislation, any expense is supposed 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 upon 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.

Signed in Hoofddorp on 09 October 2003 on behalf of:

by

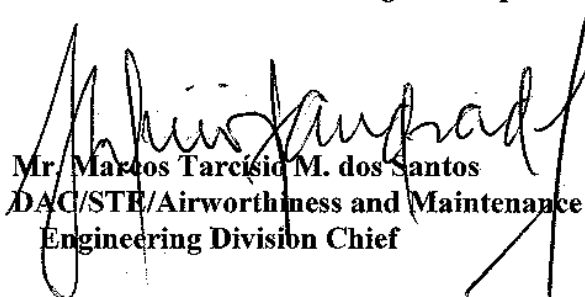
Civil Aviation Administration (CAA)

Republic of Macedonia



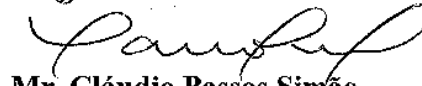
Mr. V Jovanovski
Head Airworthiness and Register Department

**Departamento de Aviação Civil
(DAC)**



Mr. Marcos Tarcísio M. dos Santos
DAC/STE/Airworthiness and Maintenance
Engineering Division Chief

Centro Técnico Aeroespacial (CTA)



Mr. Cláudio Passos Simão
CTA/IFI/Aeronautical Certification
Division Chief

APPENDICES WITH DETAILED PRINCIPLES/PROCEDURES

Appendix A (Latest Issue)

Listing of Applicable Airplane Types/Models

Appendix B (Issue 1)

Type Certification of imported AirplanesReference Sub-Subpart N-B

Appendix D (Issue 1)

Changes to Type Certificates..... Reference Sub-Subpart N-D

Appendix E (Issue 1)

Supplemental Type CertificatesReference Sub-Subpart N-E

Appendix F/G (Issue 1)

Conformity with Design..... Reference Sub-Subpart N-F/G

Appendix H (Issue 1)

Certificates of Airworthiness for imported Airplanes Reference Sub-Subpart N-H

Appendix K (Issue 1)

Imported Parts and Appliances..... Reference Sub-Subpart N-K



Appendix A
(Issue 1)

Listing of Applicable Airplane Types/Models

1. Eligible Types/Models

This Arrangement is applicable to Macedonia acceptance of CTA export certificates of airworthiness for the following airplane 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 | JAA '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 | --- |

Appendix B (Issue 1)

Type Certification of imported Airplanes

1. Introduction

The procedures described in this Appendix are applicable to Embraer airplanes (to be) certificated by CTA as the authority of the State of Design and validated by the JAA applying the Joint Certification/Validation Procedures (Ref.: JAA Administrative & Guidance Material, Section Three, Part Two Procedures).

Embraer must fulfill the requirements of JAR 21N13, Eligibility.

2. Application for the Republic of Macedonia Type Certification

An application for CAA-MK Type Certificate for a JAA Airplane, in accordance with JAR-21N15, from Embraer should be made in accordance with JAR-21 Sub-subpart N-B and JAA Certification/Validation Procedures. Applications may be submitted for Airplanes with CTA Type Certificate, or for Airplanes where application for type certification has been accepted by CTA. CTA should ensure the application has the following information:

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

Also the application should 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 CTA at the time of application which might necessitate issuance of CAA-MK special conditions under JAR 21N16, 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 CTA's national standards for design approval that might affect compliance with the applicable CAA-MK airworthiness standards.

The CTA should forward the application to the CAA-MK in the manner prescribed by the JAA Certification/Validation Procedures.

3. CTA and JAA Communications and Procedures

All formal correspondence between CTA and JAA will be between the CTA Type Certification Co-ordinator and JAA Project Certification Manager (PCM), as nominated for each project for which JAA validation 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 JAA will notify the CTA of any meeting(s) JAA has with Embraer and/or its suppliers as arranged through Embraer on certification matters. The JAA shall indicate those meetings particularly warranting CTA attendance. For all other meetings, CTA has the right to attend, and CTA will notify JAA of their attendance.

4. JAA Responsibilities

The JAA Certification Basis will be notified to the CTA and Embraer.

