PROTECT

Training / catalogue 2023
Training & Learning Services

Augmented knowledge for <Safety+Cybersecurity +Sustainability>

_enabling a trusted future

AIRBUS

Knowledge is a booster for projects

We're passionate about risk management, safety, cybersecurity and sustainability. Our experts guide clients in their transformation while empowering them to build a better future.

Airbus Protect offers end-to-end strategic advisory, consulting services, training programmes, and software solutions to industry, Critical National Infrastructure, governments and institutions. We bring together 1,400 professinals from Airbus Protect creating a centre of excellence to meet our clients' evolving needs.

We are a trusted partner with more than 35 years of experience in making businesses safe, secure and sustainable for today and tomorrow.

Our mission is to use our deep knowledge and diverse industry expertise to make a meaningful impact. We enable our clients to concentrate on growing their businesses and building a trusted future, while ensuring their safety, cybersecurity and sustainability never wavers.

We are dedicated to our employees and our clients. Our relationships are based on deep trust empowering us to tackle complex projects and co-innovate to build a better future.

Qualiopi processus certifié
RÉPUBLIQUE FRANÇAISE

The quality certification was issued under the categories following actions: TRAINING ACTIONS

Training terms and condition

For registration, request for quotation or if you have specific training needs please contact Airbus Protect via:
training.protect@airbus.com
or by phone at + 33 (0) 5 61 30 99 00

Airbus Protect is registered under No. 76310961931. This registration does not imply state endorsement.

Our team will assist you in identifying or scoping the best suited training making sure it meets your needs and objectives:

Inter-Companies or In-company trainings in face-to-face or remote mode.
The estimated time required to prepare the training is 1.5 months. It depends on the needs and objectives you have and if you select an off-the-shelf or personalised training.

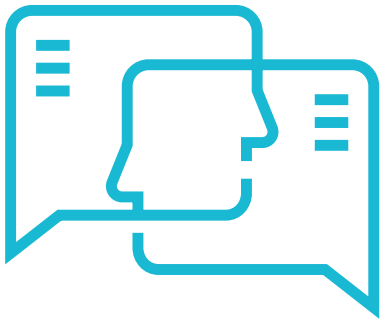
Support for people with disabilities

Our trainings are also performed for people with disabilities. For further information, please contact our disability referent via:
inclusion.protect@airbus.com

Satisfaction indicators 2022

90.5%
Overall satisfaction rate
(training participants)

8.8/10
Pedagogical score
(training participants)



Training methods

We offer class room training on Airbus Protect premises (inter-company format) or at your premises (in-company training format).
The training materials will be provided in digital format to each participant. The trainers use case studies and applied exercises and will provide support.

Training sessions can also be conducted virtually.
Our trainers will give you the benefit of their pedagogical skills and their technical expertise acquired in projects on industrial Programmes or Research-Innovation projects.
Some of our trainers are also teachers in prestigious schools or universities.

Evaluation

For each training session, an evaluation or self-assessment of the skills related to the topics covered will be carried out by the trainer at the beginning and end of the session.

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INDUSTRIAL AND ENVIRONMENTAL SAFETY

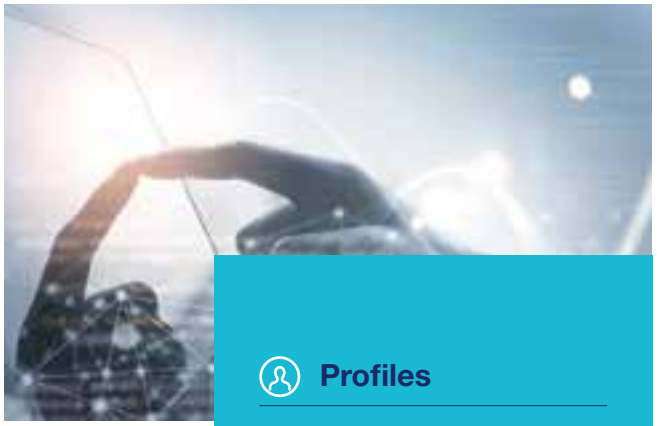
AMASIS

CYBERSECURITY

Tools and methodologies

TOOLS AND METHODOLOGIES

RAMS (TOOLS AND METHODOLOGIES)



A1_

Learning from failure or accident has been for a long time the main way to master reliability and safety in order to improve systems.
Operational safety is characterised by the implementation of specific methods and tools, as well as the use of models.

Pedagogical objectives

- Acquire the vocabulary, as well as the different concepts and principles of operational safety.
- Be able to understand functional analyses, reliability diagrams, analysis of failures such as FMECA and/or fault trees.

Programme

- Operational safety (objective, definition,...),
- RAMS concepts (reliability, availability, maintainability, safety),
- Functional analysis,
- Allocation of objectives,
- Reliability diagram and associated calculations,
- Failure analysis (FMECA),
- Fault tree and associated calculations,
- Examples of studies in various fields,
- Case studies.

Profiles

Project managers
Engineers / technicians in the field of operational safety
Design office engineers
Quality engineers

Duration

2 days

Locations

On Airbus Protect sites, on customer premises or virtual

Prerequisites

None

Dates

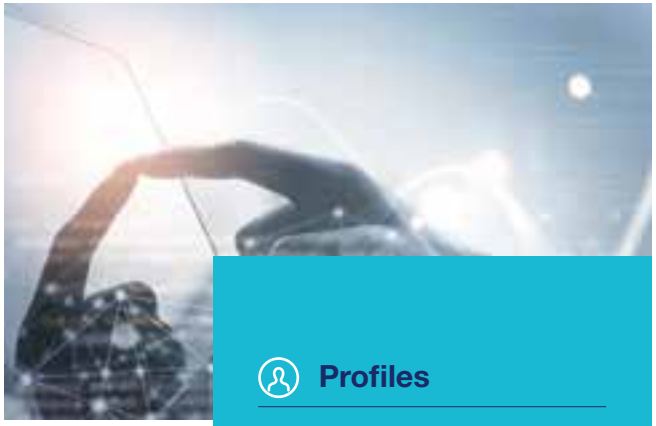
Throughout the year

Languages

EN FR

TOOLS AND METHODOLOGIES

SIMFIANEO



A5_

Modeling, simulating, evaluating, analysing

From data resulting from the functional and dysfunctional analysis of a system or process, SimfiaNeo allows to analyse and simulate the global behaviour, to evaluate it for the safety studies and to accompany in the analysis of the results.

Pedagogical objectives

- SimfiaNeo is a simulation workshop for reliability and availability studies that enable you to;
- Model the dysfunctional behaviour of a system and its reconfiguration mechanisms
- Simulate the behaviour of the system
- Calculate FMEAs, FMD indicators (Reliability, Maintainability, Availability) and event sequences leading to the feared situations
- Guide in the analysis of the results
- Automate report generation
- The training covers the use of the software, good modeling practices and the analysis of SimfiaNeo results

Programme

- Presentation of the modeling interface and all the steps necessary to build a SimfiaNeo model
- Presentation of the AltaRica language and its use in SimfiaNeo
- Modeling of advanced behaviors (cold redundancy, timeouts, etc.)
- Use of different calculation engines and their options
- Sharing good modeling practices

Profiles

Designers involved in risk management
Reliability specialists
Engineers / technicians in operational safety

Duration

2 days

Locations

On Airbus Protect sites, in-company or remotely

Prerequisites

None

Dates

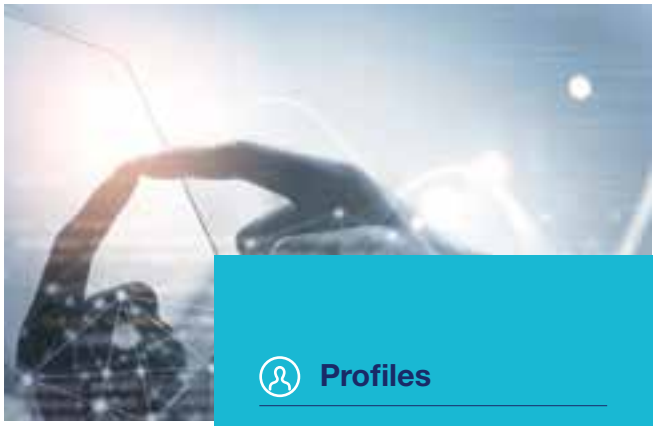
Throughout the year

Languages

EN FR

TOOLS AND METHODOLOGIES

SIMLOG



A6_

Optimise maintenance and costs

From the definition of the physical and functional components, the geographical tree structure of the support, reliability and maintainability data, as well as the maintenance policy, SIMLOG allows to assist the logistician in setting up the elements of logistical support for one or more repairable systems or systems of systems.

