

Appendix C

IMPLEMENTATION PROCEDURES

on

OPERATIONAL/MAINTENANCE ELEMENTS

For Civil Aeronautical Products

Between

THE CIVIL AVIATION ADMINISTRATION OF CHINA

And

THE EUROPEAN UNION AVIATION SAFETY AGENCY

September 2020

TABLE OF CONTENT

| | |
|---|----------|
| 1. General | 1 |
| 1.1. Purpose..... | 1 |
| 1.2. Governance | 1 |
| 1.3. Communications..... | 1 |
| 1.4. Interpretations and Resolution of Conflicts | 1 |
| 1.5. Points of contact..... | 2 |
| 2. Operational/Maintenance Elements for Civil Aeronautical Products | 2 |
| 2.1. EASA Operational Suitability Data (OSD)..... | 2 |
| 2.2. CAAC Aircraft Evaluation Report (AER) | 3 |
| 2.3. Scope of Validation and Reciprocal Acceptance | 4 |
| 3. Validation of EASA Flight Crew Data (OSD FCD) and CAAC Pilot Qualification Specifications.... | 5 |
| 4. Validation of Master Minimum Equipment List (MMEL)..... | 5 |
| 5. Technical Support and Information for Evaluation Activities | 6 |
| 6. Authority..... | 6 |
| Table 1: Standards and process specification of EASA OSD evaluation..... | 7 |
| Table 2: Standards and process specification of CAAC operation evaluation | 8 |

1. General

1.1. Purpose

In accordance with point 4.4.8.2 of Annex 1 to the Agreement, the purpose of this document is to define procedures for the validation and automatic acceptance by CAAC of the EASA Operational Suitability Data (OSD) and by EASA of the CAAC Operational Elements associated to aircraft. It applies to type related design certificates that have been, or are in the process of being issued by either Technical Agent as Validating Authority.

In particular, these IP address:

- a) The differences between the EASA OSD and CAAC AEG in Operational/Maintenance Aspect Evaluation for civil aeronautical products.
- b) Procedures for the Technical Agents to conduct the validation and reciprocal acceptance in Operational/Maintenance Aspect Evaluation for civil aeronautical products.

1.2. Governance

The governance on these IP is under the "Subgroup on Operational Elements" described in Article 9 of the "Rules of Procedures of the Certification Oversight Board" established by the Agreement.

To ensure that a proper link is maintained between Airworthiness and the Operational/Maintenance Elements, each party should have at least one representative to participate in the COB as established under the same Article 9.

1.3. Communications

1.3.1. *Communication principles*

The Technical Agents will regularly exchange information to ensure that each Party maintains a structured and effective implementation system for the various activities within the scope of validation and reciprocal acceptance, in accordance with paragraph 1.7.1 of the TIP.

1.3.2. *Communication with TC/VTC Holder*

The Technical Agents understand that there may be occasional situations where either Technical Agent may interact directly with the TC/VTC Holder as established under paragraph 1.8.5 of the TIP.

1.4. Interpretations and Resolution of Conflicts

The Technical Agents recognise that in the matter of interpretation and resolution of conflicts, the provisions established under paragraph 1.9 of the TIP should apply. In case of conflict

between the provisions of the Agreement, including its implementation procedures, and domestic laws, regulations, standards or procedures of one Party, the provisions of the Agreement will prevail.

Issues that cannot be satisfactorily resolved between the Technical Agents under the escalation mechanism described under paragraph 1.9 of the TIP may be raised to the subgroup of the COB on operational elements established under article 9 of the "Rules of Procedures of the Certification Oversight Board".

1.5. Points of contact

In addition to the Appendix A of the TIP, focal points for Operational/Maintenance Elements are:

- a) EASA: Chief Expert - Operational Suitability, Certification Directorate;
- b) CAAC: Director of Aircraft Evaluation Division, Flight Standards Department.

2. Operational/Maintenance Elements for Civil Aeronautical Products

2.1. EASA Operational Suitability Data (OSD)

The EASA system includes, under the type certification process, an approval of data that are considered necessary for the safe operation of an aircraft, called the Operational Suitability Data (OSD). These data, once approved, are attached to the TC through a reference in the TCDS and owned by the TC holder. To support the process, specific panels of experts are part of the certification team.

