

Maintenance Error Practical Investigation – 4 Days

Introduction

This course is aimed at investigating – analyzing – understanding and developing mitigations for the incidents accidents and safety occurrences related to the Maintenance Errors which we face on a regular basis within our Industry.

Such incidents do not necessarily lead directly to significant negative outcomes, however, may become a precursor or element of a future event. We have an opportunity to subject such safety occurrences to correct and proper investigation and analysis, in this way, they may have a significant and beneficial effect on the organisations ability to improve its safety performance.

It is widely recognized that the majority of causal and contributory factors leading to an error can be managed. In addition, developing a comprehensive root cause understanding leads to a wider and more effective mitigation process.

This training takes the understanding of the entire Maintenance Error Analysis process to a deeper level and supports the development of a fundamental understanding of the various analytical techniques associated with the investigation of maintenance errors.

Who is the course for?

It is for Regulatory Authorities and persons who are involved in the technical management of Commercial Aircraft Maintenance (CAMO & AMO), Technical Engineering, Quality Assurance & Safety Assurance, Quality Auditors, as well as anyone with an interest to achieve an effective understanding of the best practices related to Maintenance Error Investigation

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

- a) Achieve a solid understanding related to the Investigation of Maintenance Error
- b) Be able to demonstrate a fundamental understanding of Root Cause and other Analytical techniques
- c) Appreciate the difference between Personal and Organisational Violations and the role of Organisational Culture
- d) Understand the methodology and challenges to enable the implementation of the most effective process to manage maintenance errors.
- e) be able to deliver a step-by-step process to perform a detailed investigation into Maintenance Error

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Date	On Demand
Category	Personal Development
Venue	On Demand
Level	Basic
Price	On Demand

Detailed Content / Topics - The following Subjects will be addressed

Day 1

- Introduction
- Abbreviations
- Regulatory, Industry, and Business Drivers influencing our Exposure to Maintenance Error
- Understanding Error and Violations
- Developing & Understand Just and Effective Culture and Behaviour
- Reviewing Maintenance Error Oversight Mechanisms
- Introduction to Maintenance Error Management Systems
- Basic principles and terminology used in Error Management Systems
- Consider the precursors to errors and the connection with personal and organisationally optimising violations
- Investigation and Analysis Considering Risk and Exposure – When to Perform Investigations
- Reporting Mechanisms - How to Implement, Develop and Optimise our Internal Reporting Mechanisms
- How to Maximise the Effect of Confidential Reporting – How Beneficial is Confidential Reporting?

Investigations – Structure & Preparation:

- Considering Investigator competence
- Internal / External – Jurisdiction and Legal Considerations
- Investigator Responsibilities and Reporting Obligations
- Pre-requisites and preparations – individual and organization perspectives

Day 2

- Understanding of the Boeing Maintenance Error Decision Aid system
- Considering the Information available to the Maintenance Error Investigator
- What level of investigation is appropriate – Measuring exposure and return on investment?
- Discussion regarding the aims and benefits of information collection
- How to effectively manage information -how to filter & process?
- Validity of Information – how long is information effective

Carrying out Interviews:

- Preparation before the interview
- Interview techniques for best results
- Environmental Considerations
- Effective Human Interaction – Knowledge test – qualifying the witness
- Witness testimony
- Feedback and Communication – Verification for Positive outcome

Case Study:

- Case Study 1 – Team Activity followed by Group Debrief (Practical error investigation using MEDA – Case Study examples)

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Day 3

Analysis Fundamentals:

- Consider the "Why" together with the organizational factors involved
- Choosing the Investigation model to support this event
- Consider the bias which may be present and how we can discount
- Data and information organization and analysis. Structured Analysis
- Practical understanding of the role of Root Cause
- Identification of Root Cause
- Managing Root Cause Processes including Analysis
- Analysis using Logic Models and Simulations introduction
- The Role of Quantitative and Qualitative processes
- Developing Preventative Strategies and the Role of Performance Auditing

Building a Timeline:

- Constructing the event timeline which will support the analysis
- Further investigation process derived from the timeline

Day 4

Risk Analysis and Management:

- Explores the concept of risk as a matter of perspective, and the interaction of consequences and likelihood to determine risk.
- How We Measure and Categorize Risk

Fishbone & Bowtie Analysis:

- Discusses the Tolerability and Acceptability of Risk to an Organization
- ARMS – Additional Considerations Understanding the Stages of Effectively Managing and Measuring Risk
- Considering the responsibility for managing Risk within the Organisation
- The responsibility of the Investigator to develop and present proposed mitigations
- The responsibility of the business area owner is to consider mitigation proposals and to take the appropriate actions.

Reporting and Documenting Outcomes:

- Generating Reports in an appropriate format taking into account the needs of the recipient
- Structure and Content of the Report

Investigation Exercise:

- Team-based activity involving all elements of the process, extensive, interactive, and practical, producing a detailed investigation report to present to the responsible person with full justification of processes, methods, and conclusions.
- Debrief and Closeout

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Target Groups

Regulatory Authority Members Safety and Quality Audit staff, Members of the safety action group, safety investigation experts, and QMS & SMS stakeholders.

Pre-requisites

A strong understanding of QMS, SMS, and organisational processes is of direct benefit to this course

Learning Objectives

After completion of this course, Delegates should be able to perform all steps necessary to perform appropriate investigations and analysis and will be equipped to apply those skills in a practical way and propose mitigation within their organization.

What do People Say about Sofema Aviation Services Training?

"I found satisfying answers to all my questions."
"The instructor demonstrated very deep knowledge of the subject."
"The length of the course fit my needs and expectations."
"The content was really effective, I gained a lot of new knowledge."
"The practical examples were perfectly delivered."

Duration

4 days – Start 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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