

# Statistical Analysis for AMP & Reliability Engineers – 1 Day

## Introduction

Per AMC4 CAMO.A.305(g) – “Personnel Requirements Subpara (d), Personnel involved in developing and amending/reviewing the AMP, in assessing its effectiveness and/or working on reliability programme, should have knowledge of or be trained on statistical analysis and reliability method and the applicable methodology used in developing, as part of the instructions for continuing airworthiness (ICA), the manufacturer recommended maintenance programme (such as maintenance steering group logic).”

As per the requirement, effective statistical analysis provides the fundamental mechanism to proactively seek, identify and quantify aircraft maintenance reliability trends by utilising failure mode and failure rate data. Not least ascertain the effectiveness of the aircraft maintenance programme.

This highly interactive 1 day workshop delivers a practical understanding of the statistical mathematics behind aircraft maintenance reliability analysis, not least provides the basis for demonstrable compliance with AMC4 CAMO.A.305(g)

During the workshop delegates will consider mathematical problems and interpret the data with a view to key decisions regarding maintenance programme effectiveness, individual task development and component reliability.

## Who is the Course for?

It is for persons who are actively involved in the management or Interaction of the organizations Reliability Management System including Aircraft or Component Maintenance Planners, Maintenance Programme Engineers, Aircraft Maintenance Reliability Engineers & managers.

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

State that Reliability is a function of mathematical probability and apply probability laws correctly

Delegates will be able to demonstrate statistical mathematics methodology & apply probability laws effectively.

Ensuring the correct interpretation of reliability data with a view to ascertaining the effectiveness of the Aircraft Maintenance Programme.

When to alert, when to watch and when no action is necessary or when to clear from alert.

Provide & deliver effective reporting solutions that are immediately understood by personnel not familiar with reliability & statistical Analysis.

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**Date**

**Category**

Personal Development

Venue

Level

Price

## Why Should I choose SAS for the training?

Sofema Aviation Services a Regulatory training and consulting company with 45 years commercial aviation experience and 13 years operational experience. Since we started we have provided certificates to approx 27,500 delegates we have grown for 2 primary reasons!

The first is that we are professional and we listen to our customers. Please visit our [download area](#) as an example of how we engage with our customer.

The second is not only the fact that our prices are far more cost effective than our competitors it is that our [discount program](#) leaves all the others way behind – please do not take our word for it check it out!

## What makes SAS Reliability Mathematics: Statistical Analysis for AMP & Reliability Engineers – 1 Day different?

Our courses are written by people who have lived through the development of aircraft maintenance and reliability programmes.

At Sofema Aviation Services our focus is only on the the development of reliability systems, processes and procedures as a matter of compliance with regulations, but going further to ensure that delegates whom are new to the subject are presented with all of the information, insight and advice necessary to return to their desks and 'hit-the-ground running' and to satisfy National Aviation Authorities that those in volved with AMP effectiveness and reliability possess the correct knowledge level as a part of the oversight of competence.

## Detailed Content / Topics - The following Subjects will be addressed

- 1.Mathematical Probability & its' relationship with the Aviation Reliability construct;
- 2.The Basics of Distribution (Normal & Poisson) and its' application to maintenance forecasting;
- 3.Upper Control Limits - Calculating and setting Standard & Alert Levels for ATA Chapters;
- 4.Data Display & Aircraft Maintenance Reliability Reporting Guidelines.

## Target Groups

By the end of this workshop, the delegate will:

- Explain the reliability concept;
- Apply the laws of mathematical probability;
- Utilise statistical formulae found in typical spreadsheet software;
- Forecast failure rate or Failure probability using distribution curves;
- Explain Standard Deviation, set and manage Upper Control Limits;
- Describe graphical and tabular reporting, which to use and when.

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## Pre-Requisites?

A background understanding related to continuing airworthiness management subjects, together with aviation reliability is an advantage, however, specific reliability and statistical mathematics competencies are not essential.

## Learning Objectives:

Understand and apply the basic skills and knowledge to utilise statistical mathematics in terms of process for the correct analysis, interpretation and reporting of reliability data.

## What do People Say about Sofema Aviation Services Training?

*"The instructor used the right words to explain the material."*  
*"The discussions among the group were very beneficial."*  
*"The instructor showed very resourceful background and experience."*  
*"All sections of the course were related to my field."*  
*"Adequate answers were given to specific questions."*

## Duration

1 day – 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](mailto:team@sassofia.com) or Call +359 28210806

Sofema Aviation Services offers a flexible approach to developing all in-company training courses which are specific to the client's needs. If you would like additional information concerning how course content may be configured to be more appropriate for your organisation please email [office@sassofia.com](mailto:office@sassofia.com)



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