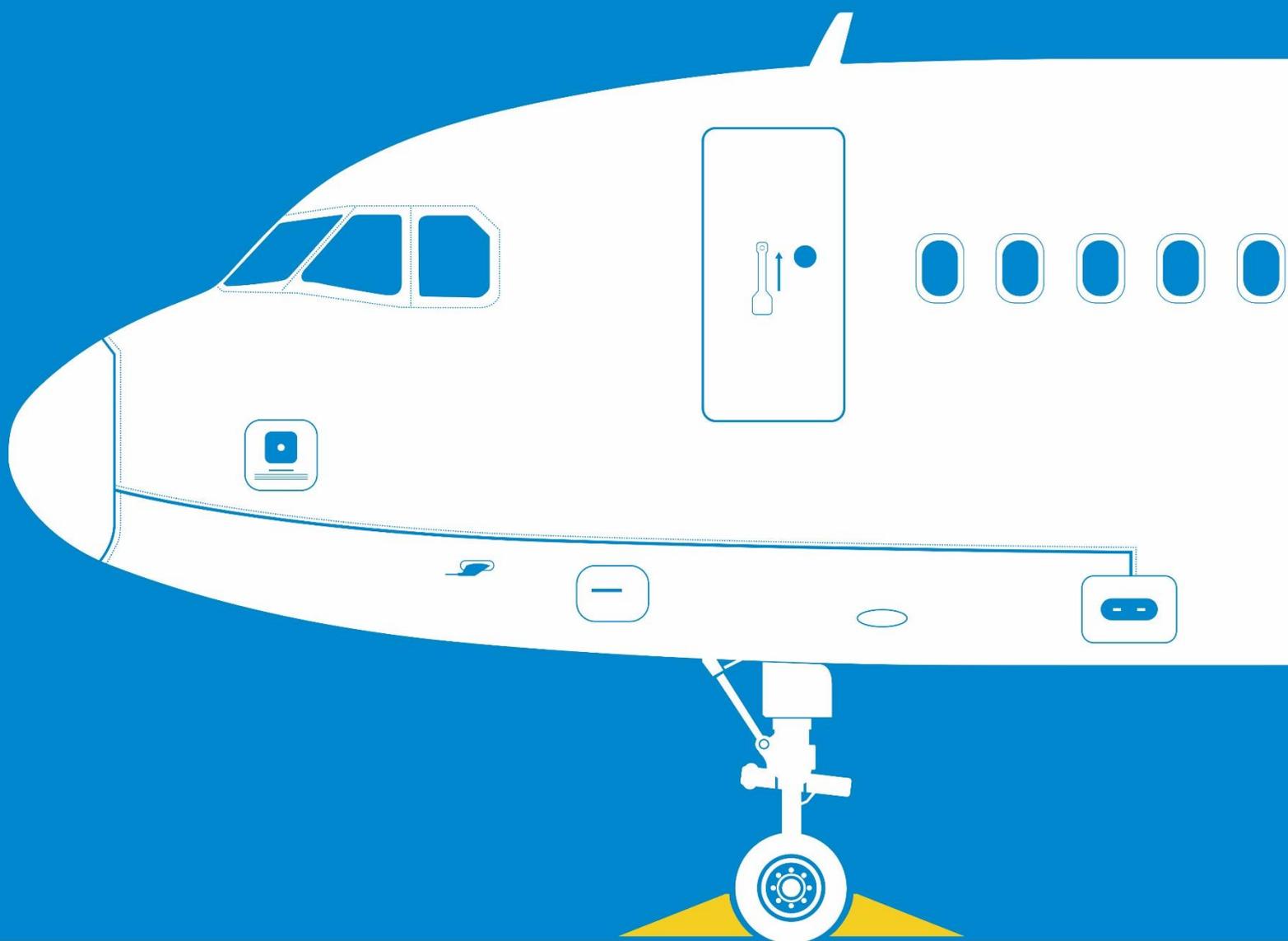


European Plan for Aviation Safety (EPAS)

2017–2021



**European Plan for Aviation Safety (EPAS)
2017–2021**

European Aviation Safety Agency, 24 January 2017.



Table of contents

1	Executive summary	4
2	Introduction.....	6
2.1	Key characteristics of the EPAS 2017–2021.....	6
2.2	How the plan is structured	6
2.3	How the plan is developed: The programming cycle	7
2.4	The European Aviation Safety Programme.....	8
2.5	Link to the global aviation safety plan (GASP).....	8
2.6	EPAS information	9
3	Strategic priorities	10
3.1	Systemic safety enablers	10
3.2	Operational safety	10
4	Key indicators	13
5	Safety Actions	15
5.1	Safety performance	15
5.2	Systemic enablers	16
5.3	CAT by aeroplane.....	27
5.4	Rotorcraft operations	43
5.5	General Aviation: Fixed-wing leisure flying	48
5.6	Emerging issues	53
	Appendix A: Deliverables expected in 2017	61
	Appendix B: New and deleted tasks overview	63
	Appendix C: Evidence base.....	65
	Appendix D: EPAS safety objectives vs EASA strategic objectives	67
	Appendix E: Summary of the EASA Strategic Plan	68
	Appendix F: Policy on Safety Management Systems	70
	Appendix G: Member States actions.....	72
	Appendix H: Acronyms and Definitions	75
	Appendix I : Working groups owning EPAS Actions	84
	Appendix J: Index.....	86



1 Executive summary

The plan shows a clear strategic orientation

EASA has developed concise strategic priorities for the safety programmes (EPAS and RMP) based on the [Commissions' Aviation strategy](#) and the EASA strategic plan (See Appendix E). The safety priorities were based on the newly developed European Safety Risk Portfolios in the [Annual Safety Review 2016](#). These initial sets of priorities were consulted with stakeholders in April 2016. The feedback on this approach was very positive. Based on the stakeholder feedback, the strategic priorities were adjusted. The strategic priorities for safety are depicted below. Further details on the safety priorities are provided in Chapter 3. Chapter 5 of the plan gives the full overview of all activities including the priorities identified, but also standard and regular update (maintenance of rules) activities.

Figure 1: Safety priorities



The plan indicates an increased efficiency of the rulemaking process

In 2015, the rulemaking process was overhauled in order to make it more efficient. For this cycle and for the first time, efficiency is made measurable as compared to the baseline year of 2015. The indicators show:

- a reduction in the average time for rulemaking (Start¹ to Opinion/Decision) from 3.6 years in 2015 to 3.1 years projected for 2017; for new tasks this period is further reduced to 2.2. years;
- a decrease of the input required for core rulemaking in terms of resource allocation by 2021.

Note that the indicator in the first bullet point may be negatively affected by the 'cooling down' objective presented below.

The plan illustrates the shift towards more safety promotion activities

The approach to safety promotion has been fully revamped in 2015. The activities of the ESSI teams were reattributed to the new advisory structure and the collaborative groups. Safety promotion activities are now managed through safety promotion tasks that are not limited to creating a product (e.g. leaflet), but also include dissemination and measurement activities coordinated with Member States through the Safety Promotion Network. The concept of a European Safety Promotion campaign is tested along those lines by the Safety Promotion Network.

¹ 'Start' is defined by the first day EASA starts working on the project. This way, the work needed to develop the ToR is also considered.



The concept of a ‘cool-down period’ is introduced

Several Member States as well as some part of industry have repeatedly indicated that there is a need for a ‘cool-down period’ in rulemaking in order for the system to absorb and consolidate the regulatory requirements. To address this, the plan introduces a cool-down period for the output (measured in ToRs, opinions and related NPAs).

The evidence-base for the safety plan is increasing

The Safety Risk Management process, through safety issue analysis and impact assessments drives the decision-making for the plan. New tasks added to the plan in the fields of helicopters, General Aviation (GA) and loss-of-control are supported by assessments. The results of said assessments are reflected in the justifications inside the main document as well as in the PIA score.

Fully refurbished GA safety section

The GA safety section has been revamped based on the GA workshop organised by the Agency in October, thus taking input from GA stakeholders and relevant GA safety risk portfolios.



2 Introduction

2.1 Key characteristics of the EPAS 2017–2021

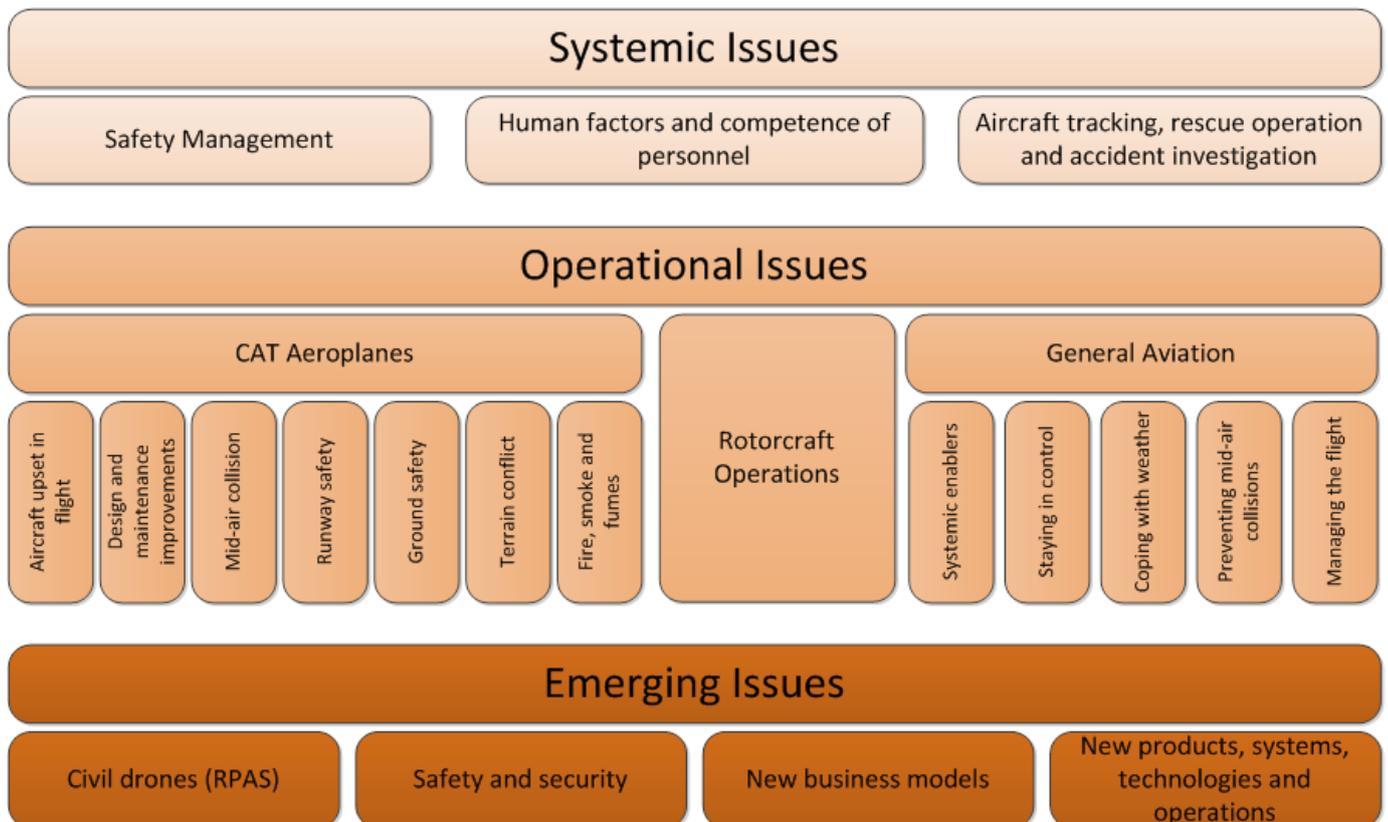
In this new edition of the EPAS, EASA has strengthened the strategic orientation by initiating a discussion with stakeholders on the strategic priorities, which are integral parts of the safety risk management approach. To this end, the paper on ‘Strategic Priorities for the RMP and EPAS 2017–2021’ was consulted with stakeholders in April and May 2016. The strategic priorities presented in Chapter 3 are the outcome of this consultation process.

The safety risk portfolios provide the data-driven input to the decision-making process that supports the European Plan for Aviation Safety (EPAS). This plan presents all actions within a given action area (e.g. all tasks related to the issue of loss of control in flight (LOC-I)). It aims to provide the EASA stakeholders with a comprehensive and coherent vision of what Europe intends to do in the coming years in order to mitigate pan-European safety risks.

2.2 How the plan is structured

An action area may contain several actions and **types of tasks: Rulemaking (RMT), safety promotion (SPT), focused oversight (FOT) as well as research actions (RES)². The tasks under the leadership of the Member States are identified as “MST” tasks.**

The main **action areas** of the EPAS are the following:



² Note that the list of research tasks identified in this document is not exhaustive, an a full overview of research activities is available in the Agency’s research programme.



In this edition of the EPAS, the **General Aviation section** within the operational issues part has been fully refurbished, taking into consideration the outcome of the GA workshop organised by the Agency in October and the actions on **civil drones** and **security** have been made more prominent in the emerging issues part to reflect the increasing attention that the aviation community is putting on them.

For each task the rationale as well as basic information related to responsibility, schedule and affected stakeholders are provided. The results from preliminary impact assessments (PIAs) are presented, where available, in the form of a score: Letters 'A', 'B', and 'C' indicate strategic ('A'), standard ('B') or regular update ('C') tasks.

Tasks that were newly added to the programme are highlighted with red colour in the **RMT number**. An overview is also available in Appendix B 'New and deleted tasks'. Note that this document contains some tasks that are due in 2016. These tasks were not yet published by the cut-off date for this document (11 November).

Further information provided only for rulemaking tasks includes an indication if they are *harmonised* with Third Countries (field "3rdC"). Rulemaking tasks that are following the accelerated procedure or direct publication (Art 15 direct publication and Art 16 accelerated procedure of the MB Decision 2015-18 on the Rulemaking Procedure) are indicated accordingly³. For all documents already delivered the exact date is given in the format DD/MM/YYYY. For tasks not yet delivered, the planned date is given by Quarter (YYYY QX). When the planning date shows 2016 Q4, the task is delayed.

Figure 2: Overview of the conventions used in this programme

RMT.XXXX	Title	Issue/objective description	Owner	EASA Department	PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
					A-	ST	-	17/11/2016	2017 Q2	2018 Q3	2021 Q4	2021 Q4

In the case of non-rulemaking tasks (e.g. SPT, FOT and RES) only the final deliverable and delivery year are provided.

2.3 How the plan is developed: The programming cycle

EPAS was developed in close co-operation with stakeholders drawing from an increasing evidence-base and input from the Safety Risk Management process. There were two distinct programming phases, each with a dedicated stakeholder consultation. Firstly, during the strategic phase, the strategic priorities (chapter 3) were developed and discussed with the Agency's advisory bodies in April/May 2016. Based on these strategic priorities a detailed programming document containing both RMP and EPAS was developed. The detailed document (draft programme v2.0.16) was then consulted with stakeholders in October/November 2016. Based on the comments received the final version of this document was developed. The safety chapter was extracted from the consultation document and formatted as the EPAS, which is presented to the Management Board for final endorsement. This document covers a five year time frame. However, as it is a rolling five-year plan it will be updated every year.

³ Accelerated procedures are identified as "AP", direct publication as "DP" and standard procedure as "ST" in the field for the procedure type called "Proc".



2.4 The European Aviation Safety Programme

In October 2011, the EC addressed a [communication](#)⁴ to the Council and the European Parliament called ‘Setting up an Aviation Safety Management System for Europe’. The communication set the strategy for aviation safety in Europe for the following years and supported the aim, set out in the [Transport White Paper](#)⁵, ‘to raise the EU aviation safety performance to a level that matches or exceeds the best world standard’.

According to the communication, this is achieved by adding a proactive element to the current EU aviation safety system and publishing annual updates to EPAS detailing progress made in addressing identified safety risks at EU level. This is the scope of the present publication.

This communication is accompanied by a [Commission Staff Working Paper](#)⁶ describing the current aviation safety framework at European level prepared jointly by the EC and the Agency: the European Aviation Safety Programme (EASP).

In December 2015, the EC issued a [report](#)⁷ with the [second edition of the European Aviation Safety Programme](#)⁸ annexed to it. This new edition takes into consideration the legislative changes occurred since 2011 as well as the evolution of safety management in all areas. In addition, it strengthens safety promotion at EU level and describes the process to update and develop EPAS, giving it a truly European dimension.

2.5 Link to the global aviation safety plan (GASP)

EPAS also takes into consideration the objectives and global accident categories identified in GASP.

The universal safety oversight audit programme (USOAP) audits have identified that States’ inability to effectively oversee aviation operations remains a global safety concern. For that reason, the **GASP objectives** call for States to put in place robust and sustainable safety oversight systems and to progressively evolve them into more sophisticated means of managing safety. These objectives are aligned with ICAO’s requirements for the implementation of the SSPs by States and safety management systems (SMS) by service providers. The GASP objectives are addressed in section **5.2.1 Safety management** of EPAS.

In addition to the GASP objectives, ICAO has identified **high-risk accident categories**. These categories were initially determined based on an analysis of accident data, for scheduled CAT operations, covering the 2006–2011 time period. Feedback from the regional aviation safety groups (RASGs) indicates that these priorities still applied during the development of the 2017–2019 GASP edition.

Runway safety events were identified as one of the main high-risk accident categories. Runway safety-related events include but are not limited to: abnormal runway contact, bird strikes, ground collisions, events related to damage from ground handling operations, REs, runway incursions (RIs), loss of control on the ground, collision with obstacle(s), and undershoots and overshoots. These safety issues are addressed in sections **5.3.2 Runway safety** and **5.3.5 Ground safety** of EPAS.

Controlled flight into terrain (CFIT) and loss of control in-flight (LOC-I) were identified as the other two high-risk accident categories. These types of accidents account for a small portion of accidents in a given year but are generally fatal and account for a large portion of the total number of fatalities. These safety issues are addressed in sections **5.3.6 Terrain conflict** and **5.3.1 Aircraft upset in flight (LOC-I)** of EPAS.

⁴ COM(2011) 670 final of 25.10.2011 — Setting up an Aviation Safety Management System for Europe.

⁵ COM(2011) 144 - WHITE PAPER - Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system

⁶ SEC(2011) 1261 final of 25.10.2011 – The European Aviation Safety Programme

⁷ COM(2015) 599 final of 7.12.2015 – The European Aviation Safety Programme

⁸ COM(2015)599 final of 7.12.2015 ANNEX 1 – The European Aviation Safety Programme Document 2nd edition



2.6 EPAS information

All EPAS related material can be found at www.easa.europa.eu/sms.

Inquiries concerning EPAS can be addressed via the dedicated mailbox: EPAS@easa.europa.eu



3 Strategic priorities

For this programming cycle, EASA introduced the notion of strategic priorities for the EPAS and the RMP. To this end, EASA developed concise strategic priorities for the safety programmes based on the [Commissions' Aviation strategy](#) and the EASA strategic plan (See Appendix F). The safety priorities were based on the newly developed European Safety Risk Portfolios in the [Annual Safety Review 2016](#). The priorities were consulted with stakeholders in April and May 2016. The comments received led to a number of adjustments and improvements, notably the removal of a design-related priority as well as the inclusion of helicopter and GA-related safety priorities. In the detailed sections 5-8 of the document, the actions linked to strategic priorities are identified with an "A" in the Preliminary Impact Assessment score.

3.1 Systemic safety enablers

Safety management implementation

Management of safety in a systematic and proactive way enables authorities and organisations to set up management systems that take into consideration potential hazards and associated risks before aviation accidents occur. This global move is at the core of ICAO Annex 19, which entered into force in November 2013. Following the entry into force of Regulation (EU) No 376/2014 on the reporting, analysis and follow-up of occurrences in civil aviation⁹, this safety area will also enable further work to improve reporting processes, occurrence investigation at organisational level and also the continued development of integrated data collection taxonomies. **See Section 5.2.1.**

Human factors and competence of personnel

As new technologies emerge on the market and the complexity of the system continues increasing, it is of key importance to have the right competencies and adapt training methods to cope with new challenges. It is equally important for aviation personnel to take advantage of the safety opportunities presented by new technologies.