The JAA will establish the JAA LOD starting from the JAA initial LOD. The JAA will notify the CTA and Embraer in writing of the JAA LOD and changes thereto. The JAA will provide the CTA with appropriate interpretative material to enable the CTA to find compliance, on behalf of the JAA, with these conditions.

The CTA and JAA will agree upon a date by which the delegation to the CTA for findings of compliance with the JAA 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 CTA) with JAA LOD items, the JAA shall issue Certification Action Items (CAIs).

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

The JAA will provide a Summary List and a copy of all CRIs and CAIs, and revisions thereof, to the CTA, including copies of JAA correspondence with Embraer relating to CRIs and CAIs.

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

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

The JAA will provide Embraer and the CTA with the LOID. The only purpose of this list is to have an accessible overview of all important differences as noted by the JAA for the type validation of the airplane.

See Figure 1 for communications route: JAA LOD items.

See Figure 2 for communications route: JAA Involvement



Figure 1
CTA/JAA/EMBRAER COMMUNICATIONS ROUTE -
JAA LIST OF DIFFERENCES

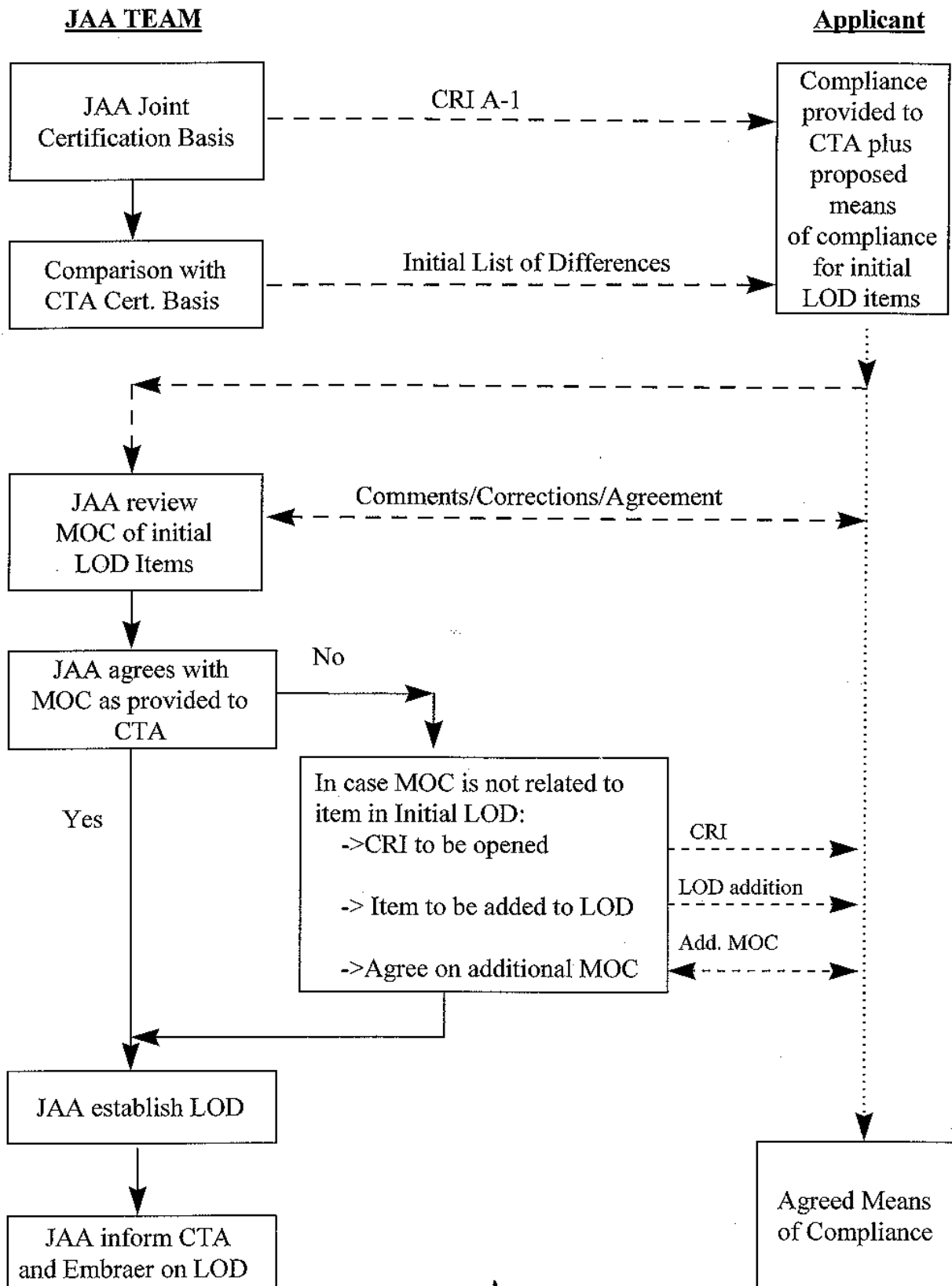
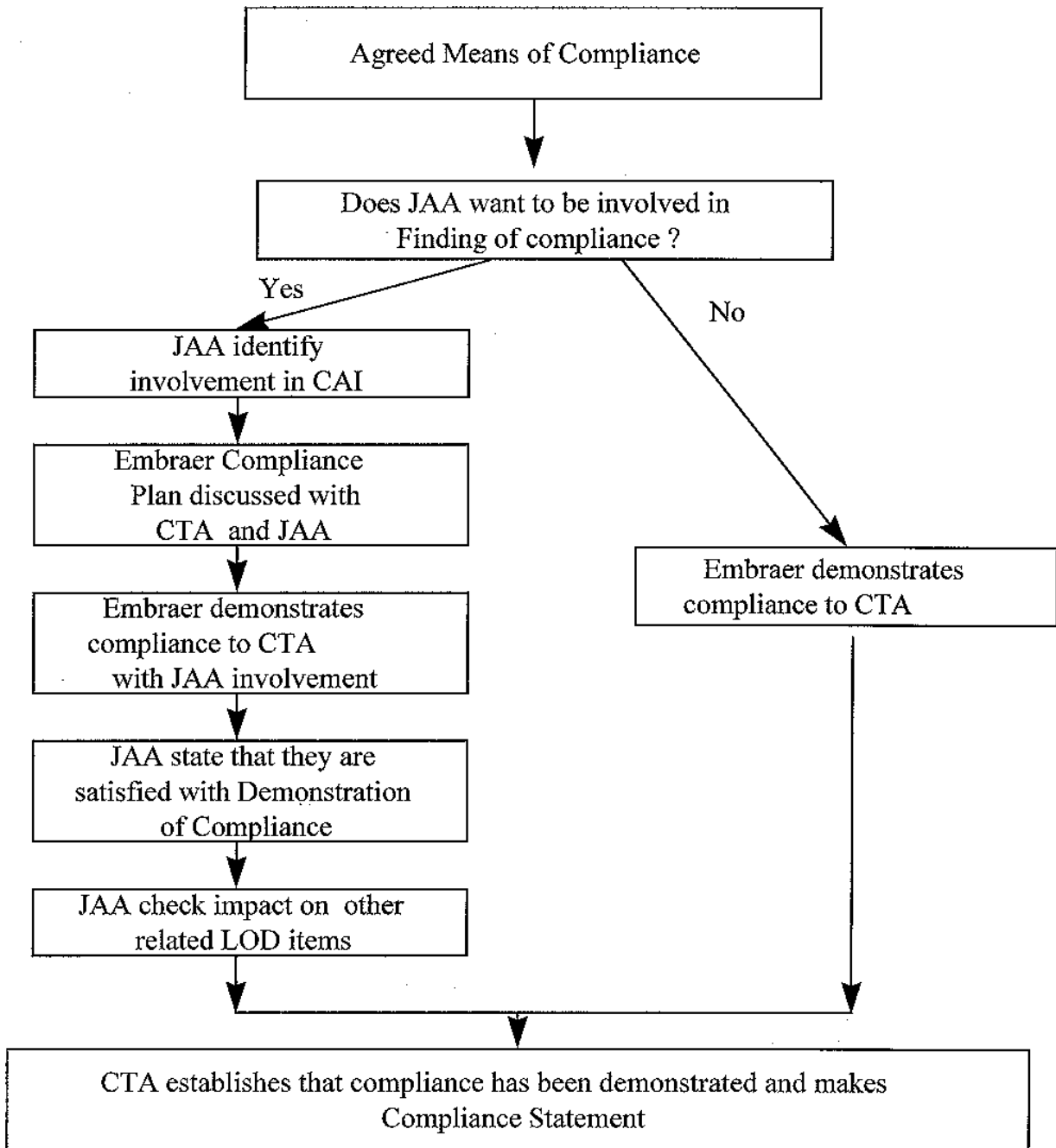


