

Administrations for Record related to Alteration of Aircraft or Design
Change of Components, (Handling Procedure of “List of Design Change
Inspection”)

October, 1, 2005	First Issue (KOKU-KU-KI-682)
June 30, 2011	Amended (KOKU-KU-KI-282)
June 17, 2020	Amended (KOKU-KU-KI-285)

Airworthiness Division, Aviation Safety and Security Department
Japan Civil Aviation Bureau
Ministry of Land, Infrastructure, Transport and Tourism

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Circular

Director, Airworthiness Division
Safety and Security Department
Civil Aviation Bureau
Ministry of Land, Infrastructure, Transport and Tourism

Subject: Administrations for Record related to Alteration of Aircraft or Design Change of Components,
(Handling Procedure of “List of Design Change Inspection”)

1. Purpose

When alteration of aircraft or design change of components (including installation of new components), etc (hereinafter referred to as “alteration”) are performed during Inspection of Airworthiness Certificate or Inspection of Repair or Alteration, an “List of design change inspection” which is a record describing inspection contents related to the alteration is prepared. This circular clearly specifies preparation and handling procedures of the “List of design change inspection”.

2. Application

This circular is applicable to the following cases in principle.

In addition, this circular is also applicable to alteration performed by a Design Change, which has been approved by a Supplemental Type Certificate based on the Civil Aeronautics Act (Law) (hereinafter referred to as “CAL”) Article 13-2 or a Repair and Alteration Design Approval in accordance with CAL Article 17 -2 .

- (1) Alteration performed by using parts other than the OEM (Original Equipment Manufacturer) parts listed in a parts catalogue, etc of the said aircraft
- (2) Alteration performed by a method other than a service bulletin issued by the said aircraft manufacturer

However, this circular is not applicable to alterations on aircraft being used by the following air carriers.

- ① Specified Japanese air carrier
- ② Air carrier other than ①, who has an air carrier certificate approved by previous provisions of the CAL Article 100 paragraph 1 that had been effective until enforcement of amendment No.72, dated June 11, 2000.

3. Purpose of “List of design change inspection”

The “List of design change inspection” is used to clarify a work scope of alteration, contents of inspection and The contents of the changes in relevant manuals, when alteration is performed during Inspection of Airworthiness Certification or Inspection of Repair or Alteration, or when alteration work is performed under a Supplemental Type Certificate Approval by an approved organization certified by provisions of the CAL Article 20 paragraph 1-4.

4. Handling procedures of “List of design change inspection”

Handling procedures of “List of design change inspection” are as follows.

- 4-1 A form of “List of design change inspection” is TCF-1-201A.
A size of “List of design change inspection”, which is submitted in accordance with this circular item 4-2 is A4 paper size in horizontal position. Font used should be large sizes to accommodate use of an image scanner.
- 4-2 A designer of the alteration or an engineer who can manage technical information, etc relating to the design approved by foreign authorities such as STC of U.S.A. (hereinafter referred to as “designer, etc”) shall enter necessary information on “List of design change inspection” form above and submit it to the Airworthiness Engineer in charge (for glider, to the Airworthiness Inspector) when Inspection of Airworthiness Certificate or Inspection of Repair or Alteration is conducted.
- 4-3 The Airworthiness Engineer (for glider, the Airworthiness Inspector) shall confirm that contents described on “List of design change inspection” are appropriate, and then issue the “List of design change inspection”. After Inspection of Airworthiness Certificate or Inspection of Repair or Alteration is completed and passed, the “List of design change inspection” shall be kept at Airworthiness Inspectors Office (for glider, sent to Airworthiness Division, Safety and Security Department, Civil Aviation Bureau) and a copy of “List of design change inspection” is delivered to a designer, etc and a copy is also delivered to an operator of the aircraft.
- 4-4 All analysis documents and drawings, etc which are required to verify the conformity shall be submitted, however, for alteration based on Supplemental Type Certificate or Repair and Alteration Design Approval, only necessary materials for each aircraft may be submitted.

Materials submitted by the applicant shall be returned to the applicant after completion of the inspection.

4-5 In spite of provisions described in 4-2 through 4-4, if alteration based on Supplemental Type Certificate or Repair and Alteration Design Approval is performed by the approved organization specified in the CAL Article 20 paragraph 1-4, the certifying staff shall issue the “List of design change inspection” and send a copy of the list immediately to the office of Airworthiness Engineer who have jurisdiction over the approved organization.

