



European Plan for Aviation Safety 2020-2024

DRAFT

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Foreword by the Strategy and Safety Management Director

I am delighted to introduce the draft European Plan for Aviation Safety (EPAS) 2020-2024 for your review and comments.

This year significant efforts have been made to anticipate the draft EPAS delivery to May, allowing consultation prior to the summer holiday season.

This is certainly not the only novelty: While the Agency strategic priorities and enablers remain essentially unchanged, significant improvements have been introduced in processes and objectives:

First, the action prioritisation process was substantially revised in line with Better Regulation principles, with the introduction of the Best Intervention Strategy; ensuring proper prioritisation of the many EPAS inputs. This has now become the standard approach for any new activities.

Next, a new structure is proposed for Volume II to facilitate the reading and clarify the link with the key risk areas identified through the European Safety Risk Management process.

During 2018 a decision was made to ‘cool-down’ in terms of rulemaking output to concentrate on catching up with existing tasks and resorb the backlog of rulemaking proposals pending adoption. At the same time, new tasks and projects stemming from the New Basic Regulation needed to be accommodated within the existing capacities. This situation led to establishing clear priorities for 2019-2021 and a list of rulemaking projects that were de-prioritised. Out of that list seven projects are now proposed to be resumed.

The General Aviation Roadmap is now twinned by the Rotorcraft Safety Roadmap, launched in November 2018, aimed at targeting significant safety improvements for rotorcraft.

And while the current planning concerning ATM/ANS mostly addresses “traditional” activities (e.g. alignment with ICAO SARPs), we are already considering how to accommodate new products, systems, technologies, concepts for operation, and new business models, such as new air mobility, single pilot and remote pilot operations, autonomous flights, together with their opportunities and potential risks.

Finally, the new draft EPAS includes a number of actions in the area of environmental protection and sustainability, grouped in a dedicated chapter. The growing importance of environmental matters, underlined by our commitment to CORSIA and the implementation of ICAO standards, shall be fully recognised and exploited.

We look forward to your comments on this draft EPAS 2020-2024.

Luc Tytgat
Strategy and Safety Management Director



European Plan for Aviation Safety (EPAS) 2020-2024

including the Rulemaking and Safety Promotion Programmes

Draft for Advisory Bodies' consultation

European Union Aviation Safety Agency, 21st May 2019



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Volume I



1 Executive Summary

The European Plan for Aviation Safety (EPAS) is built on a proactive approach to support the future growth of aviation while securing a high and uniform level of safety and environmental protection for all Member States. This proactive approach allows the European Commission, the European Union Aviation Safety Agency and the Member States to take the necessary actions at the right time in order to prioritise risks to be managed, facing the challenges posed by the increasing complexity and continued growth in civil aviation. EPAS addresses the key risk areas identified through the European risk management process, thereby providing a European framework to support and encourage the implementation of safety plans at Member State level.

The proactive approach underlying EPAS is expected to evolve towards a more integrated approach, supporting the management of different types of risks (safety, security, capacity, and environment) across the total aviation system. EASA initiated discussion with its Advisory Bodies to assess how integrated risk management may support the European Union Aviation Strategy in the future.

Draft EPAS 2020-2024 is consistent with the goals and objectives of the 2020-2022 Global Aviation Safety Plan¹ to enhance the level of safety in aviation and to support Member States in fostering mature safety management capabilities as part of their State Safety Programmes. While related investigations are still ongoing, the tragic accidents occurred in Ethiopia and Russia remind us of the need to carefully plan for aviation safety. In particular, we will need to continue our efforts in areas such as pilot training, equipment design and operational procedures. The lessons learned from these and other aviation occurrences are continuously incorporated into the EPAS.

The overall safety objective is to achieve constant safety improvement with a growing aviation industry. In the area of Air Traffic Management, the performance ambitions adopted with the ATM Master Plan² reflect this overall objective.

In the area of environmental protection this draft EPAS edition reflects the expectations of the travelling public for aviation to take greater responsibility to minimise its environmental footprint, while providing safe air transport. Three new research projects are included in this area. Moreover, it is key to have environmental requirements that are consistent with the rest of the world, to ensure a level playing field. A related objective is to support European industry to prepare for and adapt to the effects of climate change.

Data and information sources feeding EPAS include not only occurrence data (feeding the domain safety risk portfolios), but also oversight and standardisation data and related information (feeding the Standardisation Annual Report), as well as the ATM Master Plan.

¹ <https://www.icao.int/safety/Pages/GASP.aspx>. The GASP 2020-2022 will be published following its endorsement at the 40th ICAO General Assembly (24 September – 4 October 2019)

² The ATM Master Plan (<https://www.atmmasterplan.eu>) is developed by the Single European Sky ATM Research (SESAR) Joint Undertaking (SJU) and is adopted by the SJU governing bodies. It provides an integrated view of the European ATM system outlining the essential operational and technological changes required to deliver the SESAR contributions to the Single European Sky performance objectives.



The draft EPAS 2020-2024 edition comprises two distinct volumes:

- **Volume I** provides the executive summary as well as an introduction, describes the strategy and includes the key indicators. It consists of **Chapters 1 to 4**.
- **Volume II** contains the EPAS actions, including details for each of those. It consists of **Chapters 5 to 16**, with each corresponding to an aviation domain (1 systemic and 15 operational). This new structure provides a clearer link with the safety risk portfolios (Annual Safety Review) and facilitates the identification of actions relevant for different stakeholder groups.

Strategic priorities are described in **Section 3.1**. The strategic priorities are stable compared to the previous edition. The strategic priority *‘safe integration of new technologies and concepts’* is strengthened to support the safe, secure and environmental friendly implementation of new business models and new technologies. A new Rulemaking task will be initiated to develop rules and amend existing ones to address new technologies and operational air transport concepts (RMT.0731 ‘New Air Mobility’).

In **Chapter 4 Performance** data needs for the process indicator ‘SMS effectiveness’ are further specified. These safety performance indicators do not override those established under the Single European Sky ATM Performance Scheme³.

This draft EPAS edition reflects the near-term priorities agreed in 2018 for the period 2019-2021, it encompasses **201 actions**. The majority of actions are Rulemaking tasks (65.2 %), followed by Safety Promotion tasks (13.4%). Half of these actions are strategic, meaning they are linked to the areas highlighted in Chapter 3. Key indicators in terms of EPAS actions are included in **Section 4.1**.

Among the 201 EPAS actions **35 are expected to be completed in the course of 2019**. With most of those being Rulemaking tasks, the backlog continues to be resorbed. Finally, this draft EPAS proposes **13 new actions**, including the new Rulemaking task addressing ‘New Air Mobility’, 5 new Evaluation tasks to assess existing regulations/safety initiatives and 2 new actions to address English Language Proficiency. An overview of all new actions is included in **Appendix C: New actions, deleted actions and negative priorities overview**.

³ [Commission Implementing Regulation \(EU\) 2019/317](#)



2 Introduction

The European Aviation Safety Programme (EASP) defines the aviation safety framework at European level. The EASP functionally corresponds, at EU level, to the State Safety Programme as described in ICAO Annex 19 'Safety Management'. It is prepared jointly by the EC and EASA and describes the processes, roles and responsibilities of the different actors and lays down general principles for European safety management, including safety action planning.

The objective of the EASP is to ensure that the system for the management of aviation safety in the European Union delivers the highest level of safety performance, uniformly enjoyed across the whole Union, and continuing to improve over time, while taking into account other relevant objectives such as environmental protection.

In December 2015, the EC issued the second edition of the European Aviation Safety Programme⁴. This edition took into consideration the legislative changes occurred since 2011 as well as the evolution of safety management in all areas. In addition, it strengthened safety promotion at EU level and described the process to update and develop EPAS, giving it a truly European dimension.

In addition to being developed in accordance with the processes, roles and responsibilities described in the EASP, EPAS considers the ICAO global plans in the area of aviation safety and air navigation and ensures alignment with the SES ATM Master Plan.

2.1 The Global Aviation Safety Plan (GASP)

EPAS supports the objectives and priorities of the GASP. The purpose of the GASP is to continually reduce fatalities, and the risk of fatalities, by guiding the development of a harmonised aviation safety strategy and the development and implementation of regional and national aviation safety plans. A safe aviation system contributes to the economic development of States and their industries. The GASP promotes the implementation of a State's safety oversight system, a risk-based approach to managing safety as well as a coordinated approach to collaboration between States, regions and industry. One of the GASP goals is for States to improve their effective safety oversight capabilities and to progress in the implementation of State Safety Programmes (SSPs). Thus, GASP calls for States to put in place robust and sustainable safety oversight systems that should progressively evolve into more sophisticated means of managing safety. These objectives are mainly addressed in EPAS **Chapter 5** Systemic Safety.

In addition to addressing systemic safety, the GASP addresses high-risk categories of occurrences, which are deemed global safety priorities. These categories were determined based on actual fatalities from past accidents, high fatality risk per accident or the number of accidents and incidents. The following high risk categories have been identified for the 2020-2022 edition of the GASP:

- controlled flight into terrain;
- loss of control in-flight;
- mid-air collision;
- runway excursion; and
- runway incursion.

⁴ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52015DC0599>



These are consistent with the Key Risk Areas identified through the European Risk Management Process. The GASP global priorities are addressed in the following Sections: **6.1.1.1 Aircraft upset in flight (LOC-I), 0 Runway Safety** and **6.1.1.4 Terrain Collision**.

Since 2017 the ICAO Regional Office for the EUR/NAT region and EASA have been working together to develop a Regional Aviation Safety Plan (RASP) based on EPAS, thus allowing all States that are part of the EUR/NAT region to benefit from this approach. The aim of the RASP is to facilitate the achievement of the GASP goals at a regional level. The Regional Aviation Safety Group (RASG)-EUR is the main body to monitor the EUR RASP implementation and to collect feedback from stakeholders with the assistance of ICAO and EASA. The first EUR RASP covering the period 2019-2023⁵ was issued on 31.01.2019 following endorsement at the combined meeting of the coordination groups of the European Air Navigation Planning Group (EANPG) and RASG – EUR region (RASG-EUR) of ICAO. This makes EUR-NAT the first ICAO region having adopted its Regional Aviation Safety Plan.

2.2 The ATM Master Plan and GANP

Article 93 (c) of Regulation (EU) 2018/1139⁶ (hereafter referred to as Basic Regulation (BR)), stipulates that *'The Agency shall, where it has the relevant expertise and upon request, provide technical assistance to the Commission, in the implementation of the Single European Sky, in particular by contributing to the implementation of the ATM Master Plan (MP), including the development and deployment of the SESAR programme.'*

The **ATM MP** is the European planning tool for setting ATM priorities. The ATM MP enables that the Single European Sky ATM Research (SESAR) 'Target Concept', which is aligned with the ICAO's Global Air Navigation Plan (GANP)⁷, becomes a reality. The SESAR 'Target Concept' aims at achieving a high-performing ATM system by enabling airspace users to fly their optimum trajectories through effective sharing of information between air and ground. The ATM MP is evolving and is built in collaboration with and for the benefit of all ATM stakeholders. The ATM MP also provides stakeholders with a business view of what deployment will mean in terms of return on investment.

The alignment between EPAS and the ATM MP requires two actions. Firstly, that the ATM MP identifies solutions that can mitigate related safety risks identified by the European aviation safety system, and secondly that EPAS makes references to those solutions from the ATM MP that are actually mitigating those identified safety risks.

This alignment is now ensured as follows⁸:

- Volume I is in line with the ATM MP Level 1 (Executive View), Edition 2019; and
- Volume II is aligned with the ATM MP Level 3, draft Edition 2019, and includes references to those existing solutions in the ATM MP that aim to mitigate existing safety risks.

⁵ <https://www.icao.int/EURNAT/EUR%20and%20NAT%20Documents/EUR/EUR%20RASP/EUR%20RASP%202019-2023.pdf>

⁶ [REGULATION \(EU\) 2018/1139 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2018 on common rules in the field of civil aviation and establishing a European Union Aviation Safety Agency, and amending Regulations \(EC\) No 2111/2005, \(EC\) No 1008/2008, \(EU\) No 996/2010, \(EU\) No 376/2014 and Directives 2014/30/EU and 2014/53/EU of the European Parliament and of the Council, and repealing Regulations \(EC\) No 552/2004 and \(EC\) No 216/2008 of the European Parliament and of the Council and Council Regulation \(EEC\) No 3922/91](#)

⁷ <https://www.icao.int/airnavigation/pages/ganp-resources.aspx>

⁸ The correspondence between this edition of EPAS and the ATM MP actions is labelled in each applicable EPAS action in Volume II.



Future versions of both documents will mature in line with this alignment concept. For future editions, it is also envisaged to evolve to further align in terms of environment and interoperability of ATM systems.

Future versions of both documents will also need to consider the recommendations stemming from the Report of the Wise Persons Group on the Future of the Single European Sky⁹ and the Proposal for the Future Architecture of the European Airspace¹⁰. The Wise Persons Group developed a set of ten recommendations on the future of the Single European Sky to enable additional ATM Capacity in Europe, to be provided in a flexible and scalable manner, at reasonable costs, to deliver a more resilient ATM system, while continuing to ensure safety and security and meeting environmental concerns. An implementation roadmap for those recommendations is not yet available.

The **GANP** represents a rolling, 15-year strategic methodology which leverages existing technologies and anticipates future developments based on State/industry agreed operational objectives. It offers a long-term vision that will assist ICAO, States and industry to ensure continuity and harmonisation among their modernisation programmes.

EASA is the body responsible for the SES safety pillar. Safety is one of the key performance indicators (KPIs) within the SES ATM Performance Scheme, and the ATM MP contributes to achieving the ambitions within the SES ATM Performance Scheme. EPAS actions and ATM MP solutions should be aligned where possible and the changes made in the 2019-2023 EPAS edition constitute an important step towards such alignment.

⁹ https://ec.europa.eu/transport/modes/air/press-releases/2019-04-12-aviation-commission-receives-high-level-recommendations-air_en

¹⁰ <https://www.sesarju.eu/node/3253>



2.3 How EPAS is developed

2.3.1 Better Regulation

The EC's Better Regulation Agenda¹¹ aims at delivering tangible benefits for European citizens and addressing the common challenges Europe faces. Thus, Better Regulation principles are applied in the development of the EPAS.

Applying Better Regulation principles means for EASA that efforts must aim at:

- a transparent and streamlined regulatory process that is supported by an efficient stakeholder consultation;
- evidence-based decisions (through safety data analysis, impact assessment, monitoring and evaluation);
- a plain and easily understandable language also for non-native English speakers;
- communication and IT platforms that give stakeholders easy access to consulted deliverables and regulatory material, including soft law;
- a regulatory approach that
 - is performance-based where appropriate;
 - respects the principles of subsidiarity and proportionality;
 - contributes to the competitiveness of the industry, without compromising safety; and
- actors involved in the drafting of regulatory material that have been appropriately trained in drafting performance-based rules.

Modern, proportionate rules that are fit for purpose are essential in aviation safety to uphold high common standards and ensure the competitiveness of the European industry. Regulations should be as efficient and performance-based as possible, and as prescriptive as necessary to provide legal certainty.

Regulating elements of aviation safety by describing the desired outcome is not new. This so-called performance-based approach is intended to make aviation safer, more efficient and flexible. This approach promotes the principles of subsidiarity and proportionality by prescribing safety objectives instead of prescribing how to achieve them.

The expected benefits of performance-based regulations (PBRs) are:

- **Resilience:** the increased complexity in operations and aviation activities, the dynamics of aviation business models, and fast and proliferating technological advancements require a regulatory framework capable of anticipating changes (technology-neutral regulations).
- **Flexibility:** by focusing on safety outcomes, PBRs provide flexibility and encourage innovation by not restricting a priori the means to control specific risks.
- **Safety management:** by providing a flexible implementation framework and focusing on safety outcomes, PBRs allow organisations and authorities to foster risk management capability and to better allocate resources against risks identified under their SMS and SSP.

To meet EC's Better Regulation Agenda, EASA must ensure that its regulatory proposals and other EPAS actions deliver maximum safety, economic, social and environmental benefits at minimum cost to citizens, businesses and workers, without creating unnecessary regulatory burden for MSs and EASA itself. To that end, EASA must prioritise and design the EPAS actions through a transparent process and based on evidence, understandable by those who are affected and backed up by the views of stakeholders. Evidence is gathered ex-ante through

¹¹ https://ec.europa.eu/info/law/law-making-process/planning-and-proposing-law/better-regulation-why-and-how_en



a Best Intervention Strategy (BIS) at the programming stage, and Regulatory Impact Assessment (RIA) at the rule development stage (see **Chapter 2.3.3.3**) or ex-post through the evaluation process (see **Chapter 2.3.4**). About two thirds of the EPAS actions take the form of rulemaking tasks.

To be fully effective, Better Regulation must cover the entire regulatory cycle, i.e. the programming and planning phase, design of a proposal, adoption, implementation, application, evaluation and revision. In other words, the effort to equip the EU with state of the art aviation safety rules must start already in the planning and programming phase. Efficient planning and programming in the context of Better Regulation means to take well-informed decisions which must be based on holistic risk management principles. Where there is no or limited data available, such as for innovative technologies or new ways of operating, decisions may have to rely on expert knowledge and/or the extrapolation of existing data from similar subjects.

Stakeholder consultation

In line with the principles of Better Regulation, EASA engages with its stakeholders via different channels and for different purposes, such as:

- EASA Advisory Bodies (ABs) and Collaborative Aviation Groups (CAGs) to identify the aviation issues to be further assessed;
- EASA Advisory Bodies (ABs) consultation of BIS, Regulatory impact Assessment (RIA) and evaluation reports;
- AB consultation of the draft EPAS;
- Open public consultation of Rulemaking ToRs and NPAs;
- Targeted consultation to groups of stakeholders (e.g. questionnaire for evaluation of existing rules); and
- Work with groups of experts (e.g. Safety Risk Panels, focus groups)

2.3.2 The programming cycle

EPAS covers a five-year time frame. In line with BR Article 6(1), EPAS is updated on a yearly basis. Hence, EPAS is developed as a rolling five-year plan in close cooperation with stakeholders, drawing increasingly from an evidence-based approach. There are two distinct programming phases, each with a dedicated stakeholder consultation.

- During the ‘strategic phase’, the strategic priorities developed for the previous programming cycle (see **Chapter 3**) are discussed and agreed with the EASA ABs.
- Based on these strategic priorities, a draft EPAS is then developed and provided to the ABs for detailed comments.

Following AB consultation, the final draft EPAS is consolidated and presented for approval to the EASA Management Board (MB). Following its formal approval by the MB, it is published on the EASA website¹².

¹² <https://www.easa.europa.eu/easa-and-you/safety-management/european-plan-aviation-safety>

2.3.3 How actions are prioritised in EPAS

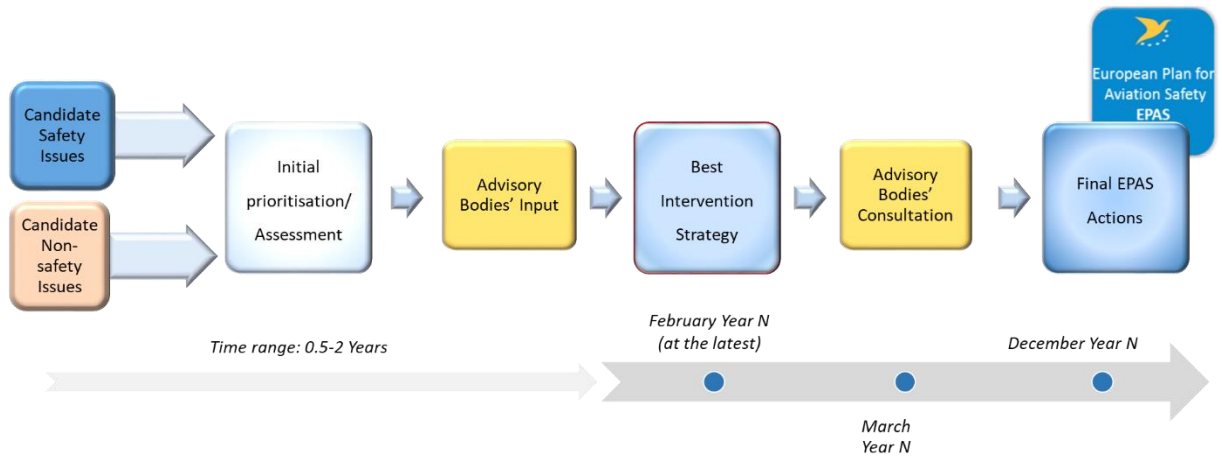


Figure 1. Key steps to prioritise actions in EPAS

The proposed candidate issues (safety and non-safety ones) are recorded in a Candidate Issue Register from which an initial priority list is developed. The Candidate Issue Register is an internal repository for all received proposals. The prioritised candidate issues are then further assessed with a view to finding the most cost-effective approach to tackle them. The outcome is a BIS report, which is consulted with the ABs. It is only after the ABs validation that the actions proposed in the BIS report become EPAS actions.

2.3.3.1 EPAS inputs

How to submit a new proposal to be included in EPAS

A new proposal, such as a new issue or a proposal for a new EPAS action to be included in EPAS can be submitted at any moment in the programming cycle. For this purpose, a 'Candidate issue identification form' has been created. This form replaces the old Rulemaking Proposal Form. It is meant to encompass a larger range of proposals for actions, such as safety promotion, research, rulemaking, as well as the identification of new issues in the EPAS areas of safety, environmental protection, level playing field or efficiency/proportionality.

In addition to the individual candidate issue proposals, EASA collects proposals from other sources, including safety and non-safety issues. For each proposal, core data is recorded in the Candidate Issue Register.

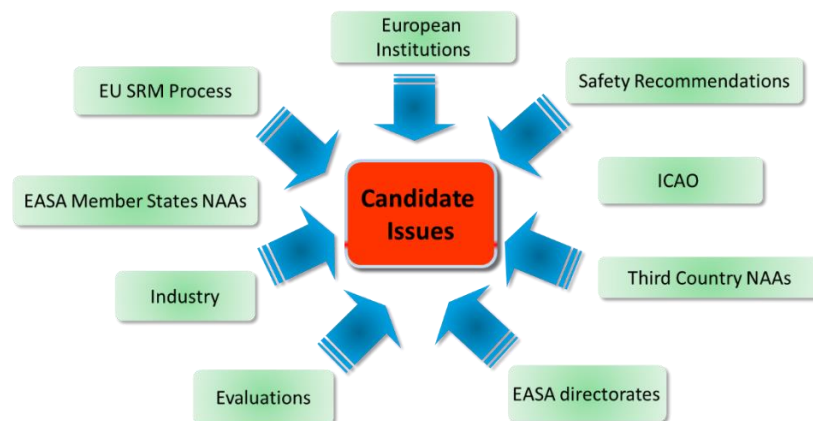


Figure 2. EPAS inputs



An initial review of the received candidate issues is carried out in order to allow for initial prioritisation. Candidate issues are clustered according to the four EPAS drivers, as follows:

- **Safety:** The actions in this category are driven by the need to increase or maintain the current level of safety in the aviation sector.

The main source for safety candidate issues is the European Safety Risk Management Process (SRM). This process is described in the Annual Safety Review (cf. ASR 2019 - Introduction).

- **Environment:** The actions in this category are driven by the need to improve the current environmental protection in the aviation sector, while striving to ensure a level playing field globally.

Main sources for environmental candidate issues are the ICAO SARPs and European Aviation Environmental Report (refer to **Section 3.1.4**).

- **Efficiency/proportionality:** The actions in this category are primarily driven by the need to ensure that rules are cost-effective in achieving their objective, as well as proportionate to the risks identified. Having included an action in this category by no means signals that there are no related safety objectives; however, the effects on efficiency and proportionality prevail over those on safety.

Main sources for efficiency and proportionality issues are feedback from industry and NAAs, channelled through the ABs, as well as the results of evaluations.

- **Level playing field:** The actions in this category are mainly driven by the need to ensure that all players in a certain segment of the aviation market can benefit from the same set of rules, thereby promoting innovation, supporting fair competition and ensuring free movement of persons and services. This is particularly important for technological or business advancements where common ‘rules of the game’ need to be defined for all actors. ‘Level playing field’ may either relate to ensuring standardisation within EASA MSs or address the need to harmonise with the rules of main EASA counterparts, such as the Federal Aviation Administration (FAA), Transport Canada Civil Aviation (TCCA) or Agência Nacional de Aviação Civil (ANAC) Brazil, in order to ensure fair competition or facilitate the free movement of goods, persons and services. Actions in this category will directly contribute to maintaining or even increasing the current level of safety.

Main sources for level playing field actions are feedback from EASA Standardisation, feedback from industry and NAAs, as well as rulemaking coordination with the main EASA counterparts.

These four drivers should be understood as *main* drivers. A number of actions could well fall under several of these drivers, but only the most relevant one will be indicated for each EPAS action.

2.3.3.2 Initial prioritisation

The aim of the initial prioritisation is to assess for each issue/action proposal several elements including:

- legal obligation to act;
- potential safety, economic, social and environmental consequences, if the action proposed is not endorsed;
- the link with the EPAS strategic priorities (**Chapter 3.1**); and
- resources needed.

2.3.3.3 Best Intervention Strategies

Further to the initial prioritisation, the retained actions are grouped per topic and then assessed for the impact to propose the Best Intervention Strategy. This phase includes consultation with stakeholders.



Following consultation a BIS report is drafted for each BIS topic; summarising the main findings and proposing actions ('intervention strategy').

For each step, evidence should be included to support the analysis performed. For safety issues this is normally provided through the related Safety Issues Assessment (SIA) performed as part of the EU SRM process.

Affected stakeholders are considered throughout the analysis, not only focusing on the ones mostly and directly impacted on, but also taking a wider view on other stakeholders.

The analysis of impacts is proportionate to the extent of the impacts and the controversial elements considered. The bigger and/or the more controversial the issue is, the more detailed will the analysis be.

For rulemaking tasks, during the development of the BIS, the Agency will also assess the suitability for a performance based rule, based on the following criteria:

- measurability;
- need for flexibility;
- impact on innovation;
- impact on bilateral agreements;
- impact on level playing field;
- efficiency gains (through a performance-based solution); and
- need for interoperability.

One domain where rules have been reviewed in line with PBR principles is General Aviation (GA): EASA is engaged in developing simpler, proportionate, lighter and better rules for GA. This is being achieved in line with the GA Roadmap¹³ created in partnership with the EC and stakeholders by addressing the recognised importance of GA and its contribution to the European economy and a safe European aviation system. The GA Roadmap 2.0 was issued in March 2019¹⁴.

Impact assessment methodologies

The methodologies applied to assess the impacts could be one or a combination of the following: Multi-Criteria Analysis (MCA), Cost-Effectiveness Analysis (CEA), Cost-Benefit Analysis (CBA).

- **CBA:** Full cost-benefit analysis should be used when the most significant part of both costs and benefits can be quantified and monetised. It entails identifying and evaluating expected economic, environmental and social benefits and costs of proposed public initiatives. A measure is considered to be justified where net benefits can be expected from the intervention.
- **CEA:** This method is used when the fixed objective would be difficult to monetise, e.g., in the aviation sector, the prevention of a fatality. It requires calculating the net cost needed to achieve the objective, and then comparing the net cost per 'unit of effectiveness' of each option. It is an alternative to cost-benefit analysis in cases where it is difficult to value benefits in money terms.
- **MCA** is undertaken to make a comparative assessment between options for which the impacts are a mixture of qualitative, quantitative and monetary data. The aim is to combine a range of positive and negative impacts into a single framework to allow easier comparison.

