Aviation Regulatory Experts

SOFEMA AVIATION SERVICES

MSG 3 Methodology and Analytic Process Fundamentals – 2 Days

Introduction

In 1979, the Air Transport Association (ATA) task force aimed to enhance the MSG-2 methodology to meet the demands of a new generation of advanced technology aircraft, such as the Boeing 757 and 767. The result of this effort was MSG-3, which has since become the preferred approach for developing scheduled maintenance tasks and intervals that are acceptable to regulatory authorities, operators, and manufacturers.MSG-3 employs a top-down approach focused on ensuring the economic viability and airworthiness of aircraft systems, components, and structures. For each potential failure cause, MSG-3 provides task-oriented guidelines to determine the appropriate scheduled maintenance activities. The resulting maintenance program consists of specific tasks selected based on the reliability characteristics of the equipment and the potential consequences of failure.

Tasks are organized in a hierarchy of difficulty and cost, from the least to the most complex. Depending on the consequences of failure—whether safety-related, operational, economic, or hidden—one or more tasks are selected to address the failure effectively.

This course offers a comprehensive understanding of the MSG-3 process, its scope, and its functionality, particularly in relation to the development of the Maintenance Review Board (MRB) Report.

Who is the course for?

All personnel with duties and/or responsibilities in the Airline Planning environment. Quality Assurance Staff. Also of Interest to persons working in a CAMO or Part M Quality System. Production Planning and Reliability Specialists, Engineers, Managers & Lease Companies.

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email team@sassofia.com

Date	On Demand
Category	
Venue	On Demand
Level	
Price	**On Demand**

What is the Benefit of this Training - What will I learn?

a) Understanding of the MSG-3 Methodology: Gain a strong understanding of the MSG-3 framework, including its decision logic and task-oriented approach, to optimize maintenance tasks while balancing safety, reliability, and cost-efficiency.
b) Principles of Failure Mode and Effects Analysis (FMEA): Learn how FMEA and Functional Failure Analysis (FFA) are used to identify potential failures and their impacts, helping to guide maintenance decisions effectively.
c) Role of Stakeholders in Maintenance: Understand the obligations and responsibilities of key stakeholders such as the Type Helicopter Class (THC), Supplier Technical Coordination Hub (STCH), and the Operator in ensuring a well-managed maintenance process.
d) Proactive Maintenance Strategies: Gain insights into how proactive and predictive maintenance strategies can reduce downtime, lower maintenance costs, and improve overall operational efficiency.

Detailed Content / Topics – The following Subjects will be addressed

General Introduction
Contents
Abbreviations and Terms
Aircraft Maintenance Fundamentals
Aircraft Maintenance Program – Developments
Aircraft Type Certification Process Key Stage Considerations
The Origins of MSG-3
MRB and ISC Meetings, MRB Report Approval Process
General Introduction to MSG-3 Process
Features and Benefits of MSG-3
Features and Benefits of MSG-3
The Role of MSG 3 in Reducing the Cost of Aircraft Maintenance
Basic Documentation: Air Transport Association of America, MSG-3 (Revision 2015)
Update Key Features MSG 3 (2018 - 2022)
Understanding the MSG 3 Failure Process

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MSG-3 Analysis Methodology

Introduction to Zonal Safety Analysis (ZSA), Particular Risk Analysis (PRA) and Failure Mode and Effect Analysis (FMEA)

MSG-3 Advanced Analysis Considerations

MSG 3 / MRB Revision process

Maintenance Significant Item Selection

System and Power Plant Analysis

Structural Analysis

Zonal Analysis

EWIS / HIRF

MSG 3 Analysis Examples

Target Groups

The course is beneficial for persons requiring a comprehensive understanding of MSG-3. The course will also be beneficial to persons working within a CAMO environment for example Reliability engineering, Maintenance Program Management, and Quality Audit Staff.

Pre-Requisites

A background in aviation maintenance planning and reliability will be a distinct advantage however the course is stand alone.

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Learning Objectives

This course aims to provide the participants with an in-depth understanding of the MSG-3 process and methodology employed to develop MSG-3-based Maintenance Programmes.

What do People Say about Sofema Aviation Cervices Training?

"The course expanded my competence on the subject."

"The teaching approach was great."

"The instructor was very passionate about the subject."

"Everything was very well-prepared."

"All questions were explained clearly."

Duration

2 Days – Each day will commence at 09.00 and finish at 17.00, with appropriate refreshment breaks.

To register for this training, please email team@sassofia.com or Call +359 28210806

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