



SAFETY MANAGEMENT SYSTEM MANUAL

A template for the Aviation Community

MANAGEMENT SYSTEM

SAFETY + COMPLIANCE

Reg. (EU)
748/2012



Construction

Reg. (EU)
1321/2014
Part-CAMO



CAMO

Reg. (EU)
1321/2014
Part-145



Maintenance

Reg. (EU)
1178/2011



Training

Reg. (EU)
965/2012



Operations

Reg. (EU)
2023/203
Part-IS
(22/02/2026)



Information

SAFETY MANAGEMENT SYSTEM

MANUAL



[Company Name and Logo]

Safety Management System Manual



Photo: courtesy Airbus & Elifriulia

Edition: 0 Date: 20/10/2024
Revision: 0 Date: 20/10/2024

NOTE: Within the manual the edition number and the revision number are conveniently showed as "edition No." + "." + "revision No.". Thus, the Edition 0 and Revision 0 is showed as "Revision 0.0".



*A complimentary document developed by
ESPN-R (European Safety Promotion Network – Rotorcraft)*

SAFETY MANAGEMENT SYSTEM

INSTRUCTIONS



ESP-N-R
European Safety Promotion Network – Rotorcraft



Photo: courtesy Airbus & Elfrulla

ESP-N-R SMS MANUAL INSTRUCTIONS

ESP-N-R
First Edition
October 2024



COMPLIANCE

ICAO Doc. 9859 SMS Manual

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ESPN-R SMS Manual

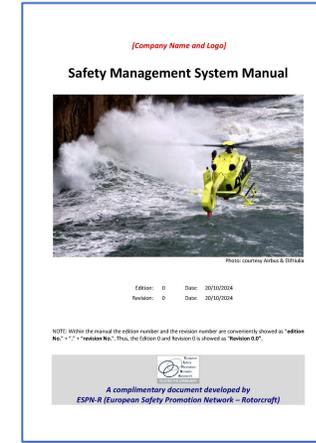


Table 10. Components and elements of the ICAO SMS framework

COMPONENT	ELEMENT
1. Safety policy and objectives	1.1 Management commitment
	1.2 Safety accountability and responsibilities
	1.3 Appointment of key safety personnel
	1.4 Coordination of emergency response planning
	1.5 SMS documentation
2. Safety risk management	2.1 Hazard identification
	2.2 Safety risk assessment and mitigation
3. Safety assurance	3.1 Safety performance monitoring and measurement
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ESPN-R SMS Manual – Index (extract)

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5.12. Management of change (including organisational changes with regard to safety responsibilities)
6. SAFETY PERFORMANCE MONITORING
6.5. Continuous improvement
7. INCIDENT REPORTING AND INVESTIGATION
8. EMERGENCY RESPONSE PLAN
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10. SAFETY PROMOTION
11. SAFETY DOCUMENTATION
12. Meetings
A. ATTACHMENTS
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COMPLIANCE