Most of the impact assessments developed by EASA use MCA, as it would be very difficult to monetise all elements for each criterion and to evaluate the impacts with the same unit of measurement. In some cases a

¹³ Available on EASA website: <https://www.easa.europa.eu/newsroom-and-events/news/easa-ga-roadmap>

¹⁴ <https://www.easa.europa.eu/document-library/general-publications/ga-roadmap-2019-update-%E2%80%93-making-ga-safer-and-cheaper>



detailed CBA or CEA is performed for instance on economic criteria. In this case, the result of the analysis can then be integrated into the MCA, comparing options across all relevant criteria.

Current developments

In line with Article 89 of the BR, EASA shall take into account in its decision making the interdependencies between civil aviation safety and socio-economic factors. Investing resources in a thorough assessment of the risks, impacts and possible side effects of proposed actions, before they are confirmed in the EPAS, is expected to increase efficiency. These early assessments shall be carried out in partnership with the MSs and the industry stakeholders who have to be prepared to support EASA with their expert knowledge already during the planning phase.

Accordingly, EASA gives much importance to social impacts in its impact assessments and is working to further improve its methodology to this regard. The social impact assessment methodology to be developed will enable a more precise assessment of the social impacts of future EASA activities, more specifically in the case of rulemaking tasks. This methodology will be progressively improved throughout its implementation, based on feedback received from stakeholders.

2.3.3.4 BIS output for EPAS

The output of the BIS could be any one or a combination of the following types of EPAS actions:

- rulemaking tasks (RMTs),
 - safety promotion tasks (SPTs),
 - research projects (RES); and
 - Member States tasks (MSTs).
- **RMTs** lead to new or amended regulatory material (implementing rules, AMC or GM), but the related work is usually not limited to rules drafting. Depending on the scope and issues addressed, a RM project may also include implementation support activities, such as the organisation of conferences, workshops, roadshows, the creation of frequently asked questions (FAQs), etc. A RMT may also be supported by a dedicated SPT managed in accordance with EASA's Safety Promotion Strategy (see Section 0), or by a research task.
 - **SPTs** involve Safety Training, awareness/ education and dissemination of safety relevant information to further engage and interact with relevant aviation stakeholders in order to positively influence or change individual behaviour with the ultimate objective of achieving pre-determined aviation safety objectives. It includes the promotion of safety topics, rulemaking and awareness, communicating about safety intelligence, priorities and actions and other tasks to raise awareness with individuals. SPTs can involve a wide range of deliverables that include guides, videos, text for use in websites and printed media, social media and outreach activities.
 - **MSTs** are EPAS actions based on safety priorities identified in collaboration with MSs and owned by them. Most of them are continuous actions to ensure continuous monitoring of the underlying safety risks and regular reporting on progress of those MS actions. Results are discussed with MSs during the regular Technical Body (TeB) meetings. Different implementation approaches, difficulties or best practices are brought up and discussed to enhance the collaboration amongst MSs and between MSs and EASA.
 - **RES** actions are innovation- and/or efficiency-related research projects to support the safe integration of new technologies and concepts, and to measures improving environmental protection. RES actions may also be triggered by the need to better understand a safety issue in view of determining intervention strategies in the future, or to assess the effectiveness of existing regulations, as an alternative to evaluations. The research projects included in EPAS are those triggered by safety recommendations addressed to EASA and those either already covered by a funding source or likely to be funded by the start of the reference period of a given EPAS.



The BIS reports to support the actions which could be included in the EPAS are consulted with the ABs. Following consultation and feasibility check from the resource point of view, the actions are included in the EPAS.

For confirmed RMTs, the information gathered for the BIS will be reviewed to provide the RIA as part of the NPA/Opinion. Information and data provided at the BIS stage will be updated, as necessary.

2.3.4 Regular updates

The aviation industry is complex and rapidly evolving. The corresponding rules need to be updated regularly to ensure that they are fit for purpose, cost-effective, can be implemented in practice, and are in line with the latest ICAO SARPs. The vehicle to address these miscellaneous issues of non-controversial nature are systematic rulemaking projects called regular updates

Regular updates of the implementing rules and related AMCs/GM are initiated when relevant data is available to support the need for an update, following an update of industry standards or feedback from certification activities or to address minor issues raised by the stakeholders. Due to their nature an impact assessment is generally not required for these projects.

This EPAS edition includes 33 regular update RMTs, among which 15 relate to the update of relevant CSs.

2.3.5 Evaluation

EASA is assessing the performance of the rules and non-rulemaking actions. Evaluations are used to assess if aviation regulations and related initiatives (e.g. SPTs) are delivering the expected results at minimum cost.

These evaluations intend to conclude whether the existing rules/non-rulemaking actions are fit for purpose and whether/ in which areas improvements are needed. An EVT will draw conclusions on whether the rules/actions continue to be justified or whether they should be modified to improve their effectiveness and eliminate excessive burden.

The evaluation is intended to answer the following questions:

- Is the rule/action useful to the stakeholders? — criterion ‘relevance’
- Have the objectives been reached with the results? — criterion ‘effectiveness’
- Are the spent resources proportionate to the achieved results? — criterion ‘efficiency’
- Are the rules/actions consistent with others which are interrelated to them? — criterion ‘coherence’
- Does EU regulatory framework provide an added value to the national system? — criterion ‘EU added value’

In addition, a standard feature of any evaluation of existing rules is to assess the potential for introducing more performance-based elements following a thorough assessment. The outcome of the evaluation includes a list of recommendations that are then further analysed in the BIS.

Several criteria are taken into account to decide on future evaluations conducted by EASA:

- Legal obligation to undertake an evaluation of the rules:
- Feedback on the controversy, complexity of the rules/non-rulemaking actions, whether they generate safety risks and/or regulatory inefficiencies. This feedback is gained by analysing the flexibility provisions



(BR Articles 70 and 71), requests for alternative means of compliance (AltMoC), requests from stakeholders, feedback by the ABs on regulatory gaps/inefficiencies, permanently open findings from EASA Standardisation, etc.

- Rules/non-rulemaking actions have reached a level of implementation to enable an evaluation based on sufficient evidence (sufficient time, e.g. 5 years have elapsed after the adoption of the rules/non-rulemaking actions).

The result of the analysis is reflected in the proposed list of evaluations as included with EPAS 2020-2024.

It should be noted that the evaluation concept is equally applicable to rules and other non-rulemaking actions. In this regard, EASA initiated a first evaluation on safety promotion activities related to European Operators Flight Data Monitoring (EOFDM) coordination, paving the way for more assessments of this kind.



2.4 How EPAS is structured

The 2020-2024 EPAS edition comprises two distinct volumes:

- **Volume I** provides the executive summary as well as an introduction, describes the strategy and includes the key indicators. It consists of Chapters 1 to 4.
- **Volume II** contains the detailed list of EPAS actions. It consists of Chapters 5 to 16.

Volume I

Volume I provides an executive summary with the main highlights of each edition. This is followed by an introductory chapter where the link with other planning documents at European and global level is explained. **Chapter 2 Introduction** explains how EPAS is developed and presents the structure of the document, how actions are presented as well as how new proposals to be included in EPAS can be submitted. Moreover, Chapter 2 now includes an explanation of how Better Regulation principles guide the programming and planning of EPAS actions (previously included with Section 3.3).

The structure of **Chapter 3 Strategy** remains unchanged in this edition.

Section 3.1 ‘Strategic Priorities’ addresses the following priorities:

- 3.1.1 Systemic safety
- 3.1.2 Operational safety
- 3.1.3 Safe integration of new technologies and concepts
- 3.1.4 Environment

Section 3.2 ‘Strategic enablers’ includes the following enablers:

- 3.2.1 Research
- 3.2.2 Safety promotion
- 3.2.3 International cooperation
- 3.2.4 Digitalisation
- 3.2.5 Technical training
- 3.2.6 Oversight and Standardisation

The text in these sections has been revised to reflect the latest developments.

Section 3.3 New Basic Regulation is maintained to update the information on priorities guiding the implementation of Regulation (EU) 2018/1139 (BR), as provided with EPAS 2019-2023.

Volume II

The structure of Volume II is entirely reviewed to provide a clearer link with the safety risk portfolios (ASR) and facilitate the identification of actions relevant for different stakeholder groups:

- All systemic safety issues are grouped within Chapter 5, which is further subdivided to address the various action areas.
- All actions other than those related to systemic safety and corresponding to drivers ‘safety’, ‘efficiency/proportionality’ and/or ‘level playing field’ are grouped per operational domain.



- All actions corresponding to the driver ‘environment’ continue to be included as a separate chapter, now Chapter 16.

The proposed new structure for Volume II is as follows:

Ch.	Title
5	Systemic safety
5.1	<i>Safety management</i>
5.2	<i>Human Factors and Human performance</i>
5.3	<i>Competence of personnel</i>
5.4	<i>Aircraft tracking, rescue operations and accident investigation</i>
5.5	<i>Impact of security on safety</i>
5.6	<i>Oversight and Standardisation</i>
6	Flight operations aeroplane
6.1	<i>CAT by Aeroplane & NCC (Business)</i>
6.2	<i>SPO Aeroplane</i>
7	Rotorcraft
8	General Aviation¹⁵
9	Design and Production
10	Maintenance and Continuing Airworthiness Management
11	Air Traffic Management and Air Navigation Services
12	Aerodromes
13	Groundhandling
14	Unmanned Aircraft Systems
15	New technologies and concepts
16	Environmental protection
16.1	<i>Noise, local air quality and climate change standards</i>
16.2	<i>Market Based Measures</i>

A table that shows the correspondence between the structure of the EPAS 2019-2023 and the EPAS 2020-2024 version is included in Appendix I: Volume II – new structure.

Depending on the number and type of actions included Chapters 6 to 16 may be further organised in ‘action areas’. Each Chapter / action area shows the issue, the objective and the related actions. An action area may contain several actions (RMT, SPT, EVT, RES, MST).

Within each Chapter/Section/action area, actions are grouped per action type and for each type they are listed in chronological order of the unique EPAS action reference number.

Where an action is relevant to more than one domain, its full description will be included in the main domain Chapter, and a reference to it added in the other domain Chapter(s).

Example:

- An action for flight crew training in the rotorcraft domain would be included with its full description in the Section 5.3 Competence of personnel, in addition, a reference to it would be added in Chapter 7 Rotorcraft.

¹⁵ non-commercial operations with aeroplanes other than CMPA, all operations with balloons and sailplanes



How individual actions are presented

RMT.xxxx		Title			
(1) text		(2) text			
Status		(3) text			
Reference(s)		(4) text			
Affected stakeholders		(5) text			
Owner		(6) acronym			
Priority		(7) text	RM Procedure	(8) acronym	Harmonisation (9) acronym
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
1-n	(10) date/reference nce or year/quarter	(10) date/reference or year/quarter	(10) date/reference or year/quarter	(10) date/reference or year/quarter	(10) date/reference or year/quarter

Figure 3: EPAS action template for RMTs.

For each EPAS action a unique reference and title are provided. Tasks that have been newly added to the plan are identified by using red colour in the **action number**.

For RMTs the following information is provided:

- (1) main driver;
- (2) action description: issue, objective and rationale;
- (3) status of the action (new/ongoing/completed, on-hold, de-prioritised, merged, etc.);
- (4) reference(s) to related actions in other plans (e.g. ATM Master Plan) or to other EPAS actions, important reference documents.;
- (5) affected stakeholders;
- (6) action owner: e.g. EASA department;
- (7) priority: YES or NO, on the basis of the strategic priorities defined in Volume I;
- (8) the applicable rulemaking procedure in accordance with EASA Management Board Decision No 18/2015 'Rulemaking Procedure'. Possible entries are:
 - DP: Direct publication: Article 15 of the Rulemaking Procedure;
 - AP: Accelerated procedure: Article 16 of the Rulemaking Procedure; or
 - ST: Standard procedure.
- (9) an indication as to whether the RMT is harmonised with third countries and/or ICAO, in order to alleviate differences between EASA and other aviation authorities (Brazil, US, Canada) under a BASA with the EU or ICAO SARPs, while ensuring an equivalent level of safety. Possible entries are:
 - ANAC;
 - FAA;
 - TCCA;
 - ICAO.



(10) the planning milestones for each deliverable. The *rulemaking process deliverables* are: ToR, NPA, Opinion and Decision. The *legislative process deliverable* is the Commission Implementing Rule (IR). IRs may take the form of delegated acts (DA) or implementing acts (IA), depending on the topic and domain.

- Where the documents are already delivered, the document reference and the publication date are provided in date format: dd/mm/yyyy.
- For documents yet to be delivered, the planned date for publication is provided in year and quarter format: yyyy Qn.
- In case a RMT has several sub-tasks, a separate line will provide deliverables and planning milestones for each sub-task (1-n).

XYZ.xxx	Title
(1) text	(2) text
Status	(3) text
Reference(s)	(4) text
Affected stakeholders	(5) text
Owner	(6) acronym
EXPECTED OUTPUT	
Deliverable(s)	Timeline
(7) text	(08) date/reference or year/quarter

Figure 4: EPAS action template for MSTs/RESs/SPTs

- (1) main driver;
- (2) action description: issue, objective and rationale;
- (3) status of the action (new/ongoing/completed, on-hold, de-prioritised, merged, etc.);
- (4) reference(s) to related actions in other plans (e.g. ATM Master Plan) or to other EPAS actions, important reference documents.;
- (5) affected stakeholders;
- (6) action owner: e.g. EASA department, SPN, MSs;
- (7) type of deliverable (report, best practice, guidance material, study, etc...);
- (8) planning milestone for the deliverable:
 - Where the document is already delivered, the date is provided in format: dd/mm/yyyy.
 - For documents yet to be delivered, the planned date for completion is provided in year and quarter format: yyyy Q (1-2-3-4).
 - In case an action has several sub-tasks, a separate line will provide deliverables and planning milestones for each sub-task (1-n).

The same logic applies to EVT actions. In addition to the above information, the planning milestone/delivery date for the EVT ToR is provided.



Appendices

EPAS is complemented by 10 Appendices with additional information in support of or for easy access to the information provided in Volumes I and II:

- Appendix A: Opinions and Decision published in 2019;
- Appendix B: Deliverables planned for 2020;
- Appendix C: Overview of new, deleted and de-prioritised actions;
- Appendix D & E: Relevant EU/EASA policies providing direction to EPAS;
- Appendix F: Acronyms and definitions;
- Appendix G: Working Groups and Bodies contributing to EPAS;
- Appendix H: EASA departments owning EPAS actions;
- Appendix I: New Structure of Volume II (cross-reference table EPAS 2019-2023vs Volume II EPAS 2020-2024);
- Appendix J: Index of all EPAS actions.



2.5 How EPAS is monitored

EPAS **Chapter 4 Section 4.2** presents an outline for EPAS safety performance metrics reflecting the EPAS strategic priorities in the area of safety and the high-level safety objective set out in the BR to ‘establish and maintain a high uniform level of civil aviation safety in the Union’.

The efficiency of actions included in EPAS in relation to environmental protection will continue to be monitored as part of the EAER (refer to **Chapter 4 Section 4.3**).

Regarding the actions owned by MSs, in the past EASA monitored those actions by means of an online survey. The survey was addressed to all EASA MSs, as well as non-EASA MSs applying EPAS, and initiated once EPAS was published and sought States’ feedback on the status of implementation of EPAS MST actions. The results were summarised in an implementation report¹⁶.

In accordance with Chapter II of the BR, MSs are required to develop a State Plan for Aviation Safety (SPAS), taking into consideration the actions they own in EPAS and providing justifications when such actions are not considered relevant to them. Accordingly, SPAS will be the primary tool for MSs to report on action implementation. States are expected to provide an up-to-date SPAS at least annually or, where the SPAS is not updated annually, a report on the implementation of EPAS actions. EASA made available an online platform for MSs to upload their SSP, SPAS and any other relevant material. This online platform, hosted on the EASA SharePoint site for the EASA ABs¹⁷, is also intended to facilitate the exchange of information amongst MSs on EPAS and SSP implementation.

For the remaining EPAS actions (RMT, SPT, RES and EVT), feedback on implementation is regularly provided during ABs meetings. Most of the deliverables planned in EPAS are published on the EASA website (see [rulemaking process](#)¹⁸, [safety promotion](#)¹⁹, [research projects](#)²⁰ and [evaluation of rules](#)²¹).

¹⁶ Latest States' implementation report on EPAS 2017- 2021: <https://www.easa.europa.eu/document-library/general-publications/states-implementation-report-epas-2017-2021>

¹⁷ <https://imf.easa.europa.eu/case/eab/mabtebs/SSPDocuments/Forms/AllItems.aspx>

¹⁸ <https://www.easa.europa.eu/document-library/rulemaking-process-overview>

¹⁹ <https://www.easa.europa.eu/document-library/safety-promotion>

²⁰ <https://www.easa.europa.eu/document-library/research-projects>

²¹ https://www.easa.europa.eu/document-library/general-publications?publication_type%5B%5D=2481



3 Strategy

In the 2017-2021 programming cycle, EASA introduced the notion of strategic priorities for EPAS. The strategic priorities were based on the Commission's Aviation Strategy²² and EASA's strategic plan (see **Appendix D: European Commission's priorities and EASA's Strategic Plan**). The safety priorities are based on the European Safety Risk Portfolios published in the ASR. The efficiency and level playing field priorities are based on stakeholder feedback. The environmental priorities are aligned with the European Aviation Environmental Report (EAER) 2019²³.

EASA consulted these priorities with stakeholders in February and March 2019. The comments received led to a number of adjustments and improvements, notably the identification of priorities to be addressed first. In Volume II, the actions linked to strategic priorities are identified in the field 'Priority'.

In line with the total system approach to aviation safety management, EPAS is evolving to ensure better integration of relevant sources and key inputs in terms of safety information, such as the ASR, the SAR, and the ATM MP. The objective is to obtain an overarching, consolidated aviation safety picture at European level, supporting strategic planning and prioritisation of safety actions.

How priorities are established

In the previous edition, the rulemaking activities were prioritised to take into consideration the need to make resources available to tackle BR responsibilities (not only related to rulemaking), as explicitly requested by the EASA MB in April 2018. The BR roadmap (see **Section 3.3.2**) clearly identifies the areas where work will start within the range 2019-2021, therefore not all new responsibilities will be tackled immediately. The prioritisation takes into account the compromise to continue working towards mitigating major safety risks across domains and addressing the strategic priorities which are described in this Chapter and have been agreed with industry and States.

In 2019 EASA has re-assessed the activities that were postponed in the previous EPAS edition. This has resulted in the reprioritisation of a number of rulemaking projects. Priority has been given to those tasks that were more advanced and for which positive benefits (safety or economical) were identified. These RMTs will be resumed. The related timeliness can be found in Volume II.

Chapters 5 to 16 contain the full list of EPAS actions that are programmed for the next 5 years. **Appendix C: New actions, deleted actions and negative priorities overview** includes the overview of all tasks that remain on the list of de-prioritised tasks.

²² <https://www.europeansources.info/record/communication-on-an-aviation-strategy-for-europe/>

²³ https://www.easa.europa.eu/eaer/system/files/usr_uploaded/219473_EASA_EAER_2019_WEB_LOW-RES.pdf



3.1 Strategic priorities

3.1.1 Systemic safety

3.1.1.1 Improve safety by improving safety management

Despite the fact that the last years have clearly brought continued improvements in safety across every operational domain, the latest accidents and serious incidents underline the complex nature of aviation safety and the significance of addressing human factor aspects. Aviation authorities and organisations should anticipate new emerging threats and associated challenges by developing SRM principles. Those principles will be strengthened by SMS implementation supported by ICAO Annex 19 and Regulation (EU) No 376/2014²⁴ on occurrence reporting, follow-up and the protection of safety information.

EASA defined an SMS policy for the regulation of SMS in the different aviation domains. This policy is included in **Appendix E: Policy on Safety Management Systems**.

Key actions:

- Incorporate safety management requirements in initial and continuing airworthiness (RMT.0251)
- Support States in implementing State Safety Programmes (MST.001) and States Safety Plans (MST.028)
- Encourage international harmonisation of SMS implementation and human factor principles (MST.002 and SPT.057)
- Support the implementation of a robust oversight system across Europe (MST.032))

See **Section 5.1**.

3.1.1.2 Human factors

EASA monitors data relating to human performance and assesses feedback from stakeholders, through the Human Factors CAG (HF CAG) and through other regulatory and oversight activities. As the aviation system changes, it is imperative to ensure that human factors and the impact on human performance are taken into account, both at service provider and regulatory levels.

Human factors and human performance are terms that are sometimes used interchangeably. While both human factors and human performance examine the capabilities, limitations and tendencies of human beings, they have different emphases:

- Human factors (HF) – this term focusses on why human beings function in the way that they do. The term incorporates both mental and physical processes, and the interdependency between the two.
- Human performance (HP) – the output of human factors is HP. This term focuses on how people do the things that they do.

Note: Throughout Volume II, actions with a strong HF component are identified by adding ‘HF’ below the driver indication.

²⁴ [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](#)



The HF CAG prioritised a series of safety issues for a more in-depth analysis. These issues are systemic safety issues, and the other CAGs address safety issues that also have HP elements²⁵. The issues that have been recently completed, are underway or due to be started shortly are as follows:

Safety Issue assessments complete:

- **Human factors competence for regulatory staff** — Without HF competencies, regulators cannot adequately oversee HF implementation in the aviation industry.
- **Design and use of procedures** — It is imperative for procedures to be designed so that they are usable, but this is increasingly difficult in the context of a complex system.

Safety Issue assessments underway:

- **Senior management knowledge, competence, and commitment to HF/HP** — Unless senior management takes the lead in implementing HF practices, the culture does not permeate through the organisation, with consequences for safety and efficiency.
- **Organisational and individual resilience** — Organisational and individual resilience are key factors in successfully managing safety, but there is little regulatory guidance on how to apply the concept.
- **Training effectiveness and competence** — There can be too large a gap between work as imagined and work as done, resulting in ineffective or negative training. Some changes to training regimes may exacerbate the problem.

New Safety Issue Assessments for 2019:

- **Fatigue (Quality Sleep)** – Fatigue has been identified by almost all the domain CAGs and the HF CAG as a safety issue, despite extensive research and regulation in this area.

The results of the in-depth analysis of the above issues may lead to the determination of additional actions for future EPAS editions.

3.1.1.3 Competence of personnel

As new technologies and new business models or operational concepts emerge on the market and the complexity of the system continues to increase, it is of key importance for aviation personnel 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 opportunity presented by new technologies to enhance safety.

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 appropriate 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. The EASA strategy for technical training takes this into account, i.e. '[to] continuously improve the technical competence of Agency staff and manage the harmonisation of training standards for aviation authority staff within the EASA system'.

Key actions:

- Introduce evidence- and competency-based training into all licences and ratings (RMT.0599 and SPT.012);

²⁵ As a result, the HF CAG also provides expertise to assess HF-related safety issues identified by the other CAGs.



- Promote and implement the European Action Plan for the Prevention of Runway Incursions (EAPPRI) and Excursions (EAPPRE) – (RMT.0703);

3.1.1.4 Impact of security on safety

— Cybersecurity

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 and the surge in digitalisation of aviation systems increases the vulnerability of the whole system. It is essential that the aviation industry and authorities share knowledge and learn from experiences to ensure systems are secure from individuals/organisations with malicious intent.

EASA signed a Memorandum of Cooperation with the Computer Emergency Response Team (CERT-EU) of the EU Institutions on 10 February 2017. EASA and CERT-EU are cooperating in the establishment of a European Centre for Cyber Security in Aviation (ECCSA)²⁶. The ECCSA's mission is to provide information and assistance to European aviation manufacturers, airlines, maintenance organisations, air navigation service providers (ANSPs), aerodromes (ADR), etc. in order to protect critical elements of the system such as aircraft, navigation and surveillance systems, datalinks, etc. The ECCSA will cover the full spectrum of aviation. In addition to the information-sharing initiatives intended to be implemented through the ECCSA, the strategy to address cybersecurity risks should be focused on research and studies, event investigation and response, knowledge and competence building, international cooperation and harmonisation and regulatory activities and development of industry standards.

Key actions:

- Develop and implement a strategy for cybersecurity in aviation (SPT.071);
- Implement a regulatory framework for cybersecurity covering all aviation domains (RMT. 0720);
- Introduce new cybersecurity provisions in the certification specifications (RMT.0648).

— Conflict zones

Since the tragic downing of Malaysian Airlines flight MH17, there is a general consensus that States shall share their information about possible risks and threats in conflict zones. Numerous initiatives have been taken to inform the airlines about risks on their international flights.

An EU high-level task force was set up to define further actions to be taken at European level in order to provide common information on risks arising from conflict zones. The task force handed over its final report to Ms Violeta Bulc, European Commissioner for Transport, on 17 March 2016. It contains recommendations for various stakeholders and a proposal to set up a conflict zone alerting system at European Level, through cooperation between MSs, European institutions, EASA and other aviation stakeholders.

The objective of the alerting system is to join up available intelligence sources and conflict zone risk assessment capabilities in order to enable the publication of information and recommendations on

²⁶ <https://www.easa.europa.eu/eccsa>



conflict zone risks in a timely manner, for the benefit of all European MSs, operators and passengers. It complements national infrastructure mechanisms, when they exist, by adding, when possible, a European level common risk picture and corresponding recommendations.

EASA acts as coordinating entity for activities not falling directly under MSs or EC's responsibility and initiates the drafting, consultation and publication of Conflict Zone Information Bulletins²⁷, based on common EU risk assessment.

Key action:

- Disseminate information to air operators in order to mitigate the risk associated with overflying conflict zones (SPT.078).

3.1.1.5 Impact of socio-economic factors on safety

Article 89 of the BR requires the MSs, the Commission, the Agency and other Union institutions bodies, offices and agencies to cooperate with a view to ensuring that interdependencies between civil aviation safety and related socio-economic factors are taken into account. In particular, it addresses the need to address socio-economic risks to aviation safety. EASA is also required to consult relevant stakeholders when addressing such interdependencies and every three years, publish a review, which shall give an objective account of the actions and measures undertaken, in particular those addressing the interdependencies between civil aviation safety and socio-economic factors.

Key actions:

- Through the MAB, set up a forum to cooperate with the Members States and the Commission on interdependencies between civil aviation safety and socio-economic risks.
- Set up a consultation process on interdependencies between civil aviation safety and socio-economic risks through the SAB and the EU Aviation Social Dialogue platform.

3.1.1.6 Data4Safety

Data4Safety (also known as D4S) is a data collection and analysis programme that aims at collecting and gathering all data that may support the management of safety risks at European level. This includes safety reports (or occurrences), flight data (i.e. data generated by the aircraft via the flight data recorders), surveillance data (air traffic data), weather data — these being only a few from a much longer list.

More specifically, the programme will allow to identify better where the risks are (safety issue identification), determine the nature of these risks (risk assessment), and verify whether the safety actions are delivering the needed level of safety (performance measurement). It aims to develop the capability of discovering vulnerabilities in the system across terabytes of data.

An initial proof of concept (PoC) phase has been launched with a limited number of partners to test the technical challenges as well as the governance structure of such a programme. A number of key-building blocks have been achieved, in particular:

- The partnership principles have been framed into a programme charter.
- The data protection rules have been agreed upon and captured into the rules and procedures document and in a data sharing and protection agreement template.