The safety actions related to aviation personnel are aimed at introducing competency-based training in all licences and ratings, updating fatigue requirements, and facilitating the availability of adequate personnel in competent authorities (CAs). These actions will contribute to mitigating related safety issues, which play a role in improving safety across all aviation domains. Training and education are considered key enablers. **See Section 5.2.2.**

3.2 Operational safety

Commercial Air Transport Aeroplanes

In 2015 the domain with the highest number of fatalities was CAT Aeroplanes. This involved a single fatal accident, which was the Germanwings accident that occurred on 24 March 2015. In 2014, there were 2 fatal accidents and there has not been more than 2 fatal accidents in CAT Aeroplanes since 2005. This operational domain is the greatest focus of EASA's safety activities and the reorganisation of the collaborative groups and advisory bodies will help the Agency to learn more about the safety challenges faced by airlines and manufacturers.¹⁰

⁹ Regulation (EU) No 376/2014 of the European Parliament and of the Council of 3 April 2014 on the reporting, analysis and follow-up of occurrences in civil aviation, amending Regulation (EU) No 996/2010 of the European Parliament and of the Council and repealing Directive 2003/42/EC of the European Parliament and of the Council and Commission Regulations (EC) No 1321/2007 and (EC) No 1330/2007, OJ L 122, 24.4.2014, p. 18–43

¹⁰ Extract from EASA Annual Safety Review 2016



The European Safety Risk Management process identified the following as the most important risk areas for CAT Aeroplanes:

— *aircraft upset in flight (Loss of Control)*

64 % of fatal accidents in the last ten years (EASA MS) involved loss of control. Events such as a deviation from flight path, abnormal airspeed or triggering of stall protections when not dealt with properly can lead to fatal consequences involving many fatalities. Technical failures as well as ground handling safety issues can be also a precursor to this type of scenarios. **See Section 5.3.1.**

— *runway excursions and incursions*

Hard landings, high-speed landing, landings following an unstabilised approach are direct precursors of runway excursions (REs). This risk area represents 30 % of non-fatal accidents within the EASA MS. A runway incursion (RI) occurs when there is an incorrect presence of an aircraft, vehicle or person on an active runway or in its areas of protection. In the last 10 years, 18 % of fatal accidents within the EASA MS involve RIs. **See Section 5.3.2.**

Safety in rotorcraft operations

This area includes both CAT and offshore operations as well as aerial work performed by helicopters. In 2015, there were 4 fatalities in CAT Helicopters, 4 fatalities in Aerial Work/Part-SPO Helicopters and no-fatalities in offshore operations. The European Safety Risk Management process has identified opportunities to improve risk controls in the following areas so that accident numbers will not increase.

— *aircraft upset in flight (Loss of Control)*

In the last 5 years, loss of control played a role in 2 out of 4 of fatal accidents for offshore helicopter operators and 4 out of 17 for aerial work.

— *terrain and obstacle conflict*

In the last 5 years, terrain/obstacle conflict played a part in 3 out of 17 fatal accidents for aerial work operations with helicopters. It has also been identified as a key risk area for CAT operations.

— *system/technical failure*

In the last 5 years, system/technical failures contributed to 2 out of the 4 fatal accidents for offshore helicopter operators and 1 out of 3 in CAT operations. **See Section 5.4.**

Address safety risks in General Aviation in a proportionate and effective manner

In the last five years, accidents involving recreational aeroplanes have led to an average of nearly 80 fatalities per year in Europe (excluding fatal accidents involving microlight airplanes), which makes it one of the sectors of aviation with the highest yearly number of fatalities. Furthermore, in 2015, there were 65 fatalities in non-commercial operations with aeroplanes (2nd highest number) and 27 in the domain of glider/sailplane operations (3rd highest number). These two areas present the highest numbers of fatal accidents in 2015. The General Aviation Road Map is key to the EASA strategy in this domain.

Although it is difficult to precisely measure the evolution of safety performance in GA due to lack of consolidated data (e.g. accumulated flight hours), it is reasonable to assume that step changes in the existing safety level are not being achieved at European level, despite all initiatives and efforts.

Therefore, EASA decided to organise a workshop on GA safety to share knowledge and agree on the safety actions that will contribute to improve safety in this domain. A key element of discussions is the appropriate assessment of risks, taking into account the specifics of general aviation leisure flying with different risk profile and minimal risk for uninvolved third parties. The following strategic safety areas were identified during the workshop: Preventing mid-air collisions, coping with weather, staying in control and managing the flight.



Ensure the safe operation of drones

The number of drones within the EU has multiplied over the last 2 years. Available evidence demonstrates an increase of drones coming into close proximity with manned aviation (both aeroplanes and helicopters) and the need to mitigate the associated risk.

Furthermore, the lack of harmonised rules at EU level makes remotely piloted aircraft systems (RPAS) operations dependent on an individual authorisation from every MS, which is a burdensome administrative process that stifles business development and innovation. In order to remove restrictions on RPAS operations at EU level, so that all companies can make best use of the RPAS technologies to create jobs and growth while maintaining a high and uniform level of safety, EASA is engaged in developing the relevant regulatory material.

As the technology advances, consistent requirements and expectations in already crowded airspace will help manufacturers design for all conditions and ease compliance with requirements by operators. JARUS facilitates harmonisation of standards within the EU Member States and other participating authorities.

Address current and future safety risks arising from new and emerging business models

Due to the increased complexity of the aviation industry, the number of interfaces between organisations, their contracted services and regulators has increased. CAs should work better together (cooperative oversight) and EASA should evaluate whether the existing safety regulatory system adequately addresses current and future safety risks arising from new and emerging business models.

Impact of security on safety

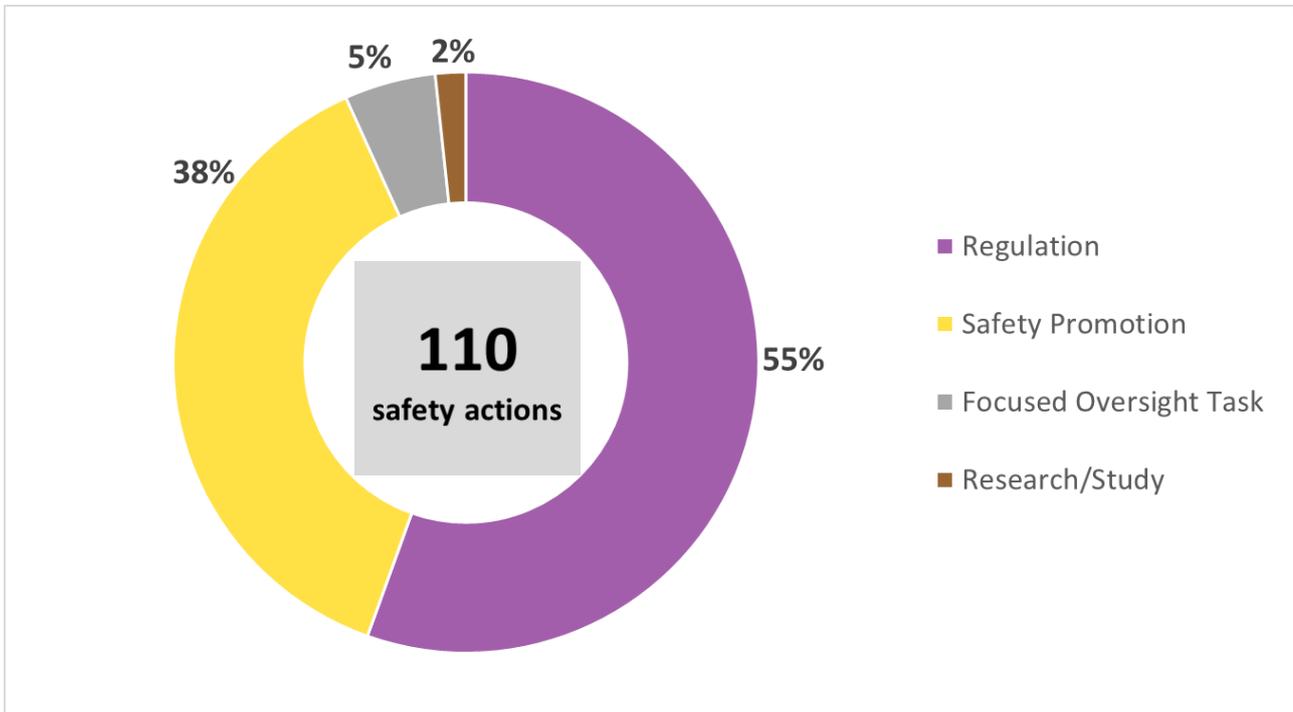
Citizens travelling by air are more and more exposed to cybersecurity threats. In order for the new generation of aircraft to have their systems connected to the ground in real time, ATM technologies require internet and wireless connections between the various ground centres and the aircraft. The multiplication of network connections increases the vulnerability of the whole system. It is essential that the aviation industry shares knowledge and learns from experiences to ensure systems are secure from individuals/organisations with malicious intent.

Furthermore, in the aftermath of the B777 MH17 accident, an EU high-level task force is working to define further actions to be taken at European level in order to provide common information on risks arising from conflict zones. Updated information and the sharing of knowledge is of paramount importance.

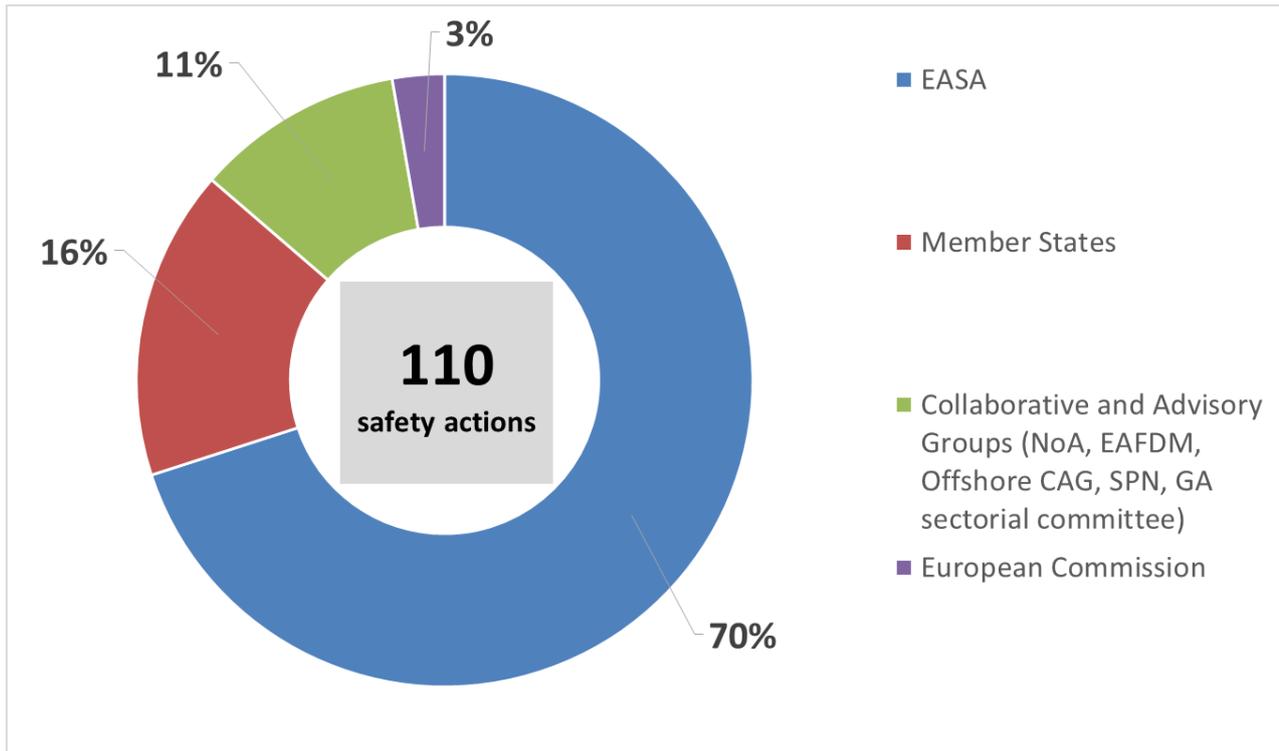


4 Key indicators

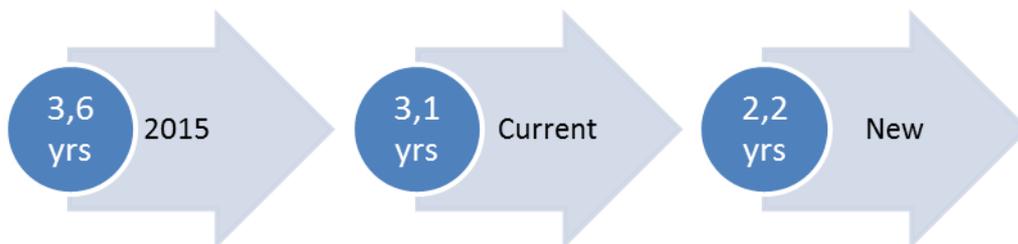
Slightly more than half of the safety actions are rulemaking activities, followed by an increasing share of safety promotion activities (38%)



The Agency owns the majority of the EPAS actions, followed by Member States who own 16% and several collaborative and analysis groups represented by industry and States such as the SPN, NoA, the offshore CAG or the GA sectorial committee who own 11% of the actions.



The rulemaking process is more efficient



A total of 19 tasks were closed in 2015 with an **average duration of 3,6 years**. The current outlook on RMTs and the corresponding workload will lead to an average duration of around **3,1 years**. The duration for the new planned rulemaking tasks will be reduced to **2,2 years**.

The rulemaking activity shows the EASA commitment to reduced rulemaking ('cooling-down') over the programming period through a steady decrease of new rulemaking tasks, **However, there is still backlog of Rulemaking Tasks started in the previous years**, which will require some effort during 2017 and 2018.

Since the plan is no longer called EASp, maybe the functional mailbox should be renamed as well.



5 Safety Actions

The actions in this section are driven principally by the need to maintain or increase the current level of safety in the aviation sector.

5.1 Safety performance

The EASA Annual Safety Review measures safety performance using 2 specific types of safety performance indicators (SPIs). Firstly, at Tier 1, the overall performance is measured across the different operational domains by considering the number of fatal accidents and fatalities in the previous year against the 10-year average. For 2015, this information is provided below and highlights that the domains with the greatest focus for safety activities are CAT Aeroplanes, Non-Commercial Aeroplanes (General Aviation) and Gliders.

	Domain	Fatal Accidents 2015	Fatal Accidents Annual 10 Year Average	Fatalities 2015	Fatalities Annual 10 Year Average
	CAT Aeroplanes	1	1.3	150	64.2
	Offshore	0	0.4	0	3
	CAT Helicopters	1	2	4	9.1
	Aerial Work/Part SPO Aeroplanes	7	7	23	11.3
	Aerial Work/Part SPO Helicopters	2	4.3	4	8.5
	Non-Commercial Aeroplanes	41	42.2*	65	79*
	Non-Commercial Helicopters	6	8.2*	7	14.5*
	Balloons	2	0.6*	3	1.8*
	Gliders	24	22.3*	27	25.9*
	RPAS	0	0*	0	0

*Annual average is 5 years only from 2011-2015

The second measure of Tier 2 SPIs monitor safety at an individual domain level. It captures both the Key Risk Areas (Outcomes), helping thus to identify the main areas of focus in each domain, and also identifies the main Safety Issues.



5.2 Systemic enablers

This area addresses system-wide problems that affect aviation as a whole. In most scenarios, these problems become evident by triggering factors and play a significant role in the final outcome of a safety event. They often relate to deficiencies in organisational processes and procedures.

5.2.1 Safety management

Issue/rationale

Safety management is a strategic priority. Management of safety in a systematic and proactive way enables authorities and organisations to set up management systems that take into consideration potential hazards and associated risks before aviation accidents occur. This global move is at the core of ICAO Annex 19, which entered into force in November 2013. Following the entry into force of Regulation (EU) No 376/2014, this safety area will also enable further work to improve reporting processes, occurrence investigation at organisational level, and also the continued development of integrated data collection taxonomies.

What we want to achieve

Work with authorities and organisations to implement safety management.

How we monitor improvement

Regulatory framework requiring safety management is in place across all aviation domains, and organisations and authorities are able to demonstrate compliance (a cross-domain SMS assessment tool is under development).

How we want to achieve it: actions

Rulemaking

RMT.0148 Requirements on air navigation service provision

Development of the necessary AMC/GM for the air navigation service providers.

Owner

EASA FS.4.2

Affected stakeholders

ANSPs, indirectly: competent authorities, operators, pilots

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
B-	ST	-	29/09/2010	10/05/2013	16/12/2014	2016 Q4	2016 Q4

RMT.0157 Requirements on competent authorities in ATM/ANS

Development of the necessary AMC/GM for the competent authorities.

Owner

EASA FS.4.2

Affected stakeholders

competent authorities, indirectly: ANSPs, operators, pilots

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
B-	ST	-	16/01/2014	10/05/2013	16/12/2014	2016 Q4	2016 Q4



RMT.0251 Embodiment of safety management system requirements into Commission Regulations (EU) Nos 1321/2014¹¹ and 748/2012¹²

With reference to ICAO Annex 19, the objective is to set up a framework for safety management in the initial and continuing airworthiness domains.

Split task:

(a) Part-M linked to OPS (CAMOs)

(b) Part-145, Part-21 for production organisation approval (POA), design organisation approval (DOA).

Owner

EASA FS.1

Affected stakeholders

CAMOs, MOs, POA, DOA, TOs, and national aviation authorities (NAAs)

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
A12	ST	-	19/07/2011	10/10/2013	11/05/2016	2017 Q2	2017 Q2
				2018 Q1	2019 Q2	2020 Q4	2020 Q4

RMT.0262 Embodiment of level of involvement (LOI) requirements into Part-21

To ensure compliance of Part-21 with the framework of safety management provisions of ICAO Annex 19. Introduction in Part-21 of a risk-based approach for the determination of the LOI of EASA in product certification.

This entails introduction of:

- systematic risk management (hazard identification, risk assessment and mitigation);
- safety performance-based oversight allowing to focus on areas of greater risk;
- safety awareness and promotion among all staff involved; and
- improved effectiveness and efficiency of Part-21 IRs achieved by their streamlining and improved consistency.

Phase 1 of the RMT will end with an Agency decision providing some initial AMC/GM to the amendments to Part-21; this decision will be issued upon adoption by the Commission and publication of the Regulation in the Official Journal, which is expected to take place in Q2/2017. In parallel, EASA develops further AMC/GM to support the application of the amendments to Part-21. An NPA is expected to be published in Q2/2017, the decision issuing the AMC/GM in Q4/2017.

Owner

EASA CT.7

Affected stakeholders

Design approval holders (DAHs)

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
A12	ST	-	27/08/2013	02/03/2015	23/05/2016	2017 Q2	2017 Q2
				2017 Q2	n/a	n/a	2017 Q4

RMT.0469 Assessment of changes to functional systems by service providers in ATM/ANS and the oversight of these changes by competent authorities

Development of the necessary AMC/GM for the service providers and the competent authorities.

Owner

EASA FS.4.2

Affected stakeholders

ANSPs, competent authorities

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
B-	ST	-	19/06/2012	24/06/2014	16/12/2014	2016 Q4	2016 Q4
				2016 Q4	2019 Q1	2019 Q4	2019 Q4

¹¹ Commission Regulation (EU) No 1321/2014 of 26 November 2014 on the continuing airworthiness of aircraft and aeronautical products, parts and appliances, and on the approval of organisations and personnel involved in these tasks (OJ L 362, 17.12.2014, p. 1).

¹² Commission Regulation (EU) No 748/2012 of 3 August 2012 laying down implementing rules for the airworthiness and environmental certification of aircraft and related products, parts and appliances, as well as for the certification of design and production organisations (OJ L 224, 21.8.2012, p. 1).



