

Type Certification System Safety Assessment – 5 Days

Introduction

The 4 steps of the type-certification process:

Technical Familiarisation and Certification Basis

The set of rules that will apply for the certification of this specific aircraft type are being established (Certification Basis).

Establishment of the Certification Programme

EASA and the manufacturer need to define and agree on the means to demonstrate compliance of the aircraft type with each requirement of the Certification Basis. Consistent with EASA's "level of involvement" during the certification process.

Compliance Demonstration

The aircraft manufacturer must demonstrate compliance of its product with regulatory requirements: the structure, engines, control systems, electrical systems and flight performance are analysed against the Certification Basis. This compliance demonstration is done by analysis during ground testing (such as tests on the structure to withstand bird strikes, fatigue tests and tests in simulators) but also by means of tests during flight.

Technical Closure and Issue of Approval

If technically satisfied with the compliance demonstration by the manufacturer, EASA closes the investigation and issues the certificate. EASA delivers the primary certification for European aircraft models which are also being validated in parallel by foreign authorities for operation in their airspaces, e.g. the FAA for the US or TCCA for Canada. Conversely, EASA will validate the FAA certification of US aircraft models (or TCCA certification of Canadian models) according to applicable Bilateral Aviation Safety Agreements between the EU and the concerned Third Country.

tel + 359 2 821 08 06
email office@sassofia.com

www.sassofia.com

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

Who is the Course for?

This course develops the skills necessary to write and review system safety assessments for regulatory compliance to CS 25. Delegates are introduced to the evolution of the safety rule and specific techniques for compliance.

The course is delivered over five days and is relevant for anyone involved in the regulatory compliance aspects of system safety. It is specifically designed for CS 25 system certification engineers, system designers, as well as other key stakeholders.

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

- a) Demonstrate an understanding of the regulatory background behind the Safety Assessment of Aircraft Systems
- b) Be able to appropriate analysis techniques for the system under consideration
- c) Be able to consider in practical terms each technique, including the different strengths and weaknesses
- d) Be able to consider the role of safety assessment in the overall context of aircraft certification
- e) Fully appreciate the issues to be faced for the certification of new systems and aircraft.

Why Should I Choose SAS for the training?

Sofema Aviation Services a Regulatory training and consulting company with 45 years of commercial aviation experience and 12 years of operational experience. Since we started we have provided certificates to approx 25,000 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!](#)

tel + 359 2 821 08 06
email office@sassofia.com

www.sassofia.com

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

What Makes SAS Type Certification System Safety Assessment – 5 Days Different?

Because our courses are written by people who have lived through the regulations. The author of the training material has more than 25 years' experience as an auditor across the entire regulatory spectrum.

At Sofema Aviation Services our focus is on accepting that compliance with Regulations is in fact minimum compliance. Interpreting the regulations in a way which enables the development and optimisation of our business is where we should see opportunity to drive efficiencies and cost saving.

Detailed Content / Topics - The following Subjects will be addressed

- Managing the system safety aspects of compliance for new designs and modifications
- Requirements for Safety Assessment as Part of Regulatory Approval and Continued Airworthiness Process. (This discusses the underlying principles applied by Regulatory authorities)
- The Development of Requirements for Safety Assessment, FAR and EASA CS25.1309. (This provides more information on the derivation of the quantitative safety targets, and how they may be achieved)
- Brief explanation of the following terms:
 - Preliminary Hazard Analysis (PHA),
 - Subsystem Hazard Analysis (SSHA),
 - System Hazard Analysis (SHA),
 - Operating & Support Hazard Analysis (O&SHA), .
 - Topics covered include Functional Hazard Assessment (FHA),
 - Preliminary System Safety Assessment (PSSA),
 - System Safety Assessment (SSA),
 - Common Cause Analysis (CCA)
- Introduction to Probability Methods.
- Fault Tree Analysis, Dependence Diagrams and Boolean Algebra
- Zonal Safety Analysis (ZSA), Particular Risk Analysis (PRA) and Failure Mode and Effect Analysis (FMEA) of Aircraft Systems
- Safety and Certification of Digital Systems and Safety Critical Software
- Application of Aerospace Recommended Practice (ARP) 4761 and ARP 4754
- Certification Maintenance Requirements
- Flight-deck Ergonomics
- Evaluate Development Assurance Levels for compliance
- Certification Maintenance Requirements (CMRs), and
- Minimum Equipment Lists (MELs).
- Certification Maintenance Requirements

tel + 359 2 821 08 06
email office@sassofia.com

www.sassofia.com

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

Target groups

The training is relevant for anyone involved in the regulatory compliance aspects of system safety. It is specifically designed for CS 25 system certification engineers, system designers, as well as other key stakeholders.

Pre-requisites

The delegate should be very familiar with PART 21 / FAR 21 Initial Certification Requirements

Learning Objectives

To gain the ability to fully understand system safety requirements as well as to be familiar with design safety compliant systems and equipment, and to be able to work with and develop system safety compliance documentation.

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 a very resourceful background and experience."
"All sections of the course were related to my field."
"Adequate answers were given to specific questions."

Duration

5 days – Start at 09.00 and finish at 17.00, with appropriate refreshment breaks.

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

tel + 359 2 821 08 06
email office@sassofia.com

www.sassofia.com

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