

Implementation of GRF in EU

Vasileios STEFANIOROS - EASA

Your safety is our mission.

Agenda

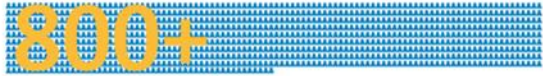
- The Agency
- Implementation of GRF
- Challenges
- Way forward

The Agency



Established
2002

15 years
in operation



aviation experts
& administrators

Headquarters in
Cologne
Office in
Brussels



32 EASA member states
= 28 + 4
EU + Switzerland, Norway
Iceland, Liechtenstein



The Agency



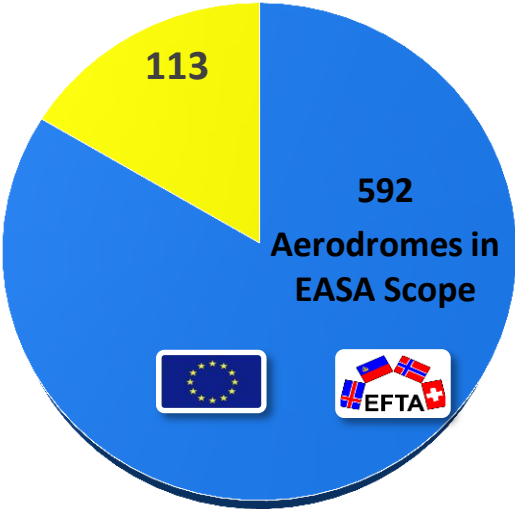
28 EU states



4 EFTA states



Aerodromes in the EASA Scope



■ EASA ADRs ■ Exempted/ expected to be exempted

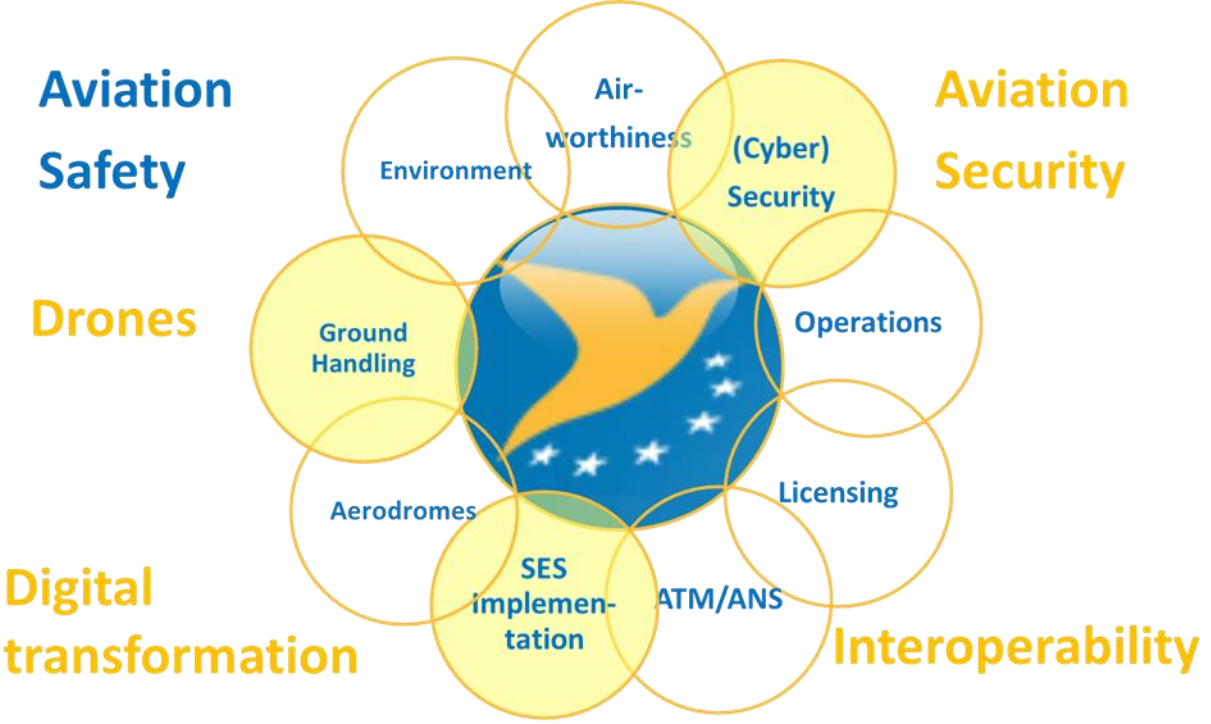


Aerodromes in the EASA Scope



Country	EASA ADRs	Exempted
Austria	7	1
Belgium	6	0
Bulgaria	5	1
Croatia	9	1
Cyprus	2	0
Czech Republic	5	0
Denmark	14	5
Estonia	4	0
Finland	24	0
France	107	51
Germany	55	21
Greece	39	8
Hungary	6	2
Iceland	4	0
Ireland	10	2
Italy	43	5
Latvia	1	0
Lithuania	3	0
Luxembourg	1	0
Malta	1	0
Netherlands	7	2
Norway	50	1
Poland	15	2
Portugal	15	4
Romania	16	0
Slovakia	6	2
Slovenia	3	2
Spain	36	1
Sweden	41	1
Switzerland	8	3
UK	49	0