²⁷ <https://www.easa.europa.eu/easa-and-you/air-operations/information-on-conflict-zones>



- The use cases for the PoC phase have been agreed upon and specified.
- The Big Data infrastructure has been set up and the initial set of data uploaded.
- Data Scientists have now joined the programme and started to work on the advanced analytics.

D4S is, in essence, a collaborative partnership programme that aims at inferring safety intelligence. This is done by organising a massive collection of safety data and, equally important, organising the analytical capacity amongst all European aviation safety system stakeholders. This will take the collaborative work with the industry at a scale never done before in Europe.

D4S will therefore directly respond to the GASP Objective 11A — 'Work with industry stakeholders to leverage best practices with safety information analysis.'

3.1.2 Operational safety

3.1.2.1 Address safety risks in CAT aeroplane operations and NCC business operations

During 2018, there were no fatal accidents involving European air operator certificate (AOC) holders performing CAT passenger/cargo. In this category, there were 14 non-fatal accidents; however, the number of non-fatal accidents was lower than the average of the previous 10-year period. In 2018 the number of serious incidents in this category increased in comparison with the average of the previous 10-year period, with 107 serious incidents recorded in 2018 in comparison with the 10-year period average of 81.3.

In the NCC business operations category there were 3 non-fatal accidents in 2018, compared with an average of 1.4 per year over the previous decade. There was also 1 fatal accident, with 1 fatality. The number of serious incidents was also higher than usual, with 7 in 2018, compared with an average of 3.7 per year over the previous decade.

This operational domain remains the greatest focus of the EASA safety activities. The CAGs and ABs will help EASA to learn more about the safety challenges faced by airlines and manufacturers.

The European SRM process identified the following as the most important risk areas for CAT aeroplane and NCC business operations:

- aircraft upset in flight (loss of control)

Aircraft upset or loss of control is the most common accident outcome for fatal accidents in CAT aeroplane operations. It includes uncontrolled collisions with terrain, but also occurrences where the aircraft deviated from the intended flight path or aircraft flight parameters, regardless of whether the flight crew realised the deviation and whether it was possible to recover or not. It also includes the triggering of stall warning and envelope protections.

Key actions:

- Review and promote training provisions on recovery from upset scenarios (RMT.0196, RMT.0581 and SPT.012);
- MSs to address loss of control in flight by taking actions at national level and measuring their effectiveness (MST.028).

See **Section 5.2**.

- runway excursions, runway incursions and runway collisions



Runway excursion covers materialised runway excursions, both at high and low speed, and occurrences where the flight crew had difficulties maintaining the directional control of the aircraft or of the braking action during landing, where the landing occurred long, fast, off-centred or hard, or where the aircraft had technical problems with the landing gear (not locked, not extended or collapsed) during landing. Runway excursions account for 81 high-risk occurrences recorded in the period 2013-2017 in CAT aeroplane and NCC business operations.

Runway incursion refers to the incorrect presence of an aircraft, vehicle or person on an active runway or in its areas of protection. Their accident outcome, runway collisions, account for 28 high-risk occurrences recorded in the period 2013-2017. Despite the relatively low number, the risk of the reported occurrences was demonstrated to be very real.

Key actions:

- Require on-board technology to reduce runway excursions (RMT.0570);
- Improve safety in relation to runway surface condition reporting and in-flight assessment of landing performance (RMT.0296 – Opinion 02/2019 published on 22/02/2019);
- Promote and implement the European Action Plan for the Prevention of Runway Incursions (EAPPRI) and Excursions (EAPPRE) – (RMT.0703);
- MSs to address runway safety by taking actions at national level and measuring their effectiveness (MST.028).

See **Section 0**.

3.1.2.2 Rotorcraft safety improvement

The **Rotorcraft Safety Roadmap** was delivered and endorsed in November 2018 and is available on the EASA website²⁸. This roadmap contains proposals of action in order to significantly reduce the number of rotorcraft accidents and incidents. The roadmap was initiated by EASA who tasked a group of external experts to develop, jointly with EASA, a set of ambitious proposals.

The focus of this roadmap is on traditional/conventional rotorcraft including General Aviation (GA) rotorcraft where the number of accidents is recognised to be greater. Drones, electrical vertical take-off and landing (VTOL) aircraft and urban air mobility vehicles are outside the scope of this activity. The roadmap focuses on safety and transversal issues that are affected by the different domains including training, operations, initial and continuing airworthiness, environment and innovation.

The vision of the roadmap is to ‘**achieve significant safety improvement for Rotorcraft with a growing and evolving aviation industry**’. The following objectives are defined in order to deliver the vision stated above:

— **Improve overall rotorcraft safety by 50 % within the next 10 years**

Most of the accidents can be attributed to operational causes and it is recognised that influencing behaviour in the wider community is a complex process where step changes are difficult to achieve in the short term. However, for accidents caused by technical failures, an ambitious target is set to reduce the number of accidents caused primarily by technical failures by one order of magnitude.



— **Make positive and visible changes to the rotorcraft safety trends within the next 5 years**

The aim of this objective is to drive the implementation of the quick-wins that are identified and to rapidly progress a number of safety improvements.

— **Develop performance-based and proportionate solutions that help maintain competitiveness, leadership and sustainability of the European industry**

This objective also aims to support the development of new business models and encourage innovation.

This specific set of rotorcraft objectives align with the EASA Strategic Objectives, which have been used to derive the strategic priorities for EPAS. The main elements of the roadmap were presented in several fora, including the Rotorcraft Committee (R.COM) and the Rotorcraft Symposium.

The actions are organised in accordance with the following work-streams:

- WS1 Safety Data,
- WS2 Safety Rating and market based solution to incentivise safety,
- WS3 Training Safety,
- WS4 Training Devices and simulators,
- WS5 Safety Promotion,
- WS6 Helicopter Design improvements,
- WS7 Net Safety Benefit and CS Modernisation,
- WS8 Simplify,
- WS9 Continued Aviation Education,
- WS10 Fostering EU financial support for safety improvements.

The outcome of the above activities will feed into ongoing Rulemaking tasks. Following impact assessment and prioritisation, which will entail the update of the Rotorcraft PIA (now BIS) new EPAS actions may be proposed.

3.1.2.3 Address safety risks in GA in a proportionate and effective manner

In the last years, accidents involving recreational aeroplanes have led to an average of 86 fatalities per year in Europe (based on 2008-2017 figures, excluding fatal accidents involving microlight airplanes, gliders and balloons), which makes it one of the sectors of aviation with the highest yearly number of fatalities. In 2018, there were 49 fatal accidents causing 95 fatalities in non-commercial operations with aeroplanes and 17 fatal accidents causing 19 fatalities in the domain of sailplane operations (the 2008-2017 average is 28.6 fatalities per year in Europe). The GA roadmap is key to the EASA strategy in this domain. 2018 seems to show an improvement for gliders, and a deterioration for GA fixed wing.

Although it is difficult to precisely measure the evolution of safety performance in GA due to lack of consolidated exposure data (e.g. accumulated flight hours), it is reasonable to assume that more initiatives and efforts are needed to mitigate risks leading to these fatalities.

The following has been achieved:

- Safety promotion task on airspace infringement (SPT.089), developed in cooperation with the Safety Promotion Network (SPN) of the MSs, now completed;



- [Sunny Swift comics²⁹](#), the first 11 issues have been published in all EU languages. Sunny Swift is now well accepted and becoming a connecting link to attract attention of the end user to a safety topic and related information;
- Creation of the 'Technology for Safety think tank' (T4S) (SPT.084);
- Launch of the first EASA GA Safety Award at the Aero Friedrichshafen 2019;
- Basic instrument rating (NPA 2016-14), cooperation with EUROCONTROL to promote the results of RMT.0677 (SPT.088). The Opinion for RMT.0677, reference 01/2019 (A) & (B), was published on 19/02/2019. In parallel, the AWO RMT.0379 will allow to promote IFR approaches on non-IFR airfields;
- 3rd workshop on 'Enhance See and Avoid' organised first quarter 2019;
- 'GA and low level weather' workshop organised second quarter 2019. On the same theme, a VFR into IMC simulator project organised first quarter 2019 as part of the safety promotion plan for GA.

To improve the dissemination of safety messages (MST.025), EASA introduced in 2018 the GA Community website and organised its Annual Safety Conference on 'Promoting Safety Together: a vision for the future of General Aviation'. Other dissemination actions include the GA roadmap roadshows and continued participation in AERO Friedrichshafen, the 'global show for General Aviation'. The GA Community site has been reinforced in 2019 with a new **GA Safety Together Facebook page³⁰** in order to reach a wider audience.

EASA, in cooperation with its ABs, launched GA Roadmap 2.0. It will concentrate on making GA safer and cheaper thanks to innovation and technology and to support implementation of new or amended regulations.

Key actions:

- Improve the dissemination of safety promotion and training material by authorities, associations, flying clubs, insurance companies targeting flight instructors and/or pilots ; to create a General Aviation Safety Promotion platform (SPT.092);
- Encourage the installation and use of modern technology (SPT.084) and establish a policy to document the concept of 'Net Safety Benefit' in order to facilitate the installation of innovative safety equipment on board GA aircraft by embracing an end-to-end, holistic approach that considers globally the equipment, the organisation and the users. The concept should allow to weigh the safety benefit of a new equipment versus the risks introduced in case of failure of the associated function(s). (SPT.084);
- Support the introduction of new business models (i.e. Cost Sharing Platforms);
- Adapt Design and Production rules ('Part 21 Light') to become more proportionate to the risks (RMT.0689);
- Bring data to the GA cockpits: Weather, Flight Information Services (FIS), and traffic information data should progressively be made available in all GA cockpits. (SPT.087 + RES-021); and
- Support the implementation of new or amended regulations.

3.1.3 Safe integration of new technologies and concepts

This strategic priority guides the introduction of new technologies, innovative solutions and operating concepts to support their safe integration into the aviation system. It will require an evolution of the current

²⁹ <https://www.easa.europa.eu/easa-and-you/general-aviation/sunny-swift-flight-instructor>

³⁰ <https://www.facebook.com/easagasafetypromotion>



European regulatory framework for aviation safety, initially designed for conventional fixed wing aircraft, rotorcraft, balloons and sailplanes. The existing framework relies on active contribution of human beings, increasingly assisted by automation, be it on board or on the ground. Propulsion is mostly provided by piston or turbine engines using fossil fuels.

3.1.3.1 Facilitate European emerging technologies and innovation

Many of the technologies and innovations emerging in the aviation industry bear significant potential to further improve the level of safety, e.g. by improving the collection and analysis of operational data, better condition monitoring of aircraft for the purpose of preventive maintenance, improved accessibility and better quality of meteorological information, etc.

Digitalisation and automation are rapidly increasing in aviation systems. While this has resulted overall in significantly improved safety, the trend towards increasing automation requires a renewed safety focus on the interactions between humans and automation. The next generation of automation will be Artificial Intelligence (AI). This domain, no longer the province of science fiction, could well be the next ‘game-changer’ for aviation³¹. In the near future, new EPAS actions will be required to maximise related safety benefits, while mitigating any threats induced by the implementation of these new technologies.

EASA is very active in developing an AI Roadmap to be released by mid-2019. This AI Roadmap aims at identifying the opportunities, challenges and impact of this emerging technology on the various domains under EASA’s mandate and to propose a corresponding action plan. It will allow the Agency to be prepared in accompanying industrial strategic changes and developments in the coming years. The introduction of a ‘learning assurance’ concept to complement the existing ‘development assurance’ processes will also be assessed in due time.

In this fast evolving context, EASA is putting a lot of effort in preparing the future with e.g. the identification of dedicated resources to innovative projects (internal Innovation Cell), the establishment of an AI Task Force, or the Certification Directorate reorganisation ‘CT Roadmap 2020’. Among others, one of the main objectives of the CT Roadmap 2020 is to map available inside competencies and knowledge to be better prepared for handling new technological developments.

EASA is developing new tools such as Innovation Partnership Contracts (IPC) and Memoranda of Cooperation (MoC) on Innovation with key industry stakeholders, with the double objective of easing the safe introduction of new technologies in the aviation market and better preparing the Agency to face innovation challenges by bridging the knowledge asymmetry with industry on New Technologies. Current IPCs and MoCs cover a wide spectrum of topics such as single pilot operation concepts, the certification of machine learning, new avionics concepts, virtualisation and digitalisation of ATM functions, electric and hybrid Commercial Air Transport, etc. The first deliverables will be available in the second half of 2019.

On new crew concepts, PART-ORO already foresees conditions and limitations under which these type of operations are allowed. In the future, these conditions and limitations will need to evolve in order to extend to large aeroplanes the possibility to be operated by a single-pilot, provided that effective mitigations (e.g. ground assistance, advanced cockpit with workload alleviation means, capability to cope with an incapacitation, two pilots on the ground, etc.) are in place in order to offer an overall equivalent level of safety.

³¹ See AVIATION SAFETY – Challenges and ways forward for a safe future, Research & Innovation Projects for Policy, EC – Directorate General for Research and Innovation, January 2018: <https://publications.europa.eu/en/publication-detail/-/publication/b4690ade-3169-11e8-b5fe-01aa75ed71a1/language-en/format-PDF/source-75248795>



In 2019 EASA started an internal project aiming to evaluate the impact of required changes (internal and external) on a variety of aspects:

- changes to the regulatory environment;
- interaction with ICAO; and
- changes in operators' business models and social impacts.

This will result in a specific set of EPAS actions to be developed and included in the next editions.

All these initiatives should support future enhancement of our global performance/risk based regulatory system fostering the introduction of new aircraft design and operating concepts, in a far more digital environment than we have today.

Research on new technological advances will play an important role to prepare for their safe integration into the aviation system. An objective of EASA's research strategy³² is the upstream support to research activities performed by industry, research centres and universities, by contributing the regulator's views and advice to ensure that the regulatory framework will not be an impediment to innovation. This assures safety, security and environmental protection of novel technologies and simultaneously assists to reduce 'time-to-market' of new products and new kinds of operation.

At the same time, new types of aircraft or propulsion systems are emerging and their novel features may not be addressed in existing certification specifications and operational regulations, (including flight crew licensing, air operations, continuing airworthiness, aerodromes and ATM/ANS).

For example:

— Electric propulsion for aircraft

The market potential is considered significant with related effects on wealth and job creation. Environmental benefits for Europe are also potentially significant both in terms of gaseous emissions and noise.

— Airships

There are at least two airship projects in Europe. These lighter-than-air aircraft are likely to be used in specialised operations in the medium term. The existing flight crew licensing, air operations, continuing airworthiness and aerodrome regulations will need to be adapted to incorporate this type of operation.

— Supersonic Aircraft

Although there are no supersonic aircraft being developed in Europe, it is very likely that such aircraft will be operated in Europe in the medium term. Noise regulations will need to be adapted.

— Tilt-rotor aircraft

There is currently one project under certification in the US, such aircraft could thus be operated in Europe by mid-2021. Tilt rotor aircraft will require adaptation of the flight crew licensing, air operations and continuing airworthiness regulations in particular. Current air operations regulations only address fixed-wing aircraft, helicopters and balloons.

— Sub-orbital aircraft

Such aircraft are already operated in the US and several European countries are interested in developing spaceports. Air operations regulations for example would need to be adapted. These aircraft use rockets

³² <https://www.easa.europa.eu/easa-and-you/safety-management/research>



to reach the fringe of outer space. Fuelling of such rockets at airports would require the installation of dedicated, protected areas.

3.1.3.2 Systemic integration – system safety

To cope with the ever-growing complexity of the aviation system, EASA's work will increasingly focus on managing interfaces and interdependencies between aviation system 'components' with due consideration of the total aviation system. This focus is expected to increase the efficiency in certification and oversight processes, as well as more generally in risk management.

For example, for RMT.0379 'All-weather operations', it is essential to consider the interactions among the different system components involved (aircraft, aerodromes, operational procedures, involved personnel, etc.). Therefore, EASA applied the systems-theoretic process analysis (STPA) methodology developed by the *Massachusetts Institute of Technology*. The adopted STPA methodology represents a hazard analysis technique based on systems thinking and a model of accident causation based on systems theory rather than reliability theory.

Engine/aircraft certification

In 2016 EASA, together with the FAA, initiated a dedicated Engine/Aircraft Certification Working Group (EACWG) to streamline the overall certification process by improving engine/aircraft interface certification and standard-setting practices. The EACWG aims at reducing unnecessary burden in the certification process and better address the interdependencies between aircraft and engine certification programmes of transport category aircraft with turbine engines. This work will also lead to better identifying and addressing gaps and overlaps when updating related CSs.

An effective and efficient certification process, combined with streamlined certification requirements and standards will have clear safety benefits.

The EACWG identified a total of 29 recommendations, in the following areas:

- conducting a certification programme;
- understanding and developing the regulatory requirements;
- understanding if the engine/airframe certification interface is working effectively;
- addressing specific rule and policy gaps.

A number of recommendations were made beyond the scope of the EACWG, such as reviewing the operating regulations, to determine whether discrepancies exist between certification and operational regulations.

The list of recommendations is included as Appendix D in the final report issued by the EACWG in June 2017³³.

In September 2018 the Certification Management Team (CMT), following a request from EASA and the FAA, approved the creation of the Engine Aircraft Certification Tracking Board (EACTB). The EACTB will be tasked with tracking the implementation of the EACWG recommendations, as well as monitoring and reporting any new issue identified either during or outside projects; for instance, associated with new technologies. CMT approved the EACTB request with follow on actions/comments. The EACTB will be framed under the Certification Authorities for Bilateral Agreements & Certification Procedures (CABA).

³³ https://www.easa.europa.eu/sites/default/files/dfu/EACWG_final_report_June_2017.pdf



3.1.3.3 Ensure the safe operations of drones

Common European rules for Unmanned Aircraft Systems operations and registration

To ensure the free circulation of drones and a level playing field within the European Union EASA has developed common European rules. They contribute to the development of a common European market while ensuring safe operations and respecting the privacy and security of EU citizens.

Since 28 February 2019 Europe is one step closer to harmonised rules for safe drone operation as the EASA Committee voted unanimously to approve the EC's proposal for an Implementing Act to regulate the operations of Unmanned Aircraft Systems (UAS) in Europe and the registration of drone operators and of certified drones. The Implementing Act is accompanied by a Delegated Act, which defines the technical requirements for drones. It was adopted by the EC on 12 March 2019 and sent to the EU Parliament and to the EU Council for the mandatory 2 months scrutiny period. If no objections are raised by the EU Parliament or by the EU Council, both acts will be published before the summer of 2019 and the regulation will become gradually applicable within a year of publication. By 2022 the transitional period will be completed and the regulation will be fully applicable.

With this regulation, the proposed EASA general concept, establishing three categories of UAS operations ('open', 'specific' and 'certified' with different safety requirements, proportionate to the risk), is adopted at the European level and will be implemented.

Moreover, as the number of UAS operations increases, there is a need to establish unmanned traffic management (UTM) systems (named 'U-space' in Europe). There has been a huge development of U-space during the last year and it is expected that this will develop even faster in the years to come. The ATM MP reflect the details about the integration of UAS in the EU airspace.

Key actions and future outlook

Following the publication of the EU regulation, EASA will publish Guidance Material (GM) and the description of means to comply with the regulation, the Acceptable Means of Compliance (AMC).

They include:

- a revised version of the draft AMC and GM that were published with Opinion 01/2018³⁴;
- the SORA (Specific operation risk assessment) as AMC to the risk assessment that is required in the 'specific' category;
- the first pre-defined risk assessment to assist operators when applying for an authorisation in the specific category; and
- explanations resulting from the discussions held with stakeholders during the approval of the regulation.

In parallel, EASA is working on the next regulatory actions that will enable safe operations of UAS and the integration of these new airspace users into the European airspace:

- EASA's Opinion containing 2 standard scenarios that each allow the use of a declaration. These standard scenarios will be included in an appendix to the Implementing Act: EASA's Opinion is expected in Q4 2019.
- EASA's notice of proposed amendment (NPA) for UAS in the 'certified' category, which will include a comprehensive package addressing all aviation domains (airworthiness, continuing airworthiness,

³⁴ [EASA Opinion No 01/2018: Introduction of a regulatory framework for the operation of unmanned aircraft systems in the 'open' and 'specific' categories](#)



remote pilot licences, aircraft operations, ATM/ANS and aerodromes): the NPA is expected in Q4 2019- or Q1 2020 and is expected to include IFR operations of large cargo UAS in controlled airspace and UAS operations in an urban environment.

- EASA's Opinion on U-space, including a high level framework: the Opinion is expected by Q4 2019.

All these regulatory actions are included in RMT.0230.

EASA continues to assess the need for action in the field of UAS in particular in relation to enable the harmonised implementation of the adopted regulations for the open and specific categories, the development of the necessary regulations for the certified category and the safe and harmonised development and deployment of U-space across the EU.

EASA Counter Drone Task Force – Proposed Action Plan

The events in Gatwick/Heathrow in December 2018 showed that the unauthorised use of drones at or around aerodromes may - given the potential effect on aircraft safety and security - lead to unacceptable disruption of operations, affecting the air transportation system.

Just after the events, an EASA internal Task Force was established to develop an action plan in order to support the aerodrome operators, aircraft operators and Air Traffic Service (ATS) providers to be better prepared to manage the presence (surveillance, detection or disruption) of unauthorised drones around aerodromes, while maintaining business continuity and while still being able to accommodate friendly drone operations.

EASA is proposing to act as the European coordinator of a roadmap to be developed and implemented with all involved stakeholders: the MSs (including NAAs and law enforcement authorities), the aerodrome operators (through ACI), and aircraft operators, the ANSPs, Eurocontrol and the European Commission. This implies also providing guidance on roles and responsibilities between all these different actors.

The action plan is articulated around five objectives, each objective being transposed into a short/medium term concrete action³⁵.

— Objective #1: Educate the public to reduce misuse of drones around aerodromes

With the upcoming Implementing Rules on drones, the MSs will be able to define geographical zones, i.e. portions of airspace that facilitate, restrict or exclude UAS operations in order to address risks pertaining to safety, privacy, protection of personal data, security or the environment, arising from UAS operations. The UAS geographical zones available to the public should be using a common unique digital format.

Proposed action: Create a standard providing a common and unique digital format to be used by MSs to make the UAS geographical zones available to the public. The ToR on this action, proposing a MS Task Force, was presented at the MAB SG meeting on 25 April 2019.

— Objective #2: Prepare aerodromes to mitigate risks from unauthorised drones use

Preparation of aerodromes to mitigate potential misuse of drones in their vicinity includes the definition of roles and responsibilities for the following areas: information gathering (including detection methods), coordination of procedures, risk assessment, training.

Proposed action: Develop guidance material on the definition of roles and responsibilities when sightings are experienced in the vicinity of an aerodrome.

³⁵ The action plan was distributed for comments and endorsement to MAB and SAB on 23 April 2019 and feedback is expected before end of May 2019.



— **Objective #3: Support the assessment of the safety risk of drones to manned aircraft with scientific data**

Assessing the safety risk associated with the presence of an unauthorised malicious drone in the vicinity of an aerodrome, implies understanding the potential effect of a drone collision against manned aircraft. Currently there is a lack of conclusive scientific evidence, which led EASA to launch a research project to get an understanding of the outcome of potential collisions of mass market drones ('threat') with manned aircraft ('target'). This research project also aims to identify and recommend drone design strategies. The first project deliverables will not be available before the end of 2021. Therefore EASA is proposing as a short-term solution in the form of a workshop to share relevant scientific data available in the meantime.

Proposed action: Based on the future workshop's outcome, draft a report to gather any scientific data relevant to the consequences of a drone collision with manned aircraft.

— **Objective #4: Ensure that C-UAS measures are considered from a global safety perspective**

While the responsibility for disrupting activity of misused or malicious drones falls under national law enforcement regulations, the choice of disruption technologies is a challenge since they could create unintended safety hazards and unmitigated risks to other manned aircraft, authorised drones or aerodrome infrastructures.

Proposed action: Develop guidance material to ensure the integrity of "No Flight Zones for Drones", to reduce unintended impact on CNS equipment and NAV aids infrastructure and to support public education and awareness initiatives.

— **Objective #5: Support adequate occurrence reporting**

EASA has an essential role to play in maintaining a record of occurrences for trend analysis and initiating proactive measures. Analysis of data/information related to unauthorised presence of drones in the aerodrome area and analysis of the effectiveness of the measures taken are considered as key.

Proposed action: Define criteria to classify an airprox between an UA and manned aircraft and an UA airspace infringement.

Other actions of non-regulatory nature on drones

- Coordinated safety promotion to create understanding and awareness of the rules and to support safe UAS operations in the long term (SPT.091);
- Aircraft drone collision research action.

EASA is very much engaged in the development of standards for the open and specific categories of drones and in the development of SP material.

3.1.3.4 New operating concepts and business models

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

Some new business models such as those responding to the increased demand for flying in the cities, 'urban air mobility' or those generated by the increased digitalisation in the aviation industry (virtual/ augmented reality, digital twins, etc.), the introduction of more autonomous vehicles and platforms, single-pilot operations and completely autonomous cargo aircraft, will challenge the way authorities regulate and oversee the aviation system.



Until now the air travel over urban areas has been limited to very special operations, such as police operations or helicopter emergency medical services (HEMS). New aviation partners are seeking new business models to provide more services to citizens, ranging from parcel delivery by air within the cities to flying air taxis. These new business models and operations need to be performed in a safe and secure manner to maintain the confidence that citizens have in the air transport system. EASA has a key role to play in this area.

Key action:

- Develop rules or amend existing ones, where necessary, to address new technologies and operational air transport concepts (RMT.731 'New air mobility').

3.1.3.5 Electric & hybrid aircraft

Innovation in any industry is a key factor influencing its competitiveness, growth and employment potential. With this strategic priority in mind, and looking at the increasing number of new aircraft manufacturers and suppliers working on aircraft using electric propulsion (and increasingly electric systems), it becomes apparent that there are very strong prospects as well as demand, from industry and governments, to have hybrid propulsion and eventually fully electric aircraft. Environmental benefits, in terms of emissions and noise, as well as social enhancements (e.g. mobility and accessibility) are also determining factors. However, potential disadvantages, such as the disposal of batteries, will not be addressed.

To encourage the safe integration of new technological advancements in the wider electrical aviation sector overall, flexibility in the approach on all types of concepts, variations and designs types will be enhanced.

To allow for the projects to thrive, a number of complex issues need to be tackled from a regulatory perspective. In terms of rulemaking, until such time as enough experience will have been gained, Special Conditions/Derogations will be applied in a flexible and innovative way, as already allowed by the system and in line with Better Regulation principles. The use of performance-based and non-prescriptive regulations has been used for e.g. CS-23, CS-VLA and for the future rules for drones.

After two applications for small VTOL have been received EASA launched at the end of 2018 a public consultation on its proposal for a Special Condition (SC) that includes suitable airworthiness standards which will enable the certification of small VTOL aircraft. The number and the nature of the comments received can be seen as an indication that such aircraft may have to be treated as a new product category which would neither fit the CS-23 nor CS-27 product category. However, the SC is supposed to represent the first component of the regulatory framework to enable the safe operation of air taxi and electric VTOL (eVTOL) aircraft in Europe. In anticipation of future air taxi operations in urban area a number of noise measurements will be performed on small VTOL in summer 2019.