RMT.0473	Technical requirements and operational procedures for the provision of meteorological services						
Requirements for MET service providers and the oversight thereof — development of the necessary AMC/GM.							
Owner	Affected stakeholders						
EASA FS.4.2	ANSPs, competent authorities						
PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
B-	ST	-	07/09/2014	28/03/2014	16/12/2014	2016 Q4	2016 Q4
RMT.0681	Alignment of implementing rules & AMC/GM with Regulation (EU) No 376/2014						
Alignment of IRs & AMC/GM with Regulation (EU) No 376/2014. With regards to Commission IR and Decision: Depends on the related content, to be published concurrently with another deliverable – specific arrangement with the EU Commission.							
Owner	Affected stakeholders						
EASA FS.5	Operators, pilots, MOs, ATOs, manufacturers, CAMOs, aerodrome operators, ATM/ANS service providers, and ATCO TOs						
PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
B-	ST	-	30/09/2015	19/12/2016	2017 Q4	Open	Open
RMT.0706	Update of authority requirements						
Address relevant elements of the ICAO Annex 19 considering the latest revision status of the document and ensure appropriate horizontal harmonisation of the requirements across different domains taking on board lessons learned.							
Owner	Affected stakeholders						
EASA FS.5	Competent Authorities: NAAs, NSAs						
PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
A-	ST	-	2016 Q4	2018 Q1	2018 Q3	2019 Q1	2019 Q1



Safety Promotion

MST.001	Member States to give priority to the work on SSPs Make SSPs consistently available in Europe in compliance with the GASP objectives.			
	Owner	Activity sector	Deliverable	Date
	MS	ALL	SSP established	Continuous
MST.002	Promotion of SMS Encourage implementation of safety promotion material developed by the former ESSI Teams (ECAST, EHEST and EGAST) and SMICG.			
	Owner	Activity sector	Deliverable	Date
	MS	ALL, HF	Best practice	Continuous
MST.003	Member States should set up a regular dialogue with their national aircraft operators on flight data monitoring (FDM) programmes States should set up a regular dialogue with their national aircraft operators on flight data monitoring (FDM) programmes, with the objectives of: <ul style="list-style-type: none">— promoting the operational safety benefits of FDM,— fostering an open dialogue on FDM programmes that takes place in the framework of just culture,— encouraging operators to include and further develop FDM events relevant for the prevention of REs, MACs, CFIT and LOC-I, or other issues identified by the SSP.			
	Owner	Activity sector	Deliverable	Date
	MS	CAT	Report on activities performed to promote FDM	Continuous
SPT.057	SMS international cooperation Promote the common understanding of SMS and human factors principles and requirements in different countries, share lessons learned and encourage progress and harmonisation.			
	Owner	Activity sector	Deliverable	Date
	EASA FS.5	ALL, HF	Methodology/training material/best practice	Continuous
SPT.059	SMS implementation support in ATM Support to ANSP SMS implementation, especially outside EU Member States; develop a structured approach to the identification of safety key risk areas and to gathering information on operational safety and SMS best practices from the industry; harmonise SMS approaches in FABs. Develop and promote SMS guidance and best practices for ATM.			
	Owner	Activity sector	Deliverable	Date
	EASA FS.4	ALL, HF	Methodology/training material/best practice	Continuous
SPT.060	Lack of experience on FDM-based indicators EASA should further assess, together with Member States, the benefits of FDM-based indicators for addressing national safety priorities			
	Owner	Activity sector	Deliverable	Date
	EAFDM	CAT	Report	2017



SPT.062

Comparable risk classification of events across the industry

Develop European Risk Classification Scheme (ERCS) as mandated by Regulation (EU) No 376/2014. This task is owned by the EC, but the development work is being led by EASA on behalf of the EC. The use of the ERCS is only mandated in Regulation (EU) No 376/2014 for the MS and not industry. The latter can continue to use existing schemes.

Owner	Activity sector	Deliverable	Date
EASA SM.1, EC, NoA & MS	ALL	Report	2017

SPT.063

Continuous monitoring of ATM safety performance

Develop and populate safety indicators to measure performance on ATM and disseminate general public information of the ANSPs' performance through routine publication of achieved safety levels and trends.

Owner	Activity sector	Deliverable	Date
EASA SM.1 and FS.4. in coordination with the Performance Review Board	ALL	Report	2017

SPT.076

FDM precursors of aviation occurrences categories (LOC-I, CFIT)

EASA should, in partnership with the industry, establish good practice that is enhancing the practical implementation of operators' FDM programmes.

Owner	Activity sector	Deliverable	Date
EASA SM.1	CAT	Report	2017

SPT.077

Good practices for the integration of an operator's FDM programme with other operators' processes

EASA should, in partnership with the industry, establish good practices that are enhancing the practical implementation of operators' FDM programmes.

Owner	Activity sector	Deliverable	Date
EASA SM.1	CAT	Report	2017



5.2.2 Human factors and competence of personnel

Issue/rationale

Human factors and competence of personnel is a strategic priority. As new technologies emerge on the market and the complexity of the system continues increasing, it is of key importance to have the right competencies and adapt training methods to cope with new challenges. It is equally important for aviation personnel to take advantage of the safety opportunities presented by new technologies.

The safety actions related to aviation personnel are aimed at introducing competency-based training in all licences and ratings, updating fatigue requirements and facilitating the availability of adequate personnel in CAs. These actions will contribute to mitigating safety issues such as personal readiness, flight crew perception or CRM and communication, which play a role in improving safety across all aviation domains.

What we want to achieve

Ensure continuous improvement of aviation personnel competence.

How we monitor improvement

Measurable improvement in aviation personnel competence at all levels (flight crews, ATCOs and CAs).

How we want to achieve it: actions

Rulemaking

RMT.0106 Certification specifications and guidance material for maintenance certifying staff type rating training

The main objective is to improve the level of safety by requiring the applicant for a type certificate (TC) or restricted TC for an aircraft to identify the minimum syllabus of maintenance certifying staff type rating training, including the determination of type rating.

This minimum syllabus, together with the requirements contained in Appendix III to Annex III (Part-66) to Commission Regulation (EU) No 1321/2014, will form the basis for the development and approval of Part-66 type rating training courses.

Owner

EASA FS.1

Affected stakeholders

DAHs, TOs, and maintenance engineers

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
B-	ST	-	28/07/2014	2017 Q4	n/a	n/a	2019 Q4

RMT.0188 Update of EASA FCL implementing rules

A complete first review of Part-FCL addressing a number of issues to be clarified or amended as identified by industry and MS. It also establishes a flight examiner manual (FEM) and a first draft of the learning objectives (LOs). Some of these corrections and clarifications also pertain to alleviations for the GA community.

Owner

EASA FS.3

Affected stakeholders

Examiners, instructors, pilots, ATOs and DTOs

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
B-	ST	-	21/07/2011	17/12/2014	2017 Q1	2018 Q1	2018 Q1



RMT.0194 Extension of competency-based training to all licences and ratings and extension of TEM principle to all licences and ratings

More performance-based rulemaking will be addressed. The principles of CBT shall be transferred to other licences and ratings, and the multi-crew pilot licence (MPL) should be reviewed in order to address the input from the ICAO MPL symposium and the European MPL Advisory Board. Some action items from the GA Road Map activity list, such as modular training and CBT, will be addressed as well.

Owner Affected stakeholders

EASA FS.3 ATOs and pilots

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
B18	ST	-	2017 Q1	2019 Q1	2019 Q4	2020 Q4	2020 Q4

RMT.0196 Improve flight simulation training devices (FSTDs) fidelity

An ICAO harmonisation issue, as the main purpose is to include in the European provisions elements from ICAO Doc 9625 for the use of FSTDs in flight training. The task will also address three safety recommendations (SRs) and aims at including results and findings from the loss of control avoidance and recovery training (LOCART) and RMT.0581 working group results. Harmonisation with the Federal Aviation Administration (FAA) should be considered.

Owner Affected stakeholders

EASA FS.3 Operators, ATOs, DTOs, pilots, instructors, and examiners

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
A18	ST	-	15/07/2016	2017 Q2	n/a	n/a	2017 Q4 2018 Q4 2019 Q4

RMT.0486 Alignment with ICAO on ATCO fatigue management provisions

Alignment with ICAO on the subject provisions.

Owner Affected stakeholders

EASA FS.4.2 ANSPs and ATCOs

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
B-	ST	-	2016 Q4	2018 Q2	2018 Q4	2019 Q4	2019 Q4

RMT.0589 Rescue and firefighting services (RFFS) at aerodromes

The objective of this RMT is to ensure a high and uniform level of safety by establishing minimum medical standards for rescue and firefighting personnel required to act in aviation emergencies. It will also ensure that the level of protection for rescue and firefighting at aerodromes serving all-cargo or mail flights is proportionate to this type of traffic and their particular requirements. Finally, it will as well ensure a clearer implementation of the remission factor in general.

The RMT has been split in two sub-tasks:

- (a) 1st sub-task: Remission factor, cargo flights, etc.
- (b) 2nd sub-task: RFFS personnel physical and medical fitness standards.

Owner Affected stakeholders

EASA FS.4.3 Aerodrome operators

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
B-	ST	-	10/04/2014	09/07/2015	n/a	n/a	23/05/2016
				2016 Q4	2017 Q4	2018 Q4	2018 Q4



RMT.0595 Technical review and regular update of learning objectives and syllabi for commercial licences (IR)

Technical review of theoretical knowledge syllabi, learning objectives, and examination procedures for the air transport pilot licence (ATPL), MPL, commercial pilot licence (CPL), and instrument rating (IR).

Owner

EASA FS.3

Affected stakeholders

Competent authorities, ATOs, student pilots, providers of textbooks and training materials, ECQB

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
B-	ST	-	11/03/2015	09/06/2016	n/a	n/a	2018 Q1
				2019 Q1	n/a	n/a	2020 Q1

RMT.0596 Review of provisions for examiners and instructors (Subparts J & K of Part-FCL)

A complete review of the subparts of Part-FCL containing the provisions for examiners and instructors. Industry and MS experts requested this task as an urgent correction and alignment of the rules in place. It will also address some of the elements proposed by the EASA examiner/inspector task force.

Owner

EASA FS.3

Affected stakeholders

Pilots, instructors, examiners, ATOs, operators and DTOs

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
B-	ST	-	18/07/2016	2017 Q4	2018 Q4	2019 Q4	2019 Q4

RMT.0599 Evidence-based and competency-based training

In a first phase, a complete review of the provisions contained in ORO.FC. It will also include the review of ATQP programmes and the introduction of evidence-based training (EBT) and competency-based training (CBT) in the field of recurrent training.

In a second phase, EBT will be extended to operator conversion course and type ratings as well as increasing the scope of EBT to helicopters and to other types of aircrafts not covered in the current Doc 9995.

Owner

EASA FS.3

Affected stakeholders

Pilots, instructors, examiners, ATOs and operators

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
A-	ST	-	05/02/2016	2017 Q2	2018 Q2	2019 Q4	2019 Q4
				2018 Q3	2019 Q3	2021 Q1	2021 Q1



Safety Promotion

SPT.079

Crew resource management (CRM) training best practices

The EASA Safety Risk Management process has identified CRM as the second most important human factors issue in the domain of CAT Aeroplanes. New AMC/GM on CRM Training were adopted in 2015 and entered into force in October 2016. An in-depth assessment of the safety issue concluded that additional actions in the area of safety promotion were needed, which led EASA to organise a workshop on the subject. On 8 November 2016, 80 delegates representing operators, CAs, professional associations and training providers met to share experience and best practices on CRM practical implementation. The workshop was an excellent opportunity for the practitioners to discuss how this important safety net should work in practice. The purpose of this safety promotion task is to take stock of and disseminate the best practices discussed during the workshop.

Owner	Activity sector	Deliverable	Date
EASA FS.3	ALL, HF	Best practice	2017

Focused Oversight

FOT.003

Unavailability of adequate personnel in competent authorities

EASA Standardisation to monitor the availability of staff in CAs.

Owner	Activity sector	Deliverable	Date
EASA FS.5	ALL	Report	Annually

FOT.004

Unavailability of adequate personnel in competent authorities

EASA to support CAs: a. in defining the right competences needed to properly discharge their safety oversight responsibilities; and b. in providing training to their staff.

Owner	Activity sector	Deliverable	Date
EASA FS.5	ALL, HF	Report	Continuous

Research

RES.006

Effectiveness of flight time limitations (FTL)

The objective is to develop and demonstrate the due process for the assessment of the effectiveness of the effectiveness of FTL and fatigue risk management (FRM) provisions as set in Article 9a of Regulation (EU) No 965/2012¹³. Particular emphasis will be put on the establishment and qualification of the appropriate metrics with a view to ascertaining the necessity for their update towards improving flight safety by better mitigating the possibly associated risks.

Owner	Activity sector	Deliverable	Date
European Commission (H2020)	CAT, HF	Report	2018

¹³ Commission Regulation (EU) No 965/2012 of 5 October 2012 laying down technical requirements and administrative procedures related to air operations pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council (OJ L 296, 25.10.2012, p. 1).



5.2.3 Aircraft tracking, rescue operations and accident investigation

Issue/rationale

Safety investigation authorities have frequently raised the issue of lack of data to support investigations of light aircraft accidents. This is also related to the fact that light aircraft are not required to carry a flight recorder. As regards large aircraft, the advent of new technologies, as well as findings during safety investigations highlight the need to update the installation specifications for flight recorders.

The safety actions in this area are aimed at introducing normal tracking of large aircraft, improving the availability and quality of data recorded by flight recorders, assessing the need for in-flight recording for light aircraft and the need to introduce data link recording for in-service large aircraft..

What we want to achieve

Increase safety by facilitating the recovery of information by safety investigation authorities and thus helping to avoid future accidents.

How we monitor improvement

Number of investigated accidents or serious incidents in which flight data is not recovered

How we want to achieve it: actions

Rulemaking

RMT.0249 Recorders installation and maintenance thereof — certification aspects

The general objective of this RMT is to improve the availability and quality of data recorded by flight recorders in order to better support safety investigation authorities in the investigation of accidents and incidents. More specifically, this RMT is aimed at modernising and enhancing the specifications for flight recorder installation on board large aeroplanes and large rotorcraft.

Phase 1 of the RMT will result into an NPA in Q1/2017. Following the public consultation of said NPA, EASA will develop an opinion and a decision issuing CS-25. These two deliverables are planned for Q1/2018. In phase 2 of this RMT, EASA will prepare a second NPA (planned for Q2/2018), which will lead again into an opinion as well as a decision issuing CS-25, both planned for Q1/2019.

Owner

EASA CT.7

Affected stakeholders

Operators (of aircraft required to be equipped with flight recorders), manufacturers, applicants for TC/STC

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
B5	ST	-	18/09/2014	2017 Q1 2018 Q2	2018 Q1 2019 Q1	2018 Q1 2019 Q1	2018 Q1 2019 Q1

RMT.0271 In-flight recording for light aircraft

Assess the need for in-flight recording and make proportionate suggestions for categories of aircraft and types of operation covered by the air operations rules for which there is no flight recorder carriage requirement. The upcoming NPA will pay particular attention to the proportionality aspect for GA leisure flying and make reference to the risks identified during the GA workshop (see Section 5.5). Note that this NPA (as any other NPA) may propose 'no rulemaking' as the most suitable option.

Owner

EASA FS.2

Affected stakeholders

Operators (of aircraft not yet required to have flight recorders)

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
B8	ST	-	25/07/2014	2017 Q1	2018 Q1	2018 Q4	2018 Q4



RMT.0294 Data link recording retrofit for aircraft used in CAT

Assess the need to introduce data link recording for in-service aircraft in line with ICAO Annex 6 Parts I and III

Owner

EASA FS.2

Affected stakeholders

Operators (of aircraft required to be equipped with flight recorders), manufacturers, applicants for TC/STC

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
B-	ST	-	2019 Q1	2020 Q1	2021 Q1	2022 Q1	2022 Q1

RMT.0400 Amendment of requirements for flight recorders and underwater locating devices

All IRs were adopted with Commission Regulation (EU) 2015/2338; however, the AMC & GM for CAT.GEN.MPA.205 and CAT.GEN.MPA.210 have not yet been issued. We wait until ICAO has completed its work on aircraft tracking and location of an aircraft in distress before proceeding with the AMC & GM to CAT.GEN.MPA.205 and CAT.GEN.MPA.210. ICAO is not expected to complete its work before Q1/2017.

Owner

EASA FS.2

Affected stakeholders

Aircraft operators and manufacturers

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
B7	ST	-	26/09/2012	20/12/2013	06/05/2014	11/12/2015	12/10/2015 17/12/2015 12/09/2016 2017 Q2



5.3 CAT by aeroplane

In 2015, the domain with the highest number of fatalities was CAT Aeroplanes. This involved a single fatal accident, which was the Germanwings accident that occurred on 24 March 2015. In 2014, there were 2 fatal accidents and there have not been more than 2 fatal accidents in CAT Aeroplanes since 2005. This operational domain is the greatest focus of EASA’s safety activities and the reorganisation of the collaborative analysis groups (CAGs) and Advisory Bodies will help EASA to learn more about the safety challenges faced by airlines and manufacturers¹⁴.

5.3.1 Aircraft upset in flight (LOC-I)

Issue/rationale

Loss of control usually occurs because the aircraft enters a flight regime which is outside its normal envelope, usually, but not always, at a high rate, thereby introducing an element of surprise for the flight crew involved. Loss of control is a strategic priority.

64 % of fatal accidents in the last 10 years (EASA MS) involved loss of control. Events such as a deviation from flight path, abnormal airspeed or triggering of stall protections when not dealt with properly can lead to fatal consequences involving many fatalities. Technical failures as well as ground handling safety issues can be also a precursor of this type of scenarios.

What we want to achieve

Continuously assess and improve risk controls to mitigate the risk of loss of control.

How we monitor improvement

Continuous monitoring of safety issues identified in the Commercial Air Transport Fixed Wing Portfolio (ref: Annual Safety Review 2016)

How we want to achieve it: actions

Rulemaking

RMT.0397 Unintended or inappropriate rudder usage — rudder reversals

- To propose an amendment of CS-25 to protect the aeroplane against the risk of unintended or inappropriate rudder usage. This may be achieved either by setting standards mitigating erroneous rudder inputs from pilots to ensure safe flight, or by proposing standards that will ensure pilots will not make the erroneous rudder input.
- To determine if retroactive specifications are suitable for already certified large aeroplanes. In case of a positive answer, to propose Part-26/CS-26 standards, eventually including applicability criteria. Those standards may differ from the ones proposed for CS-25 amendment.

Owner			Affected stakeholders				
EASA CT.7			DAHs				
PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
B6	ST	-	2017 Q1	2017 Q4	n/a	n/a	2018 Q3

¹⁴ Extract from the EASA Annual Safety Review 2016.



RMT.0581 Loss of control prevention and recovery training

Review of the provisions for initial and recurrent training in order to address upset prevention and recovery training (UPRT). The review will also address the implementation of the ICAO documents and several SRs. Other aspects to be covered are manual aircraft handling of approach to stall and stall recovery (including at high altitude), the training of aircraft configuration laws, the recurrent training on flight mechanics, and training scenarios (including the effect of surprise).

This RMT is split into multiple deliverables. See the related ToR on the EASA website.

Note: Recurrent and conversion training provisions related to UPRT were already published in May 2015. They have been applicable as of May 2016.

Owner

EASA FS.3

Affected stakeholders

Pilots, instructors, examiners, ATOs and operators

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
A22	ST	-	20/08/2013	01/09/2015	n/a 2017 Q1	n/a 2018 Q1	04/05/2015 2018 Q1

RMT.0647 Loss of control or loss of flight path during go-around or climb

The overall goal is to mitigate the safety risk (for large aeroplanes) of loss of control or loss of the flight path of the aircraft during the go-around or climb phases executed from a low speed configuration and close to the ground.

The first objective is to ensure that the thrust available after selecting the go-around mode is set to a reasonable value, such that the aeroplane’s performance parameters (e.g. forward and vertical speeds, pitch attitude) are not excessive to the point that the control of the flight path may be a very demanding or hazardous task. The thrust setting should be such that the aeroplane’s performance still complies with the performance requirements of CS-25 Subpart B, and the pilot can still easily select the full thrust, if needed.

The second objective is to prevent an excessive nose-up trim condition when transitioning from a low-speed phase of flight to go-around or climb when high level of thrust is applied. This may be achieved by different means, such as increasing the flight crew awareness of the low speed/excessive nose-up trim condition, or incorporating active systems preventing an unusual configuration (low speed/excessive nose-up trim condition) from developing.

Owner

EASA CT.7

Affected stakeholders

DAHs and operators

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
A13	ST	-	06/07/2015	2017 Q2	n/a	n/a	2018 Q2

Safety Promotion

MST.004 Include loss of control in flight in national SSPs

LOC-I shall be addressed by the MS on their SSPs. This will include as a minimum agreeing a set of actions and measuring their effectiveness.

Owner

MS

Activity sector

CAT, HF

Deliverable

SSP established

Date

Continuous

SPT.012 Promote the new European provisions on pilot training

The objective is to complement the new regulatory package on UPRT with relevant safety promotion material.

Owner

EASA SM.2

Activity sector

ALL, HF

Deliverable

Safety Promotion

Date

2017



Research

RES.005 Startle effect management

See the detailed Terms of Reference for this activity on the [EASA website](#).

Owner	Activity Sector	Deliverable	Date
EASA SM.1	CAT, HF	Report	2017

5.3.2 Runway safety

Issue/rationale

This section deals both with REs and RIs and is a strategic priority.

According to the definition provided by ICAO, an RE is a veer or overrun off the runway surface. RE events can happen during take-off or landing. Safety events such as hard landings, high-speed landing, landings following an unstabilised approach are direct precursors of REs. It also includes the tail, wing, engine nacelle strike during take-off or landing. This risk area represents 9 % of the fatal accidents (and 30 % of non-fatal accidents) in the last 10 years in EASA MS.

An RI refers to the incorrect presence of an aircraft, vehicle or person on an active runway or in its areas of protection. In the last 10 years, 18 % of fatal accidents within the EASA MS involve RIs. More detailed analysis of this key risk area is planned for early 2017 together with the development of the ATM and Aerodrome Risk Portfolio.

What we want to achieve

Continuously assess and improve risk controls to mitigate the risk of REs and RIs.