The Agency

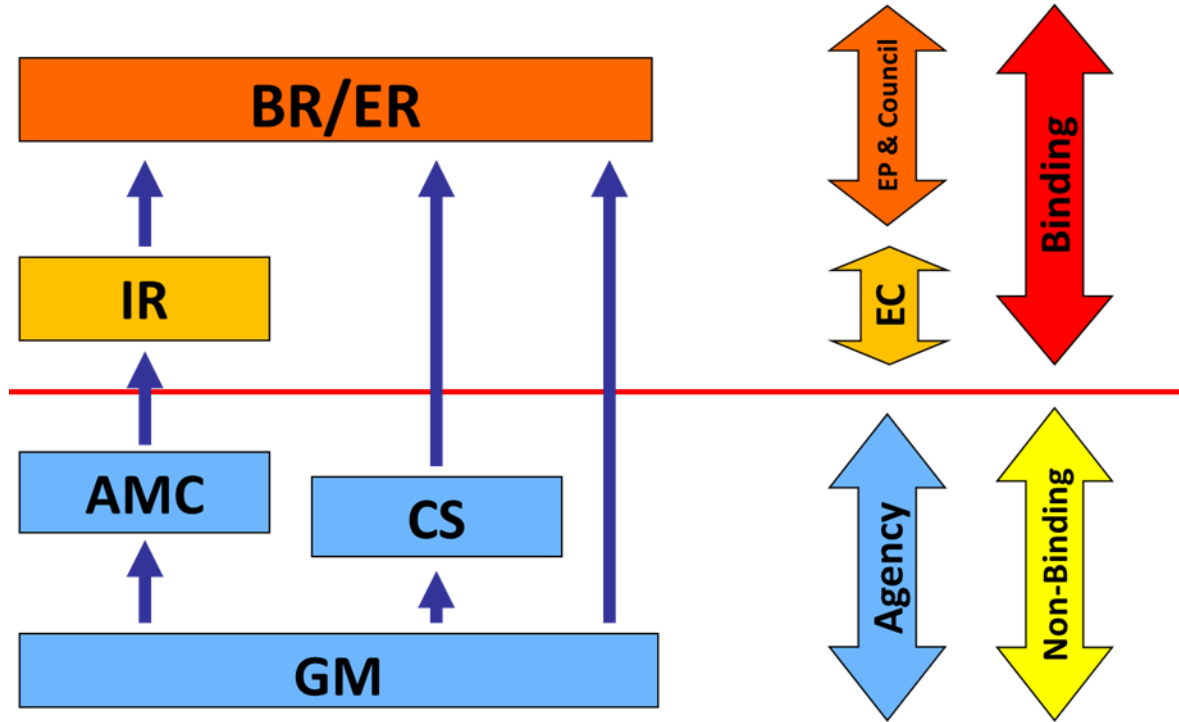


27/03/2019

ICAO, GRF Symposium 26-28 March 2019

6

Hierarchy of the regulatory material

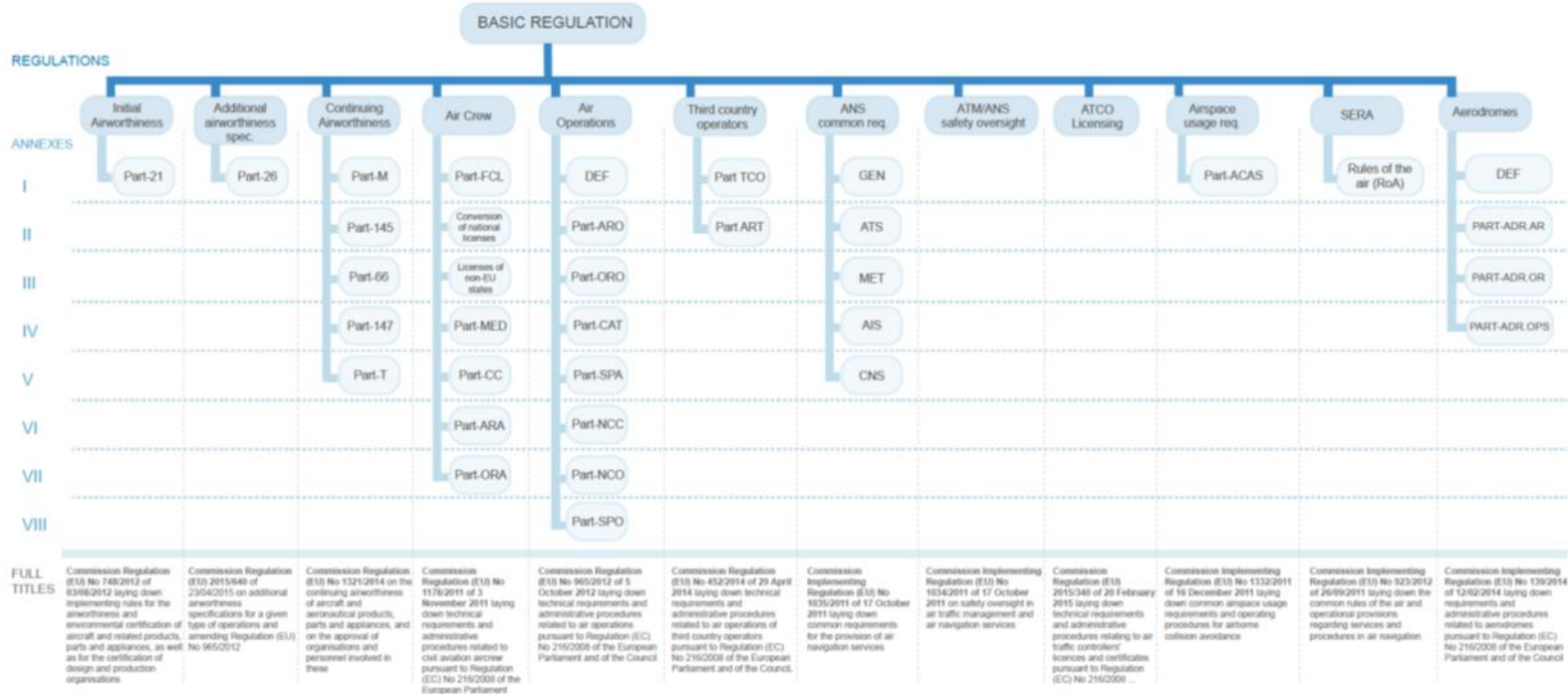


Regulations structure

Regulations Structure

Each Part to each implementing regulation has its own **Acceptable Means of Compliance and Guidance Material (AMC/GM)**. These AMC and GM are amended along with the amendments of the regulations. These AMC/GM are so-called 'soft law' (non-binding rules), and put down in form of EASA Decisions. A comprehensive explanation on AMC in form of questions and answers can be found on the FAQ section of the EASA website.

Furthermore, **Certification Specifications** are also related to the implementing regulations, respectively their parts. Like AMC/GM they are put down as Decisions and are non-binding.