Moreover and in order to enable type certification of electrical engines (EPU) for propulsion a set of technical requirements for a Special Condition is under development that is supposed to be published by mid-2019. By summer 2019, the first fully electric propulsion small aircraft type model is planned to be type-certificated. Additionally, the first positive investigations, also for large transport aeroplanes, have been conducted.

Likewise, in electric and hybrid aviation, EASA aims to build up knowledge on emerging technologies, support certification and networking, in view of defining an all operations philosophy. EASA is also engaged through internal training, and providing derogations support. Coordination and development of the necessary research initiatives and/or safety promotion as well as accommodating these in the best possible manner will be considered in future EPAS editions.



Rulemaking actions are only foreseen for future EPAS editions, once EASA will have collected practical technical experience with the type certification of these types of aircraft. This includes some already identified gaps for electric propulsion as certain future operational environments are currently not covered by existing rules and specifications, for e.g. use of urban areas, specifically designated areas at aerodromes, unconventional landing pads, irrespective of location, off airfields, etc. This approach would help to define in advance the necessary steps towards properly changing, updating and/or introducing regulations, specifications or procedures.

Equally, interaction has to be established between electric and hybrid aviation and the relevant EU bodies, MSs and foreign authorities, promoting and communicating on European and global harmonisation on electric and hybrid aviation regulations. Activities are also foreseen to assess the extent to which expected environmental benefits are realised and what kind of new challenges may arise, e.g. the increased noise level in urban areas.

3.1.3.6 Enable the implementation of new technologies developed by SESAR

EPAS also caters for the regulatory and implementation needs of the SESAR essential operational change and other new technological advancements (such as, but not limited to, U-space technological solutions, virtualisation and cloud-based architecture and remote tower operations).

Since the Basic Regulation repealed the Regulation (EC) No 552/2204³⁶, global interoperability, civil-military cooperation and compatibility with other regions' development plans, such as NextGen, form an integral part of EASA's work in impact assessment and future rulemaking or other related actions. Furthermore, EPAS provides a proactive and forward-looking view to the implementation of essential operational changes that support improvements required to safely manage the SESAR target operational concept.

In addition, EASA will consider additional implementation support actions that facilitate the achievement of operational improvements and new ATM operational concepts. These actions should approach the implementation needs of the enabling infrastructure in a comprehensive manner, thus facilitating the safe, secure and interoperable implementation of cost-effective solutions considered as necessary. These solutions could include GNSS, SATCOM, other satellite-based Communications, Navigation and Surveillance solutions or other technical solutions coming from the telecommunications field. It should avoid requiring specific technological solutions while specifying clear performance requirements to be met.

Key actions:

- Support the development of datalink operations through RMT.0524, expanding the current Commission Regulation (EC) No 29/2009³⁷ to alternate data link technologies compliant with performance requirements;
- Support the implementation of performance-based navigation in the European ATM network as per Commission Implementing Regulation (EU) No 2018/1048³⁸;
- Support the implementation of the regulatory needs of the SESAR projects (RMT.0682). This encompasses regulatory actions at rule level and validation of ad-hoc industry standards.

³⁶ [REGULATION \(EC\) No 552/2004 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 10 March 2004 on the interoperability of the European Air Traffic Management network \(the interoperability Regulation\)](#)

³⁷ [COMMISSION REGULATION \(EC\) No 29/2009 of 16 January 2009 laying down requirements on data link services for the single European sky](#)

³⁸ [COMMISSION IMPLEMENTING REGULATION \(EU\) 2018/1048 of 18 July 2018 laying down airspace usage requirements and operating procedures concerning performance-based navigation](#)



3.1.3.7 Enable all-weather operations

The European industry should have the capability to take full advantage of the safety and economic benefits generated through new technologies and operational experience. This represents a widely recognised interoperability subject touching on a wide range of areas, including performance based aerodrome operating minima (PBAOM), related aerodrome equipment to support such operations, and procedures both for CAT and GA.

Aircraft operations have always been influenced by the weather. Whilst modern aircraft design and the availability of weather observations and forecasts contribute to a predominantly very safe flying environment, there remain occasions where severe weather events have been identified as being a contributing factor in the causal chain of accidents and incidents. Such events remain of concern within the aviation community and corresponding safety recommendations (SRs) have been addressed to EASA by accident investigation authorities.

Since 2015, EASA has increased its focus on weather-related challenges and, as part of that work, has sought to identify whether the meteorological information available to pilots could be enhanced. Accordingly, EASA organised a first workshop dedicated to ‘Weather information provided to pilots’. Following the workshop and the acknowledged need to take further action, EASA integrated the ‘Weather Information to Pilots’ project within the ‘All Weather Operations’ (AWO) activities (RMT.0379). A project team put together in April 2016 — involving representatives from international organisations, associations and industry — was tasked with an assessment of the situation and this resulted in the ‘Weather Information to Pilots Strategy Paper’³⁹ issued in January 2018. The EASA Strategy Paper focuses on the weather phenomena that introduce risk to aviation, describes the current mitigation measures, the deficiencies and how to overcome them. The scope of the paper is focusing on CAT aeroplanes. In the near future, similar work will be undertaken to address weather information to pilots in GA and rotorcraft operations.

The EASA Strategy Paper proposes nine recommendations to further improve weather information and awareness. The recommendations are detailed on the Weather Information to Pilots web page⁴⁰ and on pages 28-29 of the Strategy Paper itself. They are summarised below:

- **Recommendation #1: Education and training: weather hazards, mitigation, and use of on-board weather radar**
- **Recommendation #2: Improved weather briefing presentation:** promote improvements to the presentation of weather information in-flight briefing.
- **Recommendation #3: Promotion of in-flight weather information updates:** promote the use of the latest information available to ensure up-to-date situational awareness.
- **Recommendation #4: Pan-European high-resolution forecasts:** support the pan-European developments regarding the provision of high-resolution forecasts for aviation hazards (e.g. CAT, icing, surface winds, cumulonimbus (CB), winter weather).
- **Recommendation #5: Use of supplementary, ‘Tier 2’ weather sources for aviation purposes:** develop the necessary provisions to support the use of supplementary ‘Tier 2’ meteorological information by pilots.

³⁹ <https://www.easa.europa.eu/sites/default/files/dfu/EASA-Weather-Information-to-Pilot-Strategy-Paper.pdf>

⁴⁰ <https://www.easa.europa.eu/easa-and-you/air-operations/weather-information-pilots>



- **Recommendation #6: Development and enhancement of aircraft sensors/solutions:** promote the development of intrinsic aircraft capabilities to facilitate the recognition and, if required, the avoidance of hazardous weather.
- **Recommendation #7: Connectivity to support in-flight updates of meteorological information:** promote deployment of connectivity solutions (uplink and downlink) to support the distribution of meteorological information to pilots.
- **Recommendation #8: Provision of enhanced meteorological information:** promote provision of high-resolution observed and forecast meteorological information, particularly data with high spatial and temporal resolution such as imagery derived from satellite and ground weather radar sources.
- **Recommendation #9: On-board weather radar, installation of latest generation equipment:** promote the installation of the latest generation of on-board weather radars, with emphasis on including capability for wind shear and turbulence detection.

To support the above, a BIS will be defined to determine the need for additional EPAS actions. These could then be considered for the 2021-2025 EPAS planning cycle.

Key action:

- Review and update the AWO rules in all aviation domains (RMT.0379).

3.1.4 Environment

Ensuring sustainability is a significant challenge for the aviation industry, MSs, EC and EASA. Sustainable aviation is about combatting climate change, and reducing the health effects from aircraft noise and air pollution. This needs to be considered in the global context in order to ensure a level playing field such that European industry remains competitive in a rapidly changing world. The introduction of novel technologies (including electric air taxis and drones, hybrid systems) require particular attention from an environmental protection perspective.

EPAS contains the status of the environmental standards related to sustainable aviation. The European Aviation Environmental Report - EAER⁴¹ provides an overview of the historic, current and forecasted environmental performance of the European aviation sector

Noise, Air Quality and Climate Change: Introduce the ICAO CAEP/11 requirements and recommendations

The aviation industry needs to minimise its impact on the environment as much as possible while providing safe air transport. In addition, it is key to have environmental requirements that are consistent with the rest of the world to ensure a level playing field.

Actions in this area will contribute to European policies on climate change, air quality and noise reduction. The ICAO Committee on Aviation Environmental Protection (CAEP) agreed in February 2019 on a new non-volatile Particulate Matter (nvPM) emissions standard, and proposed improvements to the existing noise, aircraft engine emissions and aeroplane CO₂ emissions standards. The agreed updates to the environmental standards will need to be implemented into European legislation in order to become effective.

The actions to implement ICAO standards in Europe will be adjusted and detailed once the outcome of the ICAO adoption process is communicated in an ICAO State Letter.

⁴¹ www.easa.europa.eu/eaer



Adapting to the effects of Climate Change

In addition to the need for the aviation industry to minimise its impact on the environment, the aviation system as a whole needs to prepare for and adapt to the effects of a changing climate. An increasing number of organisations are starting to take action to adapt to the impacts of climate change, with initiatives at European, national, and organisational levels. The European Aviation Environmental Report 2019 provides an overview of climate effects (e.g. changes to wind patterns, rising sea level) and their aviation impact, together with information on the status of preparedness of the European industry with regards to mitigating these effects.

The European Climate Adaptation online platform⁴² created in support of the EU Strategy on Adaption to Climate Change⁴³ contains further information on aviation infrastructure impacts and potential adaptation measures.

Key actions:

- Implement ICAO CAEP/11 agreed amendments to Annex 16 Volumes I, II and III (RMT.0514).
- Develop PM regulations and guidelines (RES.024);
- Obtain high-quality technical expert support on standardisation issues (RES.024).

In addition, EASA is also involved in the following activities:

- Environmental fraud prevention;
- Development of an ecolabel;
- LifeCycle assessments;
- Novel technologies;
- European Aviation Environmental Report and Recommendations;
- Sustainable aviation fuels;
- Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA);
- International cooperation projects on aviation environmental protection; and REACH monitoring process together with European Chemical Agency under the Memorandum of Understanding.

Following the observation from Advisory Bodies that the inclusion of Environment in the EPAS may create confusion, EASA seeks the views of stakeholders on how to address environmental topics appropriately in the future.

⁴² <https://climate-adapt.eea.europa.eu/>

⁴³ https://ec.europa.eu/clima/policies/adaptation/what_en



3.2 Strategic enablers

3.2.1 Research

The European aviation industry has gone through a successful development in the past decades placing Europe at a leading position in the global competitive market. Significant elements of this success story are the European aviation research and innovation programmes of the EU as well as the MSs' and industry's research activities. Therefore, these initiatives are of high relevance to the setting-up of EPAS actions. They contribute to EASA's objectives for ensuring the highest level of aviation safety, security and environmental protection in Europe.

Recently developed technologies, notably in the areas of complex software, propulsion, new materials, connectivity, digitalisation, data science, autonomous vehicles, space operations, business models are planned for entry into service at an unprecedented pace in the aviation economic system.

Further evolutions may address emerging risks such as security, including cybersecurity, AI applications and systems or aviation impact on climate change.

Moreover, aviation growth is calling for solutions that are resilient to weather hazards, continuous traffic growth and increased complexity of traffic ranging from operation at low altitudes to commercial aircraft operations and operation in remote areas.

The European and national research & innovation programmes, including Clean Sky and SESAR, are developing new aviation concepts and solutions, which will need to be certified or approved prior to entering operation in Europe as well as in third countries. Furthermore, new entrants, in particular in the drone sector, bring new requirements to the European aeronautics arena, which also necessitate new European regulatory responses.

It is essential for Europe that EASA is in the position to support and assist the streamlining of the deployment of those new solutions. To meet these objectives, notably with regard to the safe integration of new technologies and concepts, and to measures improving environmental protection, EASA must be equipped with new tools, agile methods, test/demonstration standards and modular evolutionary approaches for product certification and operational approval processes. This requires a number of evolutions to the current regulatory framework in order to cope with these current and future expected developments.

Playing a pivotal role between innovation and the development of safety, security or environmental protection standards, EASA is positioned to federate the future aviation research and innovation network comprising MSs, the industry and the aviation research community. It can also support development of new instruments for European aviation research and innovation projects' prioritisation and coordination, in support to the EU Advisory Council for Aviation Research and Innovation in Europe (ACARE) Strategic Research and Innovation Agenda (SRIA)⁴⁴.

EASA's BR entails that EASA support the development of EU aviation/aeronautics research programmes and projects; to develop synergies and collaboration between the Agency and publicly funded research; to catalyse cooperation between national aviation research programmes and research centres. To this end, discussions between the Association of European Research Establishments in Aeronautics (EREA) and EASA have taken place to possibly launch a common initiative for a 'European Research Agenda'. Furthermore, a federation of universities, collaborating with the Agency to join research efforts is in the making, with *Ecole Nationale de l'Aviation Civile Toulouse*, *Technische Universität Braunschweig* and *Technische Universiteit Delft* in the lead.

⁴⁴ 2017 edition of ACARE SRIA: <http://www.acare4europe.org/sria>



Regularly, EASA experts and external stakeholders suggest or request research activities topics that are needed to tackle the issues identified. These topics are prioritised on a yearly basis and included in the 'Research Agenda'⁴⁵, which groups the requests for a given period, even without having immediate funding. A short overview of the prioritisation exercise can be found on the EASA website. The Research Agenda encompasses a series of innovation- and efficiency-related actions besides safety-focused research.

The research projects becoming part of EPAS are those that are triggered by safety recommendations addressed to EASA or that are already covered by a funding source or likely to be funded by the start of the reference period of the given EPAS.

Started in 2019, a series of research actions identified in EPAS will be funded through a delegation agreement, established with the EU Horizon 2020 programme and coordinated by EASA. The list of projects is as follows:

RES.006 - Effectiveness of flight time limitations (FTL): The 2nd assessment is about the collection, analysis and processing of historical and in-flight crew fatigue data to support the continuous review of the effectiveness of the provisions concerning flight and duty time limitations and rest requirements as foreseen in Regulation 965/2012⁴⁶; this is to cover the envelope of most frequent short, medium and long-haul scheduled air operations and encompass schedules in less favourable times and classified as disruptive.

RES.008 - Integrity improvement of rotorcraft main gear boxes (MGB): Research aimed at identifying threats to the integrity of critical components of rotor drive systems and at developing methods for evaluating flaw-tolerant critical component designs. Specifically, this includes enhancements to the design of helicopter MGB and its attachments, to preclude separation of the mast and main rotor from the helicopter and enabling autorotation even in the event of major failure of the main gear box components.

RES.009 - Helicopter Offshore operations – New floatation systems: Assessment of technical solutions for enhancing helicopter floatation at sea in view of heightening survivability following helicopter capsizing - which is the major event conducive to fatalities due to drowning.

RES.013 - Quick recovery of flight recorder data: Further to the MH370 accident and the adoption by ICAO of consequent SARPs⁴⁷, assessment of the feasibility for using wireless transmission solutions for timely recovery of flight recorder data – namely flight parameters, audio and video images – in the follow-up to an accident; particular emphasis should be addressed to tackle prevailing open issues, such as those linked with the possible circumstances of an accident - loss of engine power, unusual aircraft attitude, aircraft complete destruction, accident in an oceanic area...- , the reliability and cost impact of the proposed solutions, their aptitude for usage in accident investigations as well as associated data privacy considerations.

RES.015 - Vulnerability of manned aircraft to drone strikes: Assessment of the potential collision threats posed by drones to manned aircraft and evaluation of their estimated impacts; establishment of a risk model to support regulatory and operational stances to be validated by means of a comprehensive set of simulated impact tests.

RES.016 - Fire risks caused by portable electronic devices on-board aircraft: Research aimed at the full characterisation of the fire risks associated with the transport of large portable electronic devices (PED) in aircraft, notably of those stored in the cargo compartment in the checked-in luggage; this encompasses theoretical and experimental work to deepen the knowledge related to the inception and propagation of PED originated fires as well as devising efficient and cost-effective means for their detection and suppression.

⁴⁵ [EASA Research Agenda 2019-2021 rev 1](#)

⁴⁶ [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](#)

⁴⁷ ICAO Annex 6 Part I, section 6.3.5



RES.024- Assessment of Environmental Impacts - Engine Emissions: Development of extended and more robust standards for purposes of supporting the assessment of engine emissions.., The emphasis shall be on robust methods for nvPM mass and number determination including, notably, particle size measurement and sampling techniques, consideration of the effect of both ambient conditions and volatile PM, and sensitivity and uncertainty analyses. This task merges RES.018 and RES.019 of the EPAS 2019-2023, due to the similarity of research activities to be undertaken.

RES. 025 - Assessment of Environmental Impacts - Aircraft Noise: Development of extended and more robust standards for the purpose of supporting the assessment of aircraft noise footprints. The focus will be two-fold: (i) extension of current helicopter noise models towards ensuring the coverage of current types of helicopters within the European fleet⁴⁸; (ii) extension of prevailing modelling approaches in view of the assessment of the noise footprint of new aircraft concepts prior to their certification – centred on supersonic aircraft and vertical take-off and landing (VTOL) aircraft.

RES.026 - Market-based Measures: Extension and updating of existing capabilities for assessment of Market-based Measures notably to cater for new traffic data and forecasts, handling of novel scenarios and measures, ensuring their fitness-for-purpose and credibility for supporting critical policy-making both at European (EC, MSs) and international (ICAO) level.

The list of research-related EPAS actions is included in **Appendix J: Index**

⁴⁸ work planned to be carried out in tandem with the US Department of Transport Federal Aviation Administration, implementing EU-US data exchange agreements



3.2.2 Safety promotion

From the beginning of 2019, EASA has begun the launch of a new safety promotion strategy that will take an increasingly proactive approach to the way EASA communicates with the European aviation community. This will position EASA's Safety Promotion programme as a safety promotion leader in Europe and worldwide having influence and a recognised brand. Understanding that different aviation stakeholders have very different needs in terms of information and communication channels, the strategy takes a domain-based approach. It has been split into operational domains such as aircraft operations, aerodromes and groundhandling, General Aviation, rotorcraft and drones.

When possible, safety promotion will be used as a light and effective alternative to rulemaking and oversight. It will also support a better understanding of EU civil aviation regulations and provide more information on safety intelligence and analysis results. The strategy will provide continual information on a wide range of safety topics at domain level. A wide range of communication tools will be used to spread safety messages and this will see EASA becoming more active on social media and using new and novel ways to inform people about safety. Within EPAS, there is a number of specific SPTs and this is augmented by a number of new actions to promote important safety topics in each of the main operational domains.

3.2.3 International cooperation

One of the EC's 10 key priorities is that the EU becomes a stronger global actor. EASA supports the EU and cooperates with national, regional and international organisations alike in order to enhance global aviation safety, and supports the free movement of European products and services. Furthermore, ICAO acknowledges that aviation safety can be better managed at regional level and recognises the importance of Regional Safety Oversight Organisations (RSOOs) in this respect. This supports a stronger role of EASA in a broader European context.

In this perspective, the strategic priorities at an international level are the following:

- **Strive, through international cooperation, that citizens' interests for safety and environmental protection are being met at global level.** This can be achieved through:
 - contribution to improving global safety and environmental protection;
 - support to the resolution of safety deficiencies through technical assistance; and
 - promotion of regional integration wherever effective.
- **Ensure a global level playing field for European industry.** This can be achieved through:
 - promotion of fair and open competition and removal of barriers to market access;
 - enabling efficient oversight between international partners; and
 - promotion of EU aviation standards around the world.
- **Enable the European approach.** This can be achieved through:
 - coordination of common positions at ICAO;
 - centralisation of international oversight actions and intelligence;
 - bringing together different European actors in technical assistance; and
 - promoting the recognition of the European system at ICAO level.



3.2.4 Digitalisation

Aviation moves into the digital era at an unprecedented pace. Almost all aviation sectors are affected by these developments. Aircraft manufacturers are moving, mostly for future products, from trend monitoring of key components to using increasingly connected digital systems, such as on-board sensors and digital engine twins. Digitalisation also affects aircraft operations by allowing certain operations to be carried out or controlled remotely. In certain extreme cases, such as drones, digitalisation can take the shape of full automation with minimal remote human intervention. Digitalisation is furthermore transforming the way training is performed and supports the move towards fully data-driven decision-making.

In order to exploit the full digitalisation potential, the aviation sector needs to progress in the ‘Information Management’ dimension. Today the fragmentation of data both in terms of taxonomy and storage does not allow a significant progress for the analysis according to the latest methodologies. These developments are increasingly challenging traditional aviation regulations and calling for an evolution towards more performance-based, technology-neutral requirements, which will enable the novel business models that emerge from the digital transformation, increasing at the same time safety and efficiency.

EASA is engaged in defining its roadmap to digitalisation in order to determine the following:

- changes needed in the regulatory system to accompany and benefit from industry digitalisation;
- actions needed to keep abreast of digitalisation issues, in particular in relation to product certification and operations;
- key EASA digitalisation activities needed, both for external purposes (e.g. e-licence for pilots) or internal purposes (e.g. digitalisation of processes); and
- actions needed to implement EU’s digital agenda and e-government action plan.

The roadmap will have due regard to digitalisation-induced cybersecurity issues and related EPAS actions.

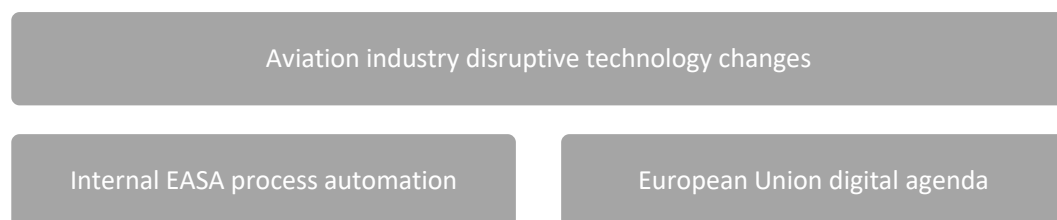


Figure 5. Overview of the digital transformation strategy drivers

The high level EASA digitalisation roadmap is defined to address 4 main challenges as represented below:

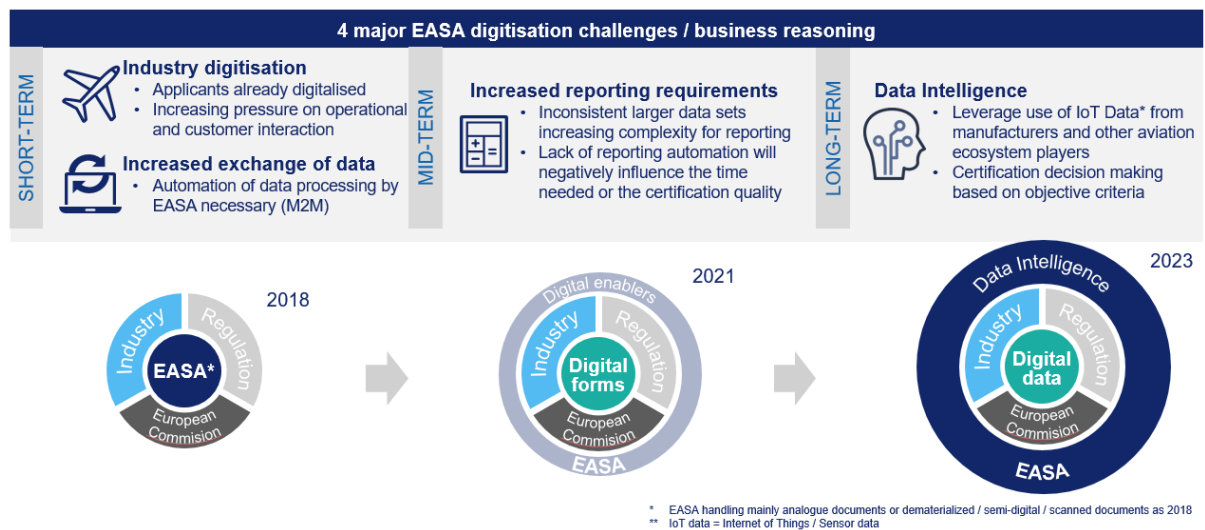


Figure 6. EASA High level digitalisation roadmap

The purpose is to allow EASA and the aviation system to integrate by 2023, allowing streamlined processing of data and advanced analytics capabilities. This can be achieved only through the realisation of the intermediate milestone set for 2021 where EASA should reach the full digitisation and develop the digital enablers necessary to move data intelligence. The roadmap can only add value if executed in association and alignment with the aviation sectors, with specific attention to the convergence of a robust industry wide Information Management framework.

In 2018 EASA started the digital Licences for EU Aviation Pilots (dLAP) proof of concept (PoC) project, following the vision of providing a contemporary ‘state-of-the-art’ IT system, being applied in EASA’s MSs Competent Authorities (CAs), to provide a comprehensive and regulated IT platform for issuing, revalidating, renewing, suspending or revoking digital pilot licences.

The dLAP project intends to provide easy-to-use services, especially for aviation pilots, at a first stage, by carrying their (currently only paper-based licences) digitised on their mobile devices. The IT platform will therefore provide a digital signature workflow for electronic Identification (eID) to verify securely the identities of the pilots using the system and to enable the competent authorities, the authorised examiners and aeromedical examiners to validate and update the pilot licence. The dLAP platform will also provide a web portal with multiple interfaces to be viewed in a standard web-browser to provide easy-to-use services to the pilots, aeromedical examiners and flight examiners. dLAP PoC will run until July 2019 and the next stages of development and implementation will be phased in until 2021.

3.2.5 Technical Training

According to ICAO Annex 19, qualified technical personnel is a critical element (CE-4) of the State safety oversight system. Annex 19 stipulates that States shall establish minimum qualification requirements for the technical personnel performing safety-related functions and provide for appropriate initial and recurrent training to maintain and enhance their competence at the desired level.

Consequently, as in ICAO’s GASP, EPAS considers technical training as a strategic key enabler for an effective State oversight system.

Aviation is a very dynamic sector with rapidly innovating technologies and business models. At the same time, it is confronted with evolving new risk scenarios in terms of both safety and security. These rapid changes are



a challenge for the staff of aviation authorities, as well as for aviation organisations, to keep abreast of new developments and to update their knowledge and competencies to fulfil their responsibilities.

Furthermore, Reg. (EU) No 2018/1139 provides a framework for pooling and sharing of technical resources between the MSs and EASA. The implementation of this new approach needs to be based on harmonised training and assessment standards for aviation personnel.

EASA will therefore continue to focus on the following key areas:

- Maintenance and further development of the competence of EASA staff based on training programmes specifying initial and recurrent training subjects.
- Further harmonisation of training and assessment standards for aviation inspectors within the EASA system, together with the Common Training Initiative Group (CTIG).
- Cooperation with aviation authorities and aviation organisations.
- Support to universities and similar educational institutions through lectures.
- Support of the international cooperation strategy through dedicated training services.
- Continuous improvement of the European Central Question Bank (ECQB), used for knowledge examinations of commercial pilots; taking into account EPAS priorities, where relevant for the training of pilot competencies.

Through the CTIG and the NAA training focal points, EASA makes available its catalogue of technical training courses to all MSs. The catalogue includes a number of safety-management-related training courses, such as training on SSP, EPAS, safety data collection & analysis, as well as on SRM. Additional training needs to support the implementation of the SSP (MST.001) and SPAS (MST.028) will be discussed with the Safety Management TeB on an ongoing basis.



3.2.6 Oversight and Standardisation

The Standardisation process monitors how States apply the requirements of the Basic Regulation and of the connected Implementing Rules. In particular, the Agency assesses the States' capability to discharge their safety oversight obligations.

