



EASA

European Aviation Safety Agency

Occurrence Reporting – Regulation 376/2014

EASA Safety Risk Management Process

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Your safety is our mission.

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 - Involvement of stakeholders
- Summary



Let's start with something interesting





Key Point – The Title of the Regulation

- Regulation (EU) 376/2014 on the Reporting, Analysis and Follow Up of Occurrences in Civil Aviation



- Regulation on reporting is nothing new
- Builds on Directive 2003/42 and on reporting and modern SMS requirements under IRs of BR216/2008
- It implies some additional challenges due to a parallel legal framework to BR216/2008



Summary of the Regulation

What are the objectives of the Regulation?

- To improve aviation safety by ensuring that relevant civil aviation safety information is reported, analysed and followed-up
- To ensure continued availability of safety information through Just Culture

To what kind of event does it apply?

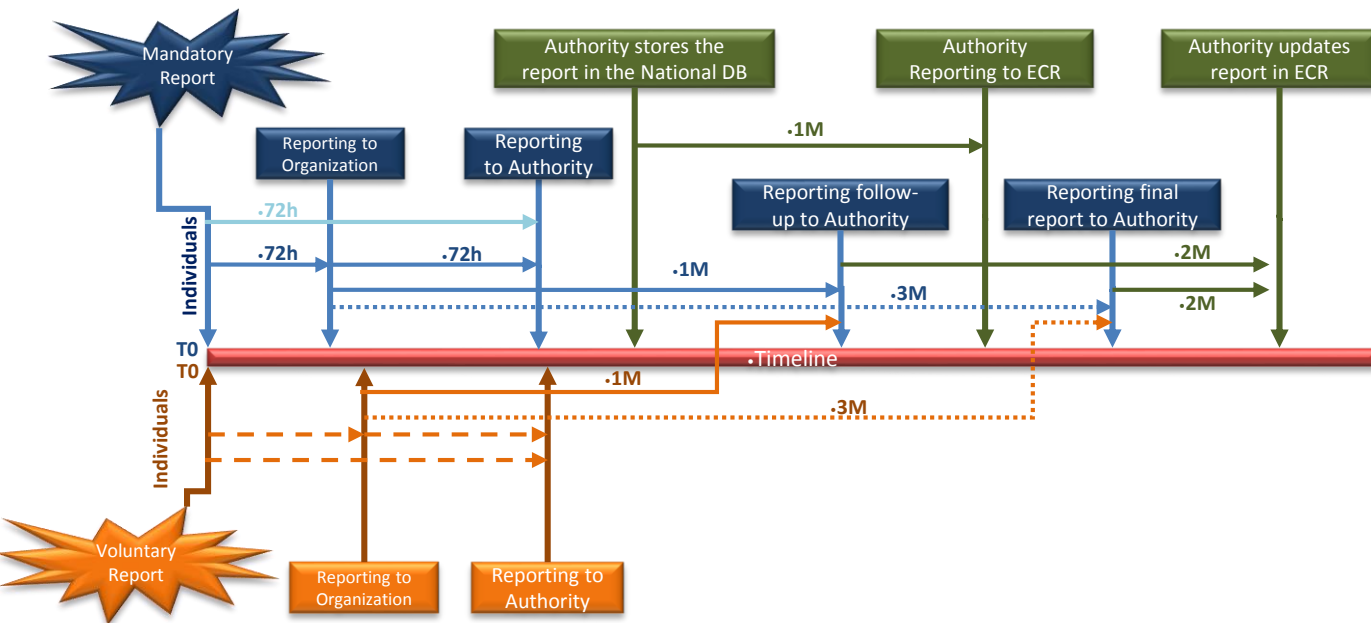
- 'occurrence' means any safety-related event which endangers or which, if not corrected or addressed, could endanger an aircraft, its occupants or any other person and includes in particular an accident or serious incident;

To who does it apply?