**Reg. (EU) 965/2012
(and other regulations)**

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ESPN-R SMS Manual

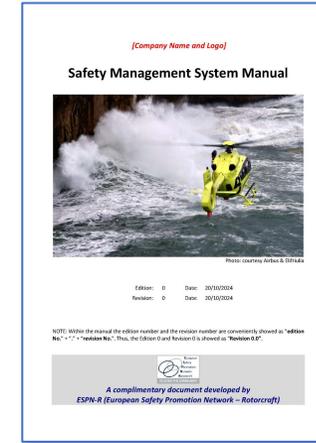
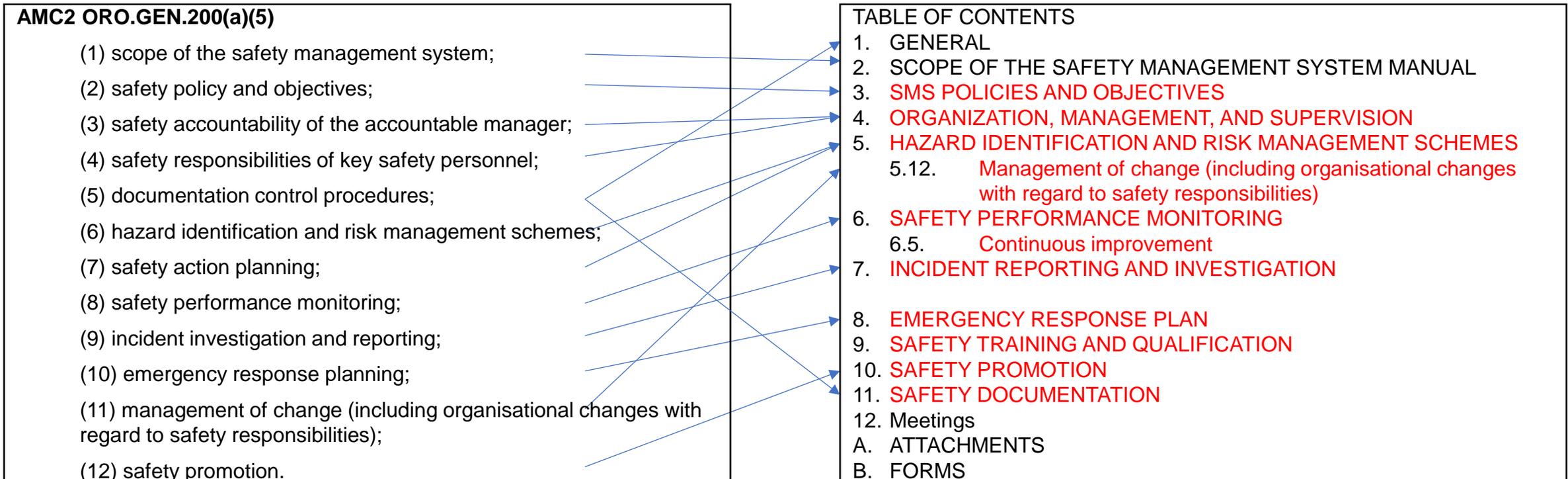
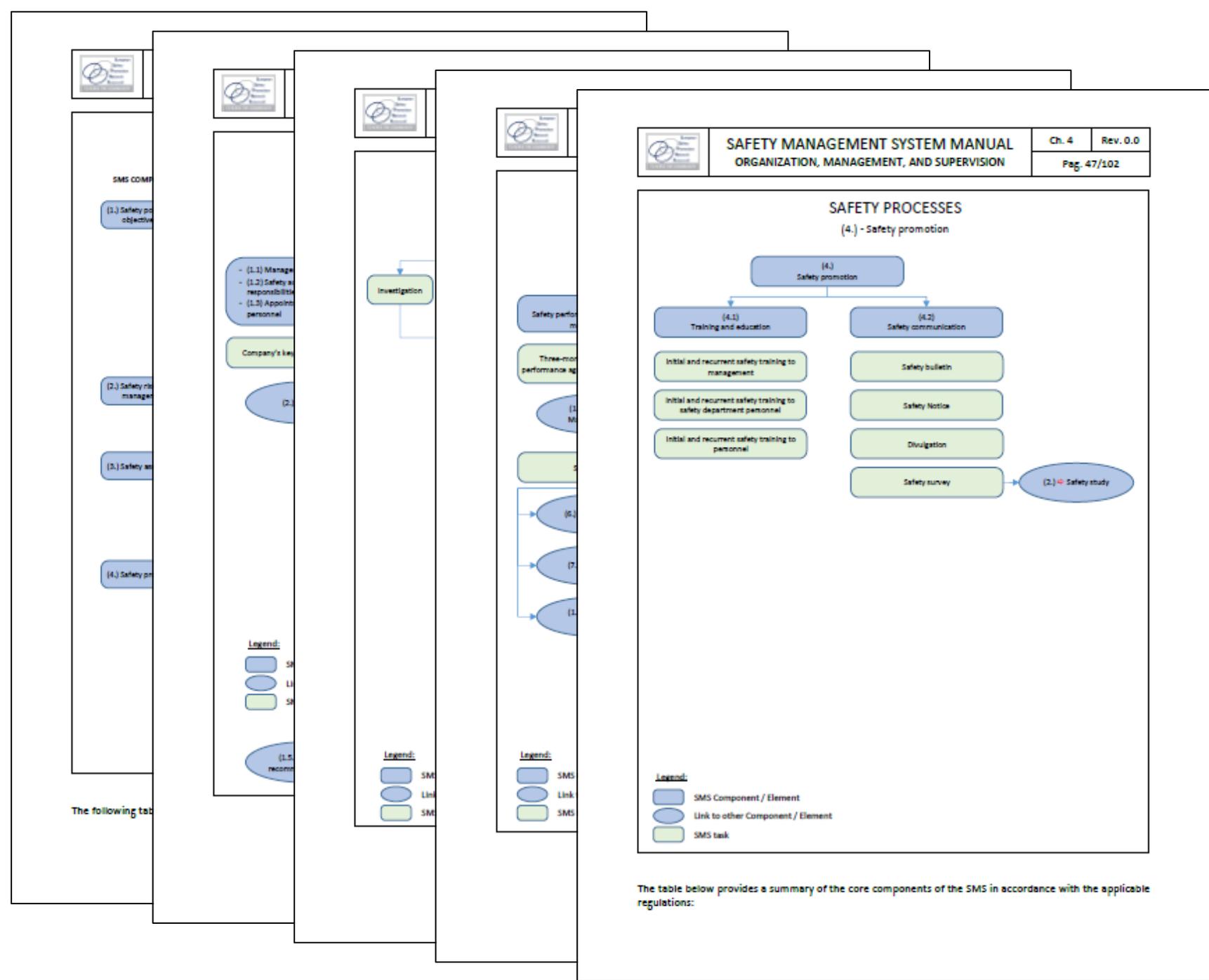


