

Circular No. 1-318

Evaluation Procedures for the Operation and  
Maintenance Requirements for Domestically  
Manufactured Aircraft

September 13, 2011 First issue (KOKU-KU-KOU-103; KOKU-KU-KI-111)

Director  
Aviation Safety and Security Department  
Japan Civil Aviation Bureau

(translated on May 31, 2017)

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1. Overview

Compliance with the Safety and the Environmental Standards for an aircraft design is investigated under the type certificate in accordance with Article 12 of the Civil Aeronautics Act (Act No. 231 of 1952), while an operator of a newly designed and manufactured aircraft is required to provide appropriate training to aircraft crewmembers, install equipment necessary for flight operations, and maintain the aircraft in an appropriate manner in accordance with the Civil Aeronautics Act and other relevant regulations. In particular, if the aircraft is used for air transport services, the air carrier is required by the Civil Aeronautics Act to stipulate these requirements in the Operation Manual and Maintenance Manual.

Among these requirements, basic requirements such as the training items for aircraft crewmembers, etc. corresponding to the aircraft systems and specifications, the permissible conditions corresponding to failure of equipment necessary for safe operation, and the items and intervals of aircraft scheduled maintenance, depend on the aircraft design. Therefore, from the perspective of appropriate and efficient approval of the operation and maintenance requirements for the aircraft, it is common that the aircraft designer and manufacturer develops the requirements in an integrated manner at the design phase of the aircraft and that the aviation authority supervising the design and manufacturing of the aircraft makes a preliminary evaluation.

In Japan, in consideration of the fact that Japan's first domestically manufactured regional jet is under development, this circular is intended to stipulate necessary procedures concerning the operation and maintenance requirements to be established by aircraft designers and manufacturers in order for the Japanese government as a State of Design and Manufacture to make appropriate evaluations so that the domestically manufactured aircraft can perform smooth and safe flight operations.

## 2. Organization for Evaluation

- (1) When an application for a type certificate for a domestically manufactured airplane (excluding those whose maximum takeoff weight is less than 5,700 kilograms) is submitted, the Director of the Aviation Safety and Security Department establishes an Aircraft Evaluation Group (hereinafter referred to as “AEG”) and has the group perform the operations specified in Appendix 1. The Director of Aviation Safety and Security Department also appoints the AEG members separately.
- (2) In principle, AEG assembles the following Boards composed of AEG members, Japan Civil Aviation Bureau officers, and other persons concerned in order to conduct the necessary operations in Appendix 1. The general policies and specific operations of each board are stipulated separately.

a)	Flight Standardization Board (FSB)
b)	Flight Operations Evaluation Board (FOEB)
c)	Maintenance Review Board (MRB)

## 3. Other

In order to identify and resolve important technical, regulatory, and administrative issues arising in the course of AEG operations, the Japan Civil Aviation Bureau (JCAB) issues “Issue Papers” to organize and record the processes and results of discussions between the JCAB and the aircraft designer and manufacturer. The handling procedure is stipulated in Appendix 2.

## Supplementary Provision

This procedure shall be applied from September 13, 2011.

Operations of AEG

- a) Evaluation of requirements for the test, competence evaluation, and training, etc. for aircraft crewmembers, etc.
- b) Evaluation of the development of the Master Minimum Equipment List (MMEL), which stipulates the conditions for flight with inoperable equipment, etc.
- c) Evaluation of the development of the Maintenance Review Board Report (MRBR), which stipulates the basic requirements for scheduled maintenance necessary to maintain airworthiness after the aircraft entry into service.
- d) Advice on airworthiness directives, aircraft service difficulty reports, supplemental type certificates, etc. after the aircraft entry into service
- e) Participation in the evaluation of the type certificate for the following items:
  - Aircraft and system evaluation related to the validity of the operation and maintenance requirements
  - Number of required crewmembers
  - Emergency escape demonstration
  - Type Certification Board
  - Practical flight test
- f) Evaluation of the suitability of crewmembers' resting room and cockpit observer's seat
- g) Evaluation of the requirements for special training, etc.
- h) Support for the approval of aircraft flight simulators,
- i) Evaluation of the Aircraft Flight Manual, the Operation Manual, etc.
- j) Coordination with foreign aviation authorities for the operations in a) through i) above
- k) Operations deemed necessary by the Director of the Aviation Safety and Security Department to evaluate the operation and maintenance requirements for domestically manufactured aircraft

## Handling Procedures of Issue Papers

### 1. Issuance Procedures

#### ① Preparation of draft Issue Papers

In order to make an appropriate evaluation of the operation and maintenance requirements for domestically manufactured aircraft, AEG prepares a draft Issue Paper to clarify important technical, regulatory, and administrative issues to be resolved, and also notifies the aircraft designer and manufacturer of the draft upon the approval of the relevant directors of the JCAB. In the draft Issue Paper, the abstract of important issues identified in the course of evaluating the operation and maintenance requirements for domestically manufactured aircraft, the record of discussion for resolution, and the JCAB's positions need to be clarified.

Due to the close relationship between AEG's operations and the type certification work, AEG needs to coordinate closely with the Aircraft Engineering and Certification Center when preparing draft Issue Papers.

#### ② Issuance of Issue Papers

After receiving a response from the designer and the manufacturer, AEG specifies the conclusion in the draft Issue Paper by mutual agreement and obtains approval of the relevant directors of the JCAB. The JCAB issues the Issue Paper upon their approval.

#### ③ Storage of Issue Papers

Issue Papers that have been issued are stored by the Flight Standards Division of the JCAB; the AEG members and persons concerned as well as those involved in the type certification project at the Aircraft Engineering and Certification Center are allowed to access the Issue Papers.

#### ④ Language

An Issue Paper is written both in Japanese and English.

## 2. Description Items

- ① Name of designer and manufacturer, model name, and project number
- ② Relevant regulations and guidance materials
- ③ Relevant circulars, etc.
- ④ Subject
- ⑤ Item

O—: Operation

M—: Maintenance

Numbers following the dash (-) are determined by the responsible Board.

- ⑥ Stage

Stage 1: Drafting process (description of the background to the preparation of a draft Issue Paper)

Stage 2: Discussion process (description of JCAB's positions)

Stage 3: Evaluation process (description of designer's and manufacturer's positions and revision of JCAB's positions)

Stage 4: Final process (conclusion)

- ⑦ Date

Issuance date of an Issue Paper

- ⑧ Status

Indicate whether the Issue Paper is open or closed.

Label "Reopen" if reexamination is necessary after the Issue Paper is closed.

- ⑨ Due date

- ⑩ Background to the preparation of a proposed Issue Paper

- ⑪ Conclusion

## 3. Format

The format of an Issue Paper is shown in Appendix 1.

Project:

Item:

Stage:

Date:

Page:

**Issue Paper**

Project: ①

Item: ⑤

Stage: ⑥

Relevant regulations: ②

Date: ⑦

Relevant circulars, etc.: ③

Status: ⑧

Subject: ④

Due date: ⑨

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Issuance of Issue Papers

Discussion

⑩

Background

JCAB's positions (date)

Designer's and manufacturer's positions (date)

Conclusion (date) ⑪

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Flight Standards Division or Airworthiness Division  
Aviation Safety and Security Department,  
Japan Civil Aviation Bureau

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Date

Contact