Pedagogical objectives

- Simulate, evaluate and optimizse a support system common to several operational systems under SIMLOG.
- Optimally allocate resources in terms of spares, personnel, test and support equipment from different criteria such as operational availability, the probability of not running out of stock, in stationary or transitory mode, based on site or item specifications.
- Specify in a personalised way global cost models describing all the costs generated in the life of the supported systems and to perform “selective” consolidations allowing to analyse the dimensioning elements.

Programme

- Modelling of operational systems, the maintenance concept and the maintenance policy for each item,
- Optimisation of initial stocks and evaluation of replenishment stocks,
- Methodology for designing customised cost models.

Profiles

SLI Engineers
SLI Managers
Maintenance policy optimization managers
Global cost engineers

Duration

2 days

Locations

On Airbus Protect sites, within the company or remotely

Prerequisites

None

Dates

Throughout the year

Languages

EN FR

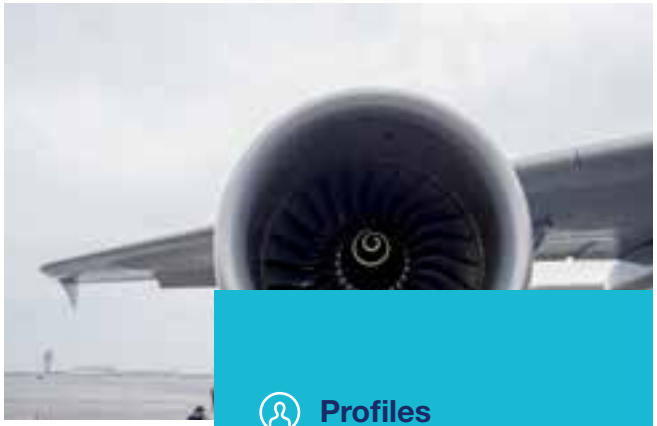
Aeronautics:

Aeronautical safety/ security process

AERONAUTICS: AERONAUTICAL SAFETY / SECURITY PROCESS

DEVELOPMENT OF CIVIL AIRCRAFT AND SYSTEM

ARP4754A PROCESSES



B1_

The increasing complexity of systems requires the deployment of structured processes that minimise the risk of design error. To ensure the reliability of on-board systems, the worldwide aeronautical community has developed a set of best practices for the development of these systems.
These recommendations are formalised in a reference standard recognised by the European and American aeronautical certification authorities: ARP 4754A.

Pedagogical objectives

- Describe the phases of system development and identify the interfaces with the electronics and software development processes.
- Distinguish the technical risks controlled by electronic design assurance from those controlled by other activities.
- Associate the rules and activities of ED-79A/ ARP4754A with the risks they control,
- Implement the rules for allocation and decomposition of design assurance levels (DAL).

Programme

- Introduction to accident risks and their causes,
- Introduction to the regulations applicable to the operational safety of systems,
- Safety analysis activities at system level and the link with hardware development,
- Definition and allocation of FDAL and IDAL (function / item development assurance level) description of their impact on the architecture choices and the development process,
- Introduction to system safety assessment methods,
- Systems development:
  - Requirements capture,
  - Validation of requirements,
  - Checks,
  - Configuration management,
  - Process assurance,
  - Certification process & coordination with authorities.
- Summary of changes introduced in the forthcoming ARP 4754B.

Profiles

Programme managers
Project managers
Systems engineers
Quality engineers

Duration

3 days

Locations

On Airbus Protect sites,
in-company or remotely

Prerequisites

None

Dates

Throughout the year

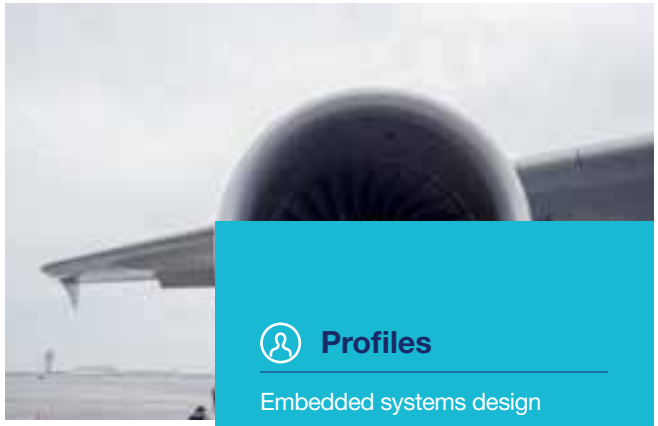
Languages

EN FR

AERONAUTICS: AERONAUTICAL SAFETY / SECURITY PROCESS

AIRCRAFT TO EQUIPMENT LEVEL SAFETY PROCESS

ARP4754A & ARP4761



B2_

Pedagogical objectives

- Acquire knowledge on the objective and the context of the certification, the roles and responsibilities of the actors, the process and organisation of the type certification and the individual certificate.
- To know the process of identification and control of risks during the design of an embedded system.
- Acquire the different methods and techniques of analysis of operational safety applied to aeronautical equipment.

Programme

- Aeronautic certification baseline (1 day):
  - Introduction, responsibilities, regulations,
  - Type-certification (TC): organisation, steps,
  - Link with navigability follow-up.
- DOA, STC Aeronautic system safety assessment (ARP4754 & ARP4761) (2 days) -Session B3:
  - Refresher of the basic concepts, objectives of operational safety,
  - Different types of analyses (FHA, SSA, CMA, ZSA, PRA,...) objectives, methods, traps,
  - Links between the different analysis activities,
  - Links with other design activities.
- Aeronautic equipment safety assessment tools (ARP4761) (2 days) - Course B4:
  - Impacts of safety requirements (DAL, FC, Fail safe, SEU,...) on equipment architectures,
  - Application,
  - Reliability assessment / FMEA,
  - Evaluation of the probability of occurrence,
  - SEU analysis, common modes, IEHA.

Profiles

Embedded systems design engineers
Project managers
Safety engineers
Maintenance and support engineers

Duration

5 days

Locations

On Airbus Protect sites, in-company or remotely

Prerequisites

None

Dates

Throughout the year

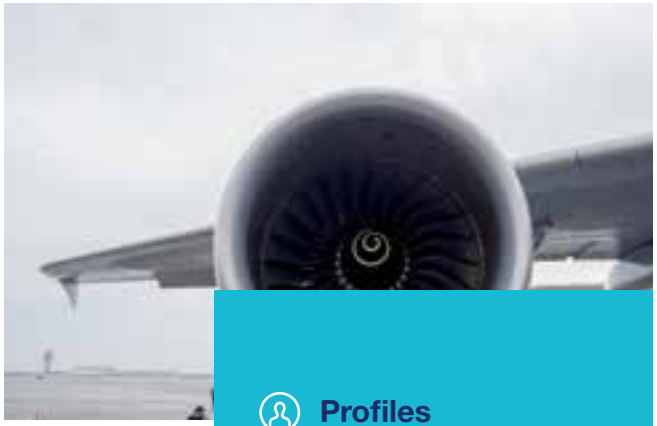
Languages

EN FR

AERONAUTICS: AERONAUTICAL SAFETY / SECURITY PROCESS

AERONAUTIC SYSTEM SAFETY ASSESSMENT

ARP4754 & ARP4761



B3_

In order to achieve a high and acceptable level of safety, on-board systems must be designed according to a structured approach, allowing to have the assurance that the regulatory safety objectives are met. Numerous analyses are required in all phases of aircraft design.