Figure 2
COMMUNICATIONS ROUTE - JAA INVOLVEMENT



5. CTA Responsibilities

CTA will find compliance with JAA LOD items using JAA interpretative material (see paragraph 3 above).

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

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

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

6. JAA Test Witnessing

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

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

7. Documentation

7.1 Documents associated with Type Certification requiring formal approval by JAA

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

1. Test Programs for which the test witnessing has been retained by JAA;
2. Compliance documents on subjects which have been retained by the JAA;
3. JAA Airplane Flight Manual;
4. JAA Airworthiness Limitations; and
5. JAA Certification Maintenance Requirements.



7.2 Airplane Flight Manual Approval Procedure

The AFM will be processed as a "Type II Approval" as defined in Draft AMJ 25.1581 Section 10 b.(I)(ii). The JAA validation team will review the relevant CTA AFM, including any Supplements or Appendices. The JAA validation team will provide comments on the content to Embraer and the CTA.

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

A complete JAA AFM (CTA AFM amended with the relevant JAA AFM pages) will then be submitted to the JAA validation team for further review. When JAA are satisfied that this AFM meets the specific JAA requirements, they will request the CTA to sign approval on behalf of JAA.

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Appendix D (Issue 1)

Changes to Type Certificates

1. Introduction

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

Purpose of this appendix is to prescribe procedural requirements for the approval of changes to Type Designs, Type Certificates and associated Flight Manual amendments that are 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 CTA.

Major Design Changes are design changes as defined by RBHA 21.93 and JAR 21N91. For example design changes which have an affect 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 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 CTA or JAA 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 CTA and the JAA.