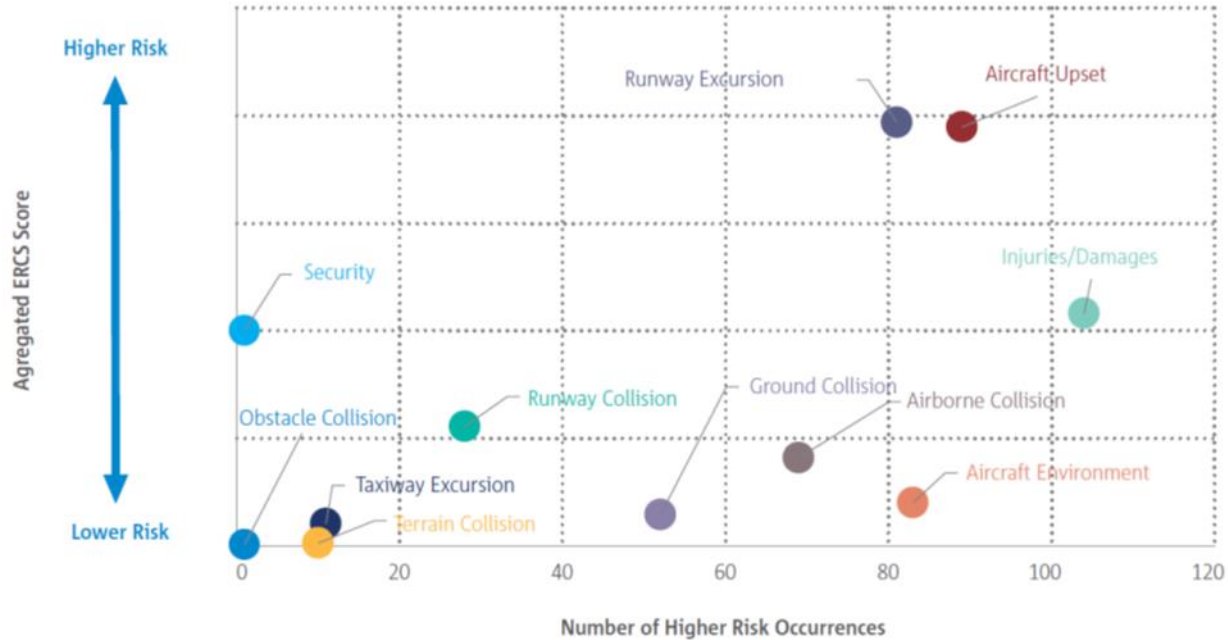


Runway excursions

A continuing problem



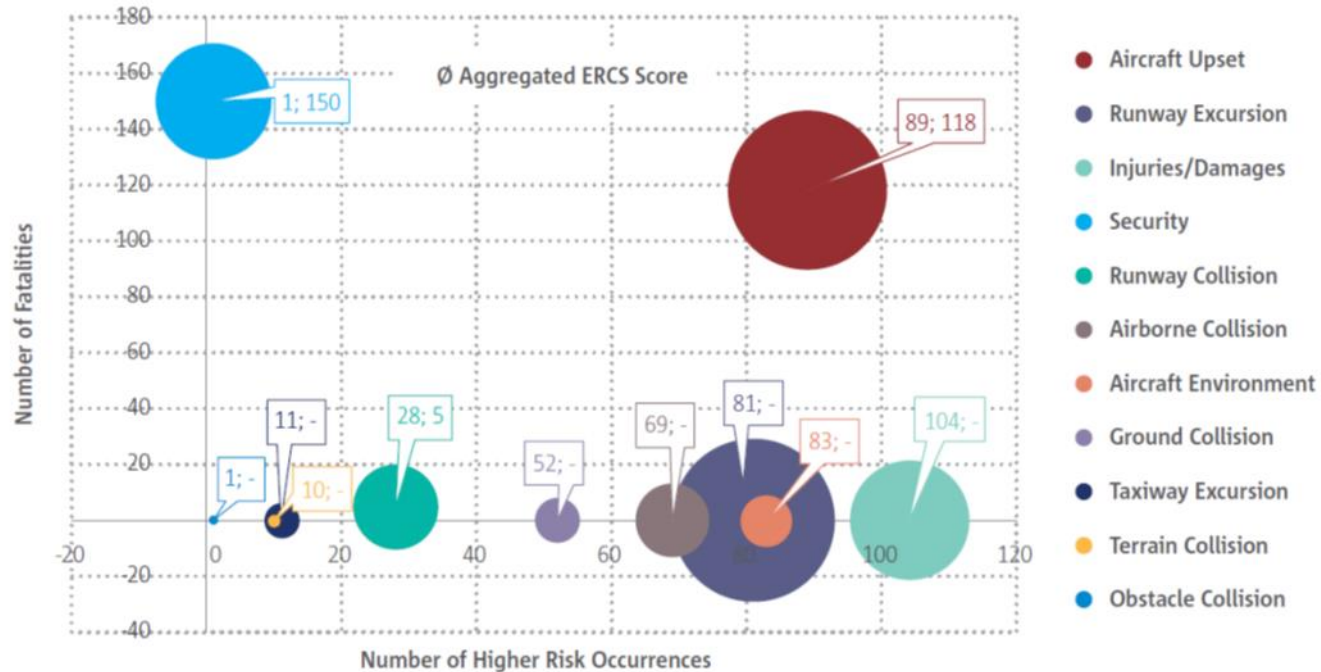
Runway excursions - Statistics



Distribution of key risk areas by frequency and aggregated ERCS risk score for commercial air transport airlines and non-commercial complex business, 2013-2017