Pedagogical objectives

- To know the process of identification and control of risks during the design of an aircraft and its systems.
- To have the necessary knowledge, methods and tools to integrate safety in the design of an aircraft and its systems.
- Know the actors in terms of regulations.
- Understand the development cycle (ARP4754).
- Know the principles of the different levels and typologies of analysis (ARP4761).

Programme

- Refresher of the basic concepts,
- Objectives of operational safety,
- Different types of analyses (FHA, SSA, CMA, ZSA, PRA...) objectives, methods, pitfalls,
- Links between the different analysis activities,
- Links with other design activities,
- Tools,
- Application exercises.

Profiles

Embedded systems design engineers
Project managers
Safety engineers

Duration

2 days

Locations

On Airbus Protect sites, in-company or remotely

Prerequisites

None

Dates

Throughout the year

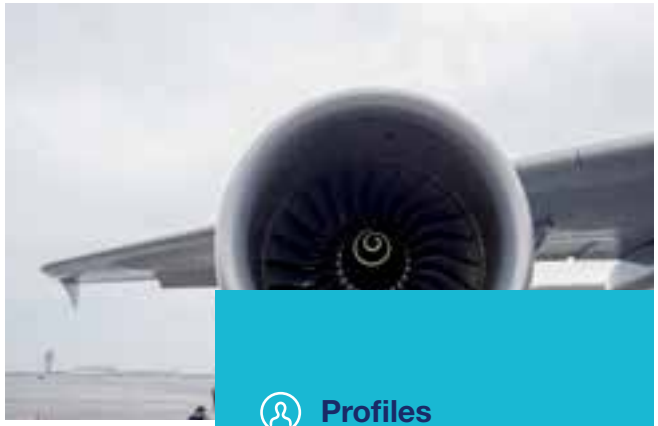
Languages

EN FR

AERONAUTICS: AERONAUTICAL SAFETY / SECURITY PROCESS

AERONAUTIC EQUIPMENT SAFETY ASSESSMENT

ARP4761



B4_

The aim of this training is :

- To acquire knowledge on the global process of analysis of the safety of an aeronautical equipment,
- To understand the impacts of the requirements of operational safety and development (DAL) on the architecture of equipment and on the methodologies of operational safety analysis to be implemented.

Pedagogical objectives

- Locate the equipment analyses in the set of aeronautical operational safety activities.
- Perform DAL allocations on the different functional / material branches of a product.
- Understand how high-level safety requirements impact architecture choices at the system and equipment levels.
- Understand and use low level analysis methods (reliability calculations, FMEA-FMES, fault trees).
- Understand the needs and approaches required for common cause analysis.

Programme

- Impacts of safety requirements (DAL, FC, Fail safe, SEU,...) on equipment architectures,
- Application,
- Reliability assessment / FMEA,
- Evaluation of the probability of occurrence,
- SEU analysis,
- Common mode analysis,
- IEHA analysis.

Profiles

Project managers
Design engineers
Maintenance and support engineers

Duration

2 days

Locations

On Airbus Protect sites, in-company or remotely

Prerequisites

None

Dates

Throughout the year

Languages

EN FR

AERONAUTICS: AERONAUTICAL SAFETY / SECURITY PROCESS

HARDWARE DESIGN ASSURANCE

DO254 - ED80

B5_

To ensure the reliability of on-board electronic systems, the worldwide aeronautical community has developed a set of good practices to guide the development of these systems.
These recommendations are formalised in a reference standard recognised by the European and American aeronautical certification authorities: DO-254 / ED-80.

Pedagogical objectives

- Locate the electronic design assurance in the overall aeronautical safety activities and identify its main interfaces with the other processes.
- Distinguish the technical risks controlled by the electronic design assurance from those controlled by other activities.
- Associate the typical activities of an electronic development to the 6 phases structuring the ED80/DO-254.
- Associate the rules and activities of ED-80/DO-254 with the risks they control.
- Master the scope of applicability of ED-80/DO-254.
- Cite the standards and regulations that complement ED-80/DO-254.

Programme

- Introduction to accident risks and their causes,
- Introduction to the regulations applicable to the safety of systems,
- Safety analysis activities at system level and link with hardware development,
- History and general approach of DO-254/ED-80,
- Description of activities and deliverables:
  - Planning, development, validation and verification,
  - Configuration management,
  - Process assurance,
  - Deliverables associated with each activity,
  - Examples and best practices,
  - Related rules and standards: AMC 20-152A, CM-SWCEH-001,
  - COTS component management.
- In-service experience evaluation (ISE).

Profiles

Quality engineers
Project managers
System or hardware engineers

Duration

2 days

Locations

On Airbus Protect sites,
in-company or remotely

Prerequisites

None

Dates

Throughout the year

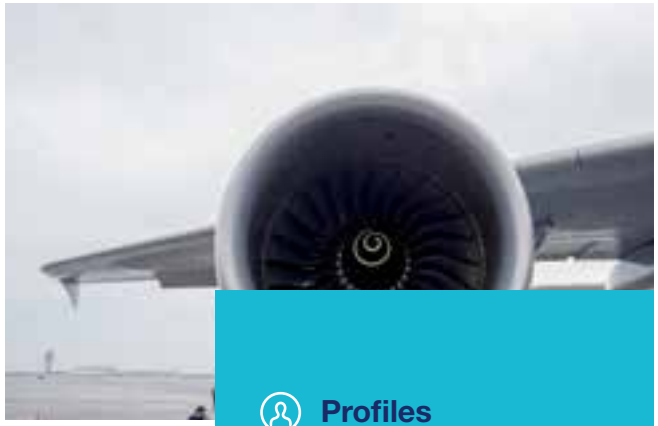
Languages

EN FR

AERONAUTICS: AERONAUTICAL SAFETY / SECURITY PROCESS

SOFTWARE DESIGN ASSURANCE

DO178-ED12



B6_

The DO-178 / ED-12 is the international standard that governs the development of critical software on aircraft. This document provides recommendations on all aspects of critical embedded software engineering, adopting a process and objective oriented approach. Version C of this document was published in 2012 with the objective of clarifying the text of version B and to address issues related to the use of specific techniques such as Model Based Software Engineering, formal methods or object-oriented techniques.

Pedagogical objectives

- Understand the position of the software design assurance in aeronautical safety activities and identify its main interfaces with the other processes.
- Distinguish the technical risks controlled by software design assurance from those controlled by other activities.
- Associate the typical activities of a software development to the 6 phases structuring the ED-12C / DO-178C.
- Associate the rules and activities of the ED-12C / DO-178C to the risks they allow to control.
- Master the scope of applicability of ED-12C / DO-178C.
- Cite the standards and regulations that complement ED-12C / DO-178C.

Programme

- Introduction to accident risks and their causes,
- Introduction to the regulations applicable to the safety of systems,
- Analysis activities of operational safety at the system level and link with hardware development,
- History and main principles of DO-178,
- General presentation of the processes,
- Detailed presentation of DO-178C / ED-12C:
  - Software planning, development and verification,
  - Configuration management and quality assurance,
  - Related data,
  - Good and bad practices,
  - Summary of changes from A/B versions,
  - Relationship with the authorities: how to succeed in your certification
  - Qualification of tools.
- Alternative means and "hot topics".

Profiles

Quality Engineers
Project managers
System engineers or hardware engineers

Duration

2 days

Locations

On Airbus Protect sites, in-company or remotely

Prerequisites

None

Dates

Throughout the year

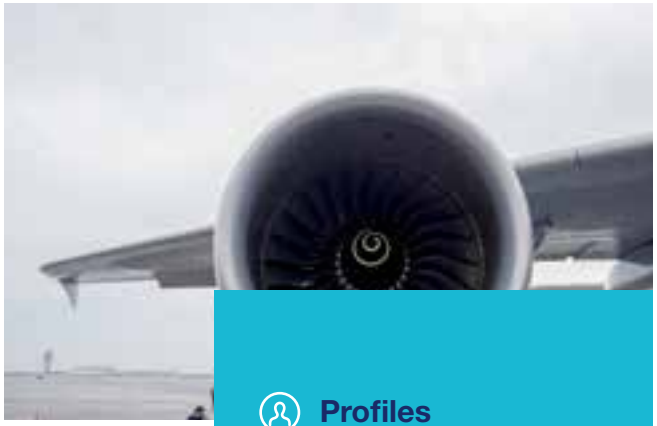
Languages

EN FR

AERONAUTICS: AERONAUTICAL SAFETY / SECURITY PROCESS

STANDARDS FOR PROCESSING AERONAUTICAL DATA

DO200A / DO200B / ED76



B7_

The DO-200B / ED-76 is the most up-to-date standard for the processing of aeronautical databases during the successive handlings aimed at making them usable by on-board aircraft software. The DO-200B / ED-76 is recognised by the European and American certification authorities as the most up-to-date standard for the processing of aeronautical data.