How we monitor improvement

Continuous monitoring of safety issues identified in the ATM and Aerodrome risk portfolio (currently under development)

How we want to achieve it: actions

Rulemaking

RMT.0296 Review of aeroplane performance requirements for CAT 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 CAT 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			Affected stakeholders				
EASA FS.2			CAT aeroplane operators				
PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
A-	ST	-	09/06/2015	30/09/2016	2017 Q3	2018 Q3	2018 Q3

RMT.0369 Prediction of wind shear for aeroplane CAT operations (IRs)

Set up the framework leading towards reduction of the number of accidents and serious incidents caused by wind shear in CAT aeroplane operations by assessing the need to install and use predictive wind shear systems.

Owner			Affected stakeholders				
EASA FS.2			CAT aeroplane operators				
PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
B14	ST	-	28/10/2013	15/12/2016	n/a	n/a	2018 Q4



RMT.0570 Reduction of runway excursions

The objective of this task is to increase the level of safety by reducing the number of REs through mandating existing technologies on aeroplane that allow to measure remaining runway left and thus support pilot-decision-making.

Due to the nature of the comments received on NPA 2013-09, EASA has decided to publish a new NPA on the reduction of REs. The proposal of the new NPA will put more emphasis on safety objectives against the risk of REs, while providing more flexibility in terms of design solutions. The means to achieve these objectives will be provided in a technical standard developed jointly by industry and NAAs with the support of an international standardisation body (EUROCAE).

Owner

EASA CT.7

Affected stakeholders

Operators, manufacturers, applicants for TC/STC

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
A-	ST	-	09/10/2012	10/05/2013	2018 Q2	2018 Q2	2018 Q2
				2017 Q3	n/a	n/a	2019 Q2

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 139/2014¹⁵ 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
A-	ST	-	2017 Q3	2018 Q1	2019 Q1	2020 Q1	2020 Q1

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
A-	ST	-	2017 Q2	2018 Q3	2019 Q1	2020 Q2	2020 Q2

¹⁵ Commission Regulation (EU) No 139/2014 of 12 February 2014 laying down requirements and administrative procedures related to aerodromes pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council, OJ L 44, 14.2.2014, p. 1–34.



Safety Promotion

MST.007 Include runway excursions in national SSPs

REs should be addressed by the MS on their SSPs in close cooperation with the aircraft operators, air traffic control, airport operators and pilot representatives. This will include as a minimum agreeing a set of actions and measuring their effectiveness. MS should implement actions suggested by the European Action Plan for the Prevention of Runway Excursions (EAPPRE) and monitor effectiveness.

Owner	Activity sector	Deliverable	Date
MS	CAT, HF	SSP established	Continuous

MST.011 Runway safety teams

MS should audit their aerodromes to ensure that a local runway safety team is in place and is effective. MS will report on the progress and effectiveness.

Owner	Activity sector	Deliverable	Date
MS	ALL, HF	Report	Continuous

MST.014 Include runway incursions in national SSPs

RIIs should be addressed by the MS on their SSPs. This will include as a minimum agreeing a set of actions and measuring their effectiveness. MS should implement actions suggested by the European Action Plan for the Prevention of Runway Incursions (EAPPRI).

Owner	Activity sector	Deliverable	Date
MS	CAT/GA, HF	SSP established	Continuous



5.3.3 Airborne conflict (Mid-air collisions)

Issue/rationale

Airborne conflict refers to the potential collision of two aircraft in the air. It includes direct precursors such as separation minima infringements, genuine TCAS resolution advisories or airspace infringements. Although there have been no CAT aeroplane airborne collision accidents in recent years within the EASA MS, this key risk area has been raised by a number of MS at the Network of Analysts (NoA) and also by some airlines, specifically in the context of the collision risk with aircraft without transponders in uncontrolled airspace. This is one specific safety issue that is a main priority in this key risk area.

What we want to achieve

Continuously assess and improve risk controls to mitigate the risk of mid-air collisions.

How we monitor improvement

Continuous monitoring of safety issues identified in the Commercial Air Transport Fixed Wing Portfolio (ref: Annual Safety Review 2016¹⁶)

How we want to achieve it: actions

Rulemaking

RMT.0376 Carriage of ACAS II equipment on aircraft other than aeroplanes in excess of 5 700 kg or 19 pax

Set up the framework for reducing the risk of MACs. This task will include a thorough impact assessment aimed at evaluating the cost-benefit of ACAS II equipment carriage.

Owner

EASA FS.4.2

Affected stakeholders

Operators

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
A15	ST	-	2016 Q4	2018 Q1	2018 Q4	2019 Q4	2019 Q4

RMT.0445 Technical requirements and operating procedures for airspace design, including flight procedure design

Development of the necessary organisational and technical requirements on airspace design, thus ensuring that the specific safety objectives of the Basic Regulation are met. Basically, the scope of the task is to establish the requirements for the design of flight procedures and ATS routes, to support the implementation of PBN operations and evaluate the need for extension to other airspace structures and flight procedure design. This will include an analysis of the need to include procedures for airspace design in the ATM/ANS certification scheme.

Owner

EASA FS.4.2

Affected stakeholders

ANSPs and operators

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
A-	ST	-	14/07/2014	25/10/2016	2017 Q3	2018 Q3	2018 Q3

¹⁶ See link in Executive Summary above.



RMT.0464 Requirements for air traffic services

Transposition of the relevant ICAO provisions on ATS. The objective is to define a sufficient level of harmonisation throughout the EU, based on mandatory and flexible requirements, and define proportionate and cost-efficient rules.

Owner

EASA FS.4.2

Affected stakeholders

MS; CAs; ANSPs; ATCOS; aircraft operators; professional organisations; trade unions; pilots; passengers

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
A-	ST	-	09/07/2014	14/09/2016	2017 Q4	2018 Q4	2018 Q4

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

ANSPs and operators

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
A-	ST	-	11/10/2013	26/04/2016	2017 Q2	2018 Q3	2018 Q3

RMT.0593 Technical requirements and operational procedures for the provision of data for airspace users for the purpose of air navigation

Development of:

- specific organisational requirements for the data service providers (DAT.OR), and the particular roles and responsibilities of such providers in order to ensure the necessary integrity, quality and timeliness of navigation data;
- the technical requirements (DAT.TR) for the provision of data services consisting in the origination and processing of data and formatting and delivering data to general air traffic. The DAT.TR shall address the essential requirements set out in paragraph 2(a) of Annex Vb to the Basic Regulation and shall meet the SES objectives on interoperability;
- the amendment to the air operations rule contained in CAT.IDE.A.355 and NCC.IDE.A.260 on electronic navigation data management of Regulation (EU) No 965/2012 and their extension to helicopter operations. Related AMC and GM should be reviewed as well.

Owner

EASA FS.4.2

Affected stakeholders

DAT providers, indirectly: Competent Authorities

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
A-	ST	-	11/10/2013	08/08/2014	16/03/2015	2016 Q4	2016 Q4



Safety Promotion

MST.010 Include MACs in national SSPs

MACs shall be addressed by the MS on their SSPs. This will include as a minimum agreeing a set of actions and measuring their effectiveness. MS should implement actions of the European Action Plan for Airspace Infringement Risk Reduction.

Owner	Activity sector	Deliverable	Date
MS	CAT, HF	SSP established	Continuous

MST.024 Loss of separation between civil and military aircraft

Several EU MS have reported an increase in losses of separation involving civil and military aircraft and more particularly an increase in non-cooperative military traffic over the high seas. Taking into account this situation, and the possible hazard to civil aviation safety, the European Commission mandated EASA to perform a technical analysis of the reported occurrences. The technical analysis issued a number of recommendations for the MS:

- endorse and fully apply Circular 330;
- closely coordinate to develop, harmonise and publish operational requirements and instructions for state aircraft to ensure that 'due regard' for civil aircraft is always maintained;
- develop and harmonise civil/military coordination procedures for ATM at EU level;
- report relevant occurrences to EASA; and
- facilitate/make primary surveillance radar data available in military units to civil ATC units. The objective of this action is to ensure that MS follow-up on the recommendations and provide feedback on the implementation.

Owner	Activity sector	Deliverable	Date
MS	CAT	Report	2018



5.3.4 Design and maintenance improvements

Issue/rationale

Design improvements may limit the probability of technical failures. With 45 % of fatal accidents involving some sort of technical failures during the past 10 years, this is both a major accident outcome and a precursor of other types of accident¹⁷. Specific analysis work is ongoing to identify the systemic, safety issues that may be present in the domains of airworthiness, maintenance and production.

What we want to achieve

Continuously assess and improve risk controls related to design and maintenance

How we monitor improvement

Continuous monitoring of safety issues identified in the Commercial Air Transport Fixed Wing Portfolio (ref: Annual Safety Review 2016)

How we want to achieve it: actions

Rulemaking

RMT.0049 Specific risk and standardised criteria for conducting aeroplane-level safety assessments of critical systems

To define a standardised criterion for conducting aeroplane-level safety assessment of specific risks that encompasses all critical aeroplane systems on large aeroplanes (i.e. in particular update AMC to CS 25.1309), based on the results of the Aviation Rulemaking Advisory Committee (ARAC) Airplane-level Safety Analysis Working Group (ASAWG).

In addition, to amend AMC 25.1309 taking into account the latest updates of industry documents, such as ED79A/ARP4754A.

To update CS 25.671 on safety assessment of flight control systems, based on the results of the ARAC Flight Controls Harmonisation Working Group (FCHWG).

For both objectives, harmonisation with the FAA, the Transport Canada Civil Aviation (TCCA) and Agência Nacional de Aviação Civil (ANAC) will be ensured as much as possible.

Owner

EASA CT.7

Affected stakeholders

DAHs

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
B-	ST	-	18/03/2013	27/01/2014	n/a	n/a	2018 Q4

¹⁷ This statement is coming from our Annual Safety Review 2016. It does not necessarily mean that the technical failure was the direct cause of the accidents, but that a system component failure was identified in the sequence of events of 1 of the 5 fatal accidents in CAT Aeroplanes during the past 10 years (out of a total of 11). This could be an engine failure, an avionics system failure or some other recoverable technical failure. The cause of the accident is usually the result of a combination of circumstances and events that can only be understood after reading the investigation report. Specific analysis work is ongoing to identify the systemic safety issues that may be present in the domains of airworthiness, maintenance and production. Non-accident data will be used for the analysis.



RMT.0069 Seat crashworthiness improvement on large aeroplanes — Dynamic testing 16g

The objective is to improve the protection of occupants on board large aeroplanes operated for commercial air transportation of passengers, when they are involved in a survivable impact accident.

This improvement would be reached by introducing on large aeroplanes used for commercial air transportation that were type certified without the JAR-25 change 13 standard improvements, passenger and cabin crew seats meeting the improved standard for dynamic testing and occupant protection, already used for type certification of new large aeroplanes.

Owner

EASA CT.7

Affected stakeholders

CAT operators and manufacturers

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
B12	ST	-	17/09/2010	10/10/2013	20/05/2016	2017 Q3	2017 Q3

RMT.0217 CAMOs’ and Part-145 organisations’ responsibilities

Establishment of the principles to mitigate the risks linked to a faulty assessment and coordination of the responsibilities of CAMOs and Part-145 organisations, especially in complex, multi-tier and subcontracted maintenance.

Owner

EASA FS.1

Affected stakeholders

Operators, CAMOs and MOs

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
B16	ST	-	12/03/2013	02/12/2014	2017 Q3	2019 Q3	2019 Q3

RMT.0225 Development of an ageing aircraft structure plan

Develop the technical elements for an ageing aircraft structure plan:

- Review and update the supplemental structural inspection programme (SSIP) for effectiveness;
- Review existing corrosion prevention programmes and develop a baseline corrosion prevention/control programme to maintain corrosion to an acceptable level;
- Review all structurally-related service actions/bulletins and determine which require mandatory terminating action or enforcement of special repetitive inspections;
- Develop guidelines to assess the damage tolerance of existing structural repairs, which may have been designed without using damage tolerance criteria. Damage tolerance methodology needs to be applied to future repairs; and
- Evaluate individual aeroplanes design regarding the susceptibility to widespread fatigue damage (WFD) and develop a programme for corrective action.

The rulemaking framework for such issues is somewhat complex because it is necessary to address, generally speaking, the following items:

- Amendment to certification specifications (CSs) to improve the standards for ageing aircraft issues. This will address the case of future TC and future amendments to TC/future STC in accordance with the changed product rule; and
- Requirements on existing DAHs (e.g. TC, STC holders) to review their existing designs to demonstrate compliance with the amended CS. Requirements on operators to introduce modifications in individual aircraft and maintenance programmes resulting from the design review.

Owner

EASA CT.7

Affected stakeholders

DAHs and operators

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
B-	ST	✓	08/05/2007	23/04/2013	10/10/2016	2017 Q3	2017 Q3



RMT.0393 Maintenance check flights (MCFs)

Establish operational requirements and crew competence criteria for the performance of maintenance check flights to reduce the probability of incidents and accidents of this type of flights. This will not be limited to operators subject to EU-OPS approval but also to any operator performing these flights.

Owner

EASA FS.1

Affected stakeholders

Operators, CAMOs, and MOs

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
B-	ST	-	04/04/2011	30/07/2012	2017 Q1	2019 Q1	2019 Q1

RMT.0453 Ditching parameters without engine power

Amend CS-25 to require that ditching parameters can be attained by pilots without the use of exceptional skills, including without engine power.

Owner

EASA CT.7

Affected stakeholders

DAHs

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
B6	ST	-	2018 Q4	2019 Q4	n/a	n/a	2020 Q4

RMT.0521 Airworthiness review process

Performance of a full review of the airworthiness review process to introduce an improved framework to mitigate the risks linked to a faulty airworthiness review with potential safety consequences where the actual airworthiness status of the aircraft is below the standard.

Owner

EASA FS.1

Affected stakeholders

Operators, CAMOs and NAAs

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
B12	ST	-	07/05/2013	05/11/2015	2018 Q2	2020 Q2	2020 Q2

RMT.0586 Tyre pressure monitoring system

- The specific objective is to propose a regulatory change to ensure that large aeroplanes tyres inflation pressures remain within the pressure specifications defined by the aircraft manufacturer.
- The rulemaking proposal should consider better enforcing the operator's responsibility to ensure regular tyre pressure checks, and also the aircraft manufacturer's obligation to define the tyre pressure check procedures and intervals in the instructions for continuing airworthiness (ICA); as different practices exist in terms of content and presentation of the information in the aircraft maintenance manual (AMM), it could be proposed to better standardise this ICA item among manufacturers and aircraft.
- Since a tyre pressure check legal obligation would not always guarantee that the tyres are correctly inflated (e.g. air leakage in the tyre/wheel assembly, maintenance error or negligence, failure/inaccuracy of the inflation equipment, operator not correctly performing the regular checks, etc.), the rulemaking proposal should also include the installation of a tyre pressure monitoring system which will alert the pilots when a tyre pressure is abnormal or out of tolerance.

Owner

EASA CT.7

Affected stakeholders

Operators

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
B16	ST	-	2017 Q2	2018 Q3	2019 Q3	2020 Q3	2020 Q3



RMT.0588 Aircraft continuing airworthiness monitoring — Review of key risk elements

Considering the implementation experience (including Standardisation feedback), the objective is to review the current principles specified in AMC3 M.B.303(b) ‘Aircraft continuing airworthiness monitoring’, and the related GM1 M.B.303(b) and Appendix III to GM1 M.B.303(b). In particular, to assess:

- if the requirements adequately address the processing of key risk elements (KREs) requiring annual reviews to ensure that all regulatory references remain up to date; and
- the appropriateness of each KRE, determine the need for additional KREs, review the adequacy and pertinence of typical inspection items included.

Owner

EASA FS.1

Affected stakeholders

NAAs

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
B-	ST	-	2016 Q4	2017 Q4	n/a	n/a	2018 Q4

RMT.0671 Engine bird ingestion

A US ARAC group was tasked to work on several improvements to the bird ingestion requirements.

Owner

EASA CT.7

Affected stakeholders

Manufacturers

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
B-	ST	✓	2016 Q4	2017 Q2	n/a	n/a	2017 Q4

RMT.0686 HP rotor integrity and loss-of-load (due to shaft failure)

The task will review and amend CS-E 840 and CS-E 850 to address certification issues for new designs. There will be a US industry-led group which will be formed, to discuss the pre-rulemaking on this issue. European industry has raised this item and they would support EASA rulemaking on this issue preferring EASA to take the lead.

Owner

EASA CT.7

Affected stakeholders

DAHs

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
B-	ST	✓	2017 Q4	2018 Q4	n/a	n/a	2019 Q4

5.3.5 Ground safety

Issue/rationale

This risk area refers to the collision of the aircraft with other aircraft, obstacles or vehicles while the aircraft is moving on the ground, either under its own power or being towed. It also includes all ground-handling-related issues (aircraft loading, refuelling, etc.).

Over the last 10 years, 27 % of fatal accidents involved ground collision and other associated ground events. There has been an increasing trend in this area and the subject has featured highly in discussion with MS at the NoA and industry at the CAT CAG. A dedicated CAG analysis task will be carried out during 2016 in order to complete the identification of safety issues leading to this type of outcome.

What we want to achieve

Continuously assess and improve risk controls to mitigate the risk of ground safety.

How we monitor improvement

Continuous monitoring of safety issues identified in the Commercial Air Transport Fixed Wing Portfolio (ref: Annual Safety Review 2016) for this particular risk area.



How we want to achieve it: actions

Rulemaking

RMT.0116 Real weight and balance of an aircraft

The objective of this task is to propose an amendment of CS for large aeroplanes (CS-25) to require the aeroplane being equipped with a weight and centre of gravity measuring system. What is also envisaged is a proposal for a retroactive requirement for such system to be installed on already type-certified large aeroplanes (using a Part-26/CS-26 rule). Finally, this task will investigate the safety benefit which could be gained by requiring such system to be installed on CS-23 commuter aeroplanes; in case of a positive answer, a CS-23 amendment for commuters will be proposed.

The rulemaking should consider the minimum operational performance specification (MOPS) which will be produced by the European Organisation for Civil Aviation Equipment (EUROCAE) WG-88.

Owner

EASA CT.7

Affected stakeholders

DAHs and operators

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
A10	ST	-	2018 Q2	2019 Q2	2020 Q3	2021 Q3	2021 Q3

RMT.0118 Analysis of on-ground wings contamination effect on take-off performance degradation

- To propose an amendment of CS-25 to require applicants performing an assessment of the effect of aircraft aerodynamic surfaces on-ground contamination on take-off performance and on aircraft manoeuvrability and controllability.
- To propose a retroactive rule Part-26/CS-26 applicable to large aeroplane TC holders; this rule would require a similar analysis and means of protection as the ones proposed for amending CS-25. The retroactive rule may be limited in terms of applicability to a category of aircraft which would be the most vulnerable.

EASA will publish its NPA on this RMT in Q3/2017. Following the NPA’s public consultation, EASA will publish a decision issuing CS-25, as well as an opinion proposing amendments to Part-26. Both deliverables are planned for Q3/2018. Upon adoption of the Part-26 amendment by the Commission and publication in the Official Journal, EASA will issue the related CS-26 (expected Q3/2019).

Owner

EASA CT.7

Affected stakeholders

Manufacturers, operators, applicants for TC/STC

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
B10	ST	-	2016 Q4	2017 Q3	n/a	n/a	2018 Q3
					2018 Q3	2019 Q3	2019 Q3

Safety Promotion

MST.018 Include ground safety in national SSPs

This safety issue shall be addressed by the MS on their SSPs. This will include as a minimum agreeing a set of actions and measuring their effectiveness.

Owner

MS

Activity sector

CAT/HE, HF

Deliverable

SSP established

Date

Continuous



5.3.6 Terrain conflict

Issue/rationale

This risk area includes the controlled collision with terrain together with undershoot or overshoot of the runway during approach and landing phases. It comprises those situations where the aircraft collides or nearly collides with terrain while the flight crew has control of the aircraft. It also includes occurrences which are the direct precursors of the fatal outcome, such as descending below weather minima, undue clearance below radar minima, etc. This risk area is the second in contribution to fatal accidents in the last 10 years with 18 % of those accidents..

What we want to achieve

Continuously assess and improve risk controls to mitigate the risk of controlled flight into terrain.

How we monitor improvement

Continuous monitoring of safety issues identified in the Commercial Air Transport Fixed Wing Portfolio (ref: Annual Safety Review 2016) for this particular risk area.

How we want to achieve it: actions

Rulemaking

RMT.0371 TAWS operation in IFR and VFR and TAWS for turbine-powered aeroplanes under 5 700 kg MTOM able to carry six to nine passengers

Develop a regulatory framework for:

- mitigation of the risks of accidents categorised as CFIT in turbine-powered aeroplanes having a maximum certified take-off mass (MCTOM) below 5 700 kg or a maximum operational passenger seating configuration (MOPSC) of more than five and not more than nine; and
- improvement of the terrain awareness warning system (TAWS) efficiency in reducing CFIT accidents.

