



Syllabus

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Risk Assessment Training (RAT)

Syllabus

SMS – Risk Assessment Training (3 days)

Appreciate your risks.

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1 Day 1

1.1 Module RAT01: Make Safety a System

Note: Presentation of generic SMS risk management process and safety culture definition, may be adapted to customer specific process and definition on request

Objectives	Contents of Module	Practical Training/Discussion
<p>Objective 1: Understand the context and drivers of a Safety Management System</p> <p>Objective 2: Differentiate existing safety management organisation and new elements of an SMS</p>	<p>Framework:</p> <ul style="list-style-type: none"> • Definition of Safety, Risk and Risk Assessment • Concept of a Safety Management System • SMS Risk Management Process 	<p>Group discussion on “what is safety, risk and risk assessment?”</p>
	<p>Requirements:</p> <ul style="list-style-type: none"> • ICAO Standards and Reference Documents • SMS Definition 	
	<p>Orientation & Safety Culture:</p> <ul style="list-style-type: none"> • Reactive, proactive and predictive Safety Measures • Safety Culture Definition 	<p>Group discussion on “meaning of safety culture?”</p>

1.2 Module RAT02: SMS Integration

Note: Presentation of a generic SMS implementation and risk assessment tools (safety risk evaluation, safety review, event risk classification), may be adapted to customer specific implementation and tools on request

Objectives	Contents of module	Practical Training/Discussion
Objective 3: Learn how to integrate a SMS in the organisation	Integration of a SMS: <ul style="list-style-type: none"> Integration according to SMS definition 	
Objective 4: Understand the structure of the Safety Review Board	Organizational Structures: <ul style="list-style-type: none"> Structure of Safety Review Board Functions of each element 	Discussion on “Organisational impact of SMS implementation”
Objective 5: Get to know the roles and responsibilities	Accountabilities: <ul style="list-style-type: none"> Roles and responsibilities in an SMS 	
Objective 6: Understand the meaning of the safety policy	Policies: <ul style="list-style-type: none"> Safety Policy requirements No blame policy Integration of existing policies 	
Objective 7: Distinguish between different risk assessment tools	Procedures: <ul style="list-style-type: none"> Overview and triggers of risk assessment tools The management of change 	

1.3 Module RAT03: Modelling Risk

Objectives	Contents of module	Practical Training/Discussion
Objective 8: Distinguish between Threat, Hazard and Consequence	Hazard Identification: <ul style="list-style-type: none"> Definition of Threats, Hazards and Consequences Documentation of Hazards 	Group Activity “what is a threat, hazard, consequence?” (Flipchart)
Objective 9: Show methods and tools for Hazard Identification	Bow Tie Model: <ul style="list-style-type: none"> Development of Bow Tie Model 	Group Activity “develop bow tie model for specific risk”
Objective 10: Develop a Bow Tie Model in the group	Bow Tie Case Studies: <ul style="list-style-type: none"> Practical example 	The group develops bow tie model on flip chart

1.4 Module RAT04: Bow Tie Case Study		
Objectives	Contents of module	Practical Training/Discussion
Objective 11: Get practical experience with the Bow Tie Model	Hazard Identification: Select the correct hazard	Small groups develop bow tie model on flip chart
	Threats and Consequences: Determine threats and consequences for the hazard	Work with flipchart in small groups
	Defences and Barriers: Find defences and barriers to mitigate the risk effectively	
	Result of Group Work: Groups present result of their work to other groups	Presentation of results

2 Day 2

2.1 Module RAT05: Safety Risk Management

Note: Presentation of a generic risk matrix, probability and severity table, may be adapted to customer specific matrix and tables on request

Objectives	Contents of Module	Practical Training/Discussion
Objective 12: Show methods and tools for Safety Risk Assessment	Risk Assessment: <ul style="list-style-type: none"> • Definition of Risk Severity and Risk Probability • Handling of Risk Severity and Risk Probability tables • Introduction of Risk Index and Risk Matrix 	Group discussion on severity and probability
	Safety Risk Mitigation: <ul style="list-style-type: none"> • Four Strategies for Risk Mitigations 	Practical examples for risk mitigation strategies
	Risk Management Process: <ul style="list-style-type: none"> • Schemata of Risk Management Process 	

2.2 Module RAT06: Extended Event Risk Classification (EERC) for Safety Reports

Notes: Based on "Event Risk Classification" provided by EASA ARMS working group may be adapted to customer specific reporting risk assessment procedure on request. Use of generic examples, may be adapted to customer specific examples on request

Objectives	Contents of Module	Practical Training/Discussion
Objective 13: Learn how to make a systematic Extended Event Risk Classification (EERC)	Extended Event Risk Classification theory: <ul style="list-style-type: none"> • EERC process • EERC usage 	Group discussion on "time needed/available for report risk assessment?"
	Extended Event Risk Classification practice <ul style="list-style-type: none"> • Use of matrix • Use of results 	Group assesses different example reports

2.3 Module RAT07: Safety Risk Evaluation (SRE)

Notes: Based on "Safety Issue Risk Assessment" provided by EASA ARMS working group, may be adapted to customer specific implementation on request. Use of generic risk evaluation document template and example, may be adapted to customer specific template and example on request

Objectives	Contents of Module	Practical Training/Discussion
Objective 14: Understand the concept of a Safety Risk Evaluation (SRE)	Motivation for safety risk evaluation <ul style="list-style-type: none"> Risk assessment example case study 	Group discussion about the pitfalls of the performed risk assessment
Objective 15: Ability to use the Safety Risk Evaluation Document	Safety Risk Evaluation (SRE): <ul style="list-style-type: none"> When to perform a safety risk evaluation Usage of results 	Group discussion of triggers of safety risk evaluation by means of example
	Safety Risk Evaluation Document: <ul style="list-style-type: none"> Introduction how to handle the safety risk assessment document Example for specific already filled out safety risk evaluation document 	

2.4 Module RAT08: SRE Case Study

Objectives	Contents of module	Practical Training/Discussion
Objective 16: Perform a Safety Risk Evaluation and get practical experience	Use the SRE Template: Fill out the SRE document	Small groups develop SRE using the laptop
Objective 17: Get to know a ready to use and practical risk assessment tool	Develop Bow Tie Model for SRE: Determine hazard, threats and consequences for the hazard	Work with laptop in small groups
	Assess the Risk: Make risk assessment using your new skills	
	Defences and Barriers: Find defences and barriers to mitigate the risk effectively	
	Result of Group Work: Groups present result of their work to other groups	Presentation of results using the document on the laptop

3 Day 3

3.1 Module RAT09: Safety Review

Note: Based on "Safety Review" provided by ICAO SMM Doc. 9859. May be adapted to customer specific reporting risk assessment procedure on request. Use of practical case study. May be adapted to customer specific case on request

Objectives	Contents of Module	Practical Training/Discussion
Objective 18: Get to know the concept of a Safety Review	Background <ul style="list-style-type: none"> Presentation of case study 	
Objective 19: Learn how to make a systematic Safety Review	Safety review practice <ul style="list-style-type: none"> Case study Application of SMS techniques Use of results 	Small groups perform a safety review on specific SMS related subjects using an accident case study
Objective 20: Get the big picture of a SMS	Safety review <ul style="list-style-type: none"> Presentation of results 	

3.2 Module RAT10: Course Summary and Test

Objectives	Contents of Module	Practical Training/Discussion
Objective 21: Get an overview about lessons learned	Summary of course	Discussion of open questions regarding the course contents
Objective 22: Check you knowledge through an open book test	Open book test	1:30 hours test with 25 questions