Pedagogical objectives

- Understand the benefits of deploying a quality assurance process based on the ED76A/DO200B standard.
- Distinguish the different activities that characterise an aeronautical data chain and the issues associated with each step.
- Distinguish valid data verification and validation techniques, and when to deploy them.
- Define the characteristics of the data covered by the data quality requirements.
- Understand the key points involved in defining an ED76A/DO200B compliant data processing process.
- Understand the scope of applicability of ED76A/DO200B.
- Cite the standards and regulations that complement ED76A/DO200B.

Programme

- Description of the production chain of an aeronautical database,
- DO-200B in this chain,
- Delta compared to DO-200A,
- Characterisation of the data contained in a database,
- Verification and validation of databases,
- Qualification of tools,
- Documentary response to DO-200B,
- Establishing the compliance of a process to DO-200B,
- Summary of changes since the previous version.

Profiles

Quality engineers
Project managers
System or software engineers
with DO-178 knowledge

Duration

1 day

Locations

On Airbus Protect sites,
in-company or remotely

Prerequisites

None

Dates

Throughout the year

Languages

EN FR

AERONAUTICS: AERONAUTICAL SAFETY / SECURITY PROCESS

UNMANNED AERIAL SYSTEM SAFETY ASSESSMENT

SORA METHOD

B8_

The new EASA regulation of June 2019 (EC 2019/945 and EC/2019/947) specifies the requirements necessary to perform flights with drones. This regulation will gradually replace the DGAC decree and the S1 to S4 scenarios. This new regulation imposes to conduct a Specific Operation Risk Assessment (SORA) in order to provide the list of requirements to obtain a flight authorisation.

Pedagogical objectives

- To provide an understanding of when to perform a security risk assessment as part of an application for an authorisation in accordance with EU regulations (EU 2019/947 & 945).
- Present a security risk assessment solution called SORA (Specific Operations Risk Assessment).
- To learn how to perform it and to analyse the different risks present in the planned operation.
- Learn how to derive the mitigation measures/ recommendations required to carry out the planned operation safely.

Programme

- Module 1: Status of EASA regulations
  - The different activities of drones,
  - History of the regulations (DGAC, EASA),
  - EASA regulation of June 2019 (2019/945 and 2019/947) :
    - » « Open », « Specific » and « Certified » categories,
    - » SORA analysis, PDRA (pre-defined risk assessment),
    - » Transition phase (July 2020 application).
- Module 2: The SORA Method
  - General philosophy of the method,
  - Analysis of the « Ground Risk »,
  - Analysis of the « Air Risk »,
  - Analysis of the « SAIL » level,
  - List of objectives: Operational Safety Objectives (OSO).
- Module 3: Tutorial
  - Example of implementation of the SORA method for a particular activity,
  - with a small drone (<5kg).

Profiles

Anyone involved in conducting activities with drones.

Duration

1 day

Locations

On Airbus Protect sites, in-company or remotely

Prerequisites

None

Dates

Throughout the year

Languages

EN FR

AERONAUTICS: AERONAUTICAL SAFETY / SECURITY PROCESS

ENVIRONMENTAL CONDITIONS AND TEST PROCEDURES FOR AIRBORNE EQUIPMENT

DO-160

B14_

To ensure the reliability of on-board electronic systems, the global aeronautical community has developed a set of best practices to ensure the resilience of systems to environmental stresses. These recommendations are formalised in a reference standard recognised by the European and American aeronautical certification authorities: the DO-160 / ED-14.

Pedagogical objectives

- Situate the D0160 in the whole of the activities of aeronautical operational safety.
- Distinguish between risks and environmental constraints.
- Understand the perimeters of applicability and impacts.
- Understand the test conditions.

Programme

- Introduction to accident risks and their causes,
- Introduction to the regulations applicable to environmental qualification,
- History and general approach of DO-160/ ED-14,
- Activity Description:
  - V-cycle and deliverables,
  - Presentation of aircraft and helicopter zoning,
  - Detailed presentation of the DO-160 sections:
    - » Why these tests,
    - » Their impacts,
    - » The mitigations.
- Modulation of the DO-160 objectives by the aircraft manufacturers.

Profiles

Programme managers
Project managers
System or hardware engineers

Duration

1 day

Locations

On Airbus Protect sites, in-company or remotely

Prerequisites

None

Dates

Throughout the year

Languages

EN FR

Aeronautics:

Aeronautical certification + agreement regulations

AERONAUTICS : AERONAUTICAL CERTIFICATION & AGREEMENT REGULATIONS

EASA REGULATIONS RELATING TO PART21

DOA/POA

B25_

Important requirements in terms of operational safety due to the growth of air transport, require equipment manufacturers to apply production/ design regulations in order to obtain approval:

- Knowledge of the EASA regulatory environment context concerning the fields of application in terms of design and production of aeronautical materials,
- Knowledge of the implementation of the Part 21 by understanding the main principles of organisation and control of operations related to this European regulation.

Pedagogical objectives

- Understand the purpose of the Part 21 regulation.
- Put the Part 21 regulation into the national, European and international context.
- Get to know the key points of the Part 21 and its latest developments.
- Know how to find your way through the different texts and how to use the relevant information now and in the future.
- Integrate all the detailed requirements of Part 21.
- Understand the main principles of implementation of a Part 21 accreditation in your organisation (PO/DOA).

Programme

- Objectives of Part 21,
- Fundamental principles and key points of Part 21,
- Detailed presentation of Part 21 requirements,
- POA, DOA, APDOA approval,
- AMC / GM Part 21 presentation.

Profiles

Management of maintenance workshops
Quality managers
Certification personnel
Management and instructors of training centres
Civil Aviation Authorities concerned
Design & method offices

Duration

1 day

Locations

On Airbus Protect sites, in-company or remotely

Prerequisites

None

Dates

Throughout the year

Languages

EN FR

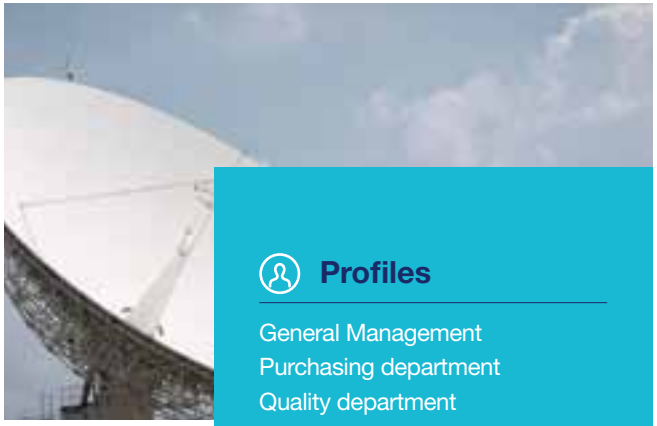
Aeronautics:

Air Traffic Management (ATM/UTM)

AERONAUTICS: AIR TRAFFIC MANAGEMENT (ATM/UTM)

ATM/UTM AWARENESS OF SAFETY STUDIES IN THE FIELD OF ATM AND DISCUSSION ON UTM

U-SPACE



B31_

This training emphasises on the regulatory and methodological bases of safety studies applied to ATM systems. On request, this awareness can address in synthesis and in a macroscopic way the UTM (U-Space) domain applied to UAVs and flying taxis.