Owner

EASA FS.2

Affected stakeholders

Operators

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
B11	ST	-	31/01/2014	18/12/2015	16/12/2016	2017 Q4	2017 Q4

Safety Promotion

MST.006 Include CFIT in national SSPs

Controlled flight into terrain shall be addressed by the MS on their SSPs. This will include as a minimum agreeing a set of actions and measuring their effectiveness.

Owner

MS

Activity sector

CAT, HF

Deliverable

SSP established

Date

Continuous



5.3.7 Fire, smoke and fumes

Issue/rationale

Uncontrolled fire on board an aircraft, especially when in flight, represents one of the most severe hazards in aviation. Post-crash fire is also addressed in this section.

In-flight fire can ultimately lead to loss of control, either as a result of structural or control system failure, or again as a result of crew incapacitation. Fire on the ground can take hold rapidly and lead to significant casualties if evacuation and emergency response is not swift enough. Smoke or fumes, whether they are associated with fire or not, can lead to passenger and crew incapacitation and will certainly raise concern and invite a response. Even when they do not give rise to a safety impact, they can give rise to concerns and need to be addressed.

While there were no fatal accidents involving EASA MS operators in the last 10 years involving fires, there have been occurrences in other parts of the world that make it an area of concern within the EPAS.

What we want to achieve

Continuously assess and improve risk controls to mitigate the risk of fire, smoke and fumes.

How we monitor improvement

Continuous monitoring of safety issues identified in the Commercial Air Transport Fixed Wing Portfolio (ref: Annual Safety Review 2016) for this particular risk area.

How we want to achieve it: actions

Rulemaking

RMT.0071 Additional airworthiness specifications for operations: Thermal/acoustic insulation material

The general objective of this RMT is to reduce the safety risks due to flame penetration and propagation in the fuselage by introducing retroactive specifications based on CS 25.856(a) and (b), applicable to already type-certified large aeroplanes.

Owner

EASA CT.7

Affected stakeholders

Operators and manufacturers

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
B8	ST	-	18/09/2014	01/10/2015	23/05/2016	2017 Q3	2017 Q3

Safety Promotion

MST.005 Include fire, smoke and fumes in national SSPs

This safety issue shall be addressed by the MS on their SSPs. This will include as a minimum agreeing a set of actions and measuring their effectiveness.

Owner

MS

Activity sector

CAT, HF

Deliverable

SSP established

Date

Continuous



Research

RES.003

Research study on cabin air quality

Investigation of the quality level of the air inside the cabin of large transport aeroplanes and its health implication. The work aims at demonstrating, on the basis of a sound scientific process, whether potential health implications may result from the quality of the air on board commercially operated large transport aeroplanes.

Owner	Activity sector	Deliverable	Date
European Commission (H2020)	CAT	Study report	2018

RES.004

Transport of lithium battery by air

Develop mitigating measures for the transport of lithium metal and lithium ion batteries on board an aircraft.

This would include, at least:

- Find out for on air transport, what is the maximum amount that can be shipped in a safe manner in a cargo compartment. Including recommendation on the safe quantities in the cabin as well (brought by passengers).
- Determination of standards for an appropriate packaging (both for lithium metal and lithium ion batteries).
- Evaluation of effective firefighting measures and new suppression systems that could substitute halon.
- Propose new measures to mitigate thermal runaway and propagation of the fire and determine appropriate conditions of air transport.

This must take into consideration the specific operational conditions of air transport (vibrations, changes of temperature, pressure, etc.) that might impact the stability of lithium battery.

Owner	Activity sector	Deliverable	Date
European Commission (H2020)	CAT	Report	2018



5.4 Rotorcraft operations

Issue/rationale

This area includes both CAT and offshore operations as well as aerial work performed by helicopters. In 2015, there were 4 fatalities in CAT Helicopters, 4 fatalities in Aerial Work/Part-SPO Helicopters and no fatalities in offshore operations. EASA's Safety Risk Management process has identified opportunities to improve risk controls in the following areas so that accident numbers will not increase. Through the Offshore Helicopter Collaborative Analysis Group (CAG) there has been specific work in this area of helicopter operations that has identified both some additional work to existing actions as well as a small number of specific actions within this domain. These are identified within each action. The strategic priorities for helicopter operations are:

— aircraft upset in flight (Loss of Control)

In the last 5 years, loss of control played a role in 2 out of the 4 of fatal accidents for offshore helicopter operators and 4 out of the 17 for aerial work. The following actions contribute to mitigate risks in this area: RMT.0409 (offshore; published on 07/10/2016 with the reference ED Decision 2016/022/R), RMT.0127, RMT.0709

— terrain and obstacle conflict

In the last 5 years, terrain/obstacle conflict played a part in 3 out of the 17 fatal accidents for aerial work operations with helicopters. It has also been identified as a key risk area for CAT operations. The following actions contribute to mitigate risks in this area: RMT.0708

— system/technical failure

In the last 5 years, system/technical failures contributed to 2 out of the 4 fatal accidents for offshore helicopter operators and 1 out of 3 in CAT operations. The following actions contribute to mitigate risks in this area: RMT.0608, RMT.0711 RMT.0119, RMT.0713, RMT.0714.

What we want to achieve

Continuously assess and improve risk controls in the above areas.

How we monitor improvement

Continuous monitoring of safety issues identified in the Helicopter Safety Risk Portfolios (ref: Annual Safety Review 2016)

How we want to achieve it: actions

Rulemaking

RMT.0120 Helicopter ditching and water impact occupant survivability

This task aims at enhancing post-ditching and water impact standards for rotorcraft that could significantly enhance occupant escape and survivability. It will, in part, consider the recommendations arising from early work performed by the Joint Aviation Authorities (JAA) Water Impact, Ditching Design and Crashworthiness Working Group (WIDDCWG) and the Helicopter Offshore Safety and Survival Working Group (HOSSWG).

EASA plans to issue CS-27/29 in Q1/2017. In a second phase, EASA will consider whether the safety issue also necessitates amendment of Part-26/CS-26. An NPA is planned for Q3/2017, which may lead to an opinion proposing amendments to Part-26 in Q1/2018. Upon adoption of the Part-26 amendment by the Commission and publication in the Official Journal, EASA will issue the related CS-26 (expected in Q1/2019).

Owner

EASA CT.7

Affected stakeholders

DAHs and operators

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
B-	ST	-	24/10/2012	23/03/2016	n/a	n/a	2017 Q1
				2017 Q3	2018 Q1	2019 Q1	2019 Q1



RMT.0127 Pilot compartment view

This proposal addresses a safety issue related to rotorcraft windshield misting and subsequent restriction of pilot vision. The existing rules are unclear as to what is required and how compliance can be demonstrated. The specific objective is to mitigate the risks linked to restricted pilot vision, particularly during critical phases of flight (take-off, landing, low hover), by requiring a means to remove or prevent the misting of internal portions of transparencies in rotorcraft, thus ensuring safe operations in all likely flight and operating conditions. In addition, the RMT's scope is proposed to be extended to address the rules governing pilot vision in snow conditions, which are unclear, particularly in relation to piston-engine rotorcraft.

Owner

EASA CT.7

Affected stakeholders

Manufacturers

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
B6	ST	-	2018 Q2	2019 Q1	n/a	n/a	2019 Q4

RMT.0608 Rotorcraft gearbox loss of lubrication

This task aims to strengthen the existing CS-29 requirements pertaining to rotor drive system lubrication. It proposes a harmonised action to address gaps identified in the existing requirements, clarify the intent of the rule and redefine test requirements to meet the intended safety standards. This will both reduce the potential for lubrication system failures from occurring and mitigate the consequences of any failure, should this happen.

Owner

EASA CT.7

Affected stakeholders

DAHs

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
A19	ST	-	22/05/2014	2016 Q4	n/a	n/a	2017 Q2

RMT.0708 Controlled flight into terrain (CFIT) prevention with helicopter terrain avoidance warning systems (HTAWS)

Mandating HTAWS is expected to prevent between 8.5 and 11.5 CFIT accidents with fatalities or severe injuries within 10 years (medium safety improvement). This RMT will consider mandating the installation of HTAWS on board the helicopter for certain operations. The RMT should only mandate HTAWS to be retrofitted to the current fleet if HTAWS standards are improved. An appropriate impact assessment for retrofit will need to be further developed. Based on the preliminary cost effectiveness analysis, HTAWS for the following operations are not to be considered: NCO, SPO, and CAT with small helicopters in VFR operations. For offshore helicopter operations, this also includes the involvement of the EASA Certification Directorate working with the UK CAA on the evaluation of updated HTAWS algorithms and software.

Owner

EASA FS.2

Affected stakeholders

Helicopter operators

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
B1	ST	-	2018 Q4	2019 Q4	n/a	n/a	2020 Q4



RMT.0709 Prevention of catastrophic accidents due rotorcraft hoists issues

Improvements in the certification specifications and standards relating to the certification of rotorcraft hoists is expected to significantly reduce the risk of catastrophic accidents due to rotorcraft hoists. The current certification specifications relating to the certification of rotorcraft hoists are not being appropriately applied. In addition, some failure modes are not consistently taken into consideration and this is reflected in service experience. A high number of safety occurrences have been reported that are attributed to rotorcraft hoists. The ETSO that is being developed is hoped to address some existing design shortfalls. Retrospective application of any additional certification specifications may be considered. Moreover, cargo hook aspects will also be considered along with the safety affects to people on the ground during non-human external cargo operations.

Owner

EASA CT.7

Affected stakeholders

Manufacturers and operators

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
B2	ST	-	2018 Q1	2019 Q1	n/a	n/a	2019 Q3

RMT.0710 Improvement in the survivability of rotorcraft occupants in the event of a crash

The likelihood of survival of rotorcraft occupants in the event of a crash would significantly be improved through the retroactive application of the current improvements in fuel tank crash resistance and occupant safety for rotorcraft that were certified before the new certification specifications for type designs entered into force in the 1980s and 1990s. SRs have been raised by Accident Investigation Boards on fuel tanks and occupant safety for helicopters certified before the upgrade of the rules for emergency landing conditions and fuel system crash resistance, for new type designs in the 1980s and 1990s. In November 2015, a new task was assigned by the FAA for the Aviation Rulemaking Advisory Committee (ARAC) to provide recommendations regarding occupant protection rulemaking in normal and transport category rotorcraft for older certification basis type designs. EASA participates to the Working Group and should consider the application of the outcome of this activity for application to the existing European fleet.

Owner

EASA CT.7

Affected stakeholders

DAH and Manufacturers

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
B3	ST	-	2018 Q1	2019 Q1	n/a	n/a	2019 Q3

RMT.0711 Reduction in accidents caused by failures of critical rotor and rotor drive components through improved vibration health monitoring systems

The use of vibration health monitoring (VHM) systems to detect imminent failures of critical rotor and rotor drive components have been shown to greatly improve the level of safety of rotorcraft particularly for offshore operations. However, there is a need to improve the current certification specifications to reflect the evolution of modern VHM systems in order to gain the associated benefits from these systems.

Improved certification specifications would drive and enable improvements in the fidelity of VHM systems and also foster the modernisation of these systems which would provide additional safety benefits when compared to the existing legacy systems.

Owner

EASA CT.7

Affected stakeholders

DAH and manufacturers

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
B2	ST	-	2018 Q1	2019 Q1	n/a	n/a	2019 Q3



RMT.0713 Reduction in human-factors-caused rotorcraft accidents that are attributed to the rotorcraft design

It is widely recognised that human factors contribute either directly or indirectly to a majority of aircraft accidents and incidents and that the design of the flight deck and systems can strongly influence the crew performance and the potential for crew errors.

Currently, the certification specifications for rotorcraft do not contain any specific requirements for a human factor assessment to be carried out. Large transport aircraft have benefited from human factor assessments of the design of the flight deck and associated systems. New generation helicopters are characterised by having a high level of integration of cockpit equipment, displays and controls. It is also likely that the future rotorcraft projects, embodying fly-by-wire technology flying controls, will pose new and additional challenges from a human factors perspective.

The development of certification specifications for human factors in the design of rotorcraft cockpits would mitigate the probability of human factors and pilot workload issues that could lead to an accident.

Owner

EASA CT.7

Affected stakeholders

DAH

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
B2	ST	-	2018 Q1	2019 Q1	n/a	n/a	2019 Q3



Safety Promotion

MST.015 Helicopter safety events

NAAs, in partnership with industry representatives, to organise helicopter safety events annually or every two years. The EHEST/SPT materials could be freely used and promoted.

Owner	Activity sector	Deliverable	Date
MS	HE	Workshop	Continuous

SPT.080 Implementation of HUMS best practice in offshore operations

To support operators ability to use HUMS/AAD information to best effect in offshore helicopter operations and to understand OEM's HUMS design philosophies. To drive publication of standardised operating principles for all helicopter types fitted with HUMS, to support the sharing of 'best practice' on the use of automation in offshore helicopter operations and to promote enhanced relationships between HUMS community where common issues/solutions can be shared.

Owner	Activity sector	Deliverable	Date
Offshore Helicopter CAG	HE	Report	2017

SPT.081 Routine review of offshore helicopter safety

To support the Offshore Helicopter Safety Risk Portfolio by improving the quality of data collected in the offshore helicopter community through the effective implementation of Regulation (EU) No 376/2014. To support and promote the sharing of data between operators, manufacturers and regulators on technical and operational safety events to continually improve the Offshore Helicopter Safety Risk Portfolio.

Owner	Activity sector	Deliverable	Date
Offshore Helicopter CAG	HE	ASR 2017	2017

SPT.082 Support the development and implementation of FCOM for offshore helicopter operations

To provide support to manufacturers, if needed, in the development of FCOM for different helicopter types and support/encourage operators in their implementation.

Owner	Activity sector	Deliverable	Date
Offshore Helicopter CAG	HE	Report	2017



5.5 General Aviation: Fixed-wing leisure flying

In the last five years, accidents involving recreational aeroplanes have led to an average of nearly 80 fatalities per year in Europe (excluding fatal accidents involving microlight airplanes), which makes it one of the sectors of aviation with the highest yearly number of fatalities. Furthermore, in 2015, there were 65 fatalities in non-commercial operations with aeroplanes (2nd highest number) and 27 in the domain of glider/sailplane operations (3rd highest number). These two areas present the highest numbers of fatal accidents in 2015. The General Aviation Road Map is key to the EASA strategy in this domain. This area is a strategic priority.

Although it is difficult to measure precisely the evolution of safety performance in GA due to lack of consolidated data (e.g. accumulated flight hours), it is reasonable to assume that step changes in the existing safety level are not being achieved at European level, despite all initiatives and efforts.

Therefore, EASA organised a workshop (5–6 October 2016) on general aviation safety to share knowledge and agree on the safety actions that will contribute to improving safety in this domain. The below strategic safety areas and related actions were identified and discussed during the workshop.

5.5.1 Systemic enablers

Issue/rationale

This section addresses system-wide or transversal issues that affect GA as a whole and are common to several safety risk areas. In combination with triggering factors, transversal factors can play a significant role in incidents and accidents. Conversely, they also offer opportunities for improving safety across risk domains.

What we want to achieve

Reduce the number of fatalities in GA through the implementation of systemic enablers.

How we monitor improvement

Continuous monitoring of safety issues identified in the GA-related portfolios (ref: Annual Safety Review 2016).

How we want to achieve it: actions

Safety Promotion

MST.025

Improve the dissemination of safety messages

Improve the dissemination of Safety Promotion and training material by authorities, associations, flying clubs, insurance companies targeting flight instructors and/or pilots through means such as safety workshops and safety days/evenings.

Owner	Activity sector	Deliverable	Date
Safety Promotion Network (SPN)	GA	Safety workshops and safety days/evenings	2017

SPT.083

Flight instruction

Develop Safety Promotion material aimed at making more effective use and maximising the safety benefits of biennial check flights with flight instructors, including differences between aircraft types.

Owner	Activity sector	Deliverable	Date
GA Community (GA Sectorial Committee and GA STeB)	GA	Safety Promotion material	2018



SPT.084

Promoting safety improving technology

Encourage the installation and use of modern technology (e.g. weather information, moving maps, envelope protection, tablet applications, avoidance systems, angle of attack indicators, etc.). This task is linked to rulemaking activities in Section 7.5 'GA Efficiency' that allow for the affordable and timely installation of such systems.

Owner	Activity sector	Deliverable	Date
EASA CT with SPN	GA	Safety Promotion material / Dissemination	2017

5.5.2 Staying in control

Issue/rationale

This section addresses subjects such as flying skills, pilot awareness and the management of upset or stall at take-off, in flight, or during approach and landing, flight preparation, aborting take-off and going around. Staying in control prevents loss of control accidents. Loss of control usually occurs because the aeroplane enters a flight regime outside its normal envelope, thereby introducing an element of surprise for the flight crew involved. Loss of control accidents are both frequent and severe. With 47 %, aircraft upset including loss of control is the most common type of fatal accidents in the last 10 years for EASA MS non-commercial operations with aeroplanes.

What we want to achieve

Reduce the risk of Loss of Control accidents.

How we monitor improvement

Continuous monitoring of safety issues identified in the GA-related portfolios (ref: Annual Safety Review 2016).

How we want to achieve it: actions

Safety Promotion

SPT.085

EASA flying safely promotion package on staying in control – approach and landing (including go-around)

Produce a video on staying in control with a focus on approach and landing addressing subjects such as aircraft performance, flight preparation and management, stabilised approaches, go-around and landing techniques. The significance of the Angle of Attack will be part of the promotion package.

Owner	Activity sector	Deliverable	Date
EASA CT.2	GA	Video/media product	2017

SPT.086

Campaign on staying in control

Launch a campaign on staying in control covering topics such as aircraft performance, flight preparation and management, role of angle of attack, Threat and error management (TEM), upset and stall avoidance and recovery, and startle and surprise management.

Owner	Activity sector	Deliverable	Date
Safety Promotion Network (SPN) and GA Sectorial Committee / TeB	GA	Safety Promotion campaign	2018



5.5.3 Coping with weather

Issue/rationale

This section addresses subjects such as entering IMC, icing conditions, carburettor icing, and poor weather conditions. Weather is an important contributing factor to GA accidents, often related to pilots underestimating the risks of changing weather conditions prior to take-off and during the flight, as weather deteriorates. Dealing with poor weather may increase pilot workload and affect situation awareness and aircraft handling. Decision-making can also be impaired, as a plan continuation bias may lead pilots to press on to the planned destination despite threatening weather conditions.

What we want to achieve

Reduce the number of weather-related accidents.

How we monitor improvement

Continuous monitoring of safety issues identified in the GA-related portfolios (ref: Annual Safety Review 2016).

How we want to achieve it: actions

Safety Promotion

SPT.087

Weather awareness for pilots

Produce a safety promotion material (video) addressing subjects such as weather awareness, flight preparation, management and debrief, the use of flight information services (FIS), the benefits of using modern technology including cockpit weather information systems (including GPS integrated, mobile/4G connected apps, etc.), communication with ATC, inadvertent entry into IMC, TEM, and Human Factors (HF).

Owner	Activity sector	Deliverable	Date
EASA CT.2	GA	Video/media product	2018

SPT.088

Launch a Safety Promotion campaign promoting instrument flying for GA pilots

Promote the results of RMT.0677 on the easier access of GA pilots to instrument flight rules (IFR) flying in order to ensure that the safety and efficiency benefits materialise across Europe.

Owner	Activity sector	Deliverable	Date
Safety Promotion Network (SPN) and GA Sectorial Committee / TeB	GA	Safety Promotion campaign	2018



5.5.4 Preventing mid-air collisions

Issue/rationale

This section addresses subjects such as airspace complexity, airspace infringement and use of technology. Statistics show that MACs affect both novice and experienced pilots and can occur in all phases of flight and at all altitudes. However, the vast majority of them occur in daylight and in excellent meteorological conditions. A collision is more likely where aircraft are concentrated, especially close to aerodromes. Airspace infringements by GA aircraft into controlled airspace is an important related safety risk.

What we want to achieve

Reduce the risk of airspace infringement for GA.

How we monitor improvement

Continuous monitoring of safety issues identified in the GA-related portfolios (ref: Annual Safety Review 2016).

How we want to achieve it: actions

Safety Promotion

MST.016 Airspace infringement risk in General Aviation

National authorities should play the leading role in establishing and promoting local implementation priorities and actions.

Owner	Activity sector	Deliverable	Date
MS	GA, HF	Report	Continuous

SPT.089 European Safety Promotion on Mid-air collisions and airspace infringement

Develop and implement a pan-European Safety Promotion campaign on preventing airspace infringement and reducing the risk of MAC including awareness of airspace complexity and the use of technology such as ADS-B out.

Owner	Activity Sector	Deliverable	Date
Safety Promotion Network (SPN) and GA Sectorial Committee / TeB	GA	Safety Promotion Campaign	2017–2018

Focused Oversight

FOT.010 Service provision to GA flights

Raising the quality of support provided to GA flights by air navigation service providers (ANSPs) through focused oversight.

