



SNS COLLEGE OF TECHNOLOGY

(An Autonomous Institution)

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COIMBATORE-641 035, TAMIL NADU



DEPARTMENT OF AEROSPACE ENGINEERING

19ASB303 AIRCRAFT MAINTENANCE ENGINEERING

UNIT - 3 - INSPECTION

Publications, bulletins, various manuals

1. Introduction to Aviation Publications and Manuals

Aircraft maintenance relies heavily on official publications, bulletins, and manuals to ensure safe, standardized, and regulatory-compliant procedures. These documents provide essential guidance on aircraft operation, inspection, troubleshooting, and repair.

2. Purpose of Publications, Bulletins, and Manuals

- **Regulatory Compliance:** Ensures maintenance procedures meet aviation authority requirements.
- **Standardization:** Provides uniform procedures across different operators and maintenance teams.
- **Safety Assurance:** Helps identify and address potential hazards before they impact aircraft operations.
- **Technical Guidance:** Offers step-by-step instructions for inspection, troubleshooting, and repairs.

3. Types of Publications, Bulletins, and Manuals

a. Aircraft Maintenance Manuals (AMM)

- Published by aircraft manufacturers.
- Contains detailed maintenance procedures, troubleshooting, and inspection guidelines.
- Essential for aircraft maintenance technicians.

b. Structural Repair Manuals (SRM)

- Provides repair guidelines for structural components.
- Includes material specifications and allowable damage limits.

c. Illustrated Parts Catalog (IPC)

- Contains exploded-view diagrams of aircraft components.
- Helps in identifying and ordering spare parts.

d. Service Bulletins (SBs)

- Issued by manufacturers to recommend inspections, modifications, or repairs.
- Can be mandatory or optional, depending on the safety impact.

e. Airworthiness Directives (ADs)

- Issued by aviation regulatory authorities (FAA, EASA, DGCA).
- Mandates corrective actions for identified safety concerns.
- Compliance with ADs is legally required.

f. Maintenance Program Documents

- Outlines scheduled maintenance intervals and tasks.
- Approved by aviation authorities based on manufacturer recommendations.

g. Minimum Equipment List (MEL) and Master Minimum Equipment List (MMEL)

- Specifies equipment that can be inoperative for flight without compromising safety.
- MEL is aircraft-operator specific, while MMEL is manufacturer-issued.

h. Flight Crew Operating Manual (FCOM)

- Used by pilots and flight engineers.
- Includes normal and emergency operating procedures.

4. Importance of Keeping Publications Updated

- New findings and safety improvements require frequent updates.
- Airlines and maintenance personnel must ensure they are using the latest revisions.
- Non-compliance with updated directives may lead to regulatory penalties.

5. Conclusion

Publications, bulletins, and manuals are fundamental to aircraft maintenance. They ensure that inspections and repairs adhere to standard procedures, enhancing safety, reliability, and regulatory compliance.