EASA Annual Safety Review 2018

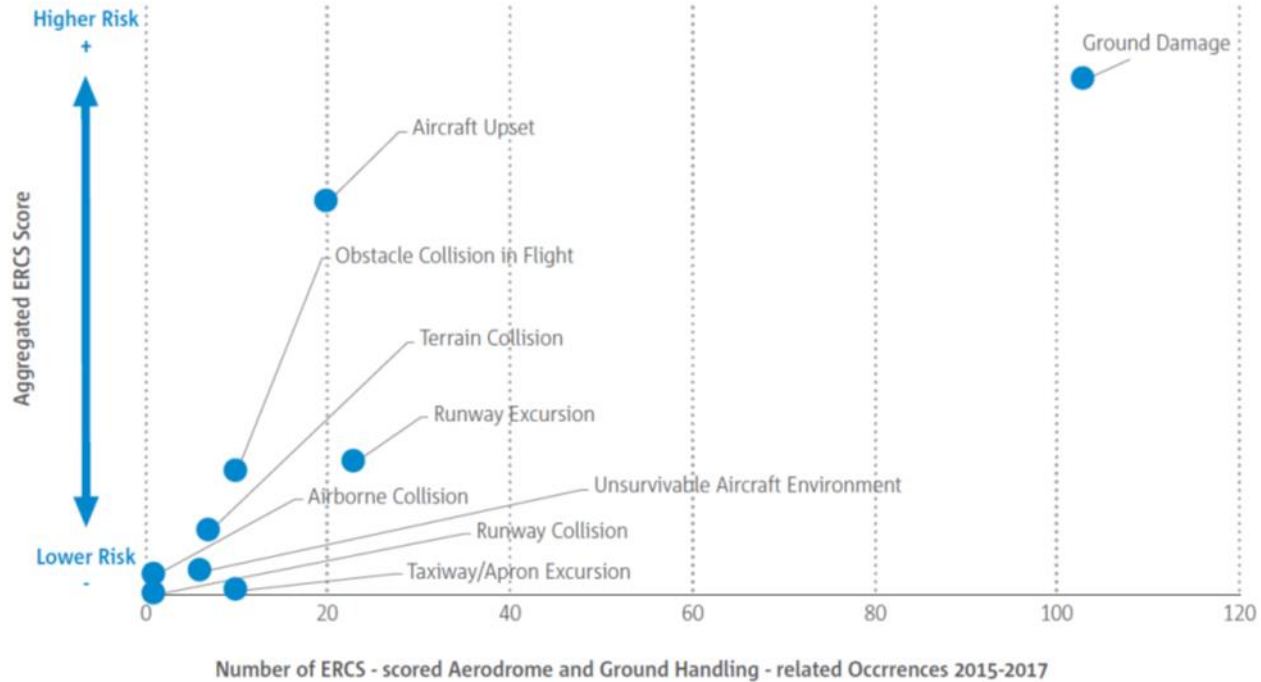
Runway excursions - Statistics



Distribution of key risk areas by fatalities, number of higher risk occurrences and ERCS risk score for commercial air transport airlines and non-commercial complex business, 2013-2017