Owner	Activity sector	Deliverable	Date
MS and GA Sectorial Committee / TeB	GA	Best Practice	Continuous



5.5.5 Managing the flight

Issue/rationale

This section addresses subjects such as navigation, fuel management, terrain and obstacle awareness, and forced landings. Most accidents are the result of the pilot's actions, including decisions made while preparing the flight or due to changing circumstances during the flight. Pilot decisions including their ability to prioritise workload affect safety and survival of the aircraft and its occupants.

What we want to achieve

Reduce the number of fatalities in GA.

How we monitor improvement

Continuous monitoring of safety issues identified in the GA-related portfolios (ref: Annual Safety Review 2016)

How we want to achieve it: actions

Safety Promotion

MST.017 Safe transportation of dangerous goods in GA

MS will develop a safety leaflet to inform pilots on the risks involved in transporting dangerous goods.

Owner	Activity sector	Deliverable	Date
MS	GA	Safety Promotion material	2017

SPT.090 Fuel management for pilots

Compile and disseminate to the community already available material on fuel management.

Owner	Activity sector	Deliverable	Date
EASA CT.2, SPN	GA	Leaflet/webpage	2018

Research

RES.007 Terrain and obstacle awareness for light aircraft

Research the possibility of light TAWS (GNSS) as CS-STAN.

Owner	Activity sector	Deliverable	Date
EASA	GA	Report	2019



5.6 Emerging issues

This section addresses already emerging issues as well as issues that could potentially emerge in the immediate or near future. Giving consideration to safety issues derived from operations or regulations that have not been fully deployed, it incorporates a forward-looking element in EPAS.

5.6.1 Civil drones (Unmanned Aircraft Systems)

Issue/rationale

Most of EU Member States adopted national regulations to ensure *safe operations* of Unmanned Aircraft Systems (UAS) below MTOM of 150 kg. There are currently no harmonised rules at EU level, and UAS operations still depend on an individual authorisation from every MS, which is a burdensome administrative process that stifles business development and innovation. The proposal of the EU commission for a revision of the Basic Regulation extends the scope of the EU competence to regulate UAS even below the MTOM of 150 kg, also to allow free circulation of UAS throughout the EU.

This task has multiple drivers due to its very nature. There are also very strong efficiency and level playing field aspects.

What we want to achieve

To create a level playing field in all EU Member States, using an operation centric concept, which is proportionate and risk and performance-based, so that all companies can make best use of the UAS technologies to create jobs and growth while maintaining a high and uniform level of safety.

How we monitor improvement

In the latest edition of the EASA Annual Safety Review, a new safety risk portfolio for civil drones was created.



How we want to achieve it: actions

Rulemaking

RMT.0230 Introduction of a regulatory framework for the operation of drones

Development of IRs for UAS based on EC communication COM(2015)613 and attached proposals to amend Regulation 216/2008/EC. There are three categories of UAS defined:

- Open category: Low-risk operation not requiring authorisation or declaration before flight
- Specific operation category: Medium-risk operation requiring authorisation or declaration before flight
- Certified category: High-risk operation requiring certification process

In order to implement an innovative new set of rules for the three categories, the following five subtasks were identified:

- 1 Open and specific category with dedicated implementing rule
- 2 Certified category with amendments to OPS, FCL, TCO, ACAS
- 3 Specific category: New AMC std scenario and amendments to AMC1309, CS-ACNS
- 4 Certified category with amendments to CAT, ARO, ORO, ARA, ORA, MED, AW, SERA, ADR
- 5 Certified category with amendments to CS ETSO, CS-36; new CS-UAS

The indicative timelines and deliverables for the five subtasks (*SubT*) are given in the table below (next page).

Owner

Affected stakeholders

EASA CT.7

Individuals and organisations using or intending to use UAS, Member States, UAS manufacturer, Manned Aviation community, Model Aircraft Community, Air Navigation Service Providers, aerodromes, all airspace users

PIA	Proc	3rdC	SubT	ToR	NPA	Opinion	Commission IR	Decision
A-	ST	-	1	22/12/2016	2017 Q1	2017 Q3	2018 Q1	2018 Q1
			2		2017 Q4	2018 Q3	2019 Q2	2019 Q2
			3		2017 Q4	n/a	n/a	2018 Q3
			4		2018 Q1	2018 Q4	2019 Q4	2019 Q4
			5		2018 Q3	n/a	n/a	2019 Q1

Safety Promotion

SPT.091 European Safety Promotion on civil drones

Coordinate European activities to promote safe operation of drones to the general public.

Owner

Activity sector

Deliverable

Date

SPN

General public

Safety Promotion

2018



5.6.2 Safety and security

Issue/rationale

The safety actions in this area are aimed at mitigating the risks posed by cybersecurity. The impact of security in safety is a strategic priority.

What we want to achieve

Manage the impact of security on safety.

How we monitor improvement

Continuous assessment and mitigation of security threats.

How we want to achieve it: actions

Rulemaking

RMT.0648 Aircraft cybersecurity

The objective of this proposal is to mitigate the safety effects stemming from cybersecurity risks due to acts of unlawful interference with the aircraft on board electronic networks and systems. To achieve this, CSs and/or AMC of CS-25 and CS-29 should be amended.

Owner

EASA CT.7

Affected stakeholders

Applicants for TC/STC for large aeroplanes or large rotorcraft

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
A6	ST	✓	17/05/2016	2018 Q1	n/a	n/a	2019 Q1

Safety Promotion

SPT.071 Cybersecurity road map

Citizens travelling by air are more and more exposed to cybersecurity threats. The new generation of aircraft have their systems connected to the ground in real time. Air traffic management technologies require internet and wireless connections between the various ground centres and the aircraft. The multiplication of network connections increase the vulnerability of the whole system.

The concrete actions to be taken will be identified in a road map developed jointly by the European Commission and EASA in close cooperation with EU Member States and industry. This road map should be developed in order to avoid duplication and prevent jeopardising the effort already initiated by the industry. Furthermore, a cybersecurity strategy is being implemented in the EU for the protection of EU citizens against cybercrime. This strategy, together with the EU aviation strategy, will pave the way for a secure and safe air transport system.

Owner

EASA, EC, MS

Activity sector

CAT/HE

Deliverable

Road map

Date

2017



5.6.3 New business models

Issue/rationale

Due to the increased complexity of the aviation industry, the number of interfaces between organisations, their contracted services and regulators has increased. NAAs should work better together (cooperative oversight) and EASA should evaluate whether the existing safety regulatory system adequately addresses current and future safety risks arising from new and emerging business models. Upon the request of MS, EASA tasked a working group of NAAs to assess airlines' emerging 'new' business models and to identify related safety risks posed to the aviation system. This is a strategic priority.

What we want to achieve

Continuously assess and mitigate risks posed by the introduction of new business models.

How we monitor improvement

Significant increase in the number of MS making use of the cooperative oversight provisions for organisations/persons certified by the CA of another MS.

How we want to achieve it: actions

Safety Promotion

MST.019 Better understanding of operators' governance structure

NAAs to have a thorough understanding of operators' governance structure. In particular, influence of financial stakeholders and of the controlling management personnel, where such personnel are located outside the scope of approval.

Owner	Activity sector	Deliverable	Date
MS	CAT/HE	Research or Guidance Material	2017

MST.022 Operator's management system

Management systems of the operator should capture new hazards that are introduced by different employment models within an individual operator, increased mobility of pilots, safety-critical services provided by non-certified service providers and (long-term) leasing. MS will ensure this happens through oversight activities and provide SMS data to EASA

Owner	Activity sector	Deliverable	Date
MS	ALL, HF	analysis on results of SMS data obtained from NAAs	2017

MST.023 Better EU-wide occurrence reporting data for NAAs

MS to provide occurrence reporting data in order to benchmark operator's safety culture. All NAAs should participate in the survey. The survey should include raw data on occurrence reports from individual operators in order to obtain consistency in the type of occurrences analysed. NAAs should use the results of their oversight on occurrence reporting as a performance indicator of the safety culture within an operator.

Owner	Activity sector	Deliverable	Date
MS	ALL	Occurrence reporting survey	2017



SPT.067 Better EU-wide occurrence reporting data for NAAs

Obtain better EU-wide occurrence reporting data for NAAs to provide an opportunity to benchmark an operator's safety culture. Therefore, continue, repeat and widen the scope of the survey of Network of Analysts to better identify potential hazards of new business models on occurrence reporting. All NAAs should participate in the survey. The survey should include raw data on occurrence reports from individual operators in order to obtain consistency in the type of occurrences analysed. NAAs should use the results of their oversight on occurrence reporting as a performance indicator of the safety culture within an operator.

Owner	Activity sector	Deliverable	Date
EASA SM.1	ALL	Occurrence reporting survey	2017

SPT.073 Operator's management system

Develop Safety Promotion material (in the form of best practices) to support the operator's management system with capturing new hazards that could be introduced by certain aspects of different business models (new form of employment, long-term wet leasing, complex governance structure, remote base operations, etc.). This will be done by a working group with representatives from industry and MS and facilitated by EASA.

Owner	Activity sector	Deliverable	Date
EASA FS, industry and MS	ALL, HF	Best practice	2017

Focused Oversight

FOT.007 Cooperative oversight

Part-ARO requires that the scope of the oversight of activities performed in the territory of a MS by organisations established or residing in another MS shall be determined on the basis of the safety priorities. In assessing these safety priorities, the 'local' CA shall participate in a mutual exchange of all necessary information and assistance with the other CAs concerned .

EASA will ensure that the EASA standardisation inspections monitor whether such authority requirements are adhered to. The objective is to ensure that each organisation's activities are known to the relevant authorities and that those activities are adequately overseen, either with or without an agreed transfer of oversight tasks.

In parallel EASA will continue to support NAAs in the practical implementation of cooperative oversight, e.g. existing trial projects (UK,NO, FR, CZ), as well as via exchange of best practice and guidance.

Owner	Activity sector	Deliverable	Date
EASA FS.2	ALL	Feedback from standardisation	2018

FOT.008 Operator's management system

EASA will ensure that the EASA standardisation inspections have due regard to the ability of CAs to evaluate and oversee the operator's management system, in particular as regards the consideration of specific safety risks, such as safety culture, the governance structure of the operator, and any other feature that may introduce new risks.

Owner	Activity sector	Deliverable	Date
EASA FS.2	ALL, HF	Feedback from standardisation	2017



5.6.4 New products, systems, technologies and operations

Issue/rationale

This section addresses the introduction of new designs, technologies or types of operation for which regulatory updates are needed, and highlights some of the most relevant trends that will influence aviation in the years to come.

The safety actions in this area include the mitigation of the risks posed by flying over zones where an armed conflict exists.

What we want to achieve

Manage the introduction of new products, systems, technologies and operations.

How we monitor improvement

Continuous assessment and mitigation of security threats

How we want to achieve it: actions

Rulemaking

RMT.0266 Powered lift (tilt rotor) applicable requirements (pilot licensing with synthetic training devices, air operations and maintenance)

To develop IRs for powered lift pilot licensing and operations

Owner

EASA FS.5

Affected stakeholders

Pilots, TOs, and NAAs

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
B-	ST	-	2017 Q3	2018 Q3	2019 Q2	2019 Q4	2019 Q4

RMT.0414 Operations and equipment for high-performance aircraft (HPA)

Review of IRs/AMC/GM in relation to the operation of HPA.

Owner

EASA FS.2

Affected stakeholders

HPA operators

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
B-	AP	-	2018 Q1	n/a	2019 Q3	2020 Q3	2020 Q3



Safety Promotion

MST.020 Loss of radar detection

On 5 and 10 June 2014, there were several occurrences of radar losses from ATC displays in central Europe. These events resulted in reduced capacity in some of the affected ATC sectors, in introduction of flow measures and in delays. As this type of events may also have a serious impact on safety, EASA was mandated by the EC to perform a technical investigation and propose recommendations.

The technical investigation concluded that the source of the interference was a system or installation which over-interrogated the transponders on board aircraft not only at rates beyond their requirements but also beyond design limits.

MS are encouraged to implement the recommendations of the technical report and to consider implementation of other mitigation techniques against loss of detection of aircraft as a result of secondary surveillance radar (SSR) over-interrogation.

Owner	Activity sector	Deliverable	Date
MS	CAT/HE	Report	2017

SPT.078 Disseminate information on conflict zones

In the aftermath of the B777 MH17 accident, an EU high-level task force is working to define further actions to be taken at European level in order to provide common information on risks arising from conflict zones.

Owner	Activity sector	Deliverable	Date
EASA SM.1	ALL	Information to MS	Continuous



5.6.5 Regulatory oversight considerations

Issue/rationale

By introducing authority requirements, and in particular strict requirements for MS on oversight, the rules developed under the first and second extension of the EASA scope have significantly strengthened the oversight requirements. In terms of efficiency, such rules have also introduced the concept of risk-based and cooperative oversight.

The following actions focus on supporting the implementation of these new requirements by updating inspector qualifications and enabling the implementation of risk-based oversight.

What we want to achieve

Improve MS oversight capacities and capabilities.

How we monitor improvement

Significant increase in the number of EASA MS implementing risk-based oversight. Increase in the number of inspectors qualified to conduct risk-based oversight.

How we want to achieve it: actions

Rulemaking

RMT.0516 Update of the rules on air operations (Air OPS Regulation — all Annexes & related AMC/GM)

- Improve the authority and organisational requirements of the Air OPS Regulation taking into account identified implementation issues;
- Better identify inspector qualifications;
- Take into account new business models, as appropriate;
- Take into account the development of any lessons learned from the implementation of SMS;
- Align with the Occurrence Reporting Regulation (Regulation (EU) No 376/2014);
- Ensure compliance with the ICAO Standards And Recommended Practices (SARPs);
- Address identified safety issues such as pax seating and briefing;
- GA Road Map issues.

Owner

EASA FS.2

Affected stakeholders

All operators and NAAs

PIA	Proc	3rdC	ToR	NPA	Opinion	Commission IR	Decision
A-	ST	-	16/09/2013	27/11/2015	2016 Q4	2017 Q4	2017 Q4

Focused Oversight

FOT.009 Conduct of audits within risk-based oversight

Develop and test a concept, share best practices and develop enforcement strategies to enable the performance of audits by NAAs taking into account the risk-based oversight concept.

Owner

EASA FS.5

Activity Sector

ALL, HF

Deliverable

Concept and best practices

Date

2018



Appendix A: Deliverables expected in 2017

Baseline Quarter	Task Number	Task Title	Deliverable
1	RMT.0120	Helicopter ditching and water impact occupant survivability	Decision
	RMT.0188	Update of EASA FCL implementing rules	Opinion
	RMT.0393	Maintenance check flights (MCFs)	Opinion
	RMT.0581	Loss of control prevention and recovery training	Opinion
2	RMT.0251	Embodiment of safety management system requirements into Commission Regulations (EU) Nos 1321/2014 and 748/2012	Decision
	RMT.0262	Embodiment of level of involvement (LOI) requirements into Part-21	Decision
	RMT.0400	Amendment of requirements for flight recorders and underwater locating devices	Decision
	RMT.0400	Amendment of requirements for flight recorders and underwater locating devices	Decision
	RMT.0477	Technical requirements and operational procedures for aeronautical information services and aeronautical information management	Opinion
	RMT.0608	Rotorcraft gearbox loss of lubrication	Decision
3	RMT.0069	Seat crashworthiness improvement on large aeroplanes — Dynamic testing 16g	Decision
	RMT.0071	Additional airworthiness specifications for operations: Thermal/acoustic insulation material	Decision
	RMT.0217	CAMOs' and Part-145 organisations' responsibilities	Opinion
	RMT.0225	Development of an ageing aircraft structure plan	Decision
	RMT.0296	Review of aeroplane performance requirements for CAT operations	Opinion
4	RMT.0445	Technical requirements and operational procedures for airspace design, including procedure design	Opinion
	FOT.008	Operator's Management System	Feedback from standardisation
	MST.019	Better understanding of operators' governance structure	Research or Guidance Material
	MST.020	Loss of radar detection	Report
	MST.022	Operator's Management System	analysis on results of SMS data obtained from NAAs
	MST.023	Better EU-wide occurrence reporting data for NAAs	Occurrence reporting survey
	MST.025	Improve the dissemination of safety messages	Safety workshops and safety days/evenings
	RMT.0196	Improve flight simulation training devices (FSTDs) fidelity	Decision
	RMT.0262	Embodiment of level of involvement (LOI) requirements into Part-21	Decision
	RMT.0371	TAWS operation in IFR and VFR and TAWS for turbine-powered aeroplanes under 5 700 kg MTOM able to carry six to nine passengers	Decision
	RMT.0464	Requirements for air traffic services	Opinion
	RMT.0516	Update of the rules on air operations (Air OPS Regulation - all Annexes & related AMC/GM)	Decision
	RMT.0589	Rescue and firefighting services (RFFS) at aerodromes	Opinion
	RMT.0671	Engine bird ingestion	Decision
	RMT.0681	Alignment of implementing rules & AMC/GM with Regulation (EU) No 376/2014	Opinion
	SPT.062	Comparable risk classification of events across the industry	Report
	SPT.063	Continuous monitoring of ATM safety performance	Report
SPT.067	Better EU-wide occurrence reporting data for NAAs	Occurrence reporting survey	



European Plan for Aviation Safety (EPAS) 2017–2021

Appendix A: Deliverables expected in 2017

Baseline Quarter	Task Number	Task Title	Deliverable
	SPT.071	Cybersecurity road map	Roadmap
	SPT.073	Operator's Management System	Best Practice
	SPT.076	FDM precursors of aviation occurrences categories (LOC-I, CFIT, MAC)	Report
	SPT.077	Good practices for an integration of an operator FDM programme with other operator's processes	Report
	SPT.079	Crew Resource Management (CRM) Training Best Practices	Best Practice
	SPT.080	Implementation of HUMS best practice in offshore operations	Report
	SPT.081	Routine review of offshore helicopter safety	ASR 2017
	SPT.082	Support the development and implementation of FCOM for offshore helicopter operations	Report
	SPT.084	Promoting safety improving technology	Safety Promotion material / Dissemination
	SPT.085	EASA flying safely promotion package on staying in control – approach and landing (including go-around)	Video/media product
	SPT.089	European Safety Promotion on Mid-air collisions and airspace infringement	Safety Promotion campaign

44 Deliverables are expected in 2017

24 RMT [14 D + 10 O]	14 SPT	1 FOT	0 RES	5 MST
-------------------------	--------	-------	-------	-------



Appendix B: New and deleted tasks overview

New tasks:

Chapter	Chapter name	Task Number	Task Title
5.2.1	Safety management	RMT.0706	Update of authority requirements
5.2.2	Human factors and competence of personnel	SPT.079	Crew Resource Management (CRM) Training Best Practices
5.3.2	Runway safety	RMT.0703	Runway Safety
5.3.2	Runway safety	RMT.0704	Runway surface condition assessment and reporting
5.4	Rotorcraft operations	RMT.0708	Controlled Flight into Terrain (CFIT) prevention with Helicopter Terrain Avoidance Warning Systems (HTAWS)
5.4	Rotorcraft operations	RMT.0709	Prevention of catastrophic accidents due rotorcraft hoists issues
5.4	Rotorcraft operations	RMT.0710	Improvement in the survivability of rotorcraft occupants in the event of a crash
5.4	Rotorcraft operations	RMT.0711	Reduction in accidents caused by failures of critical rotor and rotor drive components through improved Vibration Health Monitoring Systems
5.4	Rotorcraft operations	RMT.0713	Reduction in human factors caused rotorcraft accidents that are attributed to the rotorcraft design
5.4	Rotorcraft operations	SPT.080	Implementation of HUMS best practice in offshore operations
5.4	Rotorcraft operations	SPT.081	Routine review of offshore helicopter safety
5.4	Rotorcraft operations	SPT.082	Support the development and implementation of FCOM for offshore helicopter operations
5.5.1	Systemic enablers	MST.025	Improve the dissemination of safety messages
5.5.1	Systemic enablers	SPT.083	Flight instruction
5.5.1	Systemic enablers	SPT.084	Promoting safety improving technology
5.5.2	Staying in control	SPT.085	EASA flying safely promotion package on staying in control – approach and landing (including go-around)
5.5.2	Staying in control	SPT.086	Campaign on staying in control
5.5.3	Coping with weather	SPT.087	Weather awareness for pilots
5.5.3	Coping with weather	SPT.088	Launch a Safety Promotion campaign promoting instrument flying for GA pilots
5.5.4	Preventing mid-air collisions	FOT.010	Service provision to GA flights
5.5.4	Preventing mid-air collisions	SPT.089	European Safety Promotion on Mid-air collisions and airspace infringement
5.5.5	Managing the flight	RES.007	Terrain and obstacle awareness for light aircraft
5.5.5	Managing the flight	SPT.090	Fuel management for pilots
5.6.1	Civil drones (Unmanned Aircraft Systems)	SPT.091	European Safety Promotion on civil drones