- Member States, EASA and organisations established in a MS which employs the persons covered by Art. 4
- Natural persons as described in Art. 4
 - Pilot in command of an EU-registered or EU-operated aircraft
 - Maintenance personnel working on EU-registered or EU-operated aircraft
 - Ground handling personnel working in airports covered by 1008/2008



When to Report





How to Report to the Authority

- Simpler standard reports
- Definition of ECCAIRS/ ADREP compatibility
- EU reporting portal www.aviationreporting.eu

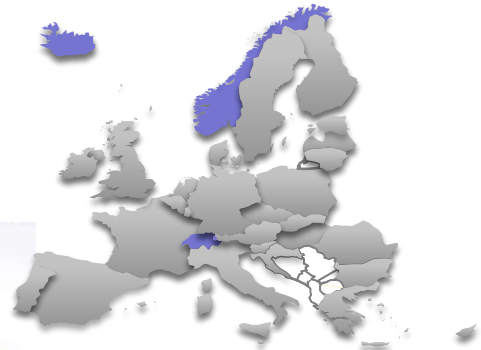
Off-Line Report

The screenshot shows the EASA Off-Line Report form. It includes sections for 'Incident details', 'Aircraft information', and 'Reporting status'. Fields include 'Incident number', 'Aircraft number', 'Date of the report', 'Report type', 'Report status', and 'Report date'. There are also checkboxes for 'Reported to the competent authority' and 'Reported to the EASA'.

Online Report

The screenshot shows the EASA Online Report form. It includes sections for 'Incident details', 'Aircraft information', and 'Reporting status'. Fields include 'Incident number', 'Aircraft number', 'Date of the report', 'Report type', 'Report status', and 'Report date'. There are also checkboxes for 'Reported to the competent authority' and 'Reported to the EASA'.

Data Transfer File (E5X)

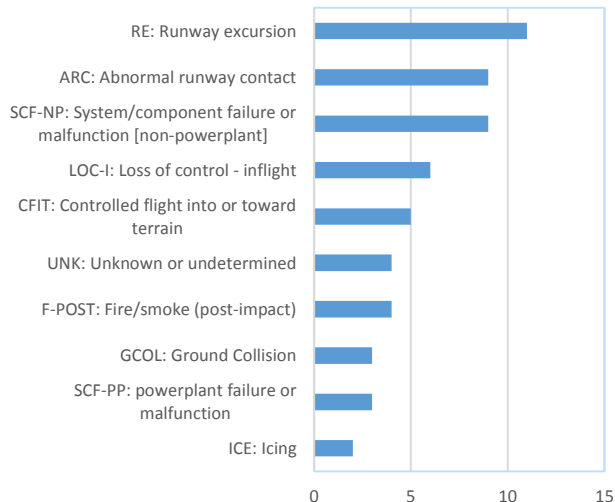




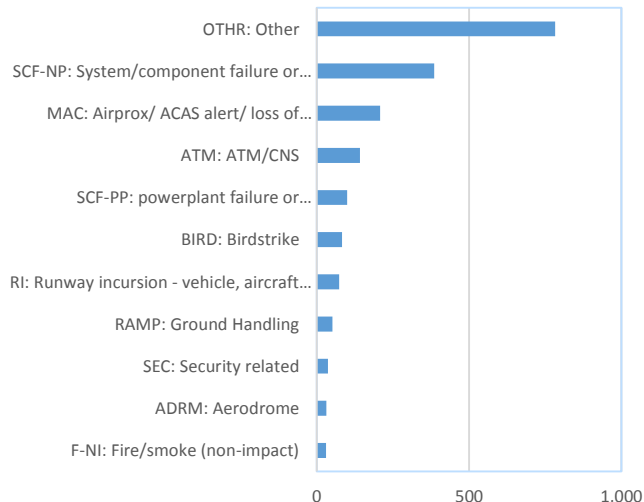
Risk Classification

- European Common Risk Classification scheme (Authorities)
- The most frequent occurrences or the ones with most severe outcome are not necessary ones bearing the highest risk

Accidents by Category
(NCC > 5700kg_2005-2015_ECR)



Occurrences by Category
(NCC > 5700kg_2005-2015_ECR)