What we want to achieve

Through the application of the EU aviation safety regulations and the deployment of the EPAS, EASA supports the establishment and the maintenance of robust oversight systems across Europe, where each CA is able to properly discharge its oversight responsibilities.

To that end it is essential that States, though their CAs, are capable to manage the safety risks identified at State level. This presumes that those risks are identified through a process to collect and analyse data and mitigated in an effective way, implying the measurement and monitoring of safety performance leading to continual improvement.

In addition, exchange of information and cooperation with other CAs, implementation of management systems in all organisations, as well as ensuring the availability of adequate personnel in CAs need to be in place, are essential enablers.

Currently identified weaknesses

The SAR 2018 identifies the following areas of concern:

- The quality of the certification and oversight performed by the authorities remains in some cases unsatisfactory. The severity of the issue varies from domain to domain, but it is consistently observed.
- Although progress has been noted in the functioning of the Authorities' management systems, the oversight of management systems in industry is still below the expected standard. This puts into question the ability to implement risk- and performance-based oversight.
- Differences among States in terms of levels of maturity in the application of the rules are still present, with some States continuing to encounter difficulties in meeting the minimum standard. This could undermine the integrity of the European aviation system and needs to be properly addressed. Some implementation support initiatives generated some improvement, but not in all cases.
- As also noted during the SYS inspections, the use of available data and intelligence, to drive a more effective and better targeted oversight is still sporadic and not widely spread as it should, at times leaving data analysis detached from the oversight performed. Further analysis of Standardisation inspection results shows that some CAs still show a reactive attitude.

A number of actions are presented in **Chapter 5 Section 5.6** to drive improvements in these areas of concerns.

It should also be noted that, in line with the priorities of the BR, EASA started to roll out an implementation support programme that will entail activities mainly aimed at strengthening the safety oversight capability of the MSs, together with targeted support activities addressing SSP and SPAS implementation, thus enabling a robust and harmonised EU aviation safety system.

EASA will also continue to support CAs in the application of very large-scale demonstration (VLD) activities in support of essential operational changes that are intended to improve the European ATM system.



3.3 New Basic Regulation

3.3.1 General

The BR prepares the grounds for the future challenges ahead while maintaining aviation as a safe, secure and environmentally friendly form of transport for EU citizens. It entered into force on 11 September 2018.

The BR Chapter II ‘Aviation safety management’ creates a solid legal foundation for EPAS and transposes ICAO Annex 19 SARPs for State safety management.

The BR conforms with the EU Commission’s Aviation three key strategic priorities, namely: maintaining high EU safety and security standards, hence strengthening the EU’s role as a global actor; tapping into growth markets while promoting job creation; and tackling limits to growth in the air and on the ground.

The main BR objectives and related provisions are included below:

Main objective	BR provisions
Making better use of the EASA system’s limited resources with the following initiatives	<ul style="list-style-type: none">• A pool of European aviation inspectors• New framework for reallocation of responsibilities• Oversight support mechanism• Additional privileges for qualified entities• Repository of information (including aero-medical) and Big Data• Updated framework for better working at international level
Having a flexible and performance-based system, by introducing the following principles:	<ul style="list-style-type: none">• Risk- and performance-based elements reinforced• Additional flexibility for General Aviation (e.g. use of declarations)• Safety plan for Europe and national safety plans• Opt-in for Annex I aircraft manufacturers• Opt-in for ‘state aircraft’• Opt-out for light sport aircraft
Integrating unmanned aircraft, by applying these conditions:	<ul style="list-style-type: none">• 150 kg threshold removed from Annex I (all unmanned aircraft within scope)• Operation-centric framework• Use of market harmonisation legislation• Registration requirements• Protection and efficient use of radio-spectrum• Amendments to the accident investigation and occurrence reporting regulations
Closing previous gaps and inconsistencies, such as:	<ul style="list-style-type: none">• Interdependencies with other domains, such as security, environmental and ATM legislation• Essential requirements and cooperation framework for cybersecurity• Proportionate safety requirements for groundhandling (GH)• EU environmental protection requirements to the extent not covered by ICAO Annex 16
Allow for a better governance in EASA, with:	<ul style="list-style-type: none">• Alignment with the 'common approach' on EU decentralised agencies• New forms of EASA revenue (grants)• Making best use of EASA resources, by:<ul style="list-style-type: none">○ furthering the use of EASA expertise by the Commission (security, environment, research, SES implementation)○ allowing for demand-driven resources for certification (more flexibility in adjusting fee-financed staff according to workload)

3.3.2 BR roadmap

On 10 April 2018, the EASA MB requested EASA to present a roadmap outlining the priorities for the implementation of the BR. The roadmap received the MB’s support during the June 2018 MB meeting.



It identified the areas of the BR where work is to be initiated or will start in the range 2019-2021. It constitutes an important input also for this EPAS edition.

The roadmap identifies not only rulemaking activities, but also certification- and Standardisation-specific projects, involving policies' or procedures' drafting, initiatives with roadmaps, support to MSs, etc.

When it comes to rulemaking and policy setting, the following activities identified in the BR were already included in the previous EPAS edition and will continue to be delivered:

- Development of a regulatory framework for drones and urban air mobility
- Work on cybersecurity
- ADR/apron management services (AMS) (see Opinion No 02/2014)
- ATM/ANS (Article 44) Opinion covering interoperability issues:
 - RMT.0679 — SPI: Report to be published (no Opinion)
 - RMT.0524 — DLS: Opinion due in 2021

As of 2022, EASA will start working on ATM/ANS systems and constituents and organisations involved in their design, production and maintenance (Articles 42, 43, 45 and 47), including where they contribute to the implementation of SESAR. This is an area where no safety evidence requires EASA to prioritise work on and thus starting in 2022 is proposed.

In order to better encapsulate and reflect in EPAS the new areas introduced by the BR, the strategic priority 'Safe integration of new technologies and concepts' was introduced with EPAS 2019-2023 (see Section 3.1.3).

Under RMT.0727 EASA will publish an Opinion at the end of 2020 proposing to implement the airworthiness aspects of the BR. This Opinion will include items such as simpler and more proportionate rules for sports and recreational aircraft, the extended use of declarations and others discussed in the context of the GA Roadmap phase 2. In addition, the Opinion will also address other items introduced or amended by the new BR, such as non-installed equipment, permit to fly and restricted certificate of airworthiness etc.

In the areas of groundhandling and on new aspects of environmental protection (not covered by ICAO Annex 16) the following activities will be undertaken:

- On **groundhandling** (Articles 33 & 37), during 2018 EASA engaged in a fact-finding phase, via safety assessment and dialogue with MSs and stakeholders. In March 2019 a dedicated groundhandling conference organised by EASA concluded this fact finding phase and presented the groundhandling roadmap, defining the scope and objectives. A new RMT was added in EPAS 2019-2023 to address requirements for the provision of groundhandling-related rulemaking (RMT.0728). A new SPT was also added to address any non-regulatory groundhandling matters (SPT.102).
- On **environmental protection** (Article 87), EASA will engage in developing a measurement methodology for novel technologies (supersonics, electric propulsion/urban mobility) as well as updating the EAER.

Moreover, the **BR in Chapter II**, 'Aviation safety management' Article 7 requires States to establish and maintain an SSP in accordance with international SARPs (ICAO Annex 19) and with the European Aviation Safety Programme (EASP). BR Article 8 requires States to complement their SSP with a SPAS. Such a plan shall include the risks and actions identified in EPAS that are relevant for the MSs concerned. A new EPAS action was created with EPAS 2019-2023 to account for this new requirement (see MST.028). A dedicated repository



for MS' SSP documents and SPAS' was made available to facilitate the dissemination of such documents⁴⁹. In addition, a States Safety Exchange Forum was created to encourage the sharing of guidance material and good practice.⁵⁰ EASA expects MS to have a SPAS available by the end of 2020. EASA Standardisation activities will be extended to these new requirements as of 2021; this will give MS some time to get prepared.

The development of new technologies, new business models and more generally speaking economic/social/societal changes, may have an impact on aviation safety. It is important for the Agency to have a clear vision on those changes that can potentially impact safety. Stakeholders and **Social Partners** should help to build this vision.

Article 74 of the BR requires EASA to develop a **repository** which aims at facilitating the exchange of information between the Competent Authorities, EASA and the Commission. Considering the huge quantity and complexity of information, the obligation to comply with data protection requirements, the Management Board decided to set-up a dedicated Task Force which falls under the MAB. The Task Force will focus on specifications per domains, the global architecture and the governance of the future platform. In 2019, the domains to be addressed will be mainly drones, exemptions and aero-medical data. The technical solution shall rely on the EASA 'Certification and ORganisation Approval information hub programme' (CORAL) outputs. CORAL was initiated as an emergent programme with the purpose to harmonise projects through system integration and end-to-end digitalisation. The implementation of additional domains (e.g. licences, opt-outs, opt-ins) will be done step-by-step and in line with the CORAL milestones, with the ultimate goal to have all domains covered by 2025.

An important milestone will be to include drones, with data available in 2020.

Article 89 of the BR requires EASA to consult relevant stakeholders when addressing interdependencies between civil aviation and related socio-economic factors. EASA is therefore enhancing the cooperation with EU social partners in aviation in order to reinforce its capacity in assessing potential social impacts of the EU aviation regulations and to address socio-economic risks to aviation safety. Refer to **Section 3.1.1.5**.

Point 2 of **BR Article 140** stipulates that 'Not later than 12 September 2023 the implementing rules adopted on the basis of Regulations (EC) No 216/2008 and (EC) No 552/2004 shall be adapted to this Regulation'. Except for RMT.0727 on initial airworthiness, EASA has not identified the need to change any IRs for the sole purpose of complying with the BR deadline. Changes to rules will instead be driven by concrete safety, proportionality or level playing field improvements. In addition, the limited capacity of the EASA Committee will need to be taken into account when setting priorities.

⁴⁹ <https://imf.easa.europa.eu/case/eab/mabtebs/SSPDocuments/Forms/AllItems.aspx>

⁵⁰ <https://imf.easa.europa.eu/collab/SSEF/SitePages/Home.aspx>



4 Performance

4.1 Key indicators in terms of EPAS actions

The safety driver is the one that contains most of the actions in the plan, followed by efficiency/proportionality

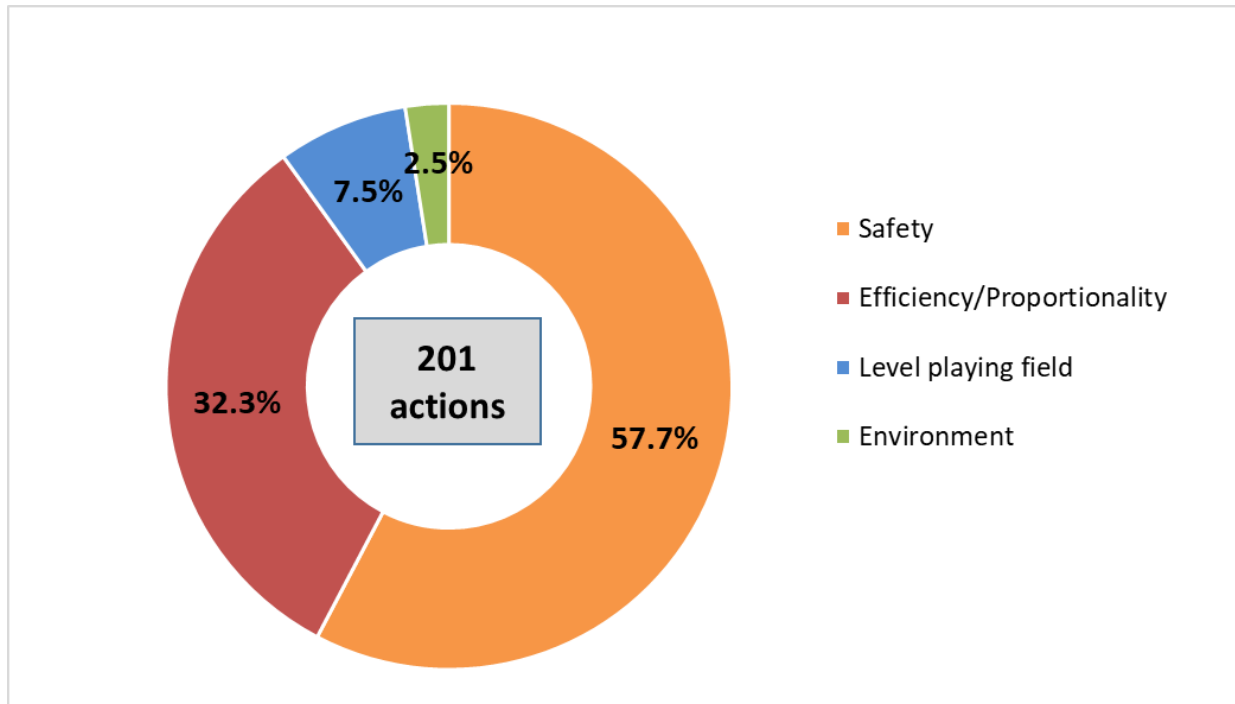


Figure 7: Share of EPAS actions by driver

Half of the actions in EPAS are strategic (i.e. linked to the areas highlighted in chapter 3)

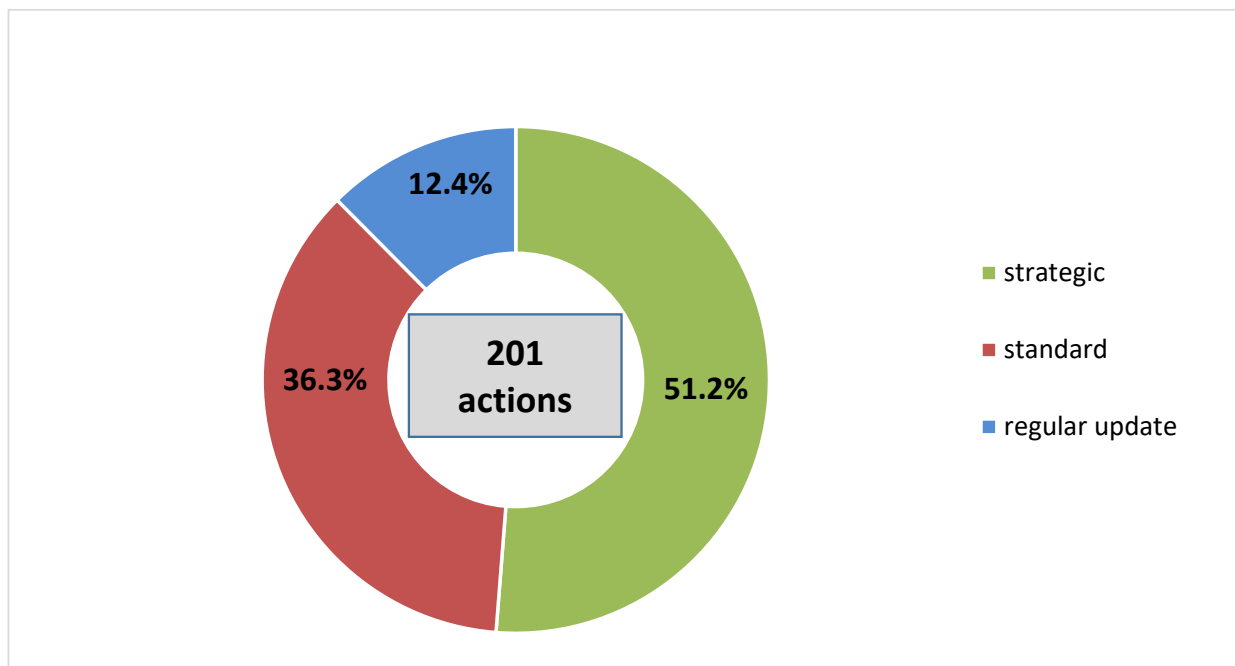


Figure 8: Share of EPAS actions by priority type



Most of the actions in EPAS are rulemaking projects

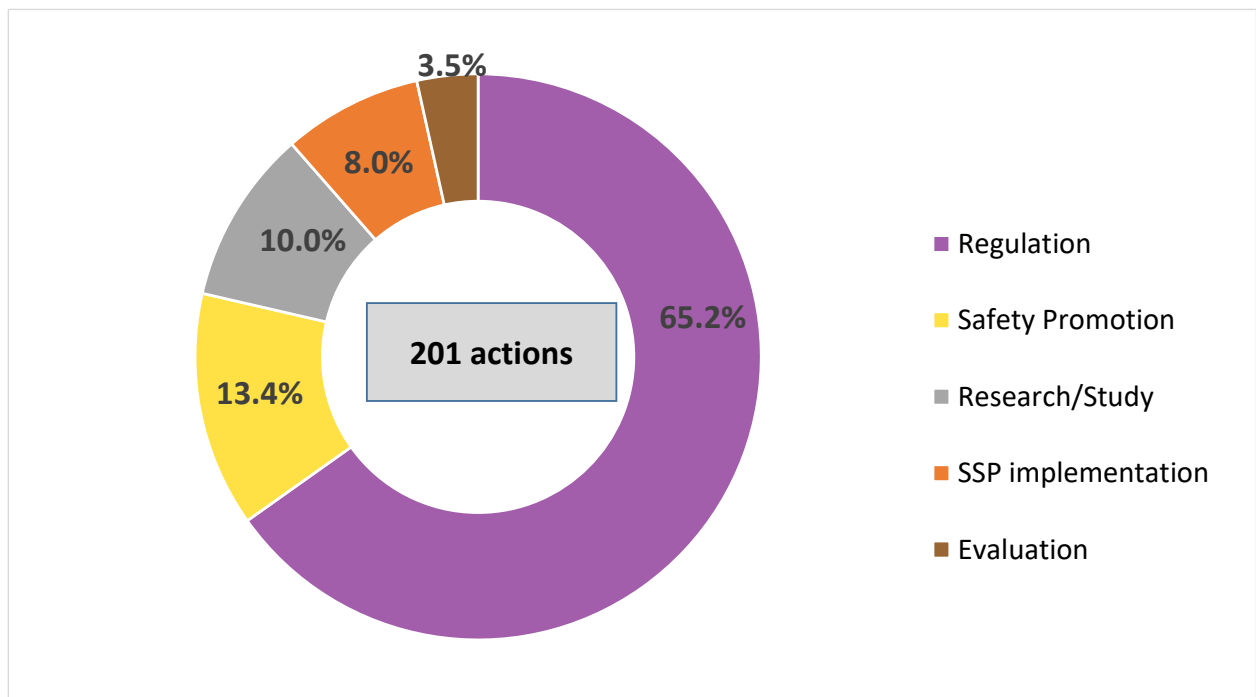


Figure 9: Share of EPAS actions per action type

Average duration of rulemaking tasks and adoption process

The table below shows the average duration of rulemaking tasks for Opinions and Decisions published by EASA in 2018 (meaning from ToR publication to Opinion/Decision publication), as well as the average duration of the adoption process for Opinions adopted in 2018 (meaning from Opinion publication to the vote in the EASA Committee).. The information for 2019 will be available in the final EPAS.

Average duration - Decisions published by EASA in 2018	Average duration - Opinions published by EASA in 2018	Average duration - Opinions adopted by EC in 2018
3,2 years	3,4 years	2,7 years

Rulemaking output

The rulemaking activity shows an overall decrease between 2015 and 2018. The volume of hard law deliverables planned for the next 5 years has been adjusted to the actual capacity of the regulatory system.

The graphs on the next pages show not only the total rulemaking output of EASA (Figure 7), but also separately the rulemaking activity leading either to Opinions (hard law and associated soft law, Figure 8) or to stand-alone Decisions⁵¹ (soft law, Figure 9), as the latter have little impact on the MS resources.

⁵¹ Decisions that are not linked to any Opinion



These graphs do not reflect Decisions (AMC and GM) that are waiting for the adoption of the related Opinions by the EC.

Rulemaking activity – EASA

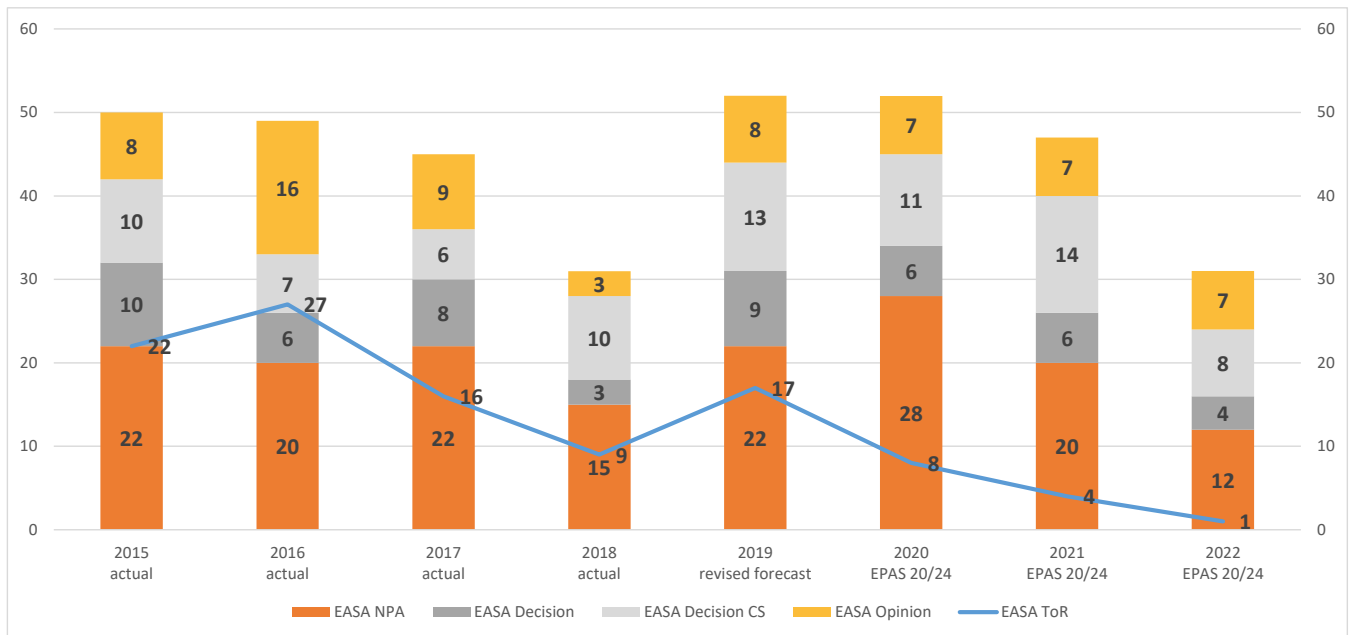


Figure 10: Rulemaking activity EASA 2015–2022 – total rulemaking output⁵²

EASA plans to publish seven Opinions per year as of 2020. The number of Certification Specifications (CS) already increased in 2018 and will continue to increase in 2019. The updating of CS' to keep up with safety needs and new technologies provides adequate support to the manufacturing industry.

Rulemaking activity leading to Opinions (hard law and associated soft law)

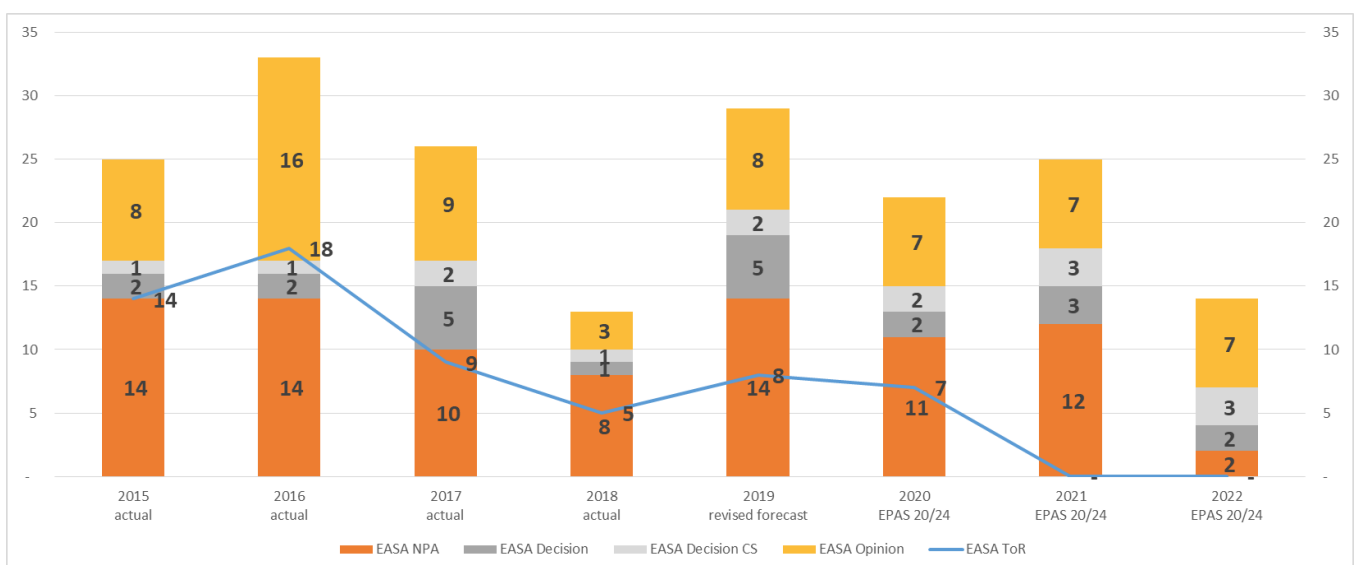


Figure 11: Rulemaking activity EASA 2015–2022 – Opinions and related soft law

⁵² The 13 actions mentioned in Appendix C as de-prioritised are not part of this graph.



The above graph shows the rulemaking output related to Opinions and related soft law, meaning any rulemaking task that contains at least one Opinion and related soft law. Generally, the development of an Opinion and the related soft law is done in parallel, as part of the same rulemaking project.

Rulemaking activity related to soft law

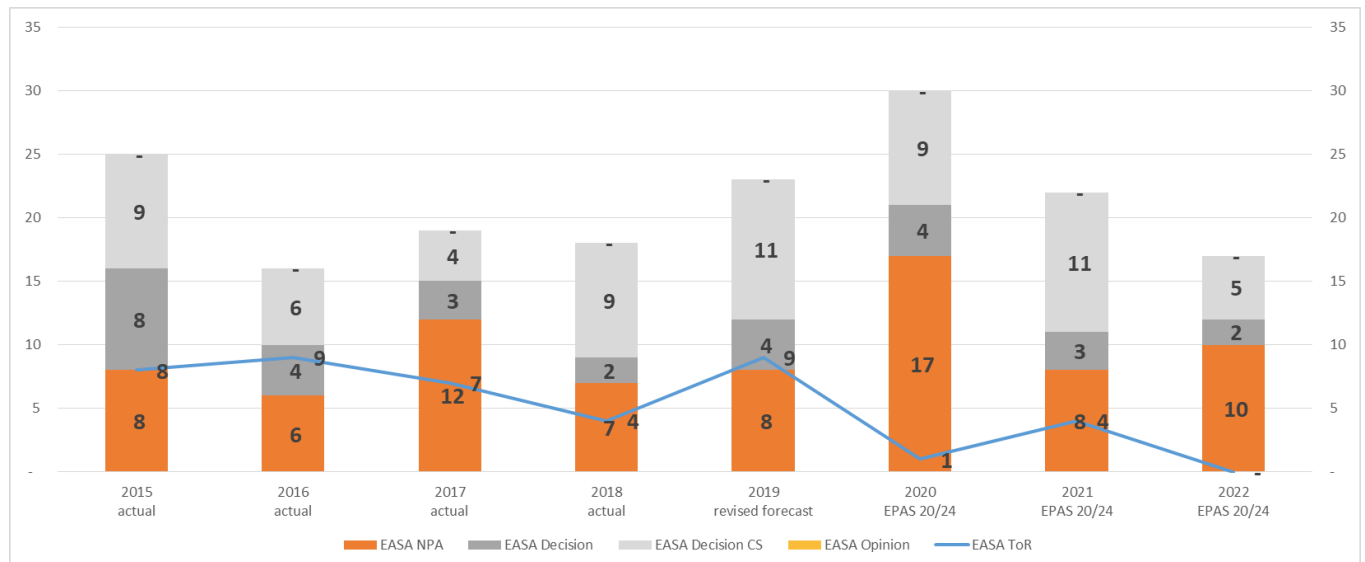


Figure 12: Rulemaking activity EASA 2015–2022 related to soft law

The above chart shows the outputs related to soft law, meaning those resulting from rulemaking tasks that only lead to ‘stand-alone’ Decisions. These tasks do not require the involvement of the EC, nor the EASA Committee, and have less impact on MS resources.

