



GOVERNMENT OF INDIA
OFFICE OF THE DIRECTOR GENERAL OF CIVIL AVIATION
TECHNICAL CENTRE, OPP. SAFDARJUNG AIRPORT, NEW DELHI-110 003

CIVIL AVIATION REQUIREMENTS
SECTION 2 - AIRWORTHINESS
SERIES 'M', PART I
23rd JULY 1999

EFFECTIVE: FORTHWITH

SUBJECT: MANDATORY MODIFICATIONS/INSPECTIONS.

1. APPLICABILITY:

Aircraft Rule 49 D provides for incorporation of modification in aircraft and/or accessories for continued validity of Type Certificate while Rule 50 A requires modifications/inspections to be carried out in aircraft/accessories in the interest of safety as a condition of the Certificate of Airworthiness of Aircraft remaining in force. Rule 52 lays down the acceptable standard for modification/repair and form and manner of distribution of the compliance certificate for the same and preservation thereof. This part of CAR prescribes the requirements for compliance with Mandatory Modifications/ Inspections.

2. PURPOSE:

The purpose of a mandatory modification/inspection is to notify aircraft owners of unsafe and other conditions affecting the airworthiness of their aircraft and/or accessories. The Mandatory Modification/Inspection will prescribe the mandatory actions required for the continued safe operation of the aircraft.

3. DEFINITIONS:

For the purpose of this part:

- 3.1 Mandatory Modification:** Mandatory Modification means the modification incorporated in an aircraft, aircraft component and items of equipment after type certification to maintain it in an airworthy condition.

3.2 **Airworthiness Directive:** An airworthiness directive means a document issued or adopted by DGCA which mandates actions to be performed on an aircraft to restore an acceptable level of safety, when evidence shows that the safety level of this aircraft may otherwise be compromised.

3.3 **Foreign Airworthiness Authority:** Foreign Airworthiness Authority means the airworthiness authority of the country responsible for the issue of type design certification for the aircraft including their accessories.

4 **PROCEDURE:**

4.1 Mandatory Modifications and inspections are promulgated by the airworthiness authority of the country of manufacture of an aircraft, aircraft component and item of equipment to maintain the continued airworthiness of the product. These are issued after some service defects are noticed and also after continued testing of the product which may reveal any deficiency. The concerned manufacturers bring the defects as well as the deficiencies in an aircraft, aircraft component or item of equipment to the notice of the Airworthiness Authority. The Airworthiness Authorities in turn issue the mandatory modifications/inspections, which are to be complied with within the stipulated period to maintain product in airworthy condition.

4.2 **Documents relating to continued airworthiness of aircraft:**

4.2.1 Manufacturers generally issue changes to their products in the form of Service Bulletins, Service Instructions, Service Letters or other literature to the operators. However, these Service Bulletins/Instructions do not automatically become mandatory. Each operator is expected to review all such information received from the manufacturers and based on their experience incorporate the same. These may be for better performance of the product, to prevent recurrence of minor defects, improvement in the material or life development etc.

4.2.2 It is imperative that all operators/Aircraft Maintenance Organisations (AMO) shall be in possession of updated Service Bulletins, Service Instructions, Service Letters and any other document relating to continued airworthiness of aircraft. Operators/ AMOs shall be on the mailing list for receipt of amendments to the above documents from the manufacturers/design authorities.

4.3 At the time of issue of C of A to a new type of aircraft imported into the country, the operator shall ensure that all Airworthiness Directives issued by the Regulatory Authority of the State of Manufacture are complied with. A statement in this regard shall be submitted to DGCA. All repeat inspections mentioned in the Airworthiness Directives may form part of the maintenance inspection schedule.

- 4.4 Compliance of Airworthiness Directives/Mandatory Modification by operators.
 - 4.4.1 When India is not a 'State of Design', DGCA will declare only those Airworthiness Directives/ Alert Service Bulletins/ Instructions /Letters as mandatory which affect the safety of aircraft operation. These will be notified to the operator in the form of Mandatory Modifications/Inspections. The operator will comply with the DGCA mandatory modification /inspection within the period specified by DGCA failing which the C of A is deemed to be suspended. Further, it shall be the responsibility of the operator to comply with any revisions issued by regulatory Authority of the state of the manufacture to the AD or by the manufacturer to the ASB/SB/SL/SI etc.
 - 4.4.2 When India is a 'State of Design', DGCA will issue Airworthiness Directives in accordance with CAR 21.3B upon examination of Service Bulletins issued by TC Holder/Manufacturer to correct an unsafe condition that has been determined by DGCA to exist in an aircraft, as a result of a deficiency in the aircraft, or an engine, propeller, part or appliances installed on this aircraft; and that condition is likely to exist or develop in other aircraft. The operator will comply with the DGCA (AED) Airworthiness Directives within the stipulated time specified by DGCA (AED) failing which the C of A is deemed to be suspended.
- 4.5 DGCA upon receipt of Mandatory Modifications from the state of design will declare them mandatory after assessing the information contained therein. Operators are advised to get copies of such Airworthiness Directives, Mandatory Modifications/ Inspections from the manufacturers or through the Foreign Airworthiness Authorities where these are normally available for sale.
 - 4.5.1 For aircraft designed in India, DGCA shall transmit information, which it finds necessary, relating to continuing airworthiness of aircraft and safe operation of aircraft to every State who have advised DGCA that they have entered such aircraft on their register and to any other State upon request.
 - 4.5.2 DGCA shall intimate the State of design any information relating to continuing airworthiness of aircraft or operation of aircraft which it originates and declares mandatory.
- 4.6 All operators are required to evolve and implement a foolproof and timely system to ensure that any modification carried out on their aircraft is duly intimated to the manufacturer. The Quality Control Manual should include the procedure for intimating the compliance of modifications to the manufacturer.
- 4.7 It shall be the responsibility of owner/operator/maintenance agency to include such modifications, which require repeat inspections at specified intervals in the appropriate inspection schedule.

- 4.8 Owner/Operators are required to submit to the Regional Airworthiness office a list of Service Bulletins complied with during the preceding one year at the time of renewal of Certificate of Airworthiness. They are also required to submit a consolidated list of mandatory modifications/ inspections item wise indicating their compliance status. False statement in regard to the compliance status of a mandatory modification/ inspection will be viewed seriously and necessary action will be taken by this office against the erring QCM/Engineers who have certified its compliance. Officers of this Department may ask for dismantling of a part to ensure the compliance of any modifications declared mandatory in case of any doubt.
- 4.9 The Certificate of Airworthiness will not be renewed if it is observed that any mandatory modification/ inspection due on the aircraft, aircraft component or item of equipment installed on the aircraft has not been complied with.
- 4.10 Normally a type certified product should not be altered or modified by the operator unless prior approval is obtained from DGCA. However, products can be modified in accordance with the manufacturers Service Bulletins or Instructions, provided the recommended material, spare parts and procedure as suggested therein are used and incorporation of said SB/Modification is certified by licenced/approved person or organisation. Any deviation from the above will require prior approval of DGCA. In case of experiencing any difficulty in complying with the modification, the operator may apply for a concession with proper justification to the Regional Airworthiness office. Incorporation of an unapproved modification/ inspection to a type certified product would render the C of An invalid. This office will compile a consolidated list of all modifications/inspections aircraft; engine and equipment wise declared mandatory and will distribute the same to the concerned operator through Regional Airworthiness Office. Notwithstanding the above, the owners/operators are expected to comply with the modifications/inspections intimated through Cablegrams/ Alert Service Bulletins unless notified otherwise.

Sd/-
(CHARAN DASS)
Deputy Director General of Civil Aviation