Pedagogical objectives

- Have a global understanding of the functions of ecosystems ATM (including UTM), stakeholders/organisations, services and the regulatory framework.
- Understand the safety aspects and the need to apply safety processes and methodologies dedicated to the relevant ecosystem.
- Identify, assess, rank and mitigate risks that may be introduced by a modification of the existing ecosystem.
- Determine and justify the safety criteria applicable to the change introduced and the definition of safety requirements that demonstrate that the service provided by the modified functional system will continue to meet the safety criteria.
- Provide assurance, with sufficient confidence, through a complete, documented and valid business case, that the safety criteria identified through the application of EASA Part - ATS.OR (210) are valid, will be met and will continue to be met.

Programme

- Introduction and refresher of the ATM regulations,
- Content of an ATM safety study,
- Presentation of the SAM method (FHA-PSSA-SSA):
- Dysfunctional analysis,
- Identification of safety objectives,
- Determination of safety requirements,
- Introduction to Software Security Assurance (SWAL),
- Presentation of a use case and pitfalls to avoid (synthetic).

Profiles

General Management
Purchasing department
Quality department
Sales department
Technical department
General engineer
RAMS engineer (except ATM domain)

Duration

2 days

Locations

On Airbus Protect sites, in-company or remotely

Prerequisites

None

Dates

Throughout the year

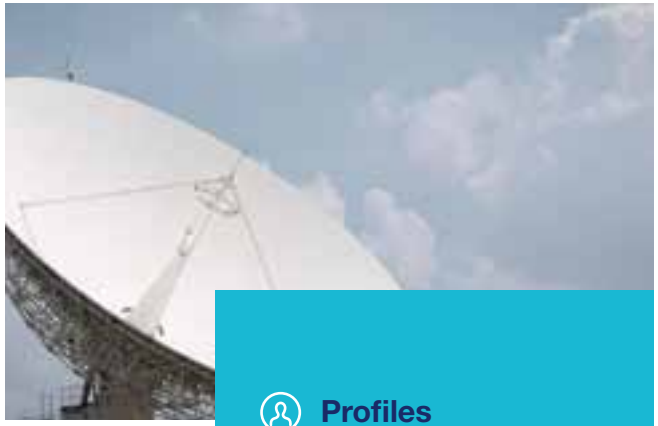
Languages

EN FR

AERONAUTICS: AIR TRAFFIC MANAGEMENT (ATM/UTM)

ATM/UTM DESIGN ASSURANCE

DO-278A / ED-109A



B33_

The DO-278A/ED-109A is the international standard that governs the development of critical ground CNS / ATM software.
This document provides guidance on all aspects of engineering for the integrity assurance of critical CNS/ ATM software, adopting a process/objective approach and addressing the issues related to the use of specific techniques such as « Model Based Software Engineering », formal methods or object-oriented techniques.
This repository can be used in the UTM context.

Pedagogical objectives

- Position software design assurance in the set of the activities of dependability of CNS/ATM systems and identify its main interfaces with other processes.
- Distinguish the technical risks controlled by software design assurance from those controlled by other activities.
- Associate the typical activities of a software development to the 6 phases structuring ED-109A/DO-278A.
- Associate the rules and activities of ED-109A/ DO-278A with the risks they allow to control.
- Master the scope of applicability of ED-109A/ DO-278A.
- Cite the standards and regulations that complement ED-109A/DO-278A.

Programme

- Definition of software dependability,
- The need for development processes,
- How dependability is implemented through software,
- In-depth presentation of ED-109A:
  - Software planning,
  - Development processes and integrations,
  - Hardware / software interfaces,
  - Verifications and related analyses,
  - Software evolutions.
- Relations with supervisory authorities,
- Qualification of tools,
- Alternative means and «hot topics»,
- Clarifications brought by ED-94C,
- Varnish ED-153: Differences and advantages compared to ED-109A.

Profiles

Software quality engineers
Software project managers
Software developers
Software testers

Duration

2 days

Locations

On Airbus Protect sites,
in-company or remotely

Prerequisites

None

Dates

Throughout the year

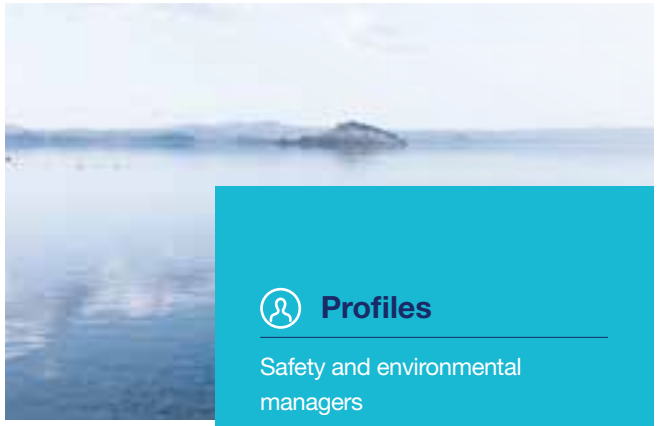
Languages

EN FR

Industrial & environmental [safety]

INDUSTRIAL & ENVIRONMENTAL SAFETY

METHODS FOR EVALUATING ACCIDENT SCENARIOS



C1_

To understand the vulnerability of a site to the effects of fire, explosion and the dispersion of toxic products, knowledge of these phenomenons is an essential prerequisite.

Pedagogical objectives

- Acquire the vocabulary and characteristics of the different dangerous phenomenons (Fire, UVCE/ FF, BLEVE, toxic...).
- Acquire the definition of regulatory effect thresholds and their associated levels for each type of effect.
- Be able to understand and implement the main tools and methods used to characterise their effects.
- Be able to identify the input data and the assumptions to be made in order to model an accident scenario.
- Be able to analyse and interpret the results of the models.

Programme

- General information on modelling, danger zones,
- Modelling a fire: solid flame approach, use of Flumilog, case of flammable liquid slick fires,
- Modelling of accidental atmospheric dispersion: source term, dispersion model,
- Modelling of an explosion: TNT equivalent, « multi-energy » approach and Baker charts, application exercises,
- Application cases on LPG and natural gas products (UVCE/VCE/FF, BLEVE, Flaming Jet), Case studies of toxic product dispersion.

Note: The training proposes applications with the PHAST software (each participant must have a valid license; Airbus Protect does not provide a license).

Profiles

Safety and environmental managers
(Environmental Manageron industrial sites)
DREAL agents

Duration

2 days

Locations

On Airbus Protect sites, in-company or remotely

Prerequisites

Awareness of the hazard studies and basic knowledge of fluid mechanics and thermal transfers.

Dates

Throughout the year

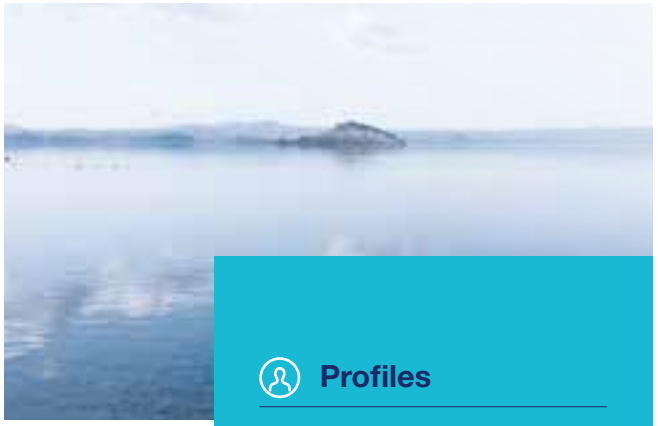
Languages

FR

INDUSTRIAL & ENVIRONMENTAL SAFETY

REGULATORY OBLIGATIONS OF ICPE

Installations classified for the protection of the environment



C2_

Public or private facilities are subject to ICPE (Installation Classified for the Protection of the Environment) regulations when they can cause risks, nuisances or pollution.
The operators of these facilities must know the applicable regulatory constraints according to the nature and volume of their activities.

Pedagogical objectives

- Acquire the vocabulary of the legislation applicable to ICPEs and the regulatory texts.
- Get to know the regulatory constraints related to the different ICPE and SEVESO classifications.
- Understand the applicable procedures and the files expected in case of modification to an ICPE or creation of an ICPE site.
- Be able to apply the main steps of regulatory studies.