Split between hard/soft law and soft law (compared to the 2019-2023 EPAS edition)

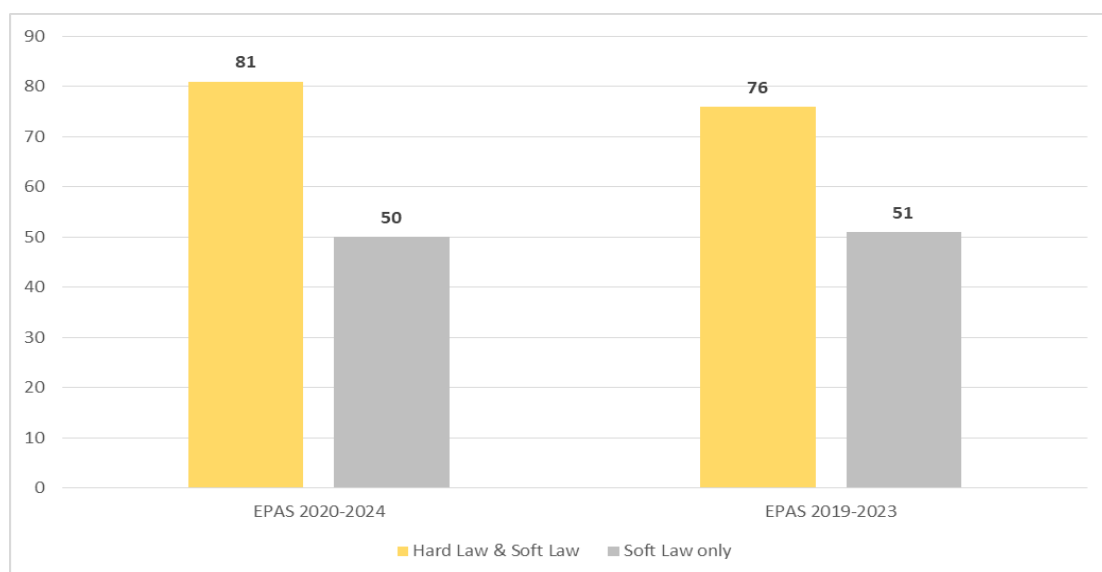


Figure 13: Split between hard/soft law and soft law

The output leading to Opinions has slightly increased compared to the EPAS 2019-2023 edition as a result of the re-prioritisation of several tasks as well as the introduction of a new hard law task.



4.2 Safety performance

This section presents an outline for EPAS safety performance metrics reflecting the EPAS strategic priorities in the area of safety and the high-level safety objective set out in the BR to ‘establish and maintain a high uniform level of civil aviation safety in the Union’. EPAS safety performance goals, indicators and targets also consider the 2020-2022 GASP goals and targets as relevant in the EASA system.

EPAS proposes an ‘aspirational goal’ overarching the different EPAS indicators, as an alternative to the GASP aspirational goal of ‘zero fatalities in commercial operations by 2030 and beyond’, as follows:

‘achieve constant safety improvement with a growing aviation industry’

This goal is deemed ‘aspirational’ as it represents an ambition of achieving an ever safer aviation system. It is intended to address all operational domains.

EPAS SPIs shall serve to monitor the impact of EPAS actions on the overall level of safety performance. New safety issues are identified and monitored via the European SRM process.

In accordance with Article 6 of the BR, EPAS shall specify the level of safety performance in the Union, which the MSs, EC and EASA shall jointly aim to achieve. The level of safety performance shall be determined on the basis of the EPAS SPIs and where relevant, associated safety performance targets, as well as considering the safety-related indicators and targets defined in the SES ATM Performance Scheme.

Principles for establishing EPAS SPIs and targets

SPIs and targets shall monitor both safety **outcomes** (such as accidents, incidents and injuries) and the enablers, in terms of **systems and processes**⁵³ required to maintain effective safety management at authority and organisation levels.

Setting safety performance targets as part of EPAS is considered more relevant for process-based indicators, to drive positive system ‘behaviours’. For safety-outcome-related metrics, which are derived from occurrence data, it is proposed to not consider setting safety performance targets, but to define ‘baseline performance’ and monitor the system against this baseline performance. Proposed ‘baseline’ indicators are included in Table 3.

Outcome-based indicators shall consider as main inputs:

- number of fatal accidents;
- number of fatalities; and
- number of non-fatal accidents and serious incidents.

This is aligned with the high-level ICAO safety metrics, thereby facilitating comparison of European performance with that of other regions or with global averages. The number of fatal accidents and fatalities provide the highest level of safety outcome monitoring, while the non-fatal accidents and serious incidents combined provide monitoring of higher-risk events. These can subsequently be reviewed to identify key risk areas that inform EASA’s safety priorities. Looking to the future, when the European Risk Classification Scheme (ERCS) has been implemented across the MSs, an additional indicator that monitors high-risk occurrences may be considered. This could be in addition to or instead of monitoring non-fatal accidents and serious incidents. The EASA Safety Risk Portfolios (currently published in the ASR) include incident data sourced from the European Central Repository for accident and incident reports in aviation (ECR) under Regulation (EU) No 376/2014. As the implementation of

⁵³ The efficiency of systems and processes established and implemented by EASA will continue to be monitored through the EASA SPD related indicators.



Regulation (EU) No 376/2014 improves, we expect to be able to integrate more incident data into the monitoring framework.

Monitoring systems and processes

It is proposed that related SPIs be defined and monitored in three areas:

1. MSs' oversight capabilities

This is related to 2020-2022 GASP goal 2 and EPAS strategic enabler 'Oversight & Standardisation'.

Monitoring will be based on the EASA Standardisation rating, as an alternative to the ICAO USOAP Effective Implementation (EI) indicator. The Standardisation rating is used for the prioritisation of Standardisation inspections. It aims to emulate the expert's confidence in the CA's ability to discharge its safety oversight capabilities. The Standardisation rating considers elements related to size, nature and complexity of the State authorities and functions, the number and type of open Standardisation findings, as well as the State's reactivity in relation to findings closure, once the final report has been sent.

2. MSs' progress with SSP implementation

This is related to GASP goal 3 and the EPAS strategic priority 'Systemic safety'.

Related indicators will mainly be based on data available through ICAO iSTARS. Feedback provided by MSs will also be considered. EASA will in addition collect relevant documentation from States (SSP and SPAS). In the future, this monitoring area will consider results from the EASA Standardisation of BR Articles 6 and 7.

The objective is aligned with the 2020-2022 GASP requiring States to achieve an effective SSP, as appropriate to their aviation system complexity, by 2025.

3. Effective implementation of SMS in aviation organisations

This partially addresses 2020-2022 GASP goal 5 and addresses the EPAS strategic priority 'Systemic safety' and the requirements in the BR.

Monitoring the implementation of SMS in industry should focus on compliance with relevant requirements and effectiveness of SMS key processes. To develop a common set of indicators and targets on effective implementation of SMS, an agreed methodology for assessing SMS, as well as a method to score and aggregate related assessment results would first need to be developed and implemented. Such an assessment and scoring methodology is currently only available in the ATM/ANS domain, as part of the SES ATM Performance Scheme. It should also be considered that SMS requirements are not yet applicable in the initial and continuing airworthiness domains. Moreover, while the EASA Management System assessment tool is promoted through EPAS action MST.026, EASA has not yet received sufficient feedback on the use of the tool.

For the above reasons, no detailed EPAS indicators and targets are proposed on SMS effectiveness (for domains other than ATM/ANS, since here this indicator is monitored in the context of the European ANS Performance Review). However, it is proposed to monitor the following:

- (a) the extent to which the EASA Management System assessment tool (or similar) is being used by MSs, and
- (b) the status of compliance with EASA Management System (SMS) requirements.

Point (a) will be monitored on the basis of feedback received through EASA Standardisation. For point (b), EASA's monitoring will be based on oversight data provided by CAs covering the following:

**Requirements:**

Regulation	965/2012	1178/2011	139/2014	2015/340	2016/1377
Part	Part-ORO	Part-ORA	Part ADR.OR	Part ATCO.OR	Part-ATM /ANS.OR
Subject					
<i>Changes to the organisation</i>	ORO.GEN.130	ORA.GEN.130	ADR.OR.B.040	ATCO.OR.B.015	ATM/ANS.OR.B.010
<i>Management System</i>	ORO.GEN.200	ORA.GEN.200	ADR.OR.D.005	ATCO.OR.C.001	ATM/ANS.OR.B.005
<i>Contracted Activities</i>	ORO.GEN.205	ORA.GEN.205	ADR.OR.D.010	ATCO.OR.C.005	ATM/ANS.OR.B.015
<i>Personnel Requirements</i>	ORO.GEN.210	ORA.GEN.210	ADR.OR.D.015	ATCO.OR.C.010	ATM/ANS.OR.B.020
<i>Record Keeping</i>	ORO.GEN.215	ORA.GEN.215	ADR.OR.D.035	ATCO.OR.C.020	ATM/ANS.OR.B.030

This list will be reviewed to include relevant requirements in the initial and continuing airworthiness domains, when a Management System will be required in these domains (RMT.0251).

Data points:

- number of organisations with open non-compliance findings in any of the above requirements;
 - both for level 1 and level 2 findings:
 - for each organisation category
- average time (in days – positive or negative values) from effective closure of the finding to agreed implementation target:
 - level 2 findings only
 - for each of the above requirements
 - for each organisation category
- number of organisations for which an extended oversight planning cycle is applied:
 - for each organisation category
- number of organisations for which a reduced oversight planning cycle is applied:
 - within each organisation category; and
- top three non-compliance findings raised per frequency of occurrence in the area of EASA Management System requirements.
 - for each organisation category

No data / information on individual organisations will be requested. EASA will convert numbers into rates based on the data that MSs provide regularly through the Standardisation Information System. EASA will also report on those indicators for organisations under its oversight in the domains where the requirements listed above are already applicable.

The collection of data is expected to start in 2020.

Once sufficient data is available on the status of compliance with management System (SMS) requirements and experience is gained with collecting and consolidating such data, EASA, in close cooperation with the ABs, will propose more advanced indicators to measure SMS effectiveness in industry.

Results of monitoring safety performance in the above three areas will be presented and discussed at the regular Safety Management TeB meetings.

Alignment with SES ATM Performance Scheme

Significant effort has been invested by the Agency, MSs and industry to ensure that the Safety Key Performance Area of the SES Performance Scheme aligns with the principles and technical direction of EASA's performance



monitoring framework. The performance indicators for Reference Period 3 of the Performance Scheme were designed by an Agency-led working group in 2016 and then drafted into AMC and GM in 2018. These indicators measure the effectiveness of safety management at organisation level and then monitor safety outcomes via untargeted tier 2 performance indicators, using the European Central Repository as the data source.

Outcome-based indicators

Monitoring safety outcomes addresses 2020-2022 GASP goal 1 and EPAS strategic priority 'Operational safety':

Indicators related to key risk areas are identified through the European SRM process and described in the EASA Safety Risk Portfolios. EASA, in cooperation with the European Network of Analysts (NoAs), has developed a safety performance framework that identifies different tiers of SPIs.

- **Tier 1** transversally monitors all the domains and the overview of the performance in each domain. Tier 1 considers the number of fatal accidents and fatalities in the previous year compared with the average of the preceding decade. In addition to this, for Commercial Air Transport aeroplanes, detailed statistical indicators have been developed to identify the accident and serious incident rates over a four-year period. These will be updated periodically to monitor performance against the 2011-2014 baseline.
- **Tier 2** covers the priority key risk areas at domain level. Tier 2 provides the number (and where available the rate) of fatal accidents and the ERCS risk level for each domain in the ASR, divided by key risk areas.

These 'operational' safety indicators will continue to be monitored through the European SRM process. Likewise, reporting on those will continue to be done through the EASA ASR.

The tables below provide an overview of the figures associated with the current Tier 1 indicators.

NOTE:

The tables included in this draft are still based on ASR 2018 data. Updated tables taking into account ASR 2019 (using datasets for the period 2008-2017) will be provided with the final EPAS.

Table 1. Tier 1 indicators —cross-domain comparison of EASA MSs' aircraft fatal accidents and fatalities, 2008-2018

Aircraft domain	Fatal accidents 2017	Fatal accidents 2007-2016 mean	Fatalities 2017	Annual fatalities 2007-2016 mean	Annual fatalities 2007-2016 median
Aeroplanes					
CAT — airlines	0	0.9	0	66.4	4.0
NCC — business	0	0.5	0	0.6	0.0
SPO	3	7.3	4	18.1	16.5
NCO	34	50.1	62	92.2	91.0
Rotorcraft					
Offshore	0	0.4	0	3.6	0.0
Onshore	1	1.7	6	5.4	4.0
SPO	3	4.0	4	7.5	6.0
NCO	3	5.6	7	13.2	12.5



Aircraft domain	Fatal accidents 2017	Fatal accidents 2007-2016 mean	Fatalities 2017	Annual fatalities 2007-2016 mean	Annual fatalities 2007-2016 median
Balloon					
	0	1.2	0	2.1	1
Gliders					
	25	25.4	27	29.5	29.5

Table 2. Tier 1 indicators — cross-domain comparison of EASA MSs' infrastructure contribution to fatal accidents and fatalities, 2007-2017

Infrastructure	Fatal accidents 2017	Fatal accidents 2007-2016 — mean	Fatalities 2017	Annual fatalities 2007-2016 — mean	Annual fatalities 2007-2016 — median
ADR & GH	0	0.7	0	1.7	0.5
ATM/ANS	1	0.5	6	1.6	0

In Tables 1 and 2, both the mean (average) and the median number of fatalities are shown for the period 2007-2016. This is because for some aircraft domains the median number provides a better representation of the number of fatalities per year. This is typically related to the number of passengers on board aircraft involved in fatal accidents. Sailplanes usually only have one person on board and the number of fatal accidents and both the mean and median number of fatalities are very similar. By contrast, commercial air transport (CAT) airline fatal accidents may involve one or several hundred fatalities; therefore, the annual number of fatalities varies and the mean and median figures are quite different.

Table 3. Tier 1 Indicators for CAT aeroplanes, baseline figures 2011-2014

Proposed SPI	Per 10 000 movements	Per 10 000 flight hours
EASA-MS accident rate		
Accident rate over a 4-year period	0.044	0.023
Accident rate in 2011	0.044	0.024
Accident rate in 2012	0.048	0.026
Accident rate in 2013	0.034	0.018
Accident rate in 2014	0.051	0.026
EASA-MS fatal accident rate		
Fatal accident rate over a 4-year period	0.001	0.0004
Accident rate in 2011	0.001	0.001
Accident rate in 2012	0.000	0.000
Accident rate in 2013	0.000	0.000
Accident rate in 2014	0.002	0.001
Accident rate by size of AOC holder when allocated to movement band		
Band A: Less than 7 100 movements	0.17	-
Band B: 7,100 — 35 099 movements	0.18	-
Band C: 35,100 — 101 999 movements	0.06	-
Band D: 102 000 — 199 999 movements	0.04	-
Band E: More than 199 999 movements	0.03	-



Proposed SPI	Per 10 000 movements	Per 10 000 flight hours
Accident rate by size of AOC holder when allocated to flight hour band		
Band A: Less than 14 000 flight hours	-	0.18
Band B: 14,000 — 55 999 flight hours	-	0.09
Band C: 56 000 — 155 999 flight hours	-	0.04
Band D: 156 000 — 399 999 flight hours	-	0.02
Band E: More than 399 999 flight hours	-	0.02
Accident rate by type of aviation activity (CAT)		
Passenger transport (4-year period)	0.04	0.02
Cargo transport (4-year period)	0.13	0.05

Table 4. List of proposed serious incident SPIs

Proposed SPI	Per 10 000 movements	Per 10 000 flight hours
EASA-MS serious incident rate		
Serious incident rate over a 4-year period	0.125	0.067
Serious incident rate in 2011	0.155	0.085
Serious incident rate in 2012	0.131	0.071
Serious incident rate in 2013	0.112	0.059
Serious incident rate in 2014	0.090	0.047
Serious incident rate by size of AOC holder when allocated to movement band		
Band A: Less than 7 100 movements	0.43	-
Band B: 7 100-35 099 movements	0.22	-
Band C: 35 100-101 999 movements	0.19	-
Band D: 102 000-99 999 movements	0.13	-
Band E: More than 199 999 movements	0.12	-
Serious incident rate by size of AOC holder when allocated to flight hour band		
Band A: Less than 14 000 flight hours	-	0.32
Band B: 14 000-55 999 flight hours	-	0.13
Band C: 56 000-155 999 flight hours	-	0.10
Band D: 156 000-399 999 flight hours	-	0.08
Band E: More than 399 999 flight hours	-	0.06
Serious incident rate by type of aviation activity (CAT)		
Passenger transport (4 year period)	0.13	0.07
Cargo transport (4 year period)	0.32	0.13



4.3 Environmental performance

The efficiency of actions included in EPAS in relation to environmental protection will continue to be monitored as part of the EAER⁵⁴.

The report is led by EASA with support from the European Commission, the European Environment Agency (EEA) and Eurocontrol. This EAER provides a valuable source of objective and accurate information on the environmental performance of the aviation sector, and sets the scene for Europe's ambition to make the sector more sustainable. It includes performance indicators that provide an overview of the sector's environmental performance over time. This includes technology/design, sustainable aviation fuels, air traffic management/operations, airports, market based measures and the latest scientific understanding on environmental impacts from aviation. .

EASA published the 2nd edition of the report in January 2019 and, in line with EASA's expanded environmental protection remit, is responsible to update the EAER every 3 years.

⁵⁴ <https://www.easa.europa.eu/eaer/downloads>



Volume II

NOTE:

Data on fatalities, fatal accidents and occurrences provided in this Volume is still based on ASR 2018; it will be updated for the final EPAS, to reflect ASR 2019.

The Key Risk Areas identified through the European Safety Risk Management Process remain stable as compared to those described in the ASR 2018.



5 Systemic Safety

This area addresses system-wide problems that affect aviation as a whole. In most scenarios, these problems are related to human factors, human performance limitations, competence of personnel, socioeconomic factors or to deficiencies in organisational processes and procedures, whether at authority or industry level.

This area also includes the impact of security on safety.

5.1 Safety Management

Issue/rationale

Safety management is a strategic priority. Despite the fact that last years have clearly brought continued improvements in safety across every operational domain, recent accidents underline the complex nature of aviation safety and the significance of addressing human factor aspects. Authorities and aviation organisations should anticipate more and more new threats and associated challenges by developing SRM principles. These principles will be strengthened through SMS implementation supported by ICAO Annex 19 and Regulation (EU) No 376/2014 (reporting reinforcement).

What we want to achieve

Regulatory framework requiring safety management is in place across all domains of aviation, with proportionate requirements in the area of General Aviation.

Regulatory framework for information security management is in place.

Improve the level of safety through effective implementation of safety management within authorities and organisations.

How we monitor improvement

Organisations and authorities are able to demonstrate compliance and effective implementation. For ATM/ANS, this will be monitored as part of the ATM Performance Scheme. For the other domains (air operations, aircrew and aerodromes), it is proposed to start with collecting data on the status of compliance with organisation and authority requirements as relevant to Safety Management (see Section 4.2).

How we want to achieve it: actions



RMT.0251	Embodiment of safety management system (SMS) requirements into Commission Regulations (EU) Nos 1321/2014 and 748/2012				
Safety	<p>With reference to ICAO Annex 19, the objective is to set up a framework for safety management in the initial and continuing airworthiness domains.</p> <p>This RMT is processed in two phases:</p> <ol style="list-style-type: none"> 1. Changes to Part-M linked to OPS (CAMOs) - Opinion No 06/2016 issued in May 2016 2. Changes to Part-145 and Part 21 				
Status	Ongoing				
Reference(s)	n/a				
Affected stakeholders	CAMOs, AMOs (Part-145), POA holders, DOA holders, ETSOA holders and CAS				
Owner	EASA FS.2				
Priority	Yes	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
1	MDM.055 19/07/2011	2013-19 10/10/2013	06/2016 11/05/2016	2019 Q3	2019 Q3
2		NPA 2019-05 17/04/2019	2020 Q2	2021 Q3	2021 Q3

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

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);
- 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.

In May 2016, EASA issued Opinion No 07/2016 proposing the amendments to Part 21. Furthermore, at the end of 2017 EASA issued the NPA consulting the draft AMC & GM relevant for the application of the proposed amendments. A further NPA, consulting some additional draft AMC & GM will be published upon adoption of the IR. Both NPAs will result in a final decision adopting the AMC & GM to the amended Part 21.

Status

This RMT will be completed in 2019, it is included in this draft EPAS for traceability. It will be removed in the final EPAS.

Reference(s)

n/a

Affected stakeholders	DAHs				
Owner	EASA CT.5				
Priority	Yes	RM Procedure	Standard	Harmonisation	n/a

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
1	MDM.060 27/08/2013	2015-03 02/03/2015	07/2016 23/05/2016	2019 Q2	2019 Q2
2		2017-20 14/12/2017	n/a	n/a	n/a
3		03/04/2019 NPA 2019-03	n/a	n/a	2019 Q2



RMT.0681	Alignment of implementing rules and AMC & GM with Regulation (EU) No 376/2014				
Safety	Alignment of IRs and AMC & GM with Regulation (EU) No 376/2014.				
Status	This task is de-prioritised in accordance with criteria described in Chapter 3. A CRD will be published and resulting regulatory changes will be implemented as part of existing RMTs.				
Reference(s)	n/a				
Affected stakeholders	Air operators, pilots, MOs, ATOs, manufacturers ⁵⁵ , CAMOs, ADR operators, ATM/ANS providers and ATCO TOs				
Owner	EASA SM.1				
Priority	No	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0681	2016-19	n/a	n/a	n/a
	30/09/2015	19/12/2016			

RMT.0706	Update of authority and organisation requirements				
Safety	Address relevant elements of 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.				
Status	This task is de-prioritised in accordance with criteria described in Chapter 3.				
Reference(s)	n/a				
Affected stakeholders	CAs, NSAs, air operators, pilots, MOs, ATOs, POA holders, CAMOs, ADR operators, ATM/ANS providers, and ATCO TOs				
Owner	EASA FS				
Priority	Yes	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	tbd	tbd	tbd	tbd	tbd

⁵⁵ The term 'manufacturer' includes, depending on the case: production approval holder (POAH) and production organisation manufacturing without POA.

**SPT.057 SMS international cooperation**

Safety HF Promote the common understanding of safety management and human factor principles and requirements in different countries, share lessons learned and encourage progress and harmonisation, through active participation in the SMICG.

Status Ongoing

Reference(s) n/a

Affected stakeholders ALL

Owner EASA FS.2

EXPECTED OUTPUT

Deliverable(s)	Timeline
Guidance/training material/best practice	Continuous

MST.001 Member States to give priority to the work on SSPs

Safety In the implementation and maintenance of the SSP, Member States shall in particular:

- ensure effective implementation of the authority requirements and address deficiencies in oversight capabilities, as a prerequisite for effective SSP implementation,
- ensure effective coordination between State authorities having a role in safety management,
- ensure that inspectors have the right competencies to support the evolution towards risk- and performance-based oversight,
- ensure that policies and procedures are in place for risk- and performance-based oversight, including a description of how an SMS is accepted and regularly monitored,
- establish policies and procedures for safety data collection, analysis, exchange and protection, in accordance with Regulation (EU) No 376/2014,
- establish a process to determine SPIs at State level addressing outcomes and processes,
- ensure that an approved SSP document is made available and shared with other Member States and EASA,
- ensure that the SSP is regularly reviewed and that the SSP effectiveness is regularly assessed.

Status Ongoing

Reference(s) n/a

Affected stakeholders ALL

Owner MS

EXPECTED OUTPUT

Deliverable(s)	Timeline
SSP document made available	2019
SSP effectively implemented	2025



MST.002 **Promotion of SMS**

Safety HF Encourage implementation of safety promotion material developed by the European Safety Promotion Network, the Safety Management International Collaboration Group (SMICG) and other relevant sources of information on the subject of safety management.

Status Ongoing

Reference(s) n/a

Affected stakeholders ALL

Owner MS

EXPECTED OUTPUT

Deliverable(s)	Timeline
Guidance/training material/best practice	Continuous

MST.003 **Member States should maintain a regular dialogue with their national aircraft operators on flight data monitoring (FDM) programmes**

Safety States should maintain a regular dialogue with their operators on FDM programmes, with the objectives of:

- promoting the operational safety benefits of FDM and the exchange of experience between subject matter experts,
- encouraging operators to make use of good-practice documents produced by EOFDM and similar safety initiatives.

The document titled 'Guidance for National Aviation Authorities on setting up a national flight data monitoring forum' (produced by EAFDM) is offering guidance for this purpose.

Status Ongoing

Reference(s) n/a

Affected stakeholders CAT

Owner MS

EXPECTED OUTPUT

Deliverable(s)	Timeline
Report on activities performed to promote FDM	Continuous



MST.026 **SMS assessment**

Safety

Without prejudice to any obligations stemming from the SES ATM Performance Scheme, MSs should make use of the EASA management system assessment tool to support risk- and performance-based oversight. MSs should provide feedback to EASA on how the tool is used, for the purpose of standardisation and continual improvement of the assessment tool.

MSs should regularly inform EASA about the status of compliance with SMS requirements and SMS performance of their industry.

Status

Ongoing

Reference(s)

EASA Management System assessment tool ⁵⁶

Affected stakeholders Air Operations, Aircrew, Medical, Aerodromes

Owner MS

EXPECTED OUTPUT

Deliverable(s)

Timeline

Feedback on the use of the tool.

Continuous with annual

Feedback on the status of SMS compliance and performance

reporting

⁵⁶ <https://www.easa.europa.eu/document-library/general-publications/management-system-assessment-tool>



MST.028 Member States to establish and maintain a State Plan for Aviation Safety (SPAS)

Safety

Member States shall ensure that a SPAS is maintained and regularly reviewed. Member States shall identify in SPAS the main safety risks affecting their national civil aviation safety system and shall set out the necessary actions to mitigate those risks. In doing so, Member States shall consider the pan-European safety risk areas identified in EPAS for the various aviation domains as part of their SRM process and, when necessary, identify suitable mitigation actions within their SPAS. In addition to the actions, SPAS shall also consider how to measure their effectiveness. MSs shall justify why action is not taken for a certain risk area identified in EPAS.