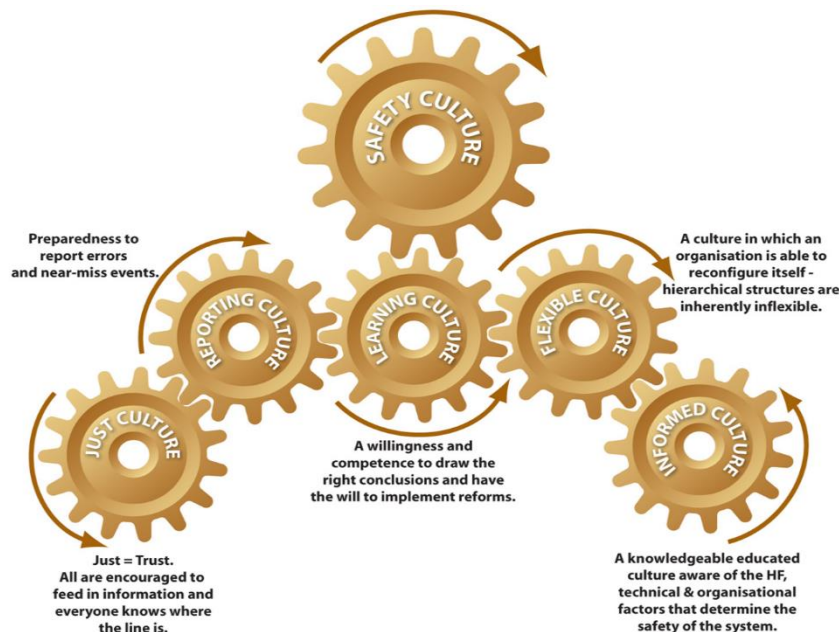


Risk Classification - How

- ARMS like
- Based on two questions
 - Most credible worst outcome
 - Effectiveness of barriers (remaining and breached)
- Roadmap
 - Q1 2016 – consolidation of the barrier model
 - Q2 & Q3 2016 – development of guidance material
 - Q4 2016 – pilot programme



Just Culture: No Reports = No Information



- JC Policy in organisation
- Individuals and data legal protection
- Restrictions for use of data
- Appeal Body at National level
- Reporting to EC (5Y cycle)
- JC Corporate Declaration
- JC manual under development (JC WG)



Guidance Material

- Like any Regulation there needs to be guidance material that is simple to help provide clear understanding
- Regulation (EU) 376/2014 is an EC Regulation so Guidance Material is not traditional EASA GM
- Following consultation with industry a Question and Answer format has been developed
- It is published in the EU Reporting Portal www.aviationreporting.eu