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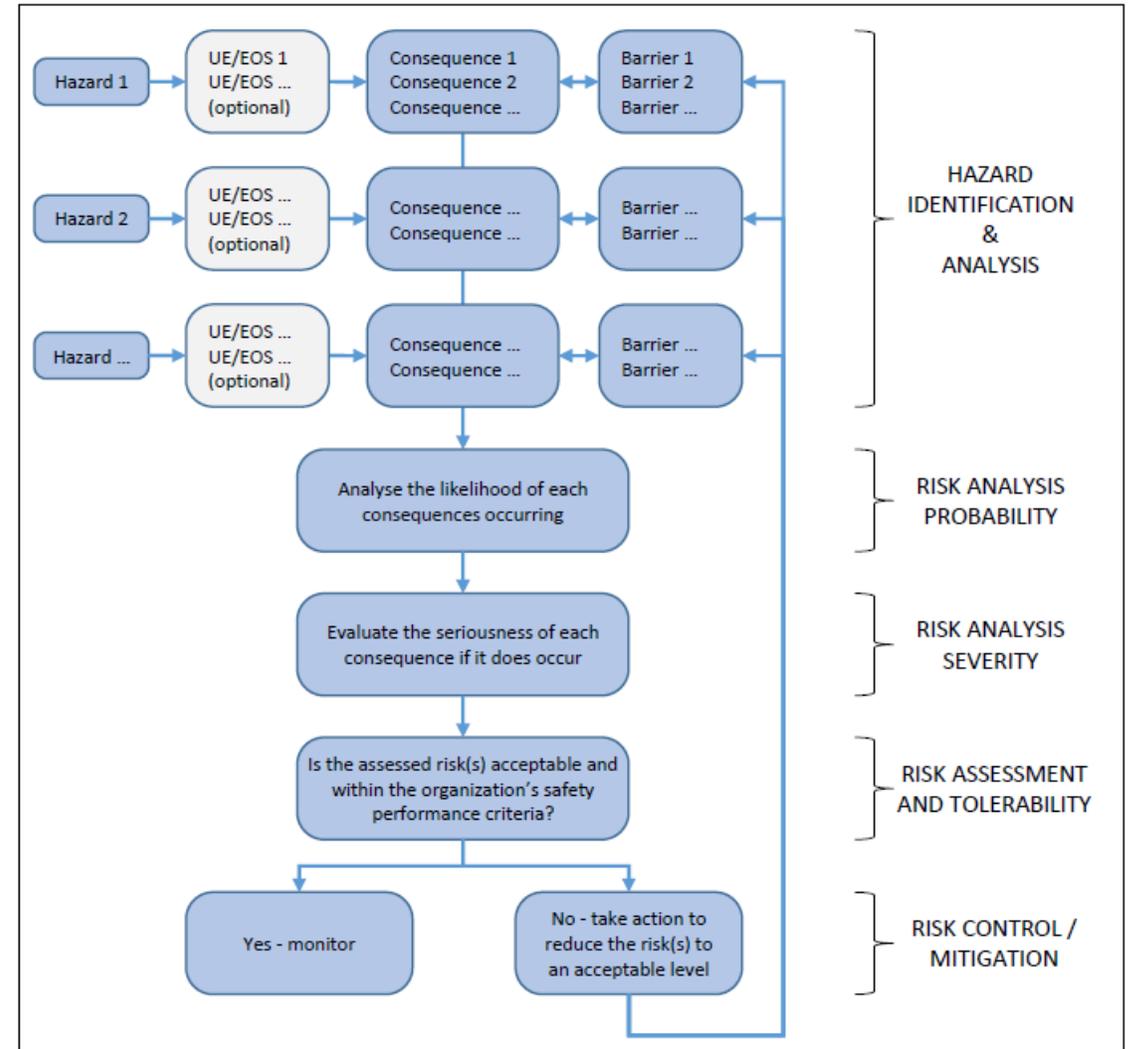
ESPN-R SMS Manual – Index (extract)