The pan-European safety risk areas in the current EPAS edition are as follows:

- For CAT by aeroplane: aircraft upset in flight, runway safety, airborne conflict, ground safety, terrain collision, and aircraft environment
- For rotorcraft operations: helicopter upset in flight and terrain and obstacle conflict
- For General Aviation: staying in control, coping with weather, preventing mid-air collisions and managing the flight

SPAS shall:

- describe how the plan is developed and endorsed, including collaboration with different entities within the State, with industry and other stakeholders (unless this is described in the SSP document),
- include safety objectives, goals, indicators and targets (unless these are included in the SSP document),
- reflect the EPAS actions as applicable to the State,
- identify the main safety risks at national level in addition to the ones identified in EPAS.

Status

Ongoing

Reference(s)

Runway excursions: SAF11 (Prevention of RWY Excursions) in the ATM MP's (Level 3 Ed 2018).

Affected stakeholders

ALL

Owner

MS

EXPECTED OUTPUT

Deliverable(s)

Timeline

SPAS established

2020



5.2 Human factors and human performance

Issue/rationale

Human factors and the impact on human performance, as well as medical fitness are strategic priorities. As new technologies and/or operating concepts emerge on the market and the complexity of the system continues increasing, it is of key importance to properly assess human factors and human performance, both in terms of limitations and its contribution to delivering safety, as part of safety management implementation.

The safety actions identified currently — related to aviation personnel — are aimed at, updating fatigue risk management (FRM) requirements and contributing to mitigating safety issues in all domains, such as: personal readiness, flight crew perception or crew resource management (CRM) and communication, which play a role in improving safety across all aviation domains.

What we want to achieve

Ensure continuous improvement in safety management activities as related to human factors and human performance.

Harmonise MED and FTL requirements where this ensures fair competition or facilitates the free movement of goods, persons and services.

How we monitor improvement

Feedback from the ABs and the HF CAG.

How we want to achieve it: actions

5.2.1 Flight time limitations

RMT.0492	Development of FTL for CAT operations of emergency medical services (EMS) by aeroplanes				
	Harmonised and state-of-the-art rules for EMS.				
Level playing field	This RMT will continue only in the field of EMS with aeroplanes (AEMS). Development of FTL for HEMS will be addressed in RMT.0494.				
Status	Ongoing				
Reference(s)	n/a				
Affected stakeholders	CAT aeroplane operators performing EMS				
Owner	EASA FS.2				
Priority	No	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0492	2017-17	2021 Q3	2022 Q3	2022 Q3
	18/04/2012	30/10/2017			

**RMT.0493 Update and harmonisation of FTL for CAT by aeroplane for air taxi operations and single-pilot operations taking into account operational experience and recent scientific evidence**

Level playing field Develop harmonised and state-of-the-art-rules for air taxi and single-pilot operations.

Status Ongoing

Reference(s) n/a

Affected stakeholders CAT aeroplane operators

Owner EASA FS.2

Priority No **RM Procedure** Standard **Harmonisation** n/a

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0493	2017-17	2021 Q3	2022 Q3	2022 Q3
	21/08/2012	30/10/2017			

RMT.0494 FTL requirements for helicopter operations

Establish harmonised and state-of-the-art rules for helicopter operations (CAT, SPO, NCC).

Efficiency/proportionality

Status Ongoing

Reference(s) n/a

Affected stakeholders CAT helicopter operators

Owner EASA FS.2

Priority Yes **RM Procedure** Standard **Harmonisation** n/a

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
	2020 Q3	2021 Q2	2022 Q2	2023 Q2	2023 Q2

RMT.0495 FTL requirements for aeroplane commercial operations other than CAT

Level playing field Establish harmonised and state-of-the-art rules for aeroplane commercial operations other than CAT.

Status Ongoing

Reference(s) n/a

Affected stakeholders AOC holders

Owner EASA FS.2

Priority Yes **RM Procedure** Standard **Harmonisation** n/a

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
	2020 Q2	2021 Q2	2023 Q1	2023 Q1	2023 Q1

**RMT.0486** Align with ICAO SARPs on ATCO fatigue management provisions**Safety** Align with ICAO SARPs on the subject provisions.**Status** This task is de-prioritised in accordance with criteria described in Chapter 3.**Reference(s)** n/a**Affected stakeholders** ANSPs and ATCOs**Owner** EASA FS.4**Priority** No **RM Procedure** Standard **Harmonisation** n/a**PLANNING MILESTONES**

SubT	ToR	NPA	Opinion	Commission IR	Decision
	n/a	n/a	n/a	n/a	n/a

RES.006 Effectiveness of flight time limitations (FTL)

Safety Second assessment:
Collection, analysis and processing of historical and in-flight crew fatigue data for purposes of supporting the continuous review of the effectiveness of the provisions concerning flight and duty time limitations and rest requirement as foreseen in Regulation 965/2012; this is to cover the envelope of most frequent short, medium and long-haul scheduled air operations and encompass schedules in less favourable times and classified as disruptive;

Status The first assessment for this RES action is completed (report⁵⁷ published 28/02/2019). The second assessment starts in 2020.**Reference(s)** n/a**Affected stakeholders** CAT**Owner** SM.0.1**EXPECTED OUTPUT**

Deliverable(s)	Timeline
Report (second assessment)	2022

⁵⁷ [Effectiveness of Flight Time Limitation \(FTL\) Report](#)



5.2.2 Medical

RMT.0287 Regular update of Part-MED, ARA.MED and ORA.AeMC, and related AMC and GM

Efficiency/proportionality

Status Ongoing

Reference(s) n/a

Affected stakeholders n/a

Owner EASA FS.3

Priority n/a RM Procedure Standard Harmonisation n/a

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0287 22/10/2012	2017-22 21/12/2017	2021 Q1	2022 Q1	2022 Q1

RMT.0424 Regular update of Part-MED

Efficiency/proportionality

Status This task is de-prioritised in accordance with criteria described in Chapter 3

Reference(s) n/a

Affected stakeholders n/a

Owner EASA FS.3

Priority n/a RM Procedure Standard Harmonisation n/a

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0424 09/10/2017				



RMT.0589	Rescue and firefighting services (RFFS) at aerodromes				
Safety	<p>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 ADRs 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.</p> <p>The RMT will lead to changes at AMC & GM level only. It has been split in two sub-tasks. :</p> <p>(1) 1st sub-task: Remission factor, cargo flights, etc. The first sub-task is completed. Decision 2016/009/R published on 23/5/2016.</p> <p>(2) 2nd sub-task: RFFS personnel physical and medical fitness standards</p>				
Status	This RMT will be completed in 2019, it is included in this draft EPAS for traceability. It will be removed in the final EPAS.				
Reference(s)	n/a				
Affected stakeholders	CAs, ADR operators				
Owner	EASA FS.4				
Priority	No	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
1	RMT.0589 10/04/2014	2015-09 09/07/2015	n/a	n/a	2016/009/R 23/05/2016
2		2018-15 18/12/2018	n/a	n/a	2019 Q3

RMT.0700	Aircrew medical fitness — Implementation of the recommendations made by the EASA-led Germanwings Task Force on the accident of the Germanwings Flight 9525				
Safety	<p>Preventive measures stemming from the Task Force:</p> <p>(1) carry out a psychological assessment of the flight crew before commencing line flying;</p> <p>(2) enable, facilitate and ensure access to a flight crew support programme; and</p> <p>(3) perform systematic drug and alcohol (D&A) testing of flight and cabin crew upon employment.</p> <p>In August 2016, EASA issued Opinion No 09/2016 updating Part-MED.</p> <p>In December 2016, EASA issued Opinion No 14/2016 addressing the safety issues identified by the EASA-led Germanwings Task Force on the accident of the Germanwings Flight 9525.</p>				
Status	<p>*The AB consultation replaced the NPA.</p> <p>This RMT is completed, it is included in this draft EPAS for traceability. It will be removed in the final EPAS. Commission Regulation (EU) 2018/1042 will apply as from 14 August 2020.</p>				
Reference(s)	n/a				
Affected stakeholders	Pilots, AMEs, AeMCs, CAs				
Owner	EASA FS.2				
Priority	Yes	RM Procedure	Direct publication	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0700 20/04/2016	n/a*	09/2016 11/08/2016 14/2016 09/12/2016	R(EU) 2018/1042 23/07/2018	2018/012/R 21/11/2018



RMT.0707	Medical Regulation — combine Part-MED and Part ATCO MED				
Level playing field	<p>The main benefits are that the medical assessor (MA) within the authorities, and the aero-medical examiner (AME) and aero-medical centres (AeMC) only need to use one common regulatory document, encouraging harmonisation and removing duplication between Part-MED and Part ATCO.MED. Consequently, the regulation should be easier to keep up to date. Moreover, currently AMEs and AeMCs require duplicate certifications on both Part-MED and Part ATCO.MED.</p> <p>The task may also consider alleviations to the existing pilot age limitation by applying a more evidence-based medical approach, subject to existing scientific evidence available as a results of EASA commissioned study on pilot age limitations, complemented with other scientific research on the same topic.</p>				
Status	This task is de-prioritised in accordance with criteria described in Chapter 3.				
Reference(s)	Research Report on ‘Age limitations for Commercial Air Transport pilots’ ⁵⁸				
Affected stakeholders	AMEs, AeMCs, pilots and ATCOs				
Owner	EASA FS.3				
Priority	No	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	tbd	tbd	tbd	tbd	tbd
EVT.0011	Evaluation on effectiveness of the provisions concerning support programmes, the psychological assessment of flight crew and the systematic and random testing of psychoactive substances				
Efficiency/prop orptionality	Having regard the Commission Regulation (EU) 2018/1042 of 2018, amending Regulation (EU) No 965/2012, an evaluation of the effectiveness of the provisions concerning support programmes, the psychological assessment of flight crew and the systematic and random testing of psychoactive substances is envisaged to ensure the medical fitness of flight and cabin crew members. The report will be published in compliance with the regulatory deadline by 14 August 2022.				
Status	Ongoing				
Reference(s)	n/a				
Affected stakeholders	Air operators, pilots, CA				
Owner	EASA FS.2.1				
EXPECTED OUTPUT					
Deliverable(s)	Timeline				
Evaluation report	2022				

⁵⁸ [EASA_REP_RESEA_2017_1](#)



5.3 Competence of personnel

Issue/rationale

Competence of personnel is a strategic priority. As new technologies and/or operating concepts 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 opportunities presented by new technologies to enhance safety.

The safety actions identified currently — related to aviation personnel — are aimed at introducing competency-based training in all licences and ratings. These actions play a role in improving safety across all aviation domains.

Part-147:

At present Part-147 excludes the use of distance learning for the purpose of basic knowledge and aircraft type training as the training locations are part of the approval. Part-66 allows the use of ‘synthetic training devices’, but does not define them. Appendix III to Part-66 allows ‘Multimedia Based Training (MBT) methods may be used to satisfy the theoretical training element either in the classroom or in a virtual controlled environment (...)’; however, it does not define these methods, and no guidance exists on how to evaluate, validate and/or approve courses based on MBT methods.

What we want to achieve

Ensure continuous improvement of all aviation personnel competence.

Part-147: The introduction of the new methods and technologies will lead to a level playing field, raise the efficiency, quality and safety of maintenance training. Additionally, this way the training provided amongst the approved maintenance training organisations will be at a similar level. Moreover, it may result in an increased number of young people choosing to engage in maintenance career, which may help to tackle the expected shortage of maintenance staff in the near future.

How we monitor improvement

Measurable improvement in aviation personnel competence at all levels (flight crew, cabin crew, maintenance staff and ATCOs).

How we want to achieve it: actions



5.3.1 Flight crew

RMT.0188	Update of EASA FCL implementing rules				
Safety	<p>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.</p> <p>See Opinion No 05/2017.</p>				
Status	This RMT will be completed in 2019, it is included in this draft EPAS for traceability. It will be removed in the final EPAS.				
Reference(s)	n/a				
Affected stakeholders	Flight examiners, instructors, pilots, ATOs and DTOs				
Owner	EASA FS.3				
Priority	No	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	FCL.002	2014-29	05/2017		
	21/07/2011	17/12/2014	29/0/2017	2019 Q3	2019 Q3

RMT.0194	Modernise the European pilot training system and improve the supply of competent flight instructors.				
Safety	<p>The task aims, whilst making use of performance-based rulemaking criteria, to:</p> <ol style="list-style-type: none"> 1. modernise and simplify the European pilot training system; 2. consider the recommendations from the ex post evaluation of Part-FCL commenced in 2018 under EVT.6; 3. consider the concept paper on instructors and examiners developed under the former RMT.0596; 4. introduce/transpose the latest ICAO Annex 1 and associated ICAO documents on the competency-based training and assessment (CBTA) concept for the appropriate licences and ratings; and 5. extend the principles of threat and error management (TEM) to all licences and ratings, as applicable. <p>EASA may divide the task in 2 or more phases to give priority to improving the regulatory framework to facilitate an adequate supply of instructors.</p>				
Status	Ongoing				
Reference(s)	This task now incorporates the content of RMT.0596.				
Affected stakeholders	Pilots, flight instructors, flight examiners, ATOs, DTOs, air operators				
Owner	EASA FS.3				
Priority	No	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	2019 Q3	2021 Q3	2023 Q1	2024 Q1	2024 Q1



RMT.0196 Update of flight simulation training devices requirements

Safety

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 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 FAA should be considered.

Subtask 1:

The main objective of Work Package 1 (WP 1) is to increase the fidelity of the provisions to support the approach-to-stall training, as well as of the new upset prevention and recovery training (UPRT) requirements as proposed by Opinion No 06/2017 (RMT.0581).

Subtask 2A:

The main objective for Work Package (WP2) is to introduce flexibility in the use of the best possible training tools including new technologies. This is done identifying the device requirements 'FSTD capability signature' (FCS) based on analysing regulatory training task objectives, thus creating a clear link between FCL, OPS and CS-FSTD.

Subtask 2B:

The main objective for Work Package (WP2B) is to review the technical requirements for FSTDs to reflect their actual capability and technology advancement.

Subtask 3:

The main objective for Work Package (WP3) is to address any relevant and appropriate emerging issues relevant to the CS-FSTDs including the feasibility for developing CS-FSTD requirements for power-lift/tilt rotor aircraft.

Status Ongoing

Reference(s) n/a

Affected stakeholders Air operators, ATOs, DTOs, pilots, instructors, and flight examiners

Owner EASA FS.3

Priority Yes **RM Procedure** Standard **Harmonisation** n/a

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
1	RMT.0196 15/07/2016	2017-13 25/07/2017	n/a	n/a	2018/006/R 03/05/2018
2A		2019 Q4	2019 Q4	n/a	2020 Q2
2B		2020 Q1	n/a	n/a	2020 Q2
3		2021 Q2	n/a	n/a	2022 Q4



RMT.0412 Regular update of the authority and organisation requirements pertaining to Part-FCL

Efficiency/proportionality

Status This task is de-prioritised in accordance with criteria described in Chapter 3

Reference(s) n/a

Affected stakeholders	n/a				
Owner	EASA FS.3				
Priority	n/a	RM Procedure	Standard	Harmonisation	n/a

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0412				
	30/10/2012				

RMT.0509 Regular update of CS-FC

Efficiency/proportionality

Status Ongoing

Reference(s) n/a

Affected stakeholders	n/a				
Owner	EASA CT.5				
Priority	n/a	RM Procedure	Standard	Harmonisation	n/a

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
	2019 Q2	2019 Q3	n/a	n/a	2020 Q2



RMT.0581	Loss of control prevention and recovery training
Safety	<p>Review of the provisions for initial and recurrent training in order to address 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).</p> <p>This RMT is split into multiple deliverables. See the related ToR on the EASA website.</p> <p>Note: Recurrent and conversion training provisions related to UPRT were already published in May 2015. They have been applicable as of May 2016.</p>
Status	This RMT is completed, it is included in this draft EPAS for traceability. It will be removed in the final EPAS.
Reference(s)	Refer also to RMT.0582 (ToR issued 20/8/2013)

Affected stakeholders	Pilots, instructors, flight examiners, ATOs, and Air Operators				
Owner	EASA FS.3				
Priority	Yes	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0581 and RMT.0582 20/08/2013	2015-13 1/9/2015	n/a	n/a	2015/012/R 4/5/2015
			06/2017 29/06/2017	2018/1974 14/12/2018	2019/005/R 27/02/2019

RMT.0587	Regular update of regulations regarding pilot training, testing and checking and the related oversight
Efficiency/proportionality	
Status	<p>The current cycle is completed. Further cycles are de-prioritised in accordance with the BR roadmap.</p> <p>This task will be removed in the final EPAS, it is kept here for traceability.</p>
Reference(s)	n/a

Affected stakeholders	n/a				
Owner	EASA FS.3				
Priority	n/a	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0587 11/05/2016	30/11/2016	03/2017 11/05/2017	Regulation (EU) 2018/1065 30/07/2018	2018/011/R 06/11/2018



RMT.0595	Technical review and regular update of learning objectives and syllabi for commercial licences (IR)				
Safety	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).				
Status	Ongoing				
Reference(s)	n/a				
Affected stakeholders	CAs, ATOs, student pilots and ECQB				
Owner	EASA FS.3				
Priority	No	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
1	RMT.0595 11/03/2015	2016-03 09/06/2016	n/a	n/a	2018/001/R 08/02/2018
2		2020 Q1	n/a	n/a	2021 Q1
3		2021 Q1	n/a	n/a	2022 Q1

RMT.0599	Update of ORO.FC (evidence-based training)				
Safety	<p>A complete review of the provisions contained in ORO.FC. In a <u>first phase</u>, it will include the introduction of evidence-based training (EBT) and competency-based training and assessment (CBTA) in the field of recurrent training and other training-related implementation issues.</p> <p>The <u>second phase</u> will include the extension of EBT to other parts of the operator's training (e.g. conversion course, type rating) allowing a single philosophy of training to the operator, and a <u>third phase</u> that will extend EBT to other aircraft types (e.g. helicopters, business jets) allowing a single philosophy of training across the industry. Also, it will include other implementation issues on the training-related rules brought to the attention of EASA.</p>				
Status	Ongoing				
Reference(s)	n/a				
Affected stakeholders	Pilots, flight instructors, flight examiners, ATOs and air operators				
Owner	EASA FS.2				
Priority	Yes	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
1	RMT.0599 05/02/2016	2018-07 27/07/2018	2019 Q3	2021 Q2	2021 Q2
2		2021 Q3	2022 Q3	2023 Q3	2023 Q3
3		2024 Q3	2025 Q3	2026 Q3	2026 Q3



RMT.0654 Revision of the balloon licensing requirements					
Efficiency/proportionality		Address topics identified by the industry balloon experts on the aircrew and on the medical side. A focused consultation was performed and no NPA was published.			
Status		Ongoing			
Reference(s)		n/a			
Affected stakeholders		Balloon operators, pilots, flight instructors and flight examiners, CAs and DTOs			
Owner					
Priority	Yes	RM Procedure	Article 16	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0654 16/09/2016	n/a	01/2019 (A) & (B) 19/02/2019	2021 Q1	2021 Q1

RMT.0677 Easier access of general aviation (GA) pilots to instrument flight rules (IFR) flying					
Efficiency/proportionality		Review the existing requirements for the instrument ratings and most probably the development of a new instrument rating specifically catering for the needs of the PPL holders.			
Status		Ongoing			
Reference(s)		n/a			
Affected stakeholders		Pilots, instructors, flight examiners and ATOs			
Owner					
Priority	Yes	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0677) 18/12/2015	2016-14 09/11/2016	01/2019 (A) & (B) 19/02/2019	2021 Q1	2021 Q1



RMT.0678					
Simpler, lighter and better Part-FCL requirements for general aviation					
Efficiency/proportionality	Review the different requirements which have been identified by the GA roadmap to cause problems for GA.				
	Examples: <ul style="list-style-type: none"> — Modular LAPL; — Review of different LAPL and PPL requirements (crediting, revalidation, seaplane rating for LAPL); — Review of class & type ratings requirements (new propulsion systems, amphibious aircraft); — Review of language proficiency requirements for GA pilots; — Provisions on touring motor glider (TMG) (definition, additional crediting); — Mountain rating for helicopters; — Review of the flight test rating requirements in the context of GA; — Development of a 'light aircraft flight instructor (LAFI)' for LAPL training only; — Examiner's vested interests in the context of GA. 				
Status	Ongoing				
Reference(s)	n/a				
Affected stakeholders	Pilots, flight examiners and CAs				
Owner					
Priority	Yes	RM Procedure	AP/ST ⁵⁹	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
1	RMT.0678 01/09/2016	n/a	08-2017 23/10/2017	2018 Q4	n/a
2		2019 Q4	2020 Q4	2022 Q2	2022 Q2

⁵⁹ * Modular LAPL will be processed through the procedure in accordance with Article 16 of the Rulemaking Procedure (accelerated procedure). For all other items, the standard rulemaking procedure will be applied.



RMT.0701	Revision of the sailplane licensing requirements				
	Address topics identified by the industry sailplane experts on the aircrew side.				
Efficiency/proportionality					
Status	Ongoing				
Reference(s)	n/a				
Affected stakeholders	Sailplane operators, pilots, flight instructors, flight examiners, ATOs and DTOs				
Owner	EASA FS.3				
Priority	Yes	RM Procedure	Accelerated procedure	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0701 15/12/2016	n/a	2019-01 19/02/2019	2020 Q2	2020 Q2
SPT.012	Promote the new European provisions on pilot training				
	The objective is to complement the new regulatory package on UPRT and EBT with relevant safety promotion material.				
Safety HF					
Status	Ongoing				
Reference(s)	RMT.0599				
Affected stakeholders	Pilots, instructors, flight examiners, ATOs, and Air Operators, MS				
Owner	EASA FS.3				
EXPECTED OUTPUT					
Deliverable(s)				Timeline	
Safety promotion material				2020	
EVT.0006	Evaluation on provisions for flight crew licences laid down in the Commission Regulation (EU) No 1178/2011				
Efficiency/proportionality	The regulation will be reassessed with regard to pilot training, testing and periodic checking for performance-based regulation.				
Status	Ongoing				
Reference(s)	n/a				
Affected stakeholders	Organisations and CAs				
Owner	EASA FS.3				
EXPECTED OUTPUT					
Deliverable(s)				Timeline	
ToR				2019	



In addition to the above, the following RMTs are relevant to competence of personnel (flight crew):

RMT.0190 **Requirements for relief pilots**

The full description for this action is included in **Section 6.1.3**.

RMT.0688 **Regular update of CS-SIMD**

The full description for this action is included in **Chapter 9**.

In addition to the above, the following SPT is relevant to competence of personnel (GA):

SPT.083 **Flight instruction**

The full description for this action is included in **Section 8.1.1**.



5.3.2 Cabin crew

RMT.0508	Regular update of CS-CC
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The full description for this action is included in **Chapter 9**.

5.3.3 Maintenance staff

RMT.0106	Certification specifications and guidance material for maintenance certifying staff type rating training				
Safety	<p>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.</p> <p>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.</p>				
Status	This RMT will be completed in 2019, it is included in this draft EPAS for traceability. It will be removed in the final EPAS.				
Reference(s)	n/a				
Affected stakeholders	DAHs, maintenance personnel, approved maintenance training organisations (Part-147), and CAs				
Owner	EASA FS.1				
Priority	No	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
RMT.0106		2018-11	n/a	n/a	2019 Q4
28/07/2014		18/09/2018			



RMT.0135	B2L and L Part-66 aircraft maintenance licences
Efficiency/proportionality	<p>Introduce licensing requirements for maintenance of:</p> <ul style="list-style-type: none"> — avionic and electrical systems applicable for lower complexity of light aircraft; and — aircraft other than aeroplanes and helicopters and in the maintenance of ELA1 aeroplanes, by adapting the current B2 licensing requirements for maintenance of avionic and electrical systems to the lower complexity of light aircraft, and propose a simple and proportionate system for the licensing of certifying staff involved in the maintenance of aircraft other than aeroplanes and helicopters and in the maintenance of ELA1 aeroplanes.
Status	Ongoing
Reference(s)	n/a

Affected stakeholders	approved maintenance training organisations, maintenance engineers or mechanics/GA				
Owner					
Priority	B-	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	15/0/2011	2012-15 04/10/2012	05/2015 22/06/2015	2018/1142 14/08/2018	2019 Q1

RMT.0255	Review of Part-66
Efficiency/proportionality	<p>The specific objective of this task is to address some shortcomings identified on the EASA maintenance licensing system linked to effectiveness and efficiency of the current requirements, namely:</p> <ul style="list-style-type: none">— Type rating endorsement for the ‘legacy aircraft’;— On job training (OJT);— Deficit of practical skills for maintenance personnel; and— Obsolescence of the Basic Knowledge syllabus. <p>This task will also address new training/teaching technologies for maintenance staff as relevant to Part-66, to set up the framework for:</p> <ul style="list-style-type: none">— e-learning and distance learning;— simulation devices or STDs;— specialised training such as HF, FTS, continuation training; and— blended teaching methods.
Status	Ongoing. In addition, this RMT now also addresses the topics previously included within RMT.0281 as relevant to Part-66.
Reference(s)	n/a
Affected stakeholders	Aircraft maintenance licence (AML) holders, approved maintenance training organisations (AMTO), approved maintenance organisations (AMO) and competent authorities (CA).
Owner	EASA FS.1
Priority	Yes
RM Procedure	Standard
Harmonisation	n/a
PLANNING MILESTONES	
SubT	ToR
NPA	Opinion
Commission IR	Decision
2019 Q2	2020 Q3
2021 Q3	2023 Q3
2023 Q3	2023 Q3

**RMT.0281 New training/teaching technologies for maintenance staff**

- Efficiency/proportionality**
- Set up the framework for:
- e-learning and distance learning;
 - simulation devices or STDs;
 - specialised training such as HF, FTS, continuation training; and
 - blended teaching methods.

Status This task is merged into RMT.0544/0255 and will no longer appear in the final EPAS.

Reference(s) n/a

Affected stakeholders AMTOs, CAMOs and CAs

Owner EASA FS.1

Priority No **RM Procedure** Standard **Harmonisation** n/a

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0281 19/12/2012	2014-22 09/09/2014	n/a	n/a	n/a

RMT.0541 Regular update of aircraft type ratings for Part-66 aircraft maintenance licence

Efficiency/proportionality

Status Ongoing

Reference(s) n/a

Affected stakeholders n/a

Owner EASA FS.1

Priority n/a **RM Procedure** Standard **Harmonisation** n/a

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
	66.024 12/05/2009	2018 Q4	n/a	n/a	2019 Q2

**RMT.0544****Review Part-147****Safety**

Complete review of the Part-147 (not performed since its first issue in 2003) and resolution of the areas of special interest identified in the evaluation EVT.002 :

- Optimisation of the structure of the basic knowledge syllabus and its impact in the training courses and examinations
- Language proficiency for students in training courses
- Mechanisms to eliminate or reduce the examination cheating and fraud / conflict of interest within Part-147 organisations, in particular a final assessment performed by the NAA

This task will also address new training/teaching technologies for maintenance staff as relevant to Part-147, to set up the framework for:

- e-learning and distance learning;
- simulation devices or STDs;
- specialised training such as HF, FTS, continuation training; and
- blended teaching methods.