24 New Tasks have been added

8 RMT	13 SPT	1 FOT	1 RES	1 MST
-------	--------	-------	-------	-------



European Plan for Aviation Safety (EPAS) 2017–2021

Appendix B: New and deleted tasks overview

Deleted tasks:

The below tasks are already covered by SESAR and have been deleted from the EPAS

Safety Issues	Action Area	Task Number	Task Title
Operational	Mid-air collisions	SPT.070	Ground-based ATM safety nets
Operational	Mid-air collisions	SPT.053	Study the performance and promote safe operations of airborne safety nets



Appendix C: Evidence base

Safety

<i>Action area</i>	<i>Evidence</i>
<i>Loss of control in flight</i>	<p>Safety Analysis Report ASR (pp. 10–12 and 50–52), CAT FW Safety Risk Portfolio (ASR, pp. 53–54)</p> <p>IATA Safety Report p.7, 13, 58-59 and 161-162</p> <p>RMT.0581 ‘Loss of control prevention and recovery training’: Regulatory Impact Assessment in NPA 2015-13</p> <p>ASAGA Study, BEA</p> <p>RMT.0397 ‘Unintended or inappropriate rudder usage — rudder reversals’: pre-RIA</p> <p>Analysis of loss of control in flight (LoC-I) 2009–2014. Commercial Air Transport – Fixed Wing (analysis carried out by SM.1)</p>
<i>Technical Failures</i>	<p>Safety Analysis Report ASR (pp. 10–12),</p> <p>RMT.0225 ‘Development of an ageing aircraft structure plan’: Regulatory Impact Assessment in NPA 2013-07</p> <p>RMT.0069 ‘Seat crashworthiness improvement on large aeroplanes — Dynamic testing 16g’: pre-RIA</p> <p>RMT.0217 ‘CAMOs’ and Part-145 organisations’ responsibilities’: pre-RIA</p> <p>RMT.0521 ‘Airworthiness review process’: pre-RIA</p> <p>RMT.0586 ‘Tyre pressure monitoring system’: pre-RIA</p>
<i>Runway Safety</i>	<p>Safety Analysis Report ASR (pp. 10–12), RE Safety Analysis Report</p> <p>IATA Safety Report p.7, 14, 70-71 and 175-176</p>



European Plan for Aviation Safety (EPAS) 2017–2021

Appendix C: Evidence base

<i>Safety Management</i>	<i>ICAO Annex 19 and Safety Management Manual (Doc 9859)</i> <i>RMT.0251 ‘Embodiment of safety management system requirements into Commission Regulations (EU) Nos 1321/2014 and 748/2012’: Regulatory Impact Assessment in NPA 2013-01</i> <i>RMT.0262 ‘Embodiment of level of involvement (LOI) requirements into Part-21’: Regulatory Impact Assessment in NPA 2015-03</i>
<i>Security</i>	IATA Cybersecurity Fact Sheet , EASA conference on cybersecurity (May 2015), EU Cybersecurity Strategy , Framework for Aviation Cybersecurity (AIAA paper) ; EU High Level Task Force on Conflict Zones
<i>New Business Models</i>	EASA MB 02/2015 WP10: New Business Models



Appendix D: EPAS safety objectives vs EASA strategic objectives

			EASA's strategic objectives																	
EPAS action area		What we want to achieve	1.1. Facilitating competitiveness, innovation and emerging technologies which generate European success.	1.2. Sustaining worldwide recognition for the European aviation safety system	2.1. Applying an advanced, pro-active and systematic approach to aviation safety	2.2. Using information technology to the benefit of the European Safety Management process	3.1. Identifying safety deficiencies and taking corrective actions in a common, coordinated and rapid manner.	3.2. Integrating technical resource management at European level for efficiency, effectiveness and flexibility.	3.3. Establishing a new resource scheme to sustain the European aviation safety system	4.1. Empowering individuals to develop, engage and grow so as to deliver on our priorities	4.2. Creating a quality work environment that helps staff succeed	4.3. Pledging to improve, refine and simplify processes, procedures and practices so as to drive efficiency	5.1. Redefining and simplifying Rulemaking activities	5.2. Assessing Rules and Regulations to ensure they are effective, proportionate and remain relevant	6.1. Demonstrating integrity by assuring technical independence and robustness of safety decision-making	6.2. Minimising the consequences of political or unexpected constraints that may impact on aviation safety.				
Systemic issues	Safety Management	Work with authorities and organisations to implement safety management.																		
	Aviation personnel	Ensure continuous improvement of aviation personnel competence.																		
	Aircraft tracking, rescue operation and accident investigations	Increase safety by facilitating the recovery of information by safety investigation authorities, thus helping to avoid future accidents.																		
Operational issues	CAT by Aeroplanes	Loss of control in flight	Further reduce the risk of accidents in this category																	
		Design and maintenance improvements	Improve overall safety in relation to bird ingestion, ditching, etc. through targeted design improvements.																	
		Mid-air collisions	Further reduce the risk of MACs.																	
		Runway safety	Reduce the number of REs and RIs in fixed wing commercial air transport.																	
		Ground safety	Further reduce the risk of accidents in this category.																	
		Controlled flight into terrain	Further reduce the risk of accidents in this category.																	
		Fire, smoke and fumes	Further reduce the risk of accidents in this category.																	
	Helicopter operations	Reduce the overall accident rate in helicopter operations.																		
General aviation safety	Improve GA pilot risk awareness and airmanship.																			
Emerging issues	New products, systems, technologies and operations	Manage the introduction of new products, systems, technologies, and operations.																		
	Regulatory and oversight considerations	Improve MS oversight capacities and capabilities.																		
	New business models	Evaluate whether the existing safety regulatory system adequately addresses current and future safety risks arising from new and emerging business models.																		



Appendix E: Summary of the EASA Strategic Plan

<i>Strategic statement</i>	Objective	Outcome	Action
1. Our ambition is to be the foremost Aviation Safety Agency in the world	1.1 Facilitating competitiveness, innovation and emerging technologies which generate European success	Achieving proportionate and performance-based regulatory actions that efficiently maintain safety, stimulate jobs, growth and European industry	EASA increases safety and environmental performance by facilitating new technology deployment, impact assessment, analysis and mitigation of risks, and ex post evaluations.
	1.2 Sustaining worldwide recognition for the European aviation safety system	Recognition and respect as a strong partner with integrity, transparency and professional excellence	EASA shall implement an 'international strategy', promote European aviation standards and continue improving global safety and environmental protection levels.
2. The Agency works on safety, in a proactive manner, helped by an enhanced safety analysis capability.	2.1 Applying an advanced, pro-active and systematic approach to aviation safety	In consultation with National Aviation Authorities and industry, develop a Safety Management capability that can programme and deliver effective and robust safety actions.	Within the framework of the European Plan for Aviation Safety (EPAS), EASA shall assess, integrate and programme actions that result in Safety Promotion, Focused Oversight or Rulemaking.
	2.2 Using information technology to the benefit of the European Safety Management process	Managerial and technical processes and interactions with stakeholders are universal, simplified and streamlined	Consistent with strategic priorities, EASA shall implement integrated safety and environmental programming. Taking a holistic approach, EASA shall manage the analysis of complex safety data efficiently and effectively. EASA shall follow an 'Information Security Roadmap' to protect its technical infrastructure.
3. One system based on partners working in an integrated, harmonised and coordinated manner	3.1 Identifying safety deficiencies and taking corrective actions in a common, coordinated and rapid manner	A comprehensive risk-based oversight system provides safety performance monitoring of aviation activities.	EASA shall develop and implement one harmonised risk-based oversight system capable of targeted and timely responses to identified issues.
	3.2 Integrating technical resource management at European level for efficiency, effectiveness and flexibility	Competent well-trained technical experts can be deployed in a coordinated manner to support safety activities and National Aviation Authorities throughout Europe.	EASA shall lead the integration of planning, deployment and support for the 'common pool' of experts. EASA shall develop and maintain an 'EASA Virtual Academy'.
	3.3 Establishing a new resource scheme to sustain the European aviation safety system	One new harmonised resource management mechanism that forecasts revenues and reliably provides funds over the complete business cycle. Cooperative oversight and pooling of experts at EU level are included.	EASA shall investigate, report and recommend innovative and proportionate new funding mechanisms.
4. The Agency builds on committed, agile and talented staff	4.1 Empowering individuals to develop, engage and grow so as to deliver on our priorities	Clear, concise and complete HR policies, procedures and practices that include encompassing recognition, training and development	For all activities, EASA shall ensure regular tailored job evaluations, professional growth opportunities and succession planning for its staff.
	4.2 Creating a quality work environment that helps staff succeed	Facilities that encourage team work, cooperation and collaboration and encompass a paperless workplace with up-to-date support tools	EASA shall provide customised work premises and tools for active staff collaboration and support.
	4.3 Pledging to improve, refine and simplify processes, procedures and practices so as to drive efficiency.	Stakeholders receive an efficient, straightforward, quality service at a high level of availability and low level of bureaucracy.	EASA shall implement improvements, track progress, benchmark and review performance; with particular attention to certificate applicants and the Fees & Charges framework.



European Plan for Aviation Safety (EPAS) 2017–2021

Appendix E: Summary of the EASA Strategic Plan

<i>Strategic statement</i>	Objective	Outcome	Action
5. Rules are smart, proportionate and contribute to the competitiveness of the Industry.	5.1 Redefining and simplifying rulemaking activities	Consultation mechanisms and rules, opinions and guidance that are objective, understandable and responsive to demand	EASA shall monitor, and if necessary, restructure its consultative bodies in order to assure a consistent, efficient and effective approach. In addition, EASA shall consistently conduct preliminary impact assessments.
	5.2 Assessing rules and regulations to ensure they are effective, proportionate and remain relevant.	A smart feedback loop constantly improving aviation rules and regulations.	In consultation with stakeholders, EASA shall regularly review enacted rules and regulations to maintain, amend, remove or replace them with measures like safety promotion.
6. The Agency will continue to be independent from political or economic influence in all its safety actions	6.1 Demonstrating integrity by assuring technical independence and robustness of safety decision-making	Technical safety decision-making that is objective, based on analysis, impact assessment and fair judgment and not influenced by bias or undue influence.	EASA shall maintain a conflict of interest management system and strengthen existing mechanisms such as the job rotation scheme.
	6.2 Minimising the consequences of political or unexpected constraints that may impact on aviation safety	Problems are anticipated and countermeasures are enacted so that safety risks are minimised and stakeholder expectations are satisfied	EASA shall employ data-based decision-making processes and establish practical measures to counter safety risks stemming from resource constraints and the impact of undue influence.



Appendix F: Policy on Safety Management Systems

General

- 1.1. The main purpose of an SMS is to ensure that, beyond assuring mere compliance with regulations, organisations have the capacity of identifying the risks they may pose to flight safety and mitigating those risks.
- 1.2. Accidents having generally multiple, cross-domain causes. Authorities and organisations should have a consistent approach when dealing with the identification of hazards and management of safety risks.
- 1.3. In its recent report ‘Harmonised European Approach to a Performance Based Environment’ EASA identified that effective implementation of SMS is the most important driver for implementing a risk- and performance-based approach¹⁸.

Applicability and consistency

- 1.4. As a general principle, all organisations exposed to or possibly contributing to aviation safety risks, should be subject to SMS requirements¹⁹. Possible exceptions should be determined based on:
 - the overall contribution of a particular activity to the safety of the total system;
 - the relative costs and benefits of SMS implementation both for organisations and authorities.This may concern notably Part-147 Training Organisations and DOA limited to minor changes and repairs.
- 1.5. Applicability dates should be adapted to the type of activity of the organisations, in particular as regards their contribution to aviation safety risks.
- 1.6. In order to minimise changes in existing regulations and therefore the impact on organisations, the introduction of SMS requirements into new domains should be based on a careful gap analysis between existing requirements and the ICAO Annex 19 framework.
- 1.7. While minimising those changes, the resulting regulations should foster consistent implementation of SMS in the regulated fields. This is particularly important for those organisations holding multiple approvals within the scope of the Basic Regulation.
- 1.8. Common core authority requirements should apply in all technical domains to support the standardisation objectives set out in the Basic Regulation, support the implementation of SSP/EPAS, to streamline competent authority management systems and procedures, and to ensure consistency in organisation approvals.

Proportionality and flexibility

- 1.9. The Organisation’s SMS must be commensurate with the size and complexity of the organisation and the level of risks involved.

¹⁸ This view also aligns with the majority views expressed by stakeholders through the A-NPA 2014-12 consultation as related to question 3.1.1.

¹⁹ Two RMTs, MDM.055 and MDM.060 are currently dealing with the extension of Safety Management Requirements to organisation in the fields of continuing and initial airworthiness respectively. This will concern more precisely Part-145, Part-M, Part-147 and Part-21 approved organisations



- 1.10. To ensure proportionality and flexibility, the SMS requirements at Implementing Rule level should be limited to key principles. Non-essential implementation provisions should be included as AMC.
- 1.11. The implementation provisions at AMC level should be further adapted to the size, nature and complexity of specific technical domains or categories of organisations, while ensuring a consistent approach between different technical domains.

Implementation

- 1.12. The development and acceptance of industry standards and Safety Promotion material should be encouraged to support SMS implementation
- 1.13. SMS implementation should be given reasonable time, beyond the mere implementation deadline, following a phased, performance-based approach.
- 1.14. Further emphasis should be put on supporting the implementation of simple, robust and proportionate SMS for simple, low-risk organisations.

General Aviation and small organisations

- 1.15. Safety management principles, centred on the individual, should systematically be considered when developing or amending regulations

International harmonisation

- 1.16. The common EASA management system framework should address the elements of ICAO Annex 19 while providing proportionality and flexibility. However, a less prescriptive and more proportionate approach than the ICAO Annex 19 SARPS is desirable.



Appendix G: Member States actions

Action number	Action title and objective	Activity sector	Owner	Deliverable/date
Systemic issues — Safety management				
MST.001	Member States to give priority to the work on State Safety Programmes Objective: Make SSPs consistently available in Europe in compliance with the GASP objectives.	ALL	MS	SSP established/continuous
MST.002	Promotion of safety management system Objective: Encourage implementation of safety promotion material developed by ESSI Teams (ECAST, EHEST and EGAST) and SMICG.	ALL/HF	MS	Best practice/continuous
MST.003	Member States should set up a regular dialogue with their national aircraft operators on flight data monitoring programmes Objective: MS should set up a regular dialogue with their national aircraft operators on FDM programmes, with the objectives of: — promoting the operational safety benefits of FDM; — fostering an open dialogue on FDM programmes that takes place in the framework of just culture; and — encouraging operators to include and further develop FDM events relevant for the prevention of RE, MAC, CFIT and LOC-I, or other issues identified by the SSP.	CAT	MS	Report on activities performed to promote FDM/continuous
Operational issues — CAT Aeroplanes				
Aircraft Upset (LOC-I)				
MST.004	Include Loss of Control In Flight in national State Safety Programmes Loss of control in flight shall be addressed by the MS on their SSPs. This will include, as a minimum, agreeing on a set of actions and measuring their effectiveness.	CAT/HF	MS	SSP established/continuous
Runway safety				
MST.007	Include runway excursions in national State Safety Programmes REs should be addressed by the MS on their SSPs in close cooperation with the aircraft operators, ATC, airport operators and pilot representatives. This will include, as a minimum, agreeing on a set of actions and measuring their effectiveness.	CAT/HF	MS	SSP established/continuous
MST.011	Runway safety teams MS should audit their aerodromes to ensure that a local runway safety team is in place and is effective. MS will report on the progress and effectiveness.	ALL/HF	MS	Report/continuous
MST.014	Include runway incursions in national State Safety Programmes	CAT/GA/HF	MS	SSP established/continuous



European Plan for Aviation Safety (EPAS) 2017–2021

Appendix G: Member States actions

Action number	Action title and objective	Activity sector	Owner	Deliverable/date
	RIs should be addressed by the MS on their SSPs. This will include, as a minimum, agreeing on a set of actions and measuring their effectiveness. MS should implement actions suggested by the European Action Plan for the Prevention of Runway Incursions.			
Airborne Conflict (Mid-air collisions)				
MST.010	Include MAC in national State Safety Programmes	CAT/HF	MS	Report/continuous
	MACs shall be addressed by the MS on their SSPs. This will include, as a minimum, agreeing on a set of actions and measuring their effectiveness. MS should implement actions of the European Action Plan for Airspace Infringement Risk Reduction.			
MST.024	Loss of separation between civil and military aircraft	CAT/HF	MS	Report/2018
	Several EU MS have reported an increase in losses of separation involving civil and military aircraft and more particularly an increase in non-cooperative military traffic over the high seas. Taking into account this situation, and the possible hazard to civil aviation safety, the EC mandated the Agency to perform a technical analysis of the reported occurrences. The technical analysis issued a number of recommendations for the MS (the full report is available here) which they are encouraged to implement.			
Ground safety				
MST.018	Include ground safety in national State Safety Programmes	CAT/HE/HF	MS	SSP established/continuous
	The ground safety issue shall be addressed by the MS on their SSPs. This will include, as a minimum, agreeing on a set of actions and measuring their effectiveness.			
Terrain Conflict				
MST.006	Include controlled flight into terrain in national State Safety Programmes	CAT/ HF	MS	SSP established/continuous
	CFIT shall be addressed by the MS on their SSPs. This will include, as a minimum, agreeing on a set of actions and measuring their effectiveness.			
Fire, smoke and fumes				
MST.005	Include fire, smoke and fumes in national State Safety Programmes	CAT/HF	MS	SSP established/continuous
	This safety issue shall be addressed by the MS on their SSPs. This will include, as a minimum, agreeing on a set of actions and measuring their effectiveness.			
Operational issues — Helicopters				
MST.015	Helicopter safety events	HE	MS	Workshop/continuous
	NAA in partnership with industry representatives, to organise helicopter safety events annually or every two years. The EHEST material could be freely used and promoted.			