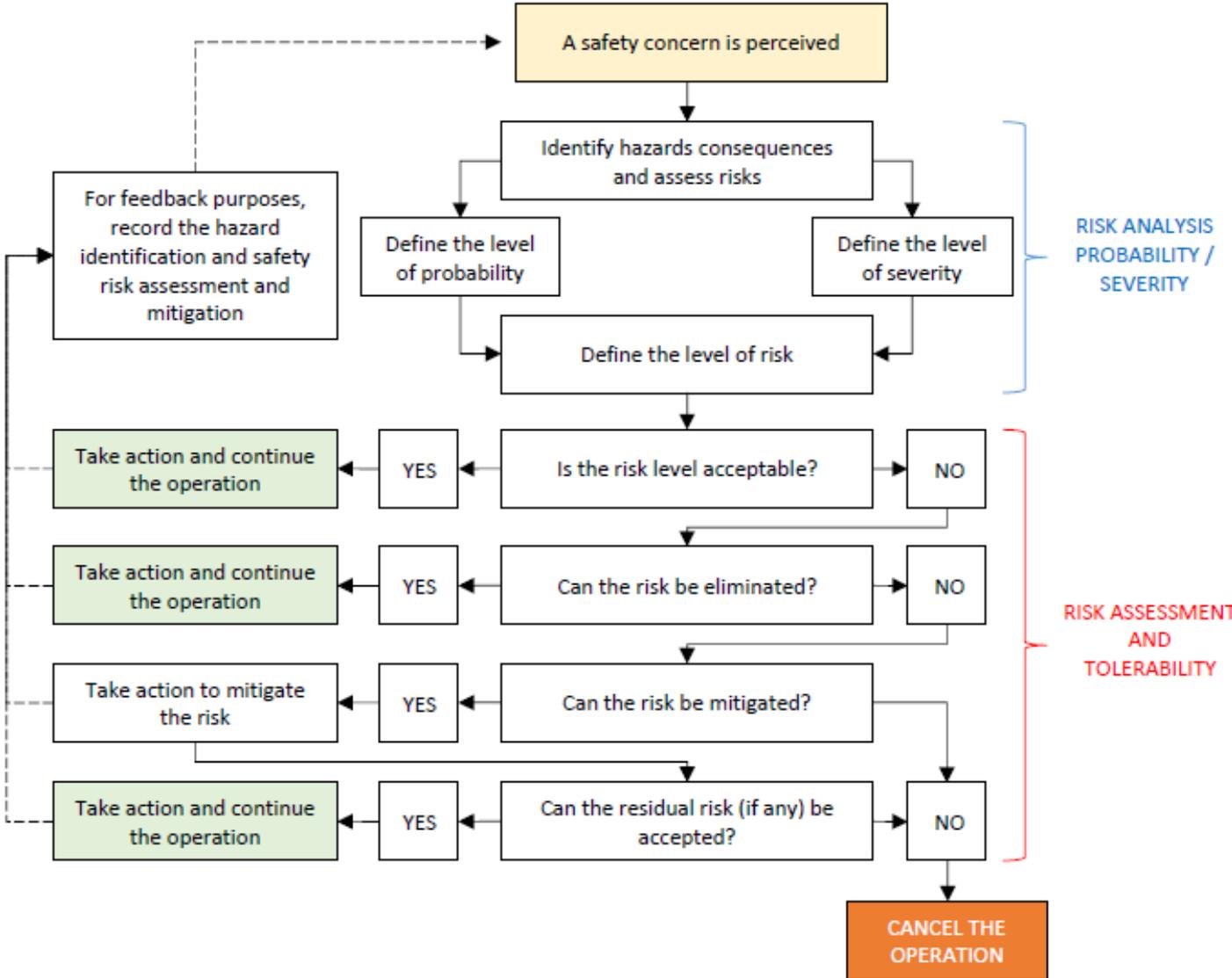
PROCESSES



SAFETY RISK MANAGEMENT



RISK ASSESSMENT



European Risk Classification Scheme (ERSC)

EUROPEAN RISK CLASSIFICATION SCHEME (ERCS)
SCHEMATIC (Ref. Reg. (EU) 2020/2034)

SEVERITY

KEY RISK AREA

- Airborne collision
- Aircraft upset
- Collision on runway
- Excursion
- Fire, smoke and pressurisation
- Ground damage
- Obstacle collision in flight
- Terrain collision
- Other injuries

POTENTIAL LOSS OF LIFE

- > 100 possible fatalities
- 20-100 possible fatalities
- 2-19 possible fatalities
- 1 possible fatalities
- 0 possible fatalities

KEY RISK AREA	CATEGORY	SEVERITY
Airborne collision	More than 100 possible fatalities	X
	Between 20 to 100 possible fatalities	S
	Between 2 to 19 possible fatalities	M
Aircraft upset	More than 100 possible fatalities	X
	Between 20 to 100 possible fatalities	S
	Between 2 to 19 possible fatalities	M
Collision on runway	More than 100 possible fatalities	X
	Between 20 to 100 possible fatalities	S
	Between 2 to 19 possible fatalities	M
Excursions	More than 100 possible fatalities	X
	Between 20 to 100 possible fatalities	S
	Between 2 to 19 possible fatalities	M
Fire, smoke and pressurisation	More than 100 possible fatalities	X
	Between 20 to 100 possible fatalities	S
	Between 2 to 19 possible fatalities	M
Ground damage	More than 100 possible fatalities	X
	Between 20 to 100 possible fatalities	S
	Between 2 to 19 possible fatalities	M
Obstacle collision in flight	More than 100 possible fatalities	X
	Between 20 to 100 possible fatalities	S
	Between 2 to 19 possible fatalities	M
Terrain collision	More than 100 possible fatalities	X
	Between 20 to 100 possible fatalities	S
	Between 2 to 19 possible fatalities	M
Other injuries	More than 100 possible fatalities	X
	Between 20 to 100 possible fatalities	S
	Between 2 to 19 possible fatalities	M
Security	More than 100 possible fatalities	X
	Between 20 to 100 possible fatalities	S
	Between 2 to 19 possible fatalities	M