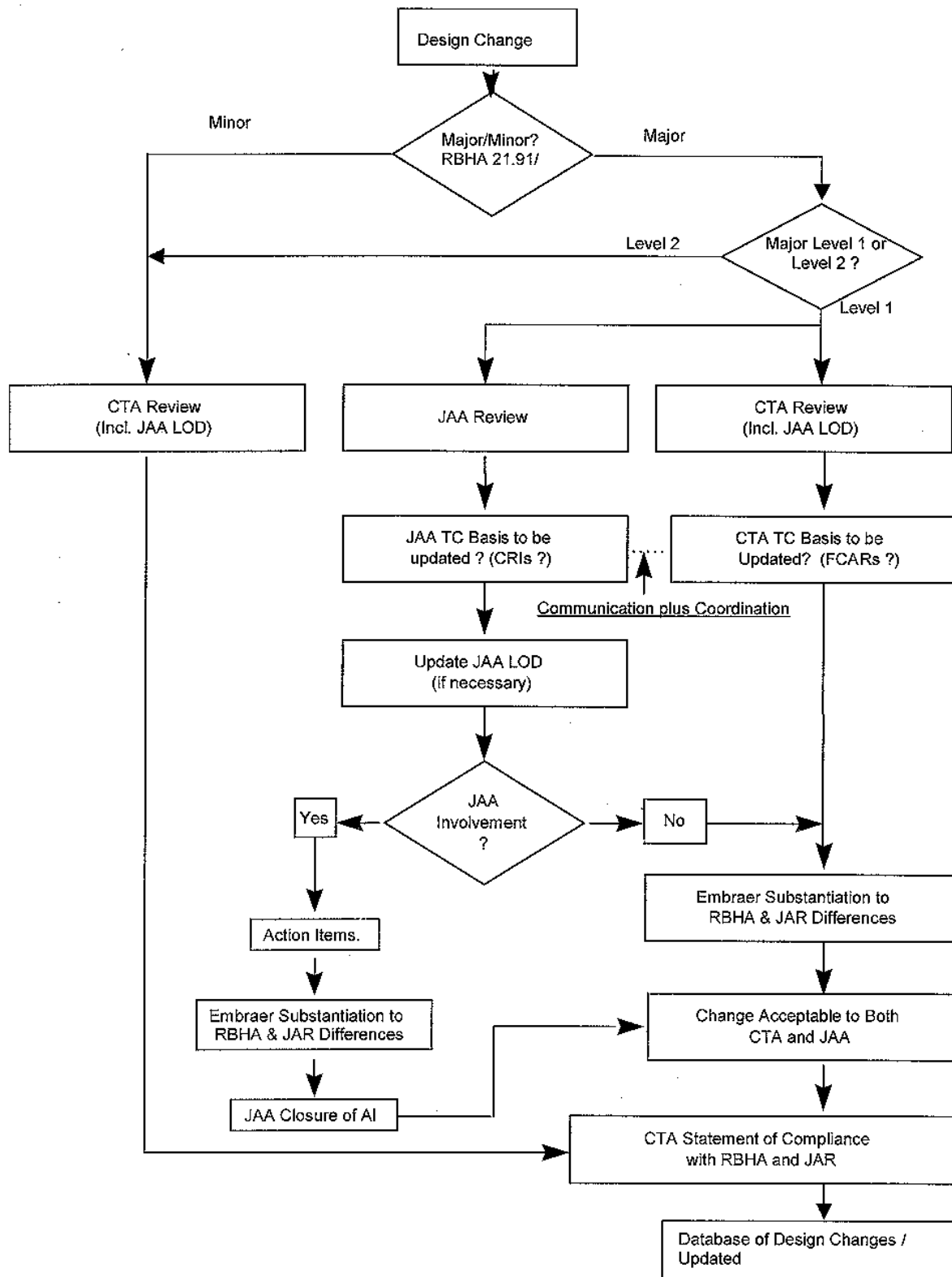
2. Design Changes involving a JAA LOD Item and involving the use of a method of compliance different from those agreed by CTA and the JAA for use in the basic certification/validation.
3. Design Changes involving a JAA LOD Item for which the JAA Team has retained the responsibility for the compliance 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 JAA.
 - (c) Existing differences between CTA and JAA approved manual content.
5. Changes having an effect on the environmental approval.
6. Any other Design Change categorised as Level 1 Major by JAA after consultation with 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 CTA before an airplane, with such a Design Change installed, is exported to the Republic of Macedonia. The CAA-MK may specify the requirements for the acceptance of Major Design Changes.