The EASA Part 21 requires therefore an EASA TC, restricted TC and STC to include the applicable OSD constituents. Compliance by the applicant with the OSD requirements laid down in EASA Part 21 is required in order to receive an EASA type certificate for an aircraft, and EASA approval for any subsequent change to that type certificate, if such a change affects compliance of the OSD constituents with the applicable requirements.

Means of compliance to the OSD requirements are described in the relevant Certification Specifications, as listed below.

The OSD consist of:

- OSD Flight Crew (EASA CS-FCD Flight Crew Data), consisting of the minimum syllabus of pilot type rating training, including determination of type rating;
- OSD Cabin Crew (EASA CS-CCD Cabin Crew Data), consisting of determination of type or variant for cabin crew and type specific data for cabin crew;
- OSD Maintenance Certifying Staff, consisting of the minimum syllabus of maintenance certifying staff type rating training, including determination of type rating;
- OSD Simulator Data (EASA CS-SIMD Simulator Data), consisting of the definition of scope of the aircraft validation source data to support the objective qualification of simulator(s)

associated to the pilot type rating training, or provisional data to support their interim qualification; and

- OSD Master Minimum Equipment List (MMEL) (EASA CS-MMEL Master Minimum Equipment List and EASA CS-GEN-MMEL), consisting of the MMEL.

2.2. CAAC Aircraft Evaluation Report (AER)

CAAC Regulation Part 21 includes the requirements related to operational suitability evaluations for aircraft for which a Type Certificate (or Validation of Type Certificate) has been or is being issued based on CCAR-23, 25, 27, 29 or equivalent airworthiness standards as the certification basis.

The purpose of operational evaluations is to set up the bridge between airworthiness and operations, including the following evaluation items as applicable:

- a) Type design information related to operations: applicable to all aircraft, the evaluation will summarize the type design related information for supporting operational approval.
- b) Pilot qualification specification: applicable to all aircraft, the evaluation will determine if a type rating is required. If there is type rating requirement, the corresponding specifications for training, checking, currency and training device will be determined; if there is no type rating requirement, AEG will determine if the type training specification is required. Those are the source of aircraft type training and type rating endorsement requirement for managing the pilot qualification in operation.
- c) Maintenance personnel qualification specification: applicable to all aircraft, the evaluation will determine aircraft type endorsement requirement in Maintenance Personnel License and related type training specifications. Those are the source of aircraft type training and license endorsement requirement for managing the maintenance personnel qualification in operation and maintenance.
- d) Master Minimum Equipment List (MMEL): applicable to the aircraft that is allowed to be released with particular equipment inoperative or function failure. The evaluation will determine the approval of MMEL, which are the fundamental of developing and approval of MEL required in operation.
- e) Scheduled maintenance requirements (SMR): applicable to all aircrafts, but approval required only for transport aircraft. The evaluation will determine the acceptance or approval of SMR, which are the fundamental of developing and approval of maintenance program required in operation.
- f) Operational documents and Instructions for Continued Airworthiness (ICAs): applicable to all aircraft, but exclude the aircraft flight manual or other documents (such as ALI, CMR etc.) approved by airworthiness certification. The evaluation will determine the acceptance of those documents, which must be referenced during aircraft operation and maintenance.
- g) Other evaluation subjects requested by the applicant and accepted: including Cockpit Forward Observer Seat, Flight Crew Sleeping Quarters, Electronic Flight Bag, and Emergency Evacuation Demonstration. The evaluation will determine the compliance to

operational requirements as applicable, which may directly adopted by inspectors for operational approvals.

The standards and process specification of CAAC operation evaluation are listed in the Table 2.

The AEG in Flight Standards Department of CAAC takes the responsibilities of the above operational evaluation (also called AEG evaluation). The evaluation determination will be published through an Aircraft Evaluation Report for each aircraft type. Approved and accepted documents required to be developed by TC/VTC holder are distributed to end users directly.

The AEG evaluation is initiated by the TC/VTC project, but the AER may be published before enter into service, except the evaluation determination of SMR and ICAs which should be concluded before TC/VTC as they are inputs for issuing TC/VTC.