Programme

- ICPE legislation: regulatory texts,
- Regulatory studies: authorisation files,
- Hazard studies, impact studies,
- Role of the authorities in the process of obtaining, controlling and maintenance of an operating permit.

Profiles

Design engineers
(Risk management)
Safety managers
(Environment on industrial site)
DREAL agents

Duration

1 day

Locations

On Airbus Protect sites,
in-company or remotely

Prerequisites

None

Dates

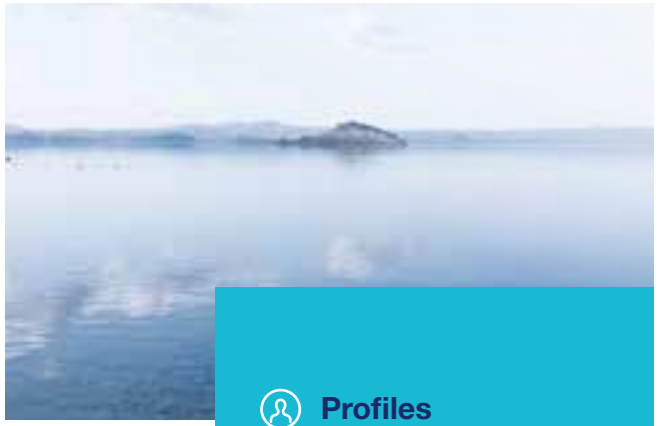
Throughout the year

Languages

FR

INDUSTRIAL & ENVIRONMENTAL SAFETY

RISK ANALYSIS METHODS



C3_

A method is necessary to understand the realisation of risk analyses in the context of projects or update of hazard studies.

Pedagogical objectives

- Acquire the vocabulary, as well as the different concepts and principles of risk analysis.
- Know the key elements to manage risk analysis in a working group.
- Be able to understand analyses such as Preliminary Risk Analysis (PRA) - HAZID, HAZOP review, fault tree and butterfly node.

Programme

- Principle of risk analysis,
- Animation of a risk analysis,
- Preliminary Risk Analysis (PRA) - HAZID,
- HAZOP review,
- Fault tree,
- Butterfly node.

Profiles

Safety managers
(environment on industrial site)
Design engineers

Duration

1 day

Locations

On Airbus Protect sites,
in-company or remotely

Prerequisites

None

Dates

Throughout the year

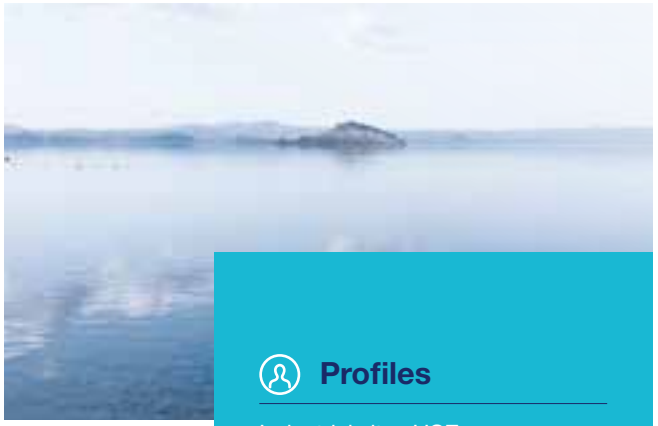
Languages

FR

INDUSTRIAL & ENVIRONMENTAL SAFETY

RISK ANALYSIS METHODOLOGIES – NEW RISKS

Value chain resilience to climate change scenarios



C3a_

OCARA: A method to assess climate change impact on companies, and their resilience.

Pedagogical objectives

- Acquire the vocabulary of risk analysis: its different concepts, issues, probabilities and criticality of scenarios
- Know how to evaluate companies' current resilience
- Know the tools available (IPCC, IPCC) to quantify the probability of occurrence of a climate phenomena
- Develop a resilience plan.

Programme

- Reminder of risk concepts
- Presentation of OCARA method
  - Identification of Companies' value chain processes
  - Impact of climate hazards
  - Assessment of Companies current resilience
  - Evolution of impact scenarios
  - Evaluation metrics
  - Value chain resilience plan
- Use OCARA tool on a practical case

Profiles

Industrial sites HSE managers
CSR (Corporate Social Responsibility) Compliance Officers

Duration

1 day

Locations

On Airbus Protect sites
Remote training available (Webex)

Prerequisites

None

Dates

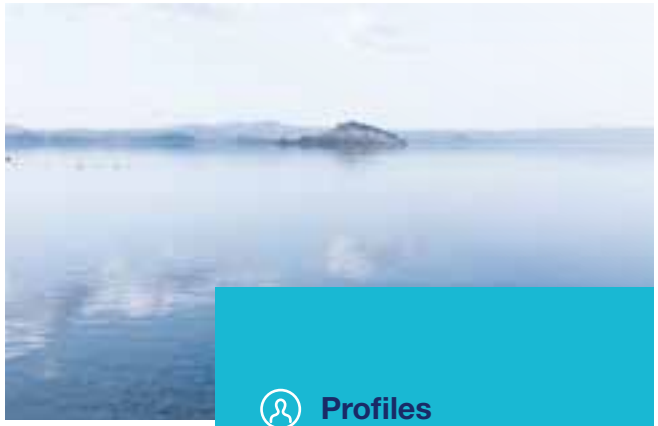
Throughout the year

Languages

FR

INDUSTRIAL & ENVIRONMENTAL SAFETY

PROCESS SAFETY MANAGEMENT



C4_

Different process safety management systems (OSHA PSM, CCPS RBPS, API RP1173...) account for the prevention of major accidents on the most complex industrial sites. Their success is based on a few common key principles that must be understood and shared in order to maintain the effectiveness of these programmes.

Pedagogical objectives

- Acquire the vocabulary and the regulatory context SMS (Safety Management System).
- Be able to identify the elements of the base of the PSM (Process Safety Management) programmes.
- Be able to understand the requirements of the elements of the PSM (Process Safety Management) programmes.

Programme

- Theory (1 day) :
  - Regulatory context SGS and PPAM,
  - The basis of PSM programmes,
  - Focus on change management (MOC),
  - Feedback from experience,
  - Indicators for the evaluation and follow-up of performance.
- Practical (1 day):
  - Concrete case: audit of the PSM procedures of a site,
  - Analysis of three key elements of a PSM.

Note: Possibility of delivering a single day (theory) or two days (theory + practice).

Profiles

Safety managers
(environment on industrial site)
Process Safety Manager

Duration

1 or 2 days

Locations

On Airbus Protect sites,
in-company or remotely

Prerequisites

None

Dates

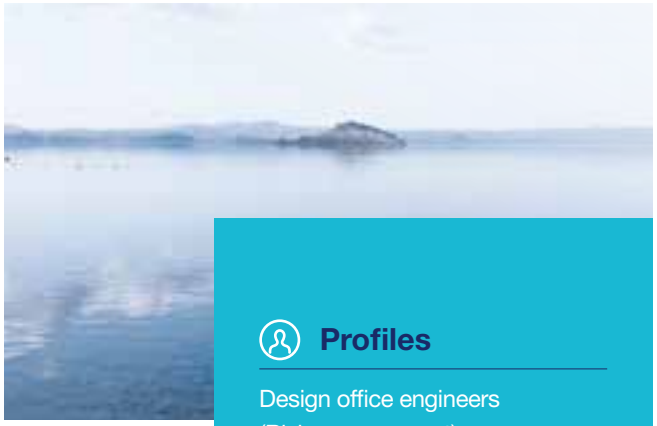
Throughout the year

Languages

FR

INDUSTRIAL & ENVIRONMENTAL SAFETY

HAZARD STUDIES



C5_

Profiles

Design office engineers
(Risk management)
Safety managers
(Environment industrial sites)
DREAL agents

Duration

1 day

Locations

On Airbus Protect sites,
in-company or remotely

Prerequisites

None

Dates

Throughout the year

Languages

FR

A Hazard Study is a structured and systematic technique where the operator reports on the examination carried out to characterise, analyse, evaluate, prevent and reduce the risks of its installations. As far as technologically achievable and economically acceptable, whether their causes are intrinsic to the products used, related to the processes used or due to the proximity of other risks, whether of internal or external origin to the installation, its drafting must allow:

- To authorise and regulate the installation(s) to which it relates,
- To proceed eventually to the preventive information on the risks to third parties, personnel and operators of neighbouring classified installations (to take into account possible domino effects), as well as the consultation of the CSSCT,
- To promote the emergence of a shared culture of risk in the vicinity of the establishments,
- To serve as a basis for the possible definition of urbanisation rules,
- To draw up, where necessary, emergency plans: the internal operations plans (POI) and special intervention plans (PPI).