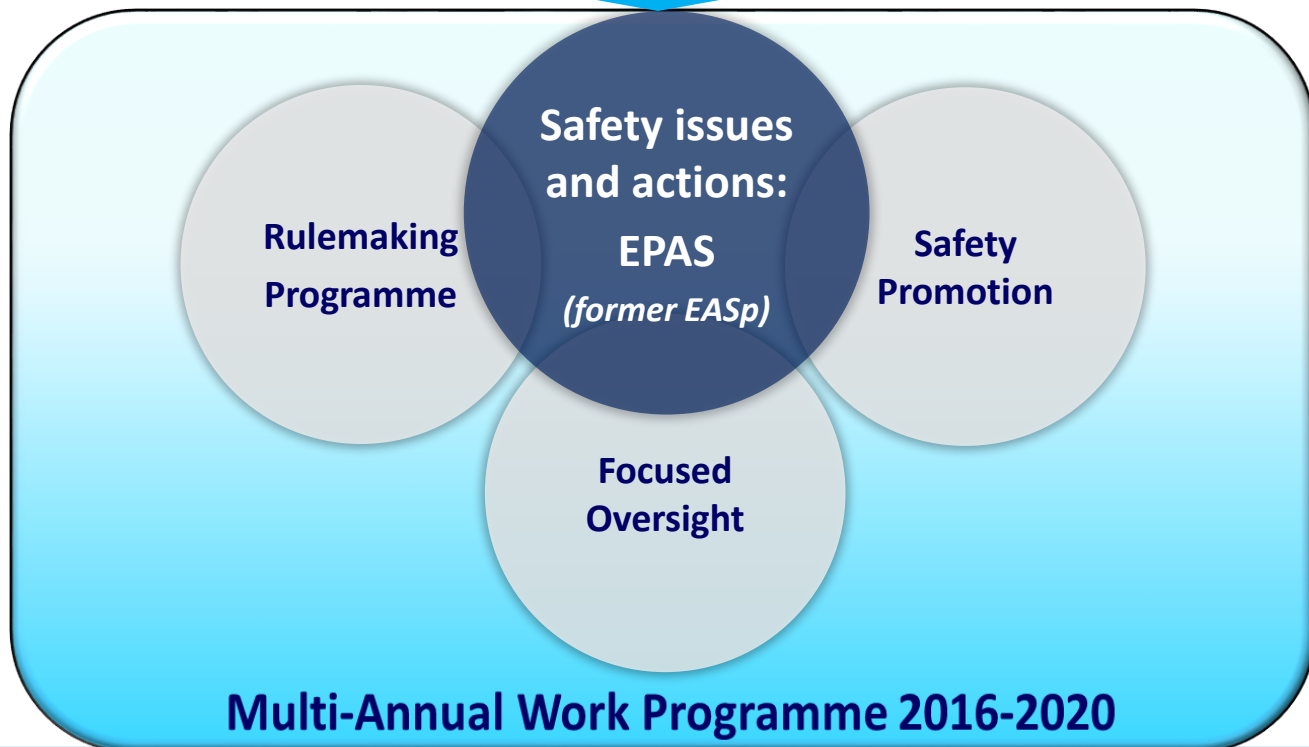


Using Data for the EPAS

- Regulation requires analysis of the data
 - By organisations for their SMS
 - By States for State Safety Plans
 - By the European Community for EPAS
- At EU Level: EASA through the Safety Risk Management process (SRMP)
- This involves not just data analysis but discussion with industry through a range of groups (NoA, CAGs, etc.)



Safety Risk Portfolio





Safety Risk Management Process





Safety Risk Management Process





Intro to the SRM process

Validation of new safety issue:

- Open door for any new candidate safety issue:
 - Internally in the Agency: Safety Recommendations, result of analyses, outcome of RMT, research...
 - Externally to the Agency: **Any Stakeholder! Any source!**
- At this step the process should reply to the following questions:
 - Is it an actual safety issue? Is it present in high severity/risk events?
 - Is it already covered by the existing portfolios? To which domain affect?
- **The outcome of the validation is:**
 - Validation paper
 - Conclusion:
 - Valid safety issue or not
 - Need to analyse further or not
 - Identification of affected portfolio(s)



- Initiated from the outcome of LoC-I study
- Starting point for the SRM process and to validate analysis/assessment methodologies proposed
- In principle, it represents BA issues but it is open for discussion (feedback from EBAA SC, Nov 2015)
 - Missing BA specific safety issues?
 - Need of particular assessment in BA context?
 - Need of dedicated Risk Portfolio for BA?



CAT Safety Risk Portfolio

		Key Risk Areas (Outcomes)							
Safety Area	Outcome Percentage of Fatal Accidents (Last 10 Years)	41%	25%	16.6%	16.6%	8.3%	0%	0%	0%
	Outcome Percentage of Non-Fatal Accidents (Last 10 Years)	1.3%	22.6%	31.8%	0.4%	37.6%	3.5%	0.8%	0%
	Safety Issues	Aircraft Upset	System Failure	Ground Collision & Ground Handling	Terrain Conflict	Abnormal Runway Contact & Excursion	Fire	Runway Incursion	Airborne Conflict
Operational	Detection, Recognition and Recovery of Deviation from Normal Operations	•			•	•	•	•	•
	Operation in Adverse Weather Conditions	•		•	•		•	•	•
	Entry of Take-Off and Landing Parameters into Aircraft System	•	•					•	
	Handling and Execution of Go-Arounds	•			•				
	Maintaining Adequate Separation Between Aircraft			•					•
	Fuel Management	•	•		•	•			
	Aircraft Maintenance	•	•	•	•	•	•	•	•
	Loading and Dangerous Goods Handling	•	•	•			•		
	Ground Handling Operations	•		•				•	
	Birdstrikes and Bird Control	•	•						
Technical	Diagnosis and Management of System Failures In Flight	•	•		•	•	•		•
	Contamination of Controls or Critical Surfaces	•	•			•			
	False or Disrupted ILS Signal Capture	•	•			•			
Consequences	Survivability and Evacuation	•		•	•	•	•		•
	Suitability of Recording Devices	•	•	•	•	•	•	•	•
Human Factors	Flight Crew Perception and Awareness	•		•	•	•		•	•
	CRM and Communication	•		•	•	•		•	•
	Knowledge of Aircraft Systems and Use of Associated Procedures	•	•	•	•	•	•	•	•
	Personal Readiness and Crew Impairment	•	•	•	•	•	•	•	•
	Monitoring of Flight Parameters and Automation Modes	•		•	•	•	•	•	•
Organisational	Oversight of Organisations	•	•	•	•	•	•	•	•
	SMS Implementation	•	•	•	•	•	•	•	•