European Plan for Aviation Safety (EPAS) 2017–2021

Appendix G: Member States actions

Action number	Action title and objective	Activity sector	Owner	Deliverable/date
Operational issues — General Aviation: Fixed Wing leisure flying				
MST.016	Airspace infringement risk in General Aviation NAAs should play the leading role in establishing and promoting local implementation priorities and actions.	GA/HF	MS	Report/continuous
MST.017	Safety transportation of dangerous goods in GA MS will develop a safety leaflet to inform pilots on the risks involved in transporting dangerous goods.	GA	MS	Safety Promotion Material/2017
MST.025	Improve the dissemination of safety messages Improve the dissemination of Safety Promotion and training material by authorities, associations, flying clubs, insurance companies targeting flight instructors and/or pilots through means such as safety workshops and safety days/evenings.	GA	MS	2017
Emerging issues — New products, systems, technologies and operations				
MST.020	Loss of radar detection On 5 and 10 June 2014, there were several occurrences of radar losses from ATC displays in central Europe. These events resulted in reduced capacity in some of the affected ATC sectors, in introduction of flow measures and in delays. As this type of events may also have a serious impact on safety, the Agency was mandated by the EC to perform a technical investigation and propose recommendations. The technical investigation concluded that the source of the interference was a system or installation which over-interrogated the transponders on board aircraft not only at rates beyond their requirements but also beyond design limits. MS are encouraged to implement the recommendations of the technical report and to consider implementation of other mitigation techniques against loss of detection of aircraft as a result of SSR over-interrogation	CAT/HE	MS	Report/2017
Emerging issues — New business models				
MST.019	Better understanding of operators' governance structure NAAs to have a thorough understanding of operators' governance structure. In particular, influence of financial stakeholders and of the controlling management personnel, where such personnel are located outside the scope of approval.	CAT/HE	MS	Research or guidance material/2017
MST.022	Operator's management systems MS to provide occurrence reporting data in order to benchmark operator's safety culture. All NAAs should participate in the survey. The survey should include raw data on occurrence reports from individual operators in order to obtain consistency in the type of occurrences analysed. NAAs should use the results of their oversight on occurrence reporting as a performance indicator of the safety culture within an operator.	ALL/HF	MS	analysis of results of SMS data obtained from NAAs/2017
MST.023	Better EU-wide occurrence reporting data for NAAs Objective: MS to provide occurrence reporting data in order to benchmark operator's safety culture. All NAAs should participate in the survey. The survey should include raw data on occurrence reports from individual operators in order to obtain consistency in the type of occurrences analysed. NAAs should use the results of their oversight on occurrence reporting as a performance indicator of the safety culture within an operator.	ALL	MS	Occurrence reporting survey/2017



Appendix H: Acronyms and Definitions

14 CFR Part 25	airworthiness standards: transport category airplanes
14 CFR Part 33	airworthiness standards: aircraft engines
4G	fourth generation of wireless mobile telecommunications technology
PIA A	strategic
PIA B	standard
PIA C	regular update
AAD	advanced anomaly detection
ACAS	airborne collision avoidance system
ADR	aerodromes
ADS-B	automatic dependent surveillance - broadcast
ADS-C	automatic dependent surveillance - contract
AFIS	aerodrome flight information service
Air Crew	air operations
AMAN	arrival management
AMC	acceptable means of compliance
AMC 20	general Acceptable Means of Compliance for airworthiness of products, parts and appliances
AMM	aircraft maintenance manual
AMO	approved maintenance organisation
ANAC	Agência Nacional de Aviação Civil (Portuguese national aviation authority)
ANS	air navigation services
ANSP	air navigation service provider
AOC	air operator certificate
AP	accelerated procedure
ARAC	Aviation Rulemaking Advisory Committee
ARC	aircraft airworthiness review certificate OR abnormal Runway contact
ASAGA	aeroplane state awareness during go-around
ASAWG	ARAC Airplane-level Safety Analysis Working Group
ASR	safety analysis report
ASTM	American Society for Testing and Materials
ATC	air traffic control
ATCO	air traffic controller
ATM	air traffic management
ATO	approved training organisation
ATPL	air transport pilot licence
ATQP	Alternative and Training Qualification Programme
ATS	air traffic services



European Plan for Aviation Safety (EPAS) 2017–2021

Appendix H: Acronyms and Definitions

AV-CERT	Aviation Computer Emergency Response Team
AWO	all-weather operations
B777	Boeing 777
Basic Regulation	Regulation (EC) No 216/2008 of 20/02/2008 on common rules in the field of civil aviation and establishing a European Aviation Safety Agency, and repealing Council Directive 91/670/EEC, Regulation (EC) No 1592/2002 and Directive 2004/36/E
BEA	Bureau d'Enquetes et d'Analyses
BPL	balloon pilot licence
CA	competent authority
CAA	civil aviation authority
CAEP	Committee on Aviation Environmental Protection (ICAO)
CAEP/10	tenth meeting of the committee on Aviation Environmental Protection
CAG	Collaborative Analysis Group
CAMOs	continuing airworthiness management organisation
CASA	Civil Aviation Safety Authority of Australia
CAT	commercial air transport
CAT I, II, III	category I, II, III
CAW	continuing airworthiness
CBT	competency-based training
CFIT	controlled flight into terrain
CO ₂	carbon dioxide
CPDLC	controller–pilot data link communication
CPL	commercial pilot licence
CRM	crew resource management
CS	certification specification
CS SIMD	Certification Specifications for Simulator Data
CS VLR	Certification Specifications for Very Light Rotorcraft
CS-22	Certification Specifications for sailplanes and powered sailplanes
CS-23	Certification Specifications for normal, utility, aerobatic and commuter aeroplanes
CS-25	Certification Specifications for large aeroplanes
CS-26	Certification Specifications for additional airworthiness specifications for operations
CS-27	Certification Specifications for small rotorcraft
CS-29	Certification Specifications for large rotorcraft
CS-34	Certification Specifications for aircraft engine emissions and fuel venting
CS-ACNS	Certification Specifications for Airborne Communication, Navigation and Surveillance
CS-APU	Certification Specifications for Auxiliary Power Units
CS-CC	Certification Specifications for cabin crew data
CS-E	Certification Specifications for Engines
CS-ETSO	Certification Specifications for European Technical Standard Orders



European Plan for Aviation Safety (EPAS) 2017–2021

Appendix H: Acronyms and Definitions

CS-FC	Certification Specifications for flight crew data
CS-LSA	Certification Specifications for Light Sport Aeroplanes
CS-MMEL	Certification Specifications for Master Minimum Equipment List
CS-STAN	Certification Specifications for Standard Changes/Standard Repairs
CS-VLA	Certification Specifications for Very Light Aeroplanes
CVS	combined vision systems
CZ	Czech Republic
DAH	design approval holder
DAT.OR	organisational requirements for the data service providers
DAT provider	(aeronautical) data provider, indirectly, competent authority
DAT.TR	technical requirements for the provision of data services
D-ATIS	digital - automatic terminal information service
DCL	departure clearance
DLS	data link services
DOA	design organisation approval
DP	direct publication
DTO	declared training organisation
D-TAXI	delivery of planned and cleared departure routes by datalink
ETSO	European technical standard order
EAFDM	European Authorities Coordination Group on Flight Data Monitoring
EAPPRE	European Action Plan for the Prevention of Runway Excursions
EASA	European Aviation Safety Agency
EASA CT	EASA Certification
EASA CT.2	EASA General Aviation & Remotely Piloted Aircraft Systems (RPAS) Department
EASA CT.5	EASA Environment Department
EASA CT.7	EASA Certification Policy & Safety Information Dept.
EASA FS.1	EASA Maintenance & Production Dept.
EASA FS.1.2	EASA Maintenance Regulations Section
EASA FS.2	EASA Air Operations Department
EASA FS.2.4	EASA Safety Assessment of Foreign Aircraft Section
EASA FS.3	EASA Aircrew & Medical Department
EASA FS.4	EASA Air Traffic Management/Air Navigation Services (ATM/ANS) & Aerodromes Department
EASA FS.4.2	EASA Air Traffic Management/Air Navigation Services (ATM/ANS) Regulations Section
EASA FS.4.3	EASA Aerodromes Regulations Section
EASA FS.5	EASA Policy & Planning Department
EASA SM 2.1	EASA Safety Programmes Section
EASA SM.1	EASA Safety Intelligence & Performance Department
EASA SM.2	EASA Strategy & Programmes Department



European Plan for Aviation Safety (EPAS) 2017–2021

Appendix H: Acronyms and Definitions

EATMN	European air traffic management network
EBT	evidence-based training
EC	European Commission
ECAST	European Commercial Aviation Safety Team
ECQB	European Central Question Bank
ECTRL	Eurocontrol
EDTO	extended diversion time operation
EFB	electronic flight bag
EGAST	European General Aviation Safety Team
EHEST	European Helicopter Safety Team
ELA	European light aircraft
EMS	emergency medical services
EPAS	European Plan for Aviation Safety
ESSI	European Strategic Safety Initiative
ETOPS	extended-range twin-engine operational performance standards
ETSOA	European technical standard order (authorisation)
EU	European Union
EU-OPS	Commission Regulation (EC) No 859/2008 of 20 August 2008 amending Council Regulation (EEC) No 3922/91 as regards common technical requirements and administrative procedures applicable to commercial transportation by aeroplane
EUROCAE	European Organisation for Civil Aviation Equipment
EVS	enhanced vision systems
FAA	Federal Aviation Administration
FABs	functional airspace blocks
FAR 33.90	Federal Aviation Regulation Section 33.90 — Initial maintenance inspection test
FbW/FBW	fly-by-wire
FCHWG	ARAC Flight Controls Harmonisation Working Group
FCOM	flight crew operating manual
FDM	flight data monitoring
FEM	flight examiner manual
FIS	flight information services
F-NI	fire - non-impact
FOT	focused oversight
F-POST	fire - post accident
FR	France
FRM	fatigue risk management
FSTD	flight synthetic training devices
FTE	flight test engineer
FTL	flight time limitation



European Plan for Aviation Safety (EPAS) 2017–2021

Appendix H: Acronyms and Definitions

FTS	flight time specifications
FW	fixed wing
GA	general aviation
GASP	Global Aviation Safety Plan (ICAO)
GBAS	ground based augmentation system
GCOL	ground collision
GLS	GBAS (ground-based augmentation system) landing system
GM	guidance material
GNSS	global navigation satellite system
GPS	global positioning system
H2020	Horizon 2020
HE	helicopter
HEMS	helicopter emergency medical services
HF	human factor
HOSSWG	Helicopter Offshore Safety and Survival Working Group
HPA	high-performance aircraft
HTAWS	helicopter terrain avoidance warning systems
HUD	head-up displays
HUMS	health and usage monitoring systems
IATA	International Air Transport Association
ICA	instructions for continuing airworthiness
ICA	Instructions for continuing airworthiness
ICAO	International Civil Aviation Organization
ICAO SL	ICAO State letter
IFE	In-flight entertainment
IFR	instrument flight rules
ILS	instrument landing system
IMA	Integrated modular avionics
IMA	Integrated modular avionics
IMC	instrument meteorological conditions
IMC	instrument meteorological conditions
IMI	initial maintenance inspection
Init. Airw.	initial airworthiness
IR	(Commission) Implementing rule
IR	Instrument rating
JAA	Joint Aviation Authorities
JAR-25	joint aviation requirements
JARUS	Joint Authorities for Rulemaking on Unmanned Systems



European Plan for Aviation Safety (EPAS) 2017–2021

Appendix H: Acronyms and Definitions

KRE	key risk element
LAPL	light aircraft pilot licence
LAPL(A)	allows pilots to act as pilot in command on aeroplanes or touring motor gliders
LAPL(S)	allows pilots to act as pilot in command on EASA sailplanes and powered sailplanes
LFTE	lead flight test engineer
LO	learning objective
LOCART	loss of control avoidance and recovery training
LOC-I	loss of control - inflight
LOI	level of involvement
LVO	low visibility operations
MAC	mid-air collision
MCF	maintenance check flights
MET	meteorology/meteorologic
MET provider	Meteorological service provider, indirectly, competent authority
MH17	Malaysia Airlines flight 17
MMEL	master minimum equipment list
mn	minutes
MO	maintenance organisation
MOPS	minimum operational performance specification
MOPSC	maximum operational passenger seating configuration
MPL	multi-crew pilot licence
MRB	Maintenance Review Board
MS	Member States
MST	Member States' tasks
MTO	maintenance training organisation
MTOM	maximum take-off mass
NAAs	national aviation authorities
NCC	non-commercial air operations with complex motor-powered aircraft
NCO	non-commercial air operations with other-than-complex motor-powered aircraft
NDB	non-directional beacon
NextGen	next generation
NO	Norway
NoA	Network of Analysts
NPA	notice of proposed amendment
OEM	original equipment manufacturer
OJ	Official Journal of the European Union
OPS	air operations
OpSpecs	operations specifications



European Plan for Aviation Safety (EPAS) 2017–2021

Appendix H: Acronyms and Definitions

ORO.FC.	organisation requirements for air operations. flight crew.
PANS	procedures for air navigation services (ICAO)
Part-21	airworthiness and environmental certification of aircraft and related products, parts and appliances, as well as for the certification of design and production organisations
Part-145	maintenance organisation approvals
Part-147	training organisations requirements
Part-21 Subpart H	Airworthiness certificates and restricted certificates of airworthiness
Part-26	additional airworthiness requirements for operations
Part-66	certifying staff
Part-ARO	authority requirements for air operations
Part-FCL	flight crew licensing
Part-M	continuing airworthiness requirements
Part-MED	medical certification of pilots, medical fitness of cabin crew, certification of AMEs and requirements of GMPs and OHMPs
Part-SPO	specialised Operations
pax	passengers
PBN	performance-based navigation
PBR	performance-based regulations
PCP	pilot common project (SESAR)
PIA	preliminary impact assessment
PIS	public interest sites
PM CPDLC	protected mode controller–pilot data link communication
POA	production organisation approval
PPL	private pilot license
Q	quarter
RAMP	aerodrome ramp
RE	runway excursion
RES	research actions
RFFS	rescue and firefighting services
RFID	radio frequency identification
RI	runway incursion
RIA	regulatory impact assessment
RI-VAP	runway incursion (vehicle animal person)
RMP	rulemaking programme
RMT	rulemaking task
RNAV	area navigation
SARPS	standards and recommended practices (ICAO)
SBAS	satellite based augmentation system
SCF-NP	system component failure (non-powerplant)



European Plan for Aviation Safety (EPAS) 2017–2021

Appendix H: Acronyms and Definitions

SCF-PP	system component failure (powerplant)
SERA IR	standardised European rules of the air implementing rule
SERA Part C	Commission Implementing Regulation (EU) 2016/1185 of 20 July 2016 amending Implementing Regulation (EU) No 923/2012 as regards the update and completion of the common rules of the air and operational provisions regarding services and procedures in air navigation (SERA Part C) and repealing Regulation (EC) No 730/2006
SES	Single European Sky
SESAR	Single European Sky ATM Research
SET	single-engined turbine
SLD	supercooled large droplets
SMICG	Safety Management International Collaboration Group
SMS	safety management systems
SOPs	standard operating procedures
SPI	safety performance indicator
SPL	sailplane pilot license
SPN	Safety Promotion Network
SPT	safety promotion
SR	safety recommendation
SR FRAN-2011-006	French Safety recommendation from 2011 No 6
SSIP	supplemental structural inspection programme
SSP	state safety programme
ST	standard procedure
STC	supplemental type certificate
STD	synthetic training device
STeB	stakeholder technical body
Subpart SPO.SPEC	specialised operations specific requirements
Subparts J & K of Part-FCL	instructors and examiners
SVGS	synthetic vision guidance systems
SVS	synthetic vision systems
SWIM	system-wide information management
TAWS	terrain awareness warning system
TBD	to be determined
TBO	time between overhaul
TC	type certificate
TCAS	traffic collision avoidance system
TCCA	Transport Canada Civil Aviation
TCP	tricresyl phosphate
TeB	Member State technical body
TEM	threat and error management



European Plan for Aviation Safety (EPAS) 2017–2021
Appendix H: Acronyms and Definitions

TMA	terminal manoeuvring area
TO	training organisation
ToR	terms of reference
TSO	technical standard order
UAS	unmanned aircraft systems
UDPP	user-driven prioritisation process
UK	United Kingdom
UPRT	upset prevention and recovery training
VFR	visual flight rules
VHF	digital - automatic terminal information service
VOR	VHF omnidirectional range
VHM	vibration health monitoring
VLA	very light aeroplane
WFD	widespread fatigue damage
WIDDCWG	Water Impact, Ditching Design and Crashworthiness Working Group
WP	working paper



Appendix I : Working groups owning EPAS Actions

EAFDM

[Web Link](#)

The Agency and NAAs have formed a group of experts called the **European Authorities Coordination Group on FDM** (EAFDM). It is a voluntary and independent safety initiative with the following objectives:

- a) contribute to improving the implementation of FDM programmes and to making FDM programmes more safety effective;
- b) contribute to the EASA objective of a high and uniform level of safety in Europe; and
- c) contribute to a better overview of air transport operational safety in Europe for EASA and NAAs.

Among the topics covered by EAFDM are:

- Development of national FDM forums;
- Oversight of FDM programs by NAAs; and
- FDM-based indicators.

EOFDM

[Web Link](#)

The **European Operators Flight Data Monitoring** (EOFDM) forum is a project of a voluntary partnership between European aeroplane operators and the European Aviation Safety Agency (EASA) in order:

- a) to facilitate the implementation of FDM programmes,
- b) to help operators in drawing the maximum safety benefits from an FDM programme.

The EOFDM is a voluntary safety initiative working under the aegis of ECAST, which means that its programme takes into consideration ECAST safety priorities and EOFDM co-chairs regularly report to ECAST on its activities.

The EOFDM is primarily dedicated to European aeroplane operators, but it is also open to aircraft manufacturers, flight crew associations, research and education institutions and regulators. Non-European organisations are welcome to join this safety initiative

NoA

[Web Link](#)

The **Network of Analysts** was established in 2011 to provide a collaborative framework for the EASA MS to work together on safety analysis activities. The NoA was formalized within European Regulation (EU) 376/2014 and has a role in analysing the European Central Repository of mandatory occurrences to support both the EPAS and the State Safety Programmes of the EASA MS. The NoA works closely with the CAGs in the identification of Safety Issues, Safety Risk Assessment and the monitoring of safety performance.

SM ICG

[Web Link](#)

The **SMS International Collaboration Group** (SMICG) — created in February 2009 — is a collaboration activity between aviation authorities in order to promote a common understanding of SMS principles and requirements in different countries, share lessons learned and encourage progress and harmonisation. The SMICG consists of a core group and a participant group. The core group is comprised of authorities with resources and expertise for product development. It includes members from the FAA, EASA (supported by FOCA of Switzerland, the DGAC of France, AESA Spain, the CAA of the Netherlands, ENAC Italy, Trafi Finland and UK CAA, TCCA, CASA of Australia, JCAB of Japan, CAA of New Zealand and ANAC of Brazil. The participant group tests and reviews the core group's work products and resources. Additionally, the



European Plan for Aviation Safety (EPAS) 2017–2021

Appendix I: Working groups owning EPAS Actions

Civil Aviation Department of Hong Kong (CAD HK), ICAO, and the UAE General Civil Aviation Authority (UAE GCAA) are observers to this group.

SPN

[Web Link](#)

The **Safety Promotion Network (SPN)** is a voluntary partnership between EASA and other aviation organisations. The objective of the Safety Promotion Network is to enhance aviation safety in Europe by providing a framework for the collaboration of safety promotion activity throughout the EASA Member States (MS).

For mutual benefit and a common purpose the members of the safety promotion network take on these objectives:

- exchanging information.
- coordinating activities.
- cooperating and sharing joint activities.
- collaborating to increase the capacity for activities.

CAG

The **Collaborative Analysis Groups** operate at a domain level to enable EASA to work with both the EASA MS and industry on the tasks of identifying Safety Issues, Safety Risk Assessment and the monitoring of Safety Performance. The CAGs provide a mechanism for external engagement with industry and the Member States' NoA Representatives on the Safety Risk Portfolios, which are used to ensure agreement on the Key Risk Areas and Safety Issues in each domain. CAGs have already been established for CAT Aeroplanes, Offshore Helicopters and Balloons. Over the coming year, further groups will be established to cover the other operational domains.

Advisory Bodies

[Web Link](#)

A large number of proposed Agency actions directly affect the Member States and the Industry. So called **advisory bodies** provide the Agency with a forum for consultation of interested parties and national authorities on Agency priorities, both at strategic and technical level.

The following advisory bodies are relevant for the EPAS:

- Member States Technical Bodies (TeBs): The TeBs are Technical Bodies encompassing the scope of the TAGs and Standardisation meetings and enlarging their scope to also include safety promotion.
- Stakeholder Technical Bodies (STeBs): In the recent restructuring of the advisory bodies, the STeBs replace the sub-committees of the Safety Standards Consultative Committee (SSCC) and they are responsible for reviewing and committing to concrete actions that address the specific Safety Issues at sectorial and technical level.
- Member State Advisory Body (MAB): The MAB is strategic body encompassing and extending the scope of RAG, EASAC and EASp Summit and advising on strategic developments.
- Stakeholder Advisory Body (SAB): The SAB replace the Safety Standards Consultative Committee (SSCC) and the EASA Advisory Board (EAB) and within the Safety Risk Management process is responsible for advising on strategic developments.



Appendix J: Index

Focused oversight actions

FOT.003	24
FOT.004	24
FOT.007	57
FOT.008	57
FOT.009	60
FOT.010	51

Member States actions

MST.001	19
MST.002	19
MST.003	19
MST.004	28
MST.005	41
MST.006	40
MST.007	31
MST.010	34
MST.011	31
MST.014	31
MST.015	47
MST.016	51
MST.017	52
MST.018	39
MST.019	56
MST.020	59
MST.022	56
MST.023	56
MST.024	34
MST.025	48

Research actions

RES.003	42
RES.004	42
RES.005	29
RES.006	24
RES.007	52

Rulemaking actions

RMT.0049	35
RMT.0069	36
RMT.0071	41
RMT.0106	21
RMT.0116	39
RMT.0118	39
RMT.0120	43
RMT.0127	44
RMT.0148	16
RMT.0157	16
RMT.0188	21
RMT.0194	22
RMT.0196	22
RMT.0217	36
RMT.0225	36
RMT.0230	54
RMT.0249	25
RMT.0251	17
RMT.0262	17
RMT.0266	58
RMT.0271	25
RMT.0294	26
RMT.0296	29
RMT.0369	29
RMT.0371	40
RMT.0376	32
RMT.0393	37
RMT.0397	27
RMT.0400	26
RMT.0414	58
RMT.0445	32
RMT.0453	37
RMT.0464	33
RMT.0469	17
RMT.0473	18
RMT.0477	33
RMT.0486	22



RMT.0516	60
RMT.0521	37
RMT.0570	30
RMT.0581	28
RMT.0586	37
RMT.0588	38
RMT.0589	22
RMT.0593	33
RMT.0595	23
RMT.0596	23
RMT.0599	23
RMT.0608	44
RMT.0647	28
RMT.0648	55
RMT.0671	38
RMT.0681	18
RMT.0686	38
RMT.0703	30
RMT.0704	30
RMT.0706	18
RMT.0708	44
RMT.0709	45
RMT.0710	45
RMT.0711	45
RMT.0713	46

Safety Promotion actions

SPT.012	28
SPT.057	19
SPT.059	19
SPT.060	19
SPT.062	20
SPT.063	20
SPT.067	57
SPT.071	55
SPT.073	57
SPT.076	20
SPT.077	20
SPT.078	59
SPT.079	24
SPT.080	47
SPT.081	47
SPT.082	47
SPT.083	48
SPT.084	49
SPT.085	49
SPT.086	49
SPT.087	50
SPT.088	50
SPT.089	51
SPT.090	52
SPT.091	54