Pedagogical objectives

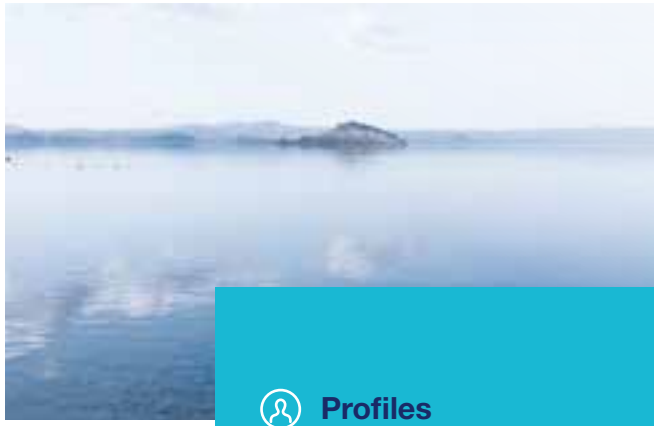
- Get to know the regulatory context and the vocabulary applicable to hazard studies.
- Understand the objectives of a hazard assessment.
- Get acquainted with the main steps of a hazard study.
- Be able to identify the points of vigilance and the difficult points of a hazard study.

Programme

- Objectives of hazard studies,
- Regulatory context of hazard studies,
- Content and objectives of the steps of a hazard study.

INDUSTRIAL & ENVIRONMENTAL SAFETY

HYDROGEN - INDUSTRIAL RISKS



C6_

Hydrogen is a key player in the energy transition taking place both on mobility vectors and deep inside industrial processes. Designing, developing, building and producing systems using hydrogen requires detailed knowledge of associated risks.

Pedagogical objectives

- Understand the challenges associated with energy transition and the development of the hydrogen value chain.
- Know the specificities related to Hydrogen risks and the associated phenomenology.

Programme

- **Value Chain (0.5 d)**
  - Hydrogen as an energy vector (systems and applications)
  - Production, present and future
  - Application, present and future
  - Storage, transport and distribution
  - Applicable regulations, standards, norms
- **Risks (0.5 d)**
  - Hydrogen physical properties
  - Accidentology
  - Risk Analysis and prevention means
  - Phenomenology (leak, dispersion, fire, explosion)
  - Means and strategies for detection and intervention
  - Case study: risk analysis of an H2 system.

Profiles

Designers of H2 systems
Industrial sites HSE Managers
Process Safety Managers

Duration

1 day

Locations

On Airbus Protect sites
Remote training available (Webex)

Prerequisites

None

Dates

Throughout the year

Languages

FR

(Aircraft maintenance, engineering and logistics management software)

Amasis

AMASIS

ERG - SOFTWARE NAVIGATION AND ERGONOMICS

AMS1_

The objective of this training is to allow AMASIS users to navigate through the different menus and screens of the software package.
The participant will become familiar with the ergonomics of the product and will be able to master the different options available and will be able to customise / optimise his « bookmarks » menu and pre-filter the lists of data to be displayed and/or processed.
Finally, the user will be able to export data if his responsibilities require it.

Pedagogical objectives

- Connect to AMASIS.
- Understand features and the information provided in the different AMASIS menus.
- Master the customisation and optimisation options of AMASIS.
- Export data from AMASIS.

Programme

- General menu and navigation principles,
- Presentation of AMASIS screens and features, as well as the associated buttons,
- Filters and export of lists.

Profiles

All those who may need to use the AMASIS software package

Duration

0.5 day

Locations

On Airbus Protect sites, in-company

Prerequisites

None

Dates

Throughout the year

Languages

EN FR

AMASIS

ENG - MAINTENANCE ENGINEERING / PLANNING

AMS2_

This training is intended for people who work in Engineering department and / or are in charge of maintenance planning. The participants will first be trained in the management of technical references: maintenance programs, technical instructions (SB, AD, CN, modifications ...) standard configurations for resources, equipment, tools and material planning.
In a second step, they will learn how to prepare and launch maintenance works. From the issuing of work order, generation of a work package to the definition and issuing of material requirements.
Finally, they will learn to monitor and control the activities up to the calculation and analysis of performance and reliability indicators.

Pedagogical objectives

- Manage technical references in AMASIS.
- Prepare and release maintenance work packages in AMASIS.
- Monitor and control maintenance activities in AMASIS.
- Calculate and analyse performance and reliability indicators using AMASIS.

Programme

- Kardex management,
- P/N and equipment,
- Assembly - Sub/Assembly,
- Work Order,
- Operation Form,
- SB/AD document management,
- Maintenance Planning Document (MPD),
- Creation of a Task Card,
- Management of a Task Card,
- Planning and Maintenance Control,
- Airworthiness and reliability management in AMASIS.

Profiles

Engineering department
Maintenance planning

Duration

5 days

Locations

On Airbus Protect sites,
in-company

Prerequisites

Completed AMS1 - ERG training

Dates

Throughout the year

Languages

EN FR

AMASIS

MAINTENANCE CONTROL CENTER (MCC) - TECHNICAL ASSISTANCE

AMS3_

This training is intended for people working in technical services or in the MCC (Maintenance Control Center).
The participants will first be trained in the management of TL (Tech Log) in AMASIS.
The purpose of these functionalities is the tracking of aircraft maintenance relevant KPIs (flight hours, cycles, etc.) as well as technical issues.
A second part of the training will enable the user to follow technical failures including AOGs and its associated corrective maintenance action.
The last part of the training will teach users how to declare and edit information about the unscheduled work.

Pedagogical objectives

- Manage TL (Tech Log) in AMASIS.
- Follow the history of technical failures and associated corrective maintenance in AMASIS.
- Master the functions of AMASIS to declare and edit unscheduled work.

Programme

- Tech Log & Pireps,
- Search and visualization of material resources,
- Ordering of material,
- Fleet status display,
- Search for technical failures,
- Work Order management
- Task Card management and sign off.

Profiles

MCC Staff

Duration

3 days

Locations

On Airbus Protect sites, in-company

Prerequisites

Completed AMS1 - ERG training

Dates

Throughout the year

Languages

EN FR

AMASIS

LM - LINE MAINTENANCE

AMS4_

This training is intended for people working in line maintenance.
The first part of the training is dedicated to get acquainted with the information display related to TL (Tech Log), including pilot reports, flight operations information, fuel used and HIL sequence opening.
The second part will be dedicated to the management of corrective or scheduled line maintenance.
The last part takes care of material needs, the raise of orders and the logistics follow-up.

Pedagogical objectives

- Manage TL (Tech Log), including pilot reports, flights, fuel used and HIL sequence opening in AMASIS.
- Manage corrective or scheduled line maintenance in AMASIS.
- Raise and management of material orders (Request Form) and logistics follow-up with AMASIS.

Programme

- Tech Log & Pireps,
- Work Order,
- Search and display of material resources,
- Request Form management.

Profiles

Line Maintenance staff

Duration

3 days

Locations

On Airbus Protect sites, in-company

Prerequisites

Completed AMS1 - ERG training

Dates

Throughout the year

Languages

EN FR

AMASIS

BM - BASE MAINTENANCE

AMS5_

This training is intended for people working on heavy maintenance / checks.
The first part of the training is dedicated to the planning of maintenance events/checks followed by the management of the actual work execution.
The second part is dedicated to the management of additional work identified during the checks.
The last part is dedicated to the management of material requests.