4-6 A copy of the “List of design change inspection” shall be kept by the designer, etc and another copy shall be kept by a user of the said aircraft appropriately. It is desirable that the copy is kept as an attachment to a flight logbook of the said aircraft (It is permissible to use a reduced copy)

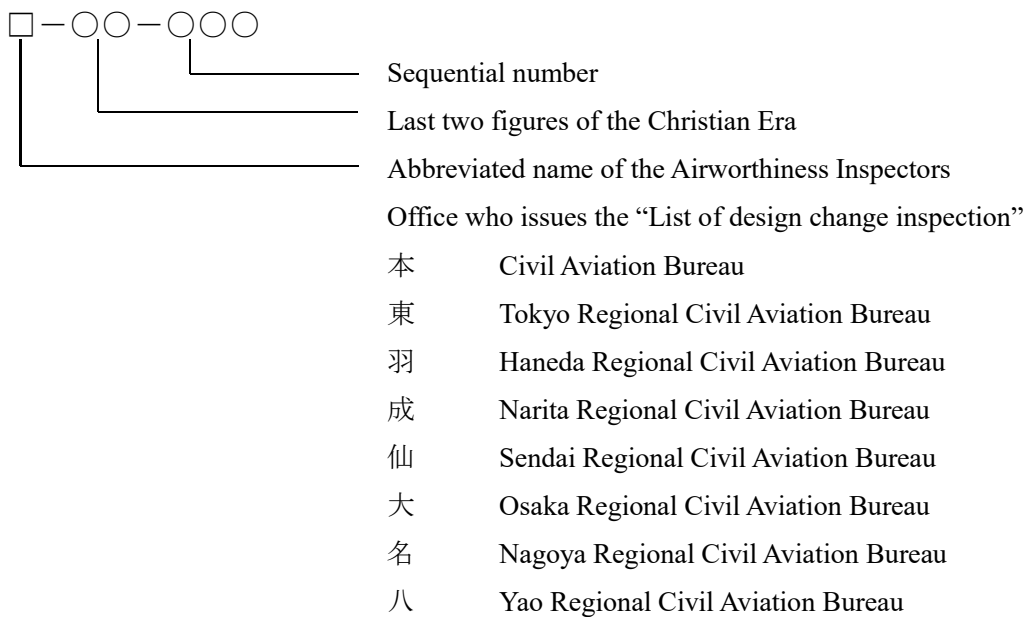
4-7 The “List of design change inspection” shall be kept for the following periods.

The designer, etc	Until the aircraft altered is deregistered. (Technical documents relating to the alteration should be kept in the same period)
The user of aircraft	Until the aircraft altered is deregistered. If the user of aircraft is changed, the responsibility for keeping of “List of design change inspection” shall be changed accordingly.

5. Instruction of entry for “List of design change inspection”

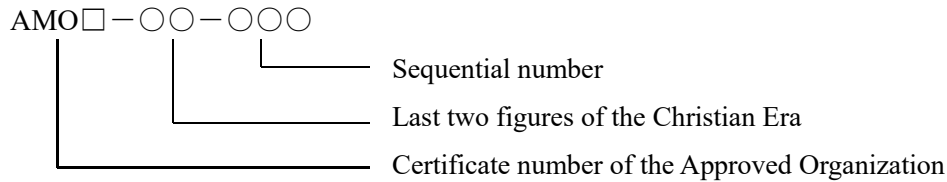
① “List of design change inspection Number” column

A sequential number is assigned for each Airworthiness Inspectors Office, as follows.



(Note-1) If it is issued by an Airworthiness Inspector, a method is prescribed in other material.

(Note-2) If it is issued by an approved organization, the following method shall be used.



② “Aircraft” column

Enter a nationality number, a registration number, an aircraft type, a manufacturer of aircraft, a manufacturing serial number, and an owner of the aircraft.

③ “Change Item” column

Enter general description of the change, or a type of components for the change, etc.

If the alteration work is based on a STC of the U.S.A., a supplemental type design change approval of Japan, a repair and alteration design approval, a type approval or a specification approval, then enter relating information. (For example: Installation of pesticide spray equipment by STC No. E12345 of the U.S.A.)

If those more than one aircraft components are changed, it may be described as remarks or attachment. If the alteration is installation of new equipment, a “Before Alteration” column should be entered by “-----“.

Except for components or parts whose interchangeability has been approved by a type certificate, a supplemental type design change approval, a repair and alteration design approval, a type approval, a specification approval or a STC of the U.S.A., components or parts which can be installed on the said aircraft after repair or alteration inspection shall be limited to one confirmed during the inspection. If limited accessories or parts can be installed on the aircraft, enter “Yes” on a column of “Limitation” and “No”, if the limitation is not applied.

If original alteration based on a type approval, a specification approval or STC, etc is modified by a designer, the modified areas of the alteration shall be clarified in a column of “Others”.

④ “Designer, etc” column

Enter a name and address of a designer, etc.

If the alteration is based on a supplemental type design change approval, a repair and alteration design approval, a type approval, or a specification approval by Japanese authority, the designer is a holder of those approvals. If the alteration is based on STC, etc., the designer may be an applicant of inspection of Airworthiness certificate or Inspection of Repair or Alteration,

⑤ “A person who conducted the alteration” column

Enter a name and address of a person who conducted the alteration.