Status

Ongoing. In addition, this RMT now also addresses the topics previously included within RMT.0281 as relevant to Part-147.

Reference(s)

EVT.002

Affected stakeholders

Approved maintenance training organisations (AMTOs), aircraft maintenance licence (AML) applicants and holders, and competent authorities (CAs).

Owner

EASA FS.1

Priority

n/a

RM Procedure

Standard

Harmonisation

n/a

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
	2019 Q2	2020 Q3	2021 Q3	2023 Q3	2023 Q3

SPT.106**Preventing, detecting and mitigating fraud cases in Part-147 organisations.****Safety**

EVT.002, the report on the EU maintenance licensing and training system, denounced cases of fraud or cheating during the examinations. The action includes organisation of workshops, discussions with the NAAs/industry on how to prevent, detect and mitigate fraud cases.

Status

New

Reference(s)

n/a

Affected stakeholders

Approved Maintenance Training Organisations

Owner

EASA FS.1

EXPECTED OUTPUT

Deliverable(s)	Timeline
Workshops	Continuous



5.3.4 Air Traffic controllers

RMT.0668		Regular update of ATCO licensing rules (IRs/AMC & GM)			
Efficiency/proportionality		NB: This RMT will also address relevant recommendations stemming from the Report of the Wise Persons Group on the Future of the Single European Sky and the Proposal for the Future Architecture of the European Airspace.			
Status		Ongoing			
Reference(s)		n/a			
Affected stakeholders		n/a			
Owner		EASA FS.4.1			
Priority	n/a	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0673	2018-05	n/a	n/a	2019 Q1
	27/04/2015	18/06/2018			



5.3.5 Language Proficiency (Pilots and ATCOs)

Issue/rationale

The decision to address language proficiency requirements (LPR) for pilots and air traffic controllers was first made by the 32nd Session of the ICAO Assembly in September 1998 as a direct response to several fatal accidents, including one that cost the lives of 349 persons, as well as to previous fatal accidents in which the lack of proficiency in English was identified as a contributing factor. The intent was to improve the level of language proficiency in aviation worldwide, and reduce the communication breakdowns caused by a lack of language skills.

LPR has now moved beyond implementation (Assembly Resolution A38-8 refers), entering a phase of post implementation.

Despite the successful establishment of national LPR systems, there remains insufficient awareness, particularly in the selection of suitable and appropriate testing tools that meet ICAO LPRs, which may result in safety risks.

Therefore, EASA supports the continuation of the LPR activities as an important aviation safety element and joins efforts with ICAO, working together in order to streamline and harmonise the LPR activities and optimise support to MS and the industry.

Building on the successful joint endeavours, ICAO and EASA in close coordination conduct a joint ICAO/EASA activity on LPR implementation.

Moreover, the following points have been brought to the attention of EASA (some came from the industry directly :

- Whilst all pilots holding a CPL/IR and an ATPL have an English LP endorsement on their licence of at least the LP level 4, experience has shown that many of the pilots seeking a job at airlines cannot pass a straightforward telephone interview and are therefore not successful in getting their first job as an airline pilot.
- GA pilot organisations claim that the language proficiency tests are too demanding and not adapted to the GA environment. Furthermore, GA organisations claim that the real advantage of the language proficiency examinations is for the language proficiency testing industry.
- Raw safety data shows only a very low number of incidents related to a lack of language proficiency, whilst a significant number of incidents are related to a lack of situational awareness because the radio communications were only in the local language.
- Pilot organisations claim that the competent authorities in different MS have implemented different procedures to test language proficiency with the effect that in some countries it is easier or in other countries more difficult to obtain a language proficiency endorsement. (Some airlines have a Level 6 as a pre-entry requirement thus pushing pilots to search for an easy solution).
- The language proficiency testing industry claims that the provisions for language proficiency in Regulation (EU) 1178/2011 are not consistent with the latest amendments of ICAO Annex 1.

What we want to achieve

To increase safety by reducing the risk of ineffective communication or even miscommunication when pilots and/or controllers need to face unexpected situation and to use plain language.

To react to the above:

- EASA intends to promote the use of the English language during pilot training for IR, CPL and ATPL.
- EASA is evaluating the content of the provided tests and is ready to reconsider the necessity of language proficiency tests for pilots holding an LAPL or PPL with a radio telephony (RT) licence that includes the English language.
- EASA has started an analysis of this raw data to make sure that also incidents that are not directly linked to a lack of language proficiency but that show a certain indication that a lack of language proficiency was part of the route course are included.



- Through standardisation of competent authorities and with the feedback on performance of the technical advisory bodies EASA has started to have a closer look at the tests that are provided in the different MS. After a thorough analysis, EASA plans to promote selected best practices with the view to harmonise testing methods.

EASA has verified the existing requirements and considers these as sufficient, however EASA plans to encourage MS through safety promotion measures to make use of ICAO Doc 9835.

How we want to achieve it: actions

SPT.105	Language proficiency requirements – to raise awareness on LPRI, together with ICAO, the industry and the MSs.	
Safety	SubT 1: Raise awareness on LPR implementation (LPRI), establish good practices and facilitate proportionate LPRI, based on the operational needs, together with ICAO, the industry and the MSs All relevant stakeholders and MSs to work together on the maintenance, monitoring and revision of LPRI; to promote the common understanding of LPRI as a safety issue, linked to human factor principles; share lessons learned; encourage progress and harmonisation and develop good practice document to cope with operational, safety and standardisation needs. SubT 2: Use of the English language during pilot training for IR, CPL and ATPL Competent Authorities recommending ATOs about pilot training for CPL, ATPL and IR mainly conducted in English language and/or English language training delivered in parallel with CPL, ATPL and IR training courses	
Status	New	
Reference(s)	ICAO Annex 1, Annex 6, Annex 10, Annex 11, Commission Regulation (EU) 1178/2011, Commission Regulation (EU) 2015/340, Commission Implementing Regulation (EU) 2016/1185	
Affected stakeholders	MSs, NSPs, ATCOs, training organisations, Pilot licence holders and students	
Owner	EASA FS.3, CA	
EXPECTED OUTPUT		
Deliverable(s)	Timeline	
Guidance/ good practice document	Continuous (SubT 1) 2020 Q4 (SubT 2)	
MST.033	Language proficiency requirements - To share best practices, to identify areas for improvement for the uniform and harmonised LPR implementation	
Safety	MSs should provide feedback to EASA on how the LPRI is implemented, including the uptake by ATOs to deliver training in English, for the purpose of harmonisation and uniform implementation.	
Status	New	
Reference(s)	SPT.105	
Affected stakeholders	MSs, NSPs, ATCOs, training organisations, Pilot licence holders and students	
Owner	MS	
EXPECTED OUTPUT		
Deliverable(s)	Timeline	
Feedback on the implementation status	Continuous	



In addition to the above, the following RMTs are also relevant to Language Proficiency:

RMT.0194	Modernise the European pilot training system and improve the supply of competent flight instructors.
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RMT.0678	Simpler, lighter and better Part-FCL requirements for general aviation
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The full description for these RMTs is included in **Section 5.3.1**.



5.4 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 was not recovered.

How we want to achieve it: actions

**RMT.0249** **Recorders installation and maintenance thereof — certification aspects****Safety**

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 addressed flight data recorder (FDR)/cockpit voice recorder (CVR) power supply, means to automatically stop the recording after an accident, combination recorders, etc.

In phase 2 of this RMT, EASA will prepare a second NPA (planned for Q3/2019), which will lead to a decision amending CS-25 and CS-29. Topics addressed in phase 2 will include data link recording, serviceability of flight recorders, quality of recording of CVR, performance specifications for flight recorders and deployable recorders.

Both phases will affect CS 25 and CS 29, but phase 1 also included an opinion with a proposal to amend Part-CAT.

Status Ongoing

Reference(s) n/a

Affected stakeholders Operators (of aircraft required to be equipped with flight recorders), POA holders and DOA holders

Owner EASA CT.5

Priority No **RM Procedure** Standard **Harmonisation** n/a

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
1	RMT.0249 (MDM.051) 18/09/2014	2018-03 27/03/2018	2019-02 22/02/2019	2021 Q1	2021 Q1
2		2019 Q3	n/a	n/a	2020 Q3

RMT.0271 **In-flight recording for light aircraft****Safety**

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.

Status Ongoing

Reference(s) n/a

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

Owner EASA FS.2

Priority No **RM Procedure** Standard **Harmonisation** n/a

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
	25/07/2014	2017-03 3/04/2017	2019-02 22/02/2019	2020 Q3	2020 Q3



RMT.0294	Data link recording retrofit for aircraft used in CAT
Safety	Assess the need to introduce data link recording for in-service aircraft in line with ICAO Annex 6 Parts I and III.
Status	Ongoing
Reference(s)	n/a

Affected stakeholders	Operators (of aircraft required to be equipped with flight recorders), POA holders and DOA holders				
Owner	EASA FS.2				
Priority	No	RM Procedure	Standard	Harmonisation	n/a

PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	2020 Q1	2021 Q1	2022 Q1	2023 Q1	2023 Q1



RMT.0400

Amendment of requirements for flight recorders and underwater locating devices

Safety

All IRs were adopted with Commission Regulation (EU) 2015/2338; however, the AMC & GM for CAT.GEN.MPA.205 (Aircraft tracking — aeroplanes) and CAT.GEN.MPA.210 (Location of an aircraft in distress) in the rules for air operations have not yet been issued. In addition, it has been identified that amendments to certification specifications may be necessary to facilitate the implementation of CAT.GEN.MPA.210.

SubT 1: ED Decision 2015/021/R: this Decision modified some of the AMC and GM related to FDR and CVR serviceability (refer to CAT.GEN.MPA.195(b)). It also updated the performance specifications for two of the FDR parameters (refer to CAT.IDE.A.190), and it clarified the scope of the performance specifications applicable to the CVR (refer to CAT.IDE.A.185 and CAT.IDE.H.185)

SubT 2: ED Decision 2015/030/R: this Decision completed the AMC and GM related to the serviceability of the CVR (refer to ORO.MLR.100 and CAT.GEN.MPA.195(b)), the preservation of the CVR recording after an accident or a serious incident (refer to CAT.GEN.MPA.195(a)), the performance and installation of the long-range underwater locating device (see CAT.IDE.A.285(f)). It also clarified the applicability of the data link recording requirements (refer to CAT.IDE.A.195 and CAT.IDE.H.195)

SubT 3: ED Decision 2016/012/R: this Decision updated the AMC and GM related to the protection of the CVR in normal operation (see CAT.GEN.MPA.195(f)). It also introduced operational requirements for FDRs installed on aeroplanes and helicopters first issued with an individual CofA on or after 1 January 2023 (see CAT.IDE.A.190 and CAT.IDE.H.190). Finally, this Decision clarified the time intervals between two inspections of the FDR and CVR recordings (refer to CAT.GEN.MPA.195(b))

SubT 4: ED Decision 2017/023/R: this Decision provided AMC and GM for the implementing rule on aircraft tracking (CAT.GEN.MPA.205)

SubT 5: This Decision will provide the Certification Specifications, AMC and GM for the implementing rule on location of an aircraft in distress (CAT.GEN.MPA.210). The scope of this Decision encompasses air operations, initial airworthiness and air traffic management.

Status Ongoing

Reference(s) n/a

Affected stakeholders Aircraft operators and POA holders

Owner EASA FS.2 & CT.4

Priority No **RM Procedure** Standard **Harmonisation** n/a

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
1	OPS.090 26/09/2012	2013-26 20/12/2013	01/2014 06/05/2014	R(EU) 2015/2338 11/12/2015	2015/021/R 12/10/2015
2		n/a	n/a	n/a	2015/030/R 17/12/2015
3		n/a	n/a	n/a	2016/012/R 12/09/2016
4		n/a	n/a	n/a	2017/023/R 14/12/2017
5		2019 Q2	n/a	n/a	2019 Q4



RES.013 Quick recovery of flight recorder data

Safety

Further to the MH370 accident and the adoption by ICAO of consequent regulation, assessment of the feasibility for using wireless transmission solutions for timely recovery of flight recorder data – namely flight parameters, audio and video images – in the follow-up to an accident; particular emphasis should be addressed to tackle prevailing open issues, such as those linked with the possible circumstances of an accident - loss of engine power, unusual aircraft attitude, aircraft complete destruction, accident in an oceanic area...- , the reliability and cost impact of the proposed solutions, their aptitude for usage in accident investigations as well as associated data privacy considerations.

Status Ongoing

Reference(s) n/a

Affected stakeholders CAT

Owner EASA SM.0.1

EXPECTED OUTPUT

Deliverable(s)	Timeline
Report	2022



5.5 Impact of security on safety

Issue/rationale

The safety actions in this area are aimed at mitigating the security-related safety risks.

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

Managing the impact of security on safety is a strategic priority.

What we want to achieve

Increase safety by managing the impact of security on safety and mitigating related safety risks.

How we monitor improvement

Continuous assessment and mitigation of security threats

How we want to achieve it: actions

RMT.0648	Aircraft cybersecurity				
Safety	The specific objective of this task 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 objective, EASA will consider the introduction of new cybersecurity provisions taking into account the existing special condition and the recommendations of the ASISP ARAC group. The RMT considers CS-25, CS-29, CS-27, CS-23, CS-E, CS-ETSO and CS-P.				
Status	This RMT will be completed in 2019, it is included in this draft EPAS for traceability. It will be removed in the final EPAS.				
Reference(s)	n/a				
Affected stakeholders	Applicants for TC/STC for large aeroplanes or large rotorcraft				
Owner	EASA CT.5				
Priority	Yes	RM Procedure	Standard	Harmonisation	FAA
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
RMT.0648		NPA 2019-01	n/a	n/a	2019 Q3
17/05/2016		22/02/2019			



RMT.0720		Management of information security risks			
Safety		<p>The specific objective of this task is to efficiently contribute to the protection of the aviation system from cybersecurity (information security from now on) attacks and their consequences. To achieve this objective, it is proposed to introduce provisions for the management of information security risks by organisations in all the aviation domains (design, production, continuing airworthiness management, maintenance, operations, aircrew, ATM/ANS, aerodromes). These provisions would include high-level, performance-based requirements, and would be supported by AMC & GM material and industry standards.</p>			
Status		Ongoing			
Reference(s)		n/a			
Affected stakeholders		DOA holders and POA holders, airlines, maintenance organisations, CAMOs, training organisations, ATM/ANS providers, aerodromes, and Member States.			
Owner		EASA FS.4			
Priority	Yes	RM Procedure	Standard	Harmonisation	ICAO, FAA, TCCA
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0720 16/01/2019	2019 Q2	2020 Q2	2021 Q4	2021 Q4

**SPT.071 Strategy for cybersecurity in aviation****Safety**

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 rely on internet and wireless connections between the various ground centres and the aircraft. The multiplication of network connections increases the vulnerability of the whole system. In order to address those concerns, a strategy for cybersecurity in aviation will be developed jointly by the EC and EASA in close coordination with the European Strategic Coordination Platform (ESCP), which is composed of representatives from the EC, relevant European Agencies and organisations, MSs and industry associations as well as other worldwide regulatory partners and military organisations.

This strategy will include, among others, actions in the following areas:

- Information sharing
- Research and studies
- Event investigation and response
- Knowledge and competence building
- International cooperation and harmonisation
- Regulatory activities and development of industry standards

This strategy for cybersecurity in aviation, together with the wider cybersecurity strategy being implemented in the EU for the protection of EU citizens against cybercrime, will pave the way for a secure and safe air transport system.

Status Ongoing

Reference(s) n/a

Affected stakeholders ALL

Owner EASA, EC, MS

EXPECTED OUTPUT

Deliverable(s)	Timeline
Strategy paper	2019

SPT.078 Disseminate information on conflict zones**Safety**

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.

Status Ongoing

Reference(s) n/a

Affected stakeholders ALL

Owner EASA FS.4

EXPECTED OUTPUT

Deliverable(s)	Timeline
Information to MSs	Continuous



SPT.100	Safety promotion on disruptive passengers
Safety	Develop safety promotion material to support operators with the reduction of the risks associated with disruptive/unruly passengers.
Status	This SPT is completed, it is included in this draft EPAS for traceability. It will be removed in the final EPAS.
Reference(s)	Safety Promotion material on 'Zero tolerance against unruly passengers' ⁶⁰

Affected stakeholders	CAT
Owner	EASA SM.1

EXPECTED OUTPUT	
Deliverable(s)	Timeline
Safety promotion material	2019

RES.012	Cybersecurity: common aeronautical vulnerabilities database
Safety	Develop a vulnerabilities database in order to collect, maintain and disseminate information about discovered vulnerabilities targeting major transport information systems. The project would include the identification of the type of information that this database would contain, how this database could be populated and how we can take advantage of the database in order to obtain an accurate landscape of cybersecurity risks. It should also include a 'prototype phase' with some initial population.
Status	This RES has been placed on hold until further notice.
Reference(s)	n/a

Affected stakeholders	ALL
Owner	EASA SM.0.1

EXPECTED OUTPUT	
Deliverable(s)	Timeline
Database	2021

⁶⁰ <https://www.easa.europa.eu/notonmyflight?>



5.6 Oversight and Standardisation

The safety actions in this area are aimed at addressing issues emerging from standardisation activities, with focus on the safety oversight responsibilities of the MSs. The conclusions of the EASA 2018 Standardisation Annual Report (SAR) are also taken into account.

Issue/rationale

Authority requirements, introduced in the rules developed under the first and second extension of the EASA scope, define what MSs are expected to implement when performing oversight of the organisations under their responsibility. In particular, they introduced the concept of risk-based oversight with the objective of addressing safety issues with a consideration to efficiency.

The safety actions in this area are aimed at addressing issues emerging from standardisation activities, with focus on the safety oversight responsibilities of the MSs. The conclusions of the EASA 2018 SAR are also taken into account.

The elements presented in 3.2.6 are considered enablers of a robust safety oversight system, as expected to be in place according to the requirements in force:

1. ability and determination to conduct effective oversight⁶¹
2. ability to identify risks through a process to collect and analyse data;
3. ability to mitigate the identified risks in an effective way, implying measurement of performance and leading to continuous improvement;
4. willingness and possibility to exchange information and cooperate with other CAs;
5. ability to ensure the availability of adequate personnel, where 'adequate' includes the notion of sufficient training and proper qualification; and
6. focus on the implementation of effective management systems in industry, wherever required by the regulations in force.

What we want to achieve

A robust oversight system across Europe, where each CA is able to properly discharge its oversight responsibilities, with particular focus on management of safety risks, exchange of information and cooperation with other CAs. To that end, implementation of management systems in all organisations, as well as ensuring the availability of adequate personnel in CAs are essential enablers.

How we monitor improvement

The elements above are constantly monitored during the Standardisation activities conducted by the Agency. In addition a number of indicators have been developed to measure the progress over time of the point 6. above.

Section 4.2 proposes to monitor MSs' oversight capabilities and the status of compliance with management system (SMS) requirements in aviation organisations respectively.

How we want to achieve it: actions

⁶¹ 'oversight' means the verification, by or on behalf of the competent authority, on a continuous basis that the requirements of this Regulation and of the delegated and implementing acts adopted on the basis thereof, on the basis of which a certificate has been issued or in respect of which a declaration has been made, continue to be complied with. (Reg. 2018/1139, Art. 3)



MST.032

Oversight capabilities/focus area

Safety

(a) Availability of adequate personnel in competent authorities:

MSs to ensure that adequate personnel is available to discharge their safety oversight responsibilities;

(b) Cooperative oversight in all sectors

MSs to ensure that the applicable authority requirements are adhered to in all sectors. The objective is to ensure that each organisation's activities are duly assessed, known to the relevant authorities and that those activities are adequately overseen, either with or without an agreed transfer of oversight tasks.

NB: EASA will continue to support CAs in the practical implementation of cooperative oversight, e.g. benefiting from the outcome of the trial projects conducted between UK, NO, FR, CZ, as well as with exchanges of best practices and guidance.

(c) Organisations management system in all sectors

MSs to foster the ability of CAs to assess and oversee the organisations' management system in all sectors. This will focus in particular on safety culture, the governance structure of the organisation, the interaction between the risk identification/assessment process and the organisation's monitoring process, the use of inspection findings and safety information such as occurrences, incidents, and accidents. This should lead CAs to adapt and improve their oversight system.

(d) Service provision to GA flights

MSs to raise the quality of support provided to GA flights by ANSPs through focused oversight.

(e) Focused oversight on cases of fraud in Part-147 organisations

MSs to focus on the risk of fraud in examinations, including by adding specific items in audit checklists and collecting data on the actual cases of fraud.

(f) English Language Proficiency:

MS to focus on the implementation of language proficiency requirements, to identify areas for improvement for the uniform and harmonised implementation and identify best practices to be shared with industry and other Member States.

Status New . This MST action supersedes FOT actions 003, 007, 008 and 010 from EPAS 2019-2023.

Reference(s) n/a

Affected stakeholders ALL

Owner MS

EXPECTED OUTPUT

Deliverable(s)	Timeline
SPAS established	2020

In addition to the above, the following action is also relevant to oversight:

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

The full description for this action is included in **Chapter 10**.



6 Flight Operations - Aeroplane

This chapter groups all actions in the area of CAT by aeroplane, NCC (Business Aviation), as well as SPO aeroplanes.

The operational domain CAT by aeroplane and NCC (Business Aviation) remains the greatest focus of the EASA safety activities. Sufficient safety and exposure data is available in these domains to enable the definition of specific safety performance metrics (see **Chapter 4.2**).

6.1 CAT by Aeroplane & NCC (Business)

6.1.1 Safety

This section is structured in line with the key risk areas (KRAs) and related safety issues identified in the ASR 2018.

CAT by Aeroplane & NCC (Business)			
Key Risk Areas			
Priority 1	Priority 2	Priority 3	Priority 4
<ul style="list-style-type: none">Aircraft UpsetRunway Excursions	<ul style="list-style-type: none">Injuries/DamagesSecurity	<ul style="list-style-type: none">Runway collisionAirborne collision	<ul style="list-style-type: none">Aircraft EnvironmentGround CollisionTerrain CollisionObstacle Collision

6.1.1.1 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. Prevention of loss of control is a strategic priority.

Aircraft upset or loss of control is the most common accident outcome for fatal accidents in CAT aeroplane operations. It includes uncontrolled collisions with terrain, but also occurrences where the aircraft deviated from the intended flight path or aircraft flight parameters, regardless of whether the flight crew realised the deviation and whether it was possible to recover or not. It also includes the triggering of stall warning and envelope protections.

What we want to achieve

Increase safety by continuously assessing and improving risk controls to mitigate the risk of loss of control.

How we monitor improvement

Continuous monitoring of safety issues identified in the CAT Safety Risk Portfolio for CAT airline and NCC business aeroplane operations (ref: ASR 2018).

How we want to achieve it: actions



RMT.0581	Loss of control prevention and recovery training
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The full description for this action is included in **Section 5.3**.

RMT.0397	Unintended or inappropriate rudder usage — rudder reversals (completed)
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RES.010	Ice crystal detection
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RES.017	Icing hazard linked to Super cooled Large droplet (SLD)
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The full description for these actions is included in **Chapter 9**.

**6.1.1.2 Runway Safety****Issue/rationale**

This section deals with runway excursions, runway incursions and runway collisions, and is of a strategic priority.

Runway excursion covers materialised runway excursions, both at high and low speed, and occurrences where the flight crew had difficulties maintaining the directional control of the aircraft or of the braking action during landing, where the landing occurred long, fast, off-centred or hard, or where the aircraft had technical problems with the landing gear (not locked, not extended or collapsed) during landing. Runway excursions account for 81 high-risk occurrences recorded in the period 2013-2017 in CAT aeroplane and NCC (business) operations.

Runway incursion refers to the incorrect presence of an aircraft, vehicle or person on an active runway or in its areas of protection. Their accident outcome, runway collisions, account for 28 high-risk occurrences recorded in the period 2013-2017. Despite the relatively low number, the risk of the reported occurrences was demonstrated to be very real.

What we want to achieve

Increase safety by continuously assessing and improving risk controls to mitigate the risk of REs and RIs.

How we monitor improvement

Continuous monitoring of safety issues identified in the aerodrome and groundhandling and the ATM/ANS Safety Risk Portfolios (see ASR 2018).

How we want to achieve it: actions

RMT.0296 Review of aeroplane performance requirements for operations					
Safety	— Develop regulatory material to provide improved clarity, technical accuracy, flexibility or a combination of these benefits for the EU operational requirements on aeroplane performance in air operations with the aim of reducing the number of accidents and serious incidents where aeroplane performance is a causal factor; and				
	— Contribute to the harmonisation of the FAA and EU operational requirements on aeroplane performance in CAT operations.				
Status	Ongoing				
Reference(s)	n/a				
Affected stakeholders	Aeroplane Operators, POA holders, CAs				
Owner	EASA FS.2				
Priority	Yes	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
RMT.0296 (OPS.008(A)) 09/06/2015		2016-11 30/09/2016	2019-02 22/02/2019	2020 Q3	2020 Q3



In addition, the below actions are also directly relevant for this key risk area:

RMT.0570	Reduction of runway excursions
RMT.0703	Runway safety
RMT.0722	Provision of aeronautical data by the ADR operator
MST.029	Implementation of SESAR runway safety solutions

The full description for these actions is included in **Chapter 12**.



6.1.1.3 Airborne conflict (Mid-air collisions)

Issue/rationale

Airborne conflict refers to both actual collisions as well as near-misses in the air. It includes direct precursors such as separation minima infringements, genuine traffic collision avoidance system (TCAS) resolution advisories or airspace infringements. Although there have been no CAT aeroplane airborne collision accidents in recent years within the EASA MSs, this key risk area has been raised by a number of MSs through the NoAs and also by some airlines, specifically in the context of the collision risk posed by aircraft without transponders in uncontrolled airspace. This is one specific safety issue that is a main priority in this key risk area. The risk scoring of accidents and serious incidents warrants the inclusion of airborne conflict as a key risk area in this domain.

What we want to achieve

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

How we monitor improvement

Increase safety by continuously monitoring safety issues identified in the CAT Safety Risk Portfolio for CAT Airline and NCC business aeroplane operations (see ASR 2018).

How we want to achieve it: actions

RMT.0376	Anti-collision and traffic awareness systems for aircraft with MTOM less than 5 700 kg or less than 19 passengers				
Safety	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 anti-collision systems carriage.				
Status	This task is rescheduled in accordance with the criteria described in Chapter 3.				
Reference(s)	n/a				
Affected stakeholders	AOC holders, GA				
Owner	EASA FS.4				
Priority	Yes	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	2019 Q4	2021 Q3	2022 Q3	2023 Q3	2023 Q3



MST.024

Loss of separation between civil and military aircraft

Safety

Several EU MSs 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 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 MSs follow up on the recommendations and provide feedback on the implementation.

EASA will have a supporting role and provide feedback on the occurrences reported.

Status

Ongoing

Reference(s)

ICAO Circular 330

Affected stakeholders

CAT

Owner

MS

EXPECTED OUTPUT

Deliverable(s)

Timeline

Report

2020

MST.030

Implementation of SESAR solutions aiming to reduce the risk of mid-air collision en-route and TMA

Safety

HF

MS should evaluate together with ANSPs delegated to provide services in their airspace the needs for implementing SESAR solutions such as those related to enhanced Short Term Conflict Alerts (STCA)/enhanced safety nets⁶². These SESAR solutions designed to improve safety should be implemented as far as