See figure 1 for Communications Route for Design Changes

Figure 1
COMMUNICATIONS ROUTE FOR DESIGN CHANGES



2.2 AFM Revisions

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

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

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

2.3 Classification of AFM Revisions

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

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

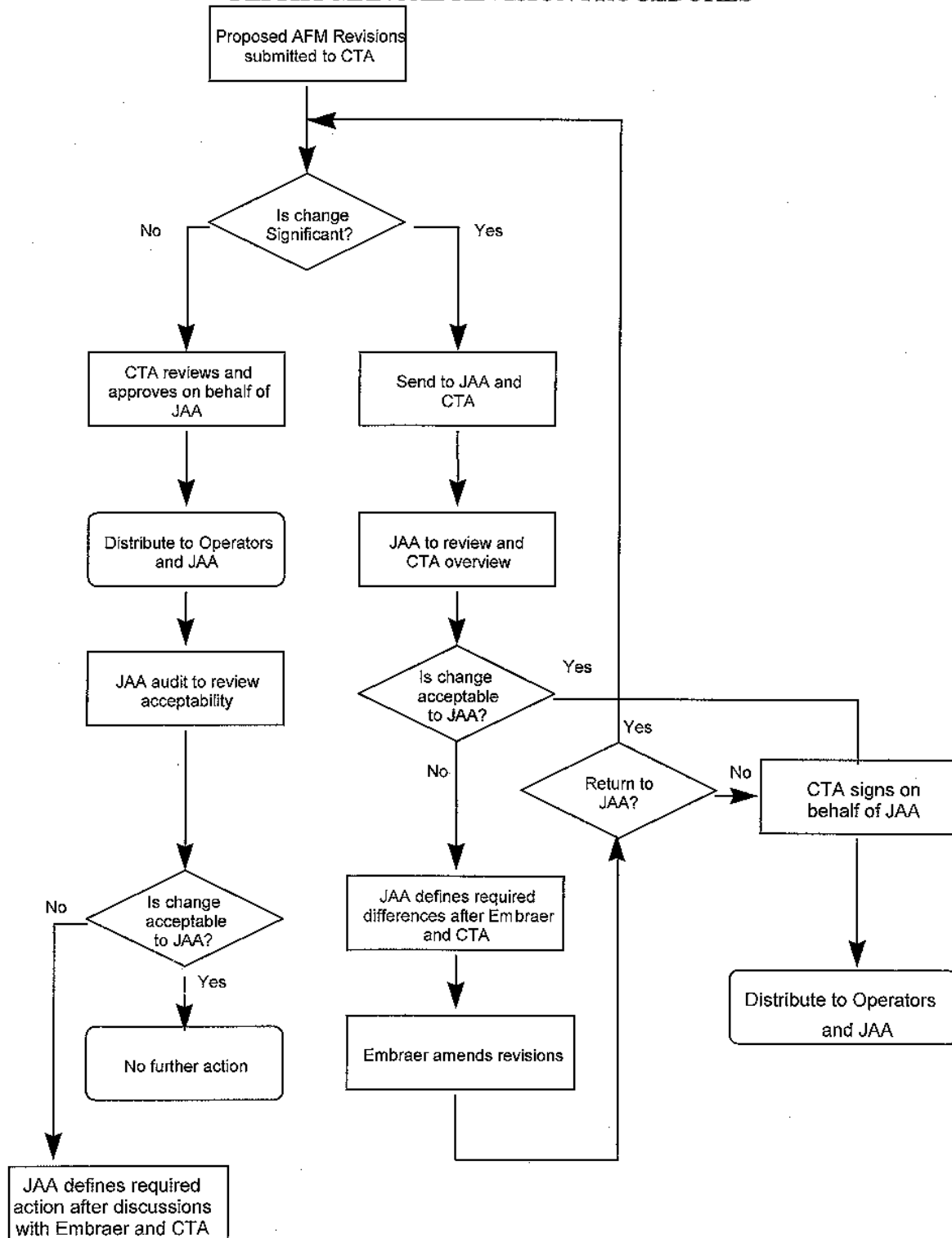
1. AFM revisions which affect the Type Certificate Data Sheet.
2. Initial issues of new Supplements or Appendices to the AFM
3. AFM revisions associated with major modifications of the JAA approved Type Design.
4. Revisions related to paragraphs where JAR 25 and RBHA 25 are significantly different (JAA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



[Handwritten signature]

3. JAA Responsibilities

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

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

4. CTA Responsibilities

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

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

In addition CTA shall approve the following documents taking into account the JAA Certification Basis and the JAA approved Type Design of the airplane:

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

CTA shall report JAA 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 JAA.

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

5. Delivery of an airplane to the Republic of Macedonia

Timely in advance of the airplane delivery to the Republic of Macedonia the build standard, including the embodiment of all Minor and Major Design Changes, should be made available by Embraer to the CAA-MK.

If compliance of a Design Change with the applicable JARs cannot be shown at the date of airplane delivery, Embraer should notify the customer that, for these Design Changes, exceptions of the applicable JARs must be obtained from the CAA-MK.



Appendix E
(Issue 1)

Supplemental Type Certificates

Introduction

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

2. Application for the Republic of Macedonia Supplemental Type Certification

An application for CAA-MK Supplemental Type Certificate for a JAA Airplane, from Embraer should be made in accordance with JAR-21N113 and JAA STC Procedures. The application may be submitted for Supplemental Type Certificates already approved by CTA, or for Supplemental Type Certificates where application for approval has been made to CTA. CTA should ensure the application has the following information:

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

Also, the application should 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 CTA at the time of application which might necessitate issuance of CAA-MK special conditions under JAR 21N16, 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 CTA's national standards for design approval that might affect compliance with the applicable CAA-MK airworthiness standards.