EASA Annual Safety Review 2018

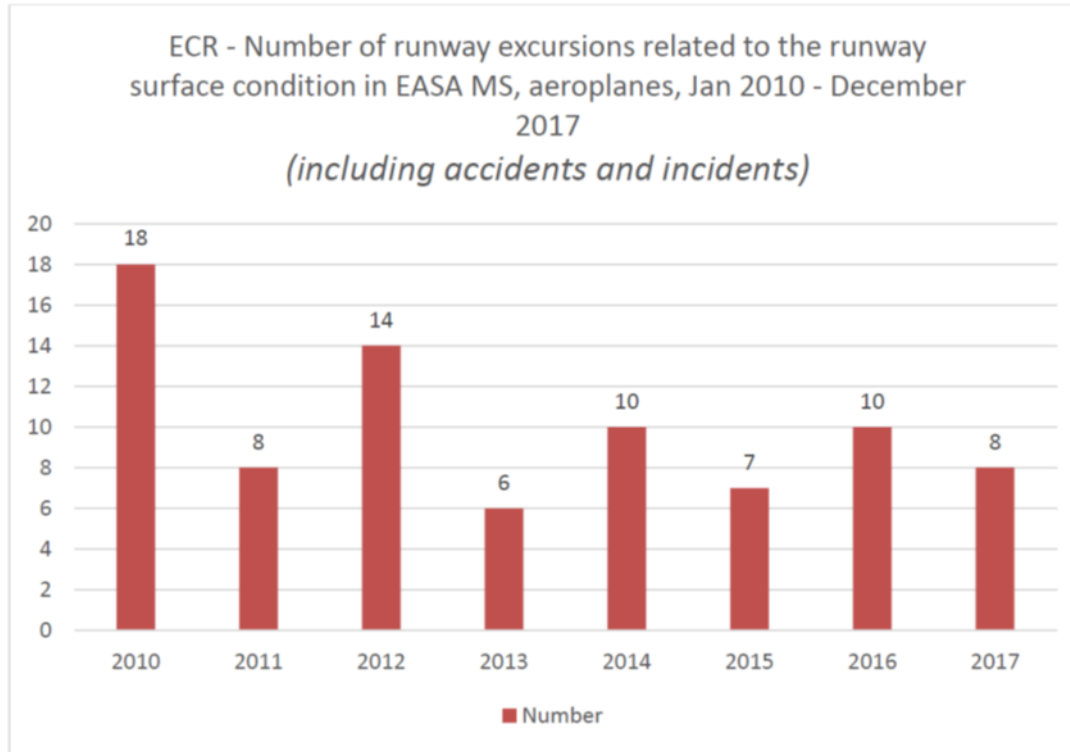
Runway excursions - Statistics



Distribution of key risk areas by frequency and aggregated ERCS risk score for aerodromes and ground handling related accidents and serious incidents, 2015-2017

EASA Annual Safety Review 2018

Runway excursions



Implementation of GRF

- Multidisciplinary approach
- Four (4) different rulemaking tasks addressing the following:
 - Air Operations
 - Aerodromes
 - ATM/ANS, AIS and Rules of the air

Implementation of GRF

Rulemaking

RMT.0296 Review of aeroplane performance requirements for operations

- Develop regulatory material to provide improved clarity, technical accuracy, flexibility or a combination of these benefits for the EU operational requirements on aeroplane performance in air operations with the aim of reducing the number of accidents and serious incidents where aeroplane performance is a causal factor; and
- Contribute to the harmonisation of the FAA and EU operational requirements on aeroplane performance in CAT operations.

Owner

EASA FS.2

Affected stakeholders

Aeroplane operators, manufacturers, Competent authorities

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
A-	ST	-	09/06/2015	30/09/2016	2018 Q2	2019 Q4	2019 Q4

RMT.0704 Runway surface condition assessment and reporting

Revision and update of Regulation (EU) No 139/2014 and of the related AMC and GM in order to include the changes in Annex 14 and PANS Aerodromes.

Owner

EASA FS.4.3

Affected stakeholders

Aerodrome operators, aircraft operators, GA, ANSPs, National Aviation Authorities

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
A2.5	ST	-	13/09/2017	2018 Q3	2019 Q1	2020 Q2	2020 Q2

Implementation of GRF

RMT.0477 Technical requirements and operational procedures for aeronautical information services and aeronautical information management

Development of the necessary harmonised requirements and AMC/GM for the provision of aeronautical information and data, mainly based on the transposition of ICAO Annex 15 and ICAO Annex 4. The task will also fulfil specific needs stemming from the SES implementation.

Owner

EASA FS.4.2

Affected stakeholders

MS, CAs, ANSPs aerodrome operators and operators

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
A-	ST	-	11/10/2013	26/04/2016	2017 Q4	2019 Q1	2019 Q1

RMT.0703 Runway safety

European Action Plans for the Prevention of Runway Incursions (EAPPRI) and Excursions (EAPPRE) contain several recommendations to Competent Authorities, Aerodrome Operators and EASA in order to mitigate the risks.