Pedagogical objectives

- Manage the work to be carried out and planned in AMASIS.
- Manage additional work identified during the checks in AMASIS.
- Manage material requests in AMASIS.

Programme

- Work Order,
- Task Card,
- Research and visualisation of material, tools and human resources,
- Material management (request Form).

Profiles

Heavy Maintenance staff

Duration

3 days

Locations

On Airbus Protect sites, in-company

Prerequisites

Completed AMS1 - ERG training

Dates

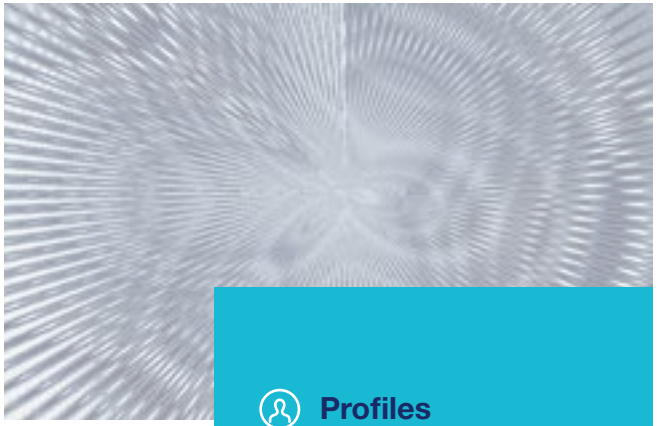
Throughout the year

Languages

EN FR

AMASIS

SUP - PURCHASES



AMS6_

This training is intended for people in charge of purchasing and supply management.
A first part of the training is about the identification of equipment and associated stocks management.
A second part will focus on the different types of orders and the quotation requests management.
A last part will deal with the internal requests management for equipment from the technical services.

Pedagogical objectives

- Identify equipment and associated stocks,
- Handle the different types of orders,
- Initiate quotation requests,
- Reply to internal material requests.

Programme

- Supplier management,
- P/N and Stock,
- Quotation,
- Purchase Order,
- Repair Order,
- Rental Order,
- Service Order,
- Response to Requisition Form (RQ),
- Supplier catalog updating.

Profiles

Purchasing managers
Supplier managers
Logisticians

Duration

3 days

Locations

On Airbus Protect sites,
in-company

Prerequisites

Completed AMS1 - ERG training

Dates

Throughout the year

Languages

EN FR

AMASIS

STO - STORES

AMS7_

This training is intended for people working in stores or logistics flow management platforms.
A first part of the training is about the identification of equipment and associated stocks management.
A second part will focus on transactions related to issues/consumption and entries/receipt flows.
A last part will deal with the management of deadlines concerning equipment in stock (expiry dates, calibrations, etc.).

Pedagogical objectives

- Identify equipment and associated stocks management,
- Deal with the transactions related to issues/consumption and entries/receipt flows,
- Manage the deadlines concerning equipment in stock.

Programme

- P/N and Stock,
- Receipt process in store,
- Requisition Form management,
- Issue process from store,
- Delivery process between stores or with a third,
- Control and inventory,
- Shelf time and stock expiration.

Profiles

Logisticians
Store managers

Duration

3 days

Locations

On Airbus Protect sites,
in-company

Prerequisites

Completed AMS1 - ERG training

Dates

Throughout the year

Languages

EN FR


[Cybersecurity]

CYBERSECURITY

INTEGRATION OF SECURITY BY DESIGN IN SYSTEMS ARCHITECTURE

CS1

Pedagogical objectives

- Understand the steps of the overall secure development cycle.
- Know how to use the right language used by security professionals.
- Understand the types of security measures and the limitations of their implementation in embedded systems.

Programme

- Cybersecurity inside the waterfall development cycle.
- A short overview of Security Risk Analysis for System Architects.
- Security Architecture:
  - General principles:
    - » Specific requirements of embedded systems
    - » Design rules
    - » Main security functions
    - » Reference secure architecture
    - » Design assurance
  - Secure System Design:
    - » NIST 800-53 security measures
    - » Hardware considerations
    - » Working with COTS
    - » Development assurance

Profiles

Embedded system designers
Product architects

Duration

1 day

Locations

On Airbus Protect sites, on customer premises or remotely

Prerequisites

System engineering & Networking

Dates

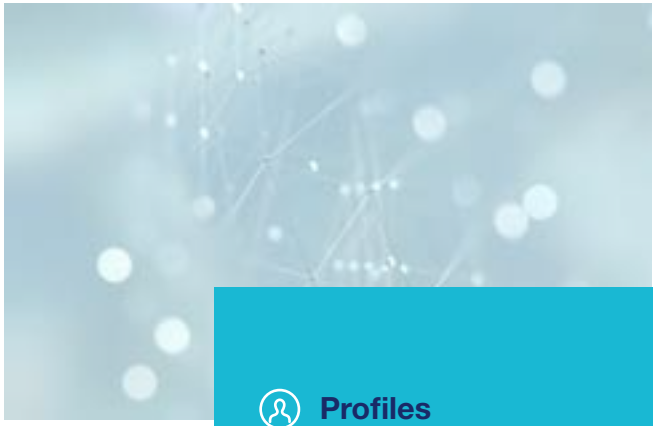
Throughout the year

Languages

EN FR

CYBERSECURITY

EBIOS RISK MANAGER



CS2

Learn how to conduct a complete risk analysis according to the EBIOS Risk Manager (RM) method of ANSSI either face-to-face or remote. This training fits perfectly into the framework of an implementation process of the norm ISO/CEI 27001 et 27005.

Pedagogical objectives

- Gain the necessary knowledge and develop the necessary skills to master risk management concepts and components based on the EBIOS Risk Manager method.
- Acquire the vocabulary and knowledge to be familiar with the methodology, and develop the necessary skills, with practical exercises, to perform an optimal information security risk assessment

Programme

- **Introduction and overview of the workshops**
  - Presentation of EBIOS Risk Manager variations
  - Definitions and terminologies
  - Presentation of the EBIOS Risk Manager iterative and collaborative approach and the scenario-based approach
  - Workshop 1: Scope and security baseline
  - Workshop 2: Risk origins and target objectives
  - Workshop 3: Strategic scenarios
  - Workshop 4: Operational Scenarios
  - Workshop 5: Risk treatment
- **Application of workshops (in simulation)**
  - Work in small groups supervised by a trainer
  - Feedback, sharing and global discussions

Profiles

Risk manager, CISO, CIO, ISS consultant, ISS architect, ISS project manager, etc

Duration

2.5 days

Locations

On Airbus Protect Sites, in-company or remotely

Prerequisites

General knowledge of risk management and cybersecurity is a plus

Dates

Throughout the year

Languages

EN FR

CYBERSECURITY

EBIOS RM RISK ASSESSMENT WITH FENCE

CS3

Pedagogical objectives

- Being able to use the Fence application to perform an EBIOS RM Security Risk Assessment
- Get a first practice with Fence and become familiar with its interface
- Understand what can be done with the application and where to find each piece of information
- Get to know the advanced features that Fence offers and how to use them (knowledge bases, customisation, reporting, etc.)

Programme

- Presentation of the application principles (organisation, navigation, report capabilities, etc.)
- Detailed presentation and walkthrough of each EBIOS RM workshops:
  - Workshop 1: Scope and security baseline
  - Workshop 2: Risk origins
  - Workshop 3: Strategic scenarios
  - Workshop 4: Operational scenarios
  - Workshop 5: Risk treatment
- Practical exercises on Fence are included
  - alongside the walkthrough, enabling each trainee to actually use Fence and illustrating the presentations (each trainee will have access to a Fence account on an Airbus Protect server, for the purpose of this training)

Profiles

Risk Analyst

Duration

1 day

Locations

On Airbus Protect sites, in-company, or remotely

Prerequisites

EBIOS RM knowledge, for instance having followed an EBIOS RM methodology training

Dates

Throughout the year

Languages

EN FR

Our pricing conditions

All our training courses can be financed by your OPCO (“Operator of Competences”: organisation approved by the French State). Please contact us for an individual evaluation of your training requirements. Our goal is to identify the most suitable and cost effective training or training concept for each customer.

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