The CTA should forward the application to the CAA-MK in the manner prescribed by the CAA-MK.



Appendix F/G
(Issue 1)

Conformity with Design

1. Serial Production and Surveillance Activities

1.1 Production Quality System

All airplanes, 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 CAA-MK and ensures that completed airplanes are in a condition for safe operation. This production quality system covers the fabrication of airplanes, parts and appliances within and outside of Brazil.

1.2 Surveillance of Production Activities

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

Production surveillance includes the surveillance of Embraer and its suppliers who may be fabricating prototype or pre-production parts for airplanes which are still undergoing type certification. These parts must be produced by Embraer, or its approved suppliers, with the concurrence of the CTA using an existing approved production quality system for similar type certificated airplanes. 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.

CTA production approval and supplier surveillance programs are described in a CTA certification procedures manual.

1.3 Extensions of Production Approvals

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

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



1.4 Supplier Surveillance - Outside the Exporting Country.

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 CTA in determining conformity to approved design and whether parts are safe for installation on type certificated airplanes

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 CTA regulatory surveillance and oversight functions at Embraer's suppliers.

Embraer may not use a supplier in a country where the 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.



**Appendix H
(Issue 1)**

Certificates of Airworthiness for imported Airplanes

1. New and used

1.1 Export Certificate of Airworthiness

The CAA-MK, as importing authority, shall accept CTA's Export Certificate of Airworthiness on new and used airplanes, only when CTA certifies that each new or used airplane:

- Conforms to a type design approved by the CAA-MK, as specified in the CAA-MK Type Certificate Data Sheet;
- Is in a condition for safe operation, including compliance with applicable importing authority Airworthiness Directives, as notified;
- Has undergone a final operational check;
- Meets all additional requirements prescribed by the CAA-MK as notified; and
- Is marked in accordance with JAR 21 N-Q.

1.2 Conformity Statement

Each airplane exported to the Republic of Macedonia with CTA airworthiness approval shall have the following CTA conformity statement on the Export Certificate of Airworthiness:

"The [INSERT AIRPLANE MODEL & SERIES] covered by this certificate conforms to the type design approved under CAA-MK Type Certificate Number [INSERT TYPE, CERTIFICATE NUMBER, REVISION LEVEL, AND DATE], is found to be in a condition for safe operation," or further clarifying language as specified in the CAA-MK Type Certificate Data Sheet.



**Appendix K
(Issue 1)**

Imported Parts and Appliances

1. New Parts and Appliances

1.1 Authorized Release Certificate

The CAA-MK shall accept a CTA Authorised Release Certificate on new parts and appliances, designed and manufactured by Embraer (or its subcontractors) only when CTA certifies that each part and appliance:

- Is eligible and intended for installation in an EMBRAER airplane which has been granted a CAA-MK Type Certificate;
- Conforms to CAA-MK-approved design data and is safe for installation;
- Is marked in accordance with JAR 21N-Q as applicable; and
- Meets all additional requirements prescribed by the [CAA-MK], as notified.

For articles shown to be in compliance with the applicable JTSO, the CAA-MK shall accept a CTA Authorised Release Certificate on a new article, only when CTA certifies that each article:

- Is eligible and intended for installation in an EMBRAER airplane which has been granted a CAA-MK Type Certificate;
- Conforms to CAA-MK-approved design data in accordance with the applicable JTSO and is safe for installation;
- Is marked in accordance with JAR 21N-Q; and
- Meets all additional requirements prescribed by the CAA-MK, as notified.

1.2 Conformity Statement

All parts exported to the CAA-MK with CTA airworthiness approval shall have the following CTA conformity statement on the Authorised Release Certificate:

"The referenced parts conform to the CAA-MK approved design data as identified in [INSERT DOCUMENT IDENTIFIER]."