In the aerodromes' domain, EASA had included in Regulation (EU) No 139/2014¹⁰ and in the relevant AMC/GM and CS many of these recommendations, however there are some of them that have not been addressed.

Owner

EASA FS.4.3

Affected stakeholders

National Aviation Authorities, aerodrome operators

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
A1 to 2.5	ST	-	14/09/2017	2018 Q1	2019 Q1	2020 Q1	2020 Q1

Implementation of GRF



Safety Recommendations to EASA

- AIB Norway following 30 investigated runway excursions on contaminated runways
 - *“ICAO, FAA, EASA and CAA Norway should review and validate the permitted measuring (validity) ranges for approved friction measuring devices (SR: 2011/08T)”*
 - *“ICAO, FAA, EASA and CAA Norway should consider revising the SNOWTAM table to reduce the degree of friction uncertainty (SR: 2011/09T)”*
 - *“ICAO should initiate an updating and revision of the Airport Services Manual on the basis of the results of investigations of runway excursions and recent research findings”*

Safety Recommendations to EASA

- AIB Sweden following a runway excursion on 6/4/2016
 - *“EASA is recommended to introduce generic performance corrections for aeroplane operations on surfaces contaminated with slush or water”*
 - *“EASA is recommended to review the feasibility of changing the method of reporting from airports in terms of friction coefficients, so that measured values are reported as unreliable under certain conditions”*
- European Action Plan for the Prevention of Runway Excursions
 - *“Establish and implement one consistent method of contaminated runway surface condition assessment and reporting by the aerodrome operator for use by aircraft operators. Ensure the relation of this report to aircraft performance as published by aircraft operators”*

Implementation of GRF

→ Principles

- Follow ICAO provisions
 - To support Global application
- Keep a balance between rules, acceptable means of compliance and guidance material
 - Reviewing and analysing every ICAO provision
 - Basic principles of the GRF are kept at rule level to prohibit deviations
 - Procedural issues are included in the acceptable means of compliance to allow some flexibility in the implementation
 - Extensive guidance material is provided in order to explain the GRF

Implementation of GRF

→ Highlights

- Publication of friction measurements is not allowed
 - Friction measurements are not correlated with aeroplane performance data
 - Performance standards for friction measurement devices do not exist
- Friction measurements can be used in a comparative way for upgrade or downgrade of the runway condition code but always in combination with other observations

Implementation of GRF

→ Highlights

- Addition of two (2) new terms for describing runway surface condition
 - Specially prepared winter runway
 - Runway covered with compacted snow or ice, which has received special treatment and has improved friction characteristics (RWYCC greater than 3)
 - Slippery wet
 - Associated with RWYCC 3 when the runway is wet and below the minimum friction level
- Changes to the SNOWTAM Format
 - To include the two terms above
 - To simplify the situational awareness section in order to avoid long NOTAM strings

Implementation of GRF

→ Highlights

- Changes to the METAR Format
 - Removal of runway surface conditions
- Introduction of the Landing Distance Assessment at the Time of Arrival
- Obligation of the PIC to report back when braking action encountered is not as good as reported
- Obligation of the ATS to report to the aerodrome operator when a pilot indicates that the braking action is not as good as reported.

Implementation of GRF

- [Opinion 2/2019](#) – Changes to Reg. (EU) 965/2012 – Air Operations
- [Opinion 2/2018](#) – Changes to Reg. (EU) 2017/373 – AIS & MET
- [Opinion 3/2019](#) - Changes to Reg. (EU) 139/2014 – Aerodromes & Reg. (EU) 923/2012 – Standardized European Rules of the Air & Reg. (EU) 2017/373 – ATM/ANS

Implementation of GRF - Monitoring

- Standardisation inspection reports
- Number of accidents and serious incidents related to the runway surface conditions
- Reports from aerodrome operators and air operators concerning the validity of the GRF
 - Surveys
 - Interviews

Challenges

- Different level of experience and exposure on operations on contaminated runways
- Management of change
- How to ensure accurate assessments, especially at busy runways

Way forward

- Adoption of Regulations by early 2020
- In the mean time
 - Safety promotion to raise awareness
 - Focus on training
 - Support the development of standards for automated systems for runway surface conditions assessments

Thank you very much for your attention

aerodromes@easa.europa.eu

easa.europa.eu/connect



Your safety is our mission.

An Agency of the European Union 