The AEG Evaluation will be continued for the whole operation life of aircraft type with considering following affected situations, and AER may updated as necessary:

- a) Changes in type design, including STC;
- b) Service feedback from actual operation;
- c) Amendment of the operation regulation requirements.

The approved and accepted documents required to be updated by TC/VTC holder are distributed to end users directly, and may also require STC/VSTC holder to develop and distribute supplemental information as necessary.

2.3. Scope of Validation and Reciprocal Acceptance

As the result of a comparative assessment of the CAAC AEG and the EASA OSD processes and outcomes, the following elements were agreed as being part of the scope of Validation and/or Reciprocal Acceptance:

- a) Validation of Pilot Qualification Specifications and OSD Flight Crew for aircraft;
- b) Validation of MMEL for aircraft;

For elements not included in the scope of Validation and Reciprocal Acceptance, each agent will perform their independent assessment and evaluation, without relying on approvals issued by the other agent. However, concurrent certification or cooperation at project level may still be performed as agreed by the Agents.

When EASA is the VA, the applicant files, through CAAC, an application for the validation of the OSD as part of the TC, restricted TC or STC validation as applicable. The applicant also provides an OSD validation plan and, once the process of demonstration of compliance is complete, a declaration confirming compliance of the OSD constituents with the applicable certification basis.

For changes to CAAC Type Certificates or for Supplemental Type Certificates validated by EASA, where an impact on the OSD constituents is identified based on the provisions of Part 21.A.93

(Regulation (EU) 748/2012), the TC or STC holder should assess the impact of the change on the OSD constituents and apply to EASA for the approval of the related OSD changes as part of the validation process. EASA will conduct the associated investigation for the approval of the changes to the OSD as part of the TC change or STC validation.

When CAAC is the VA, in addition to the application for the validation of the TC/STC, the applicant, through EASA, will get directly in contact with the CAAC AEG in order to establish an AER before entry into service of the aircraft in China.

3. Validation of EASA Flight Crew Data (OSD FCD) and CAAC Pilot Qualification Specifications

- (i) CAAC may accept the EASA approved OSD FCD as a basis for the determination of their Pilot Qualification Specifications. Differences between aircrew licensing and air operations regulatory frameworks requiring additional investigation will be addressed by CAAC after coordination with EASA. Subject to EASA agreement, CAAC may delegate to EASA the conduct of technical tasks necessary to support the validation by CAAC of additional provisions that may be required under CAAC requirements. In this case, CAAC will accept the finding of compliance made by EASA as a basis for their approval of the Pilot Qualification Specifications.
- (ii) EASA may accept elements of the CAAC approved Pilot Qualification Specifications as a basis for the approval of the OSD FCD. Specific OSD FCD requirements not covered by the CAAC Pilot Qualification Specification will be investigated by EASA, after coordination with CAAC. Subject to CAAC agreement, EASA may delegate to CAAC the conduct of technical tasks necessary to support the validation by EASA of additional provisions that may be required under the OSD FCD. In this case, EASA will accept the finding of compliance made by CAAC as a basis for its approval of the OSD FCD.

4. Validation of Master Minimum Equipment List (MMEL)

The validation of MMEL approved by either EASA or CAAC is based on the following agreed conditions:

- a) These provisions are applicable when CAAC or EASA is the Certifying Authority and do not cover cases when the State of Design for the aircraft is a third country;
- b) An MMEL or a change to an existing MMEL will not be accepted until the related design validation process, if applicable, has been concluded;
- c) An initial MMEL for a new TC results in a single MMEL document, which will include common items and, based on the differences identified by the Validating Authority, items applicable only to the CA or VA;
- d) Items applicable only to the CA or VA should be clearly identifiable in the MMEL and approved by their respective Technical Agent;
- e) These items should be limited to the extent possible to differences in airworthiness and/or operational requirements between the CA and the VA.

Procedures for the validation of an MMEL

- a) When the CA has terminated the review of the initial or changed MMEL, it will provide the preliminary MMEL to the VA for review and identification of differences. On request of the

applicant a concurrent review of the initial or changed MMEL may also be accepted by the Agents;

- b) The VA will notify the identified differences to the CA. Differences not related to firm requirements should be reduced, to the extent possible, by reconciliation;
- c) If reconciliation is not possible the VA will approve/accept the differences based on its own approval/acceptance process;
- d) When the process is concluded the initial or changed MMEL is approved and issued in accordance with the CA process and, in case of two separate MMEL, with the VA process.