ERCS MATRIX

SEVERITY	Score	CLASSIFICATION (ERCS Score)									
		X9	X8	X7	X6	X5	X4	X3	X2	X1	X0
Extreme catastrophic accident with the potential for significant number of fatalities (100+)	X	X9	X8	X7	X6	X5	X4	X3	X2	X1	X0
Significant accident with potential for fatalities and injuries (20-100)	S	S9	S8	S7	S6	S5	S4	S3	S2	S1	S0
Major accident with limited amount of fatalities (2-19), life changing injuries or destruction of the aircraft	M	M9	M8	M7	M6	M5	M4	M3	M2	M1	M0
An accident involving single individual fatality, life changing injury or substantial aircraft damage	I	I9	I8	I7	I6	I5	I4	I3	I2	I1	I0
An accident involving minor and serious injury (not life changing) or minor aircraft damage	E	E9	E8	E7	E6	E5	E4	E3	E2	E1	E0
No likelihood of an accident	A	No Implication to Safety									
Corresponding Barrier Score		9	8	7	6	5	4	3	2	1	0
Barrier Weight Sum		17-18	15-16	13-14	11-12	9-10	7-8	5-6	3-4	1-2	0

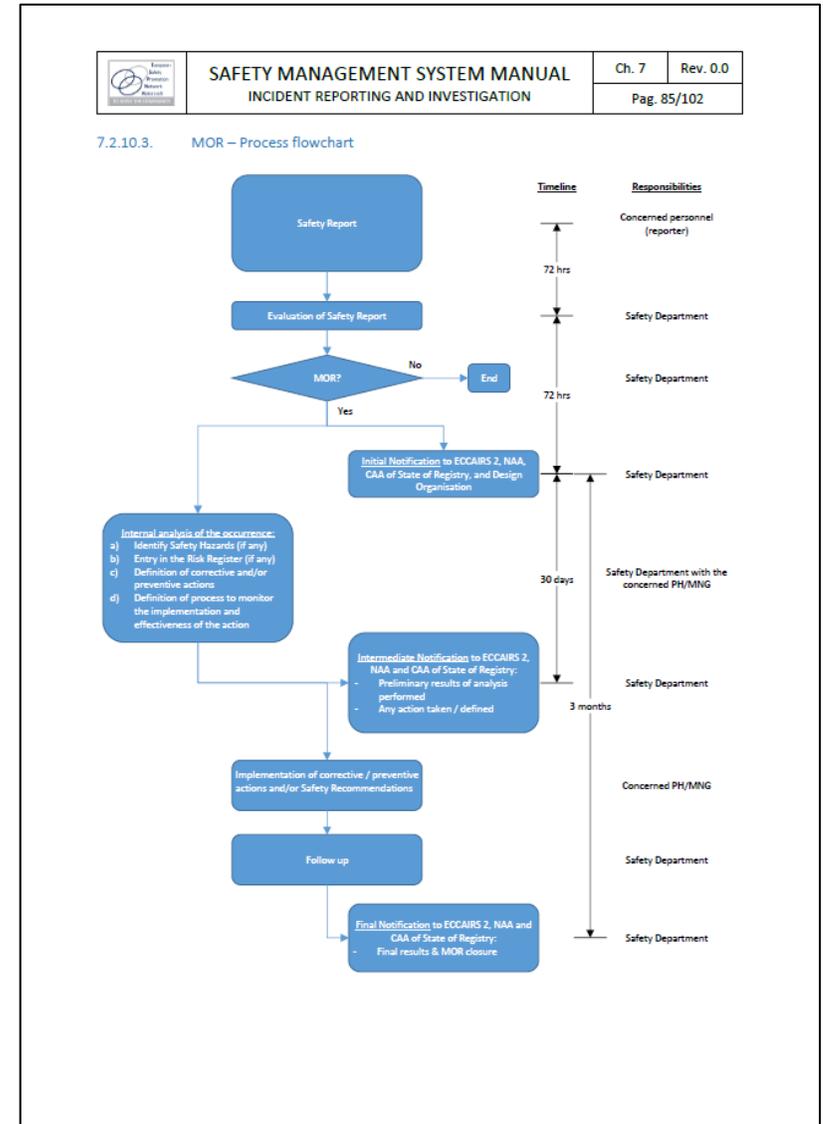
PROBABILITY OF THE POTENTIAL ACCIDENT OUTCOME

ERCS SCORE

RISK LEVEL	RISK VALUE
Low risk	$10^{-6} - 10^{-1}$
Elevated risk	$5 \cdot 10^{-1} - 10^3$
High risk	$5 \cdot 10^3 - 10^6$

PROBABILITY	EXISTING BARRIERS			BARRIERS EFFECTIVENESS	
	Active barriers:	Barrier type:	Barrier weight:	Active barriers:	
Barrier Barrier Barrier Barrier (...)	Aircraft, equipment and infrastructure design:	5	Stopped		
	Tactical planning:	2	Remaining Known		
	Regulations, procedures, processes:	3	Remaining Assumed		
	Situational awareness and action:	3			
Warning systems operation and action:		2			
	Late recovery from a potential accident situation:	3			
	Failed barriers:				
Barrier	Protections:	1	Failed barriers:		
Barrier	Low energy occurrence :	1	Failed Known		

Mandatory Occurrence Reporting



SAFETY DOCUMENTS