⑥ “JCAB or Approved Organization” column

For JCAB case, enter an approved date (year, month, and day) of inspection of Airworthiness certificate or Inspection of Repair or Alteration and a name of the Airworthiness Inspectors Office in charge.

For an Airworthiness Inspector case, enter an approved date (year, month, and day) and a certificate number of the Airworthiness Inspector.

For an approved organization case, enter a confirmed date (year, month, and day) and a name of the approved organization.

⑦ “Change Method” column

Enter description of conformity evaluation briefly; the description may be different depending on alteration of aircraft or a type of components, etc.

For example, if ATC transponder is changed, in principle, divide the descriptions to;

- a. Function of accessory
- b. Installation
- c. Test

If necessary, they may be subdivided, and enter a document name, a document number for each item.

If the alteration is based on a supplemental type design change approval or a repair and alteration design approval, it may be satisfied by entering an approval number of the supplemental type design change approval or the repair and alteration design approval, and its nomenclature, etc for the design part of the said modification.

Example: Installation of ATC transponder

Item	Applicable Documents or Specifications	Verification Method
a. Function of accessory	TSO-C74c	FAA Export Airworthiness Certificate Tag No. and an Inspection Report
b. Installation	“Airworthiness Inspection Manual” Part II and AC43-13 3-1, 3-2, 3-9	General description report of the alteration ME-1234-1
Attachment Strength		Structural strength analysis

Electrical Load Analysis	6-3	report ME-1234-2 Electrical load analysis report ME-1234-3
Failure Mode Analysis	6-1-5	Failure mode analysis report ME-1234-4 Installation drawing
Installation Work	4-1	DW-1234 Work Instruction JO-1234
c. Test	6-1 TCI-6-016	General description of flight test ME-1234-5 Flight test report FE-1234-1

For “Item” columns of the above table, in principle, enter applicable items in accordance with each item of the “Airworthiness Inspection Manual”. If there are many applicable items, it may be summarized by a “List of conformity inspection” and described in a separate page.

⑧ “Relevant Document” column

Enter relevant documents such as a flight manual, other manuals which are required to be revised in accordance with the alteration. Enter general descriptions of the revision and document numbers.

Example:

Document Name	General description of revision
Flight Manual	Establishment of a supplemental flight manual “ATC transponder AVQ-95”
Components List	Addition of ATC transponder AVQ-95
Manual	Addition of a service manual for ATC transponder AVQ-95 (Note: Need to have maintenance requirements)

(Note) If establishment of maintenance requirements is required in accordance with the alteration, enter a note of “Need to have maintenance requirements” in a column of “Manual”.

⑨ “Remarks” column

Enter a nomenclature and a part number of the components installed by the alteration, if it is regarded as critical components for aircraft safety specified in CAL Article 18.

Supplementary Provisions

1. This circular shall be effective on October 1, 2005.
2. JCAB Circular TCL-147-2-98 shall be abolished by an issuance of this circular.

Supplementary Provisions (June 30, 2011)

1. This circular shall be effective on July 1, 2011.

Supplementary Provisions (June 17, 2020)

1. This circular shall be effective on June 18, 2020.

Please contact for questions or comments regarding this Circular to:

Airworthiness Engineer, Airworthiness Division, Safety and Security Department,
Civil Aviation Bureau, Ministry of Land, Infrastructure, Transport and Tourism
2-1-3, Kasumigaseki, Chiyoda-ku, Tokyo, 100-8918

Tel. 81-3-5253-8735

Fax. 81-3-5253-1661

TCF-1-201A

変更審査表
List of design
change inspection

① 変更審査表番号 List of design change inspection Number	
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②航空機 Aircraft

国籍及び登録記号 Nationality and Registration Number		製造者 Manufacturer	
航空機型式 Manufacture's designation of aircraft		製造番号 Serial Number	
所有者 Owner of Aircraft			

③変更事項 Change Item

変更の概要 General Description of Change			
	変更前 Before Alteration	変更後 After Alteration	imitation 限定の有無
型式 Type of Aircraft			
製造者 Manufacturer			
製造番号 Serial Number			
その他 Others			

④設計者等 Designer, etc

設計者等 Designer, etc	
所在地	

Address of designer, etc.	
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⑤作業実施者 Person who conducted the alteration

作業実施者 Person who conducted the alteration	
所在地 Address of conductor	

⑥航空局又は認定事業場 JCAB or Approved Organization

合格年月日又 確認年月 Approved Date or Certifying Date	平成 年 月 日 YYYY-MM-DD	検査官室又は 認定事業場名 Airworthiness Inspectors Office or Approved Organization Name	
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⑦変更方法 Change Method

項目 Item	適用規定又は規格 Applicable Documents or Specifications	証明方法 Verification Method

⑧関連文書の改訂 Revision to Relevant Document

文書名 Document Name	改訂の概要 General Description of Revision

⑨備考 Remarks