5. Technical Support and Information for Evaluation Activities

Pursuant to Paragraph 8 of the Annex, upon request and after mutual agreement, and as resources permit, the Competent Authorities can provide technical support and information, hereafter referred to as technical assistance, to each other when significant activities related to evaluation of operational and maintenance elements are conducted in either China or the European Union.

In this case, the provisions laid down in paragraph 8.1 of the TIP will apply.

6. Authority

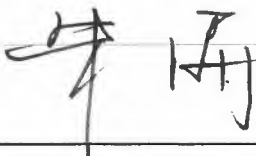
CAAC and EASA agree to the provisions of the Appendix for the TIP as indicated by the signature of their duly authorised representatives. This version was adopted during the Certification Oversight Board held by the European Union Aviation Safety Agency and the Civil Aviation Administration of China on September 3rd, 2020.

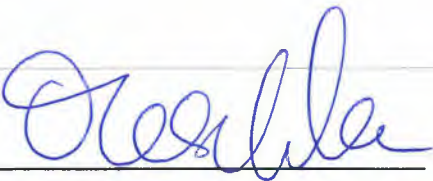
CAAC

EASA

By Mr. Zhu Tao

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Title Director General of Flight Standards Department

Title Certification Director

Date September 3rd, 2020

Date September 3rd, 2020

Table 1: Standards and process specification of EASA OSD evaluation

| REFERENCE | TITLE |
|---|--|
| Part-21 | General criteria on the process and demonstration of compliance principles |
| Certification Handbook | Internal user guide on the conduct of certification activities |
| (1) OSD Flight Crew | |
| CS-FCD | Certification Specifications for Operational Suitability Data (OSD) - Flight Crew Data |
| (2) OSD Maintenance Certifying Staff | |
| CS-MCSD | Certification Specifications and Guidance Material for Maintenance Certifying Staff Data |
| (3) OSD Master Minimum Equipment List (MMEL) | |
| CS-MMEL | Certification Specifications and Guidance Material for Master Minimum Equipment List |
| CS-GEN-MMEL | Certification Specifications and Guidance Material for Generic Master Minimum Equipment List |
| (4) OSD Cabin Crew | |
| CS-CCD | Certification Specifications and Guidance Material for Cabin Crew Data |
| (5) OSD Simulator Data | |
| CS-SIMD | Certification Specifications and Guidance Material for Simulator Data |

Table 2: Standards and process specification of CAAC operation evaluation

| REFERENCE | TITLE |
|--|--|
| (1) Pilot Qualification Specification | |
| AC-61-023 | Pilot Aircraft Type Qualification Specification Evaluation and the Application of the Evaluation Conclusions |
| MD-FS-030 | Guidelines for the Development of Pilot Aircraft Type Qualification Plan |
| MD-FS-036 | Aircraft Type Flight Training Specification Based on Training Needs Analysis |
| (2) Maintenance Personnel Qualification Specification | |
| AC-66-008 | Maintenance Personnel Aircraft Type Qualification Specification Evaluation and the Application of the Evaluation Conclusions |
| (3) Master Minimum Equipment List (MMEL) | |
| AC-91-037 | Development and Approval of Master Minimum Equipment List for Aircraft |
| (4) Scheduled Maintenance Requirements | |
| AC-91-026 | Development of Scheduled Maintenance Requirements |
| (5) Operational and Continued Airworthiness Documents | |
| AC-91-011 | Aircraft Instruction for Continued Airworthiness |
| AC-91-024 | Aircraft Operational Documents |
| (6) Other evaluation subjects | |
| AC-121-028 | Cockpit Observer Seat and associated Equipment |
| AC-121-008 | Requirements for the Aircraft Flight Crew Sleeping Quarters |
| AC-121-031 | Guidelines for the Operation Approval of Electronic Flight Bags |
| Appendix C of CCAR-121 | Criteria for §121.161 required demonstration of emergency evacuation procedures |