Records	Document identification	Person in Charge	Recording/ Archiving means	Record Keeping period	Record periodic review
Company Notification Plan	SMS-03-NP	Safety Manager	Electronic	Permanent	When necessary
Safety Review Board meetings minutes	SMS-10-SRB	Safety Manager	Electronic	5 years	When necessary
Safety Action Group meetings minutes	SMS-11-SAG	Safety Manager	Electronic	5 years	When necessary
Safety Meetings to personnel	SMS-12-MEET	Safety Manager	Electronic	5 years	1 year
Safety Annual Report	SMS-13-AR	Safety Manager	Electronic	5 years	1 year
Safety Objectives and Indicators	SMS-21-OBJ	Safety Manager	Electronic	5 years	1 year
Safety Study (Risk Assessment study)	SMS-30-RA	Safety Manager	Electronic	Permanent	3 years
Management of change	SMS-32-MOC	Safety Manager	Electronic	Permanent	When necessary
Safety Report form	SMS-40-SR	Safety Manager	Electronic	Permanent	When necessary
Internal Safety Report	SMS-41-ISR	Safety Manager	Electronic	Permanent	1 year (only open issues)
Hazards list	SMS-50-HAZ	Safety Manager	Electronic	Permanent	When necessary
Safety Recommendation	SMS-51-REC	Safety Manager	Electronic	5 years	When necessary
Safety Audit	SMS-60-AUD	Safety Manager	Electronic	5 years	1 year
Safety Trainings Register	SMS-71-TR	Safety Manager	Electronic	5 years	1 year
Safety Magazine	SMS-80-MAG	Safety Manager	Electronic	5 years	When necessary
Safety Alert Notice	SMS-81-SAN	Safety Manager	Electronic	5 years	When necessary
Safety Bulletin	SMS-82-SBU	Safety Manager	Electronic	5 years	When necessary
Various divulgation material	SMS-83-DIV	Safety Manager	Electronic	5 years	When necessary

In the absence of such indication, all records should be kept for a minimum period of 5 years. Documents are reviewed as reported in the list or whenever is deemed necessary.



QUESTIONS?



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