Safety Risk Management Process





Intro to the SRM process

Safety assessment

- How does the safety issue develop? What are the foreseeable outcomes?
- What are the associated barriers? How effective are they? How confident are we with existing controls?
- Will it be under control with on-going actions? How urgent/important is the safety issue?
- **Outcome(s): Assessment report**
 - Conclusion: it represents an (un)acceptable risk, it is recommended (or not) to assess additional actions
 - Reviewed portfolio: need to modify priorities of ongoing or new tasks)
- **Currently under assessment in the CAT FW portfolio:**
 - **Management of the flight in adverse weather conditions**
 - **Flight crew awareness**
 - **CRM, communications and decision-making**
 - **Handling of go-arounds**



Safety Risk Management Process





Intro to the SRM process

Definition and programming of actions

- What is/are the most adequate action(s) to put in place?
 - Safety benefit
 - Cost/Efficiency
 - Time to implement
 - Social impact
- All type of actions: Rulemaking, Safety Promotion, Oversight, Research
- **Outcome(s):**
 - Recommendation of the best action(s)
 - Programming of the accepted action(s) [EPAS, RMP, etc.]
- **Currently action definition in the CAT FW portfolio:**
 - **Erroneous take-off/landing parameters**



Safety Risk Management Process





Intro to the SRM process

Implementation and follow-up

- Recording in the relevant plan (EPAS, MS SSP, Agency's internal streams,...)
- Allocation to the responsible unit/entity
- Liaising with Stakeholders
- **Outcome(s):**
 - Follow-up in the relevant process (EPAS, SSP, RMP, safety promotion, CAW,...)
- **Currently implementation in the CAT FW portfolio:**
 - **Erroneous take-off/landing parameters**
 - **Issuance of dedicated SIB**



Safety Risk Management Process





Intro to the SRM process

Safety Performance Monitoring

- Risk Areas (Outcomes)
- Safety Issues
- Efficiency of implemented actions
- **Outcome(s):**
 - Monitoring Dashboards (KPIs)
- **Currently in the CAT FW portfolio:**
 - **Monitoring of Risk Areas**
 - **Monitoring of Safety Issues (under development)**

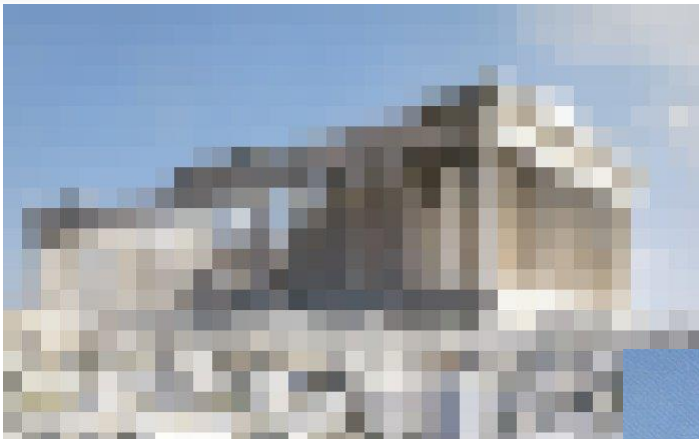


EPAS Supporting Structure





Summary – Back to the brochure





EASA
European Aviation Safety Agency

Questions?

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Acronyms

Acronym	Definition	Acronym	Definition
EPAS	European Plan for Aviation Safety	RMP	Rulemaking Programme
SRMP	Safety Risk Management Process	CAW	Continuing Airworthiness
NoA	Network of Analysts	BA	Business Aviation
IR	Implementing Rules	LoC-I	Loss of control in flight
ECCAIRS	European Coordinated Center for Aviation Incident Reporting System	CRM	Crew Resource Management
ADREP	ICAO Accident Reporting	SIB	Safety Information Bulletin
ECR	European Central Repository	KPI	Key Performance Indicator
CAT FW	Commercial Air Transport with Fixed Wing aircraft	CAG	Collaborative Analysis Group
SSP	State Safety Programme	ILS	Instrumental Landing Sys.