GOVERNMENT OF INDIA

OFFICE OF THE DIRECTOR GENERAL OF CIVIL AVIATION

TECHNICAL CENTRE, OPP SAFDURJUNG AIRPORT, NEW DELHI

CIVIL AVIATION REQUIREMENTS
SECTION 1 - GENERAL
SERIES 'F' PART IX
20th MARCH 1992 **EFFECTIVE: FORTHWITH**

Subject:- **Continuous Airworthiness Maintenance Programme.**

1. Background :

In accordance with Rule 15 aircraft registered in India and flying, must have a valid Certificate of Airworthiness. In order to maintain the aircraft in airworthy condition, Rule 53 of Aircraft Rules specifies that all aircraft and aircraft components and items of equipment on such aircraft shall periodically be inspected, overhauled, and certified on completion of the prescribed flight time or calendar time or on the basis of any other stipulated condition in accordance with the approved maintenance system.

2. **Purpose :**

To ensure continued airworthiness of aircraft, the scope and extent of inspection to which an aircraft is subjected, must relate, in general, to the quantum of flying done by an aircraft. Additionally the inspection must be continuous, progressive and periodic.

3. Continuous Airworthiness Maintenance Programme Elements

A continuous airworthiness maintenance programme is a compilation of the individual maintenance and inspection functions followed by operator to meet the above requirement.

This programme is documented in the maintenance system manual of the operator and approved by DGCA and prescribes the scope of the programme, including limitation, time between overhaul limits etc. There are basic elements for the maintenance programme besides other element : Scheduled and Unscheduled Maintenance.

a) Scheduled Maintenance - This element concerns maintenance task performed at prescribed intervals. Some accomplish concurrently with inspection task that are apart from the inspection elements and may be included in the same schedule. Other tasks are performed independently. The scheduled tasks include replacement of life limited items, components requiring replacement for periodic overhaul, special inspections such as X-rays, checks or tests on condition items etc. Special work forms can be provided for accomplishing these tasks or they can be specified by a work order or some other document. In any case, instructions and standards for accomplishing each task should be provided to ensure its proper accomplishment and that it is recorded and

signed for.

b) Unscheduled maintenance - This element provides procedures, instructions, and standards for the accomplishment of maintenance tasks generated by the inspection and scheduled maintenance elements, pilot reports, failure analyses, or other indications of a need for maintenance. Procedures for reporting, recording, and processing inspection findings, operational malfunctions, or abnormal operations such as hard landings, are an essential part of this element. A continuous aircraft logbook can serve this purpose for occurrences and resultant corrective action between scheduled inspections. Inspection discrepancy forms are usually used for processing unscheduled maintenance tasks in conjunction with scheduled inspections. Instructions and standards for unscheduled maintenance are normally provided by the operator's technical manuals. The procedures to be followed in using these manuals and for recording and certifying unscheduled maintenance are included in the operator's procedural manual.

c) Engine, Propeller, and Appliances Repair and Overhaul - This element concerns shop operations which, although they encompass scheduled and unscheduled tasks, are remote from maintenance performed to the aircraft as a unit. As with the aircraft scheduled and unscheduled elements, instructions and standards should be provided alongwith means for certifying and recording the work. Appropriate life-limited parts replacement requirements are included in this element.

d) Structural Inspection Programme/Airframe Overhaul - This element concerns the structural inspections and/or airframe major overhaul. As with the aircraft inspection programme, detailed instructions and standards should be provided alongwith a work control and recording means. In addition to structural inspection, airframe major overhaul programme should be included in schedules maintenance tasks.

4. Compilation of Maintenance Programme

All manufacturers provide Recommended Maintenance Schedules including TBOs for light aircraft and Maintenance Planning Document (MPD) for transport category aircraft. The inspection schedules, special inspection schedules to cater for abnormal conditions, and TBOs / COSLs shall be drawn up by the operators based on the recommendation given by the manufacturers of aircraft components and aircraft equipment as given in the above mentioned documents. These schedules may be modified to the extent necessary based on the operator's own experience. Thereafter the Maintenance Programme may be forwarded to the Regional/ Sub-regional Airworthiness Office for approval.

To take care of low and irregular utilisation of aircraft,

periodicity of inspection schedule will be specified in terms of "flying hours" as well as in calendar periods. The existing approved maintenance schedules may be adopted after assigning suitable periodicity in terms of calendar periods.

Schedules once approved should not be altered (periodicity and contents wise) without specific permission, in writing of Regional Airworthiness Offices. However, items of inspection may be added to Schedules without awaiting the formal approval of the Regional Airworthiness Office, but such additions must be notified promptly to the Regional Airworthiness Offices for obtaining their approval. By way of guidance, it is suggested that light aircraft operators may follow the following periodicity in respect of maintenance schedules:

1. Daily Inspection
2. 25 Hours/15 days
3. 50 Hours/30 days
4. 100 Hours/3 months
5. 300 Hours/6months
6. 600 Hours/1 year
7. 1200 Hours/2 Years

The actual periodicity in respect of each type of aircraft may be decided by the individual operator in consultation with Regional Airworthiness Office. However, Regional Airworthiness Offices would ensure that operators of same type of aircraft operating under more or less similar conditions follow identical inspection schedules.

The scope and extent of various Maintenance Schedules must ensure that the entire aircraft, including its components and equipment, is thoroughly inspected, progressively and periodically, within the periods specified by the manufacturers and/or DGCA. The following of the Maintenance Schedules and certification of the same by appropriately licensed engineers are essential to ensure continued airworthiness of aircraft.

5. Inspection on Ageing Airplane

Aircraft are designed and built to provide many years of trouble free service. For the aircraft to remain airworthy and safe to operate for a long in service life, it should be operated and maintained in accordance with the recommendations of the manufacturers and those stipulated by DGCA. Service experience has revealed that ageing aircraft needs special attention during the maintenance processes and at times require more frequent inspection of structural components for damage due to environmental deterioration, accidental damage and fatigue. To ensure structural integrity of ageing aircraft manufacturers have issued

structural inspection programme and corrosion control prevention programme which must be supplemented with the existing maintenance programme to ensure continued airworthiness of these ageing aircraft. The operator should comply with Supplemental Structural Inspection Programme (SSIP) and Corrosion Prevention and Control programme (CPCP) where applicable by including in regular maintenance programme.

6. **Completion of Inspection Schedules:**

It shall be the responsibility of owner/operator to intimate Regional/ Sub-Regional Airworthiness Offices, in writing, at least 15 days in advance, about the commencement of all the major inspection schedules, of 100 hrs. and over due on each aircraft, to enable the Airworthiness office to carry out such physical inspection of aircraft as considered necessary. Completion of approved schedules and replacement of lifed components must be effected within stipulated periods. Normally escalation of maintenance schedules and TBOs of components should be governed by life development programme which may be discussed by the operator with the Regional Airworthiness Offices before the same is initiated. The operator must develop a sound maintenance practice to enable them to carry out Maintenance Schedules and replace life expired components within due date. In the event of extreme operational exigencies the operator may apply for extension to the maintenance schedules/TBOs alongwith full justification to the Regional/Subregional Airworthiness office and follow it up by a life development programme. No extension of validity of C of A would be granted.

7. **Preservation of Maintenance Schedules:**

All completed maintenance schedules must be preserved for a minimum period of one year form the date of final certification of such schedules.

Sd/-
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for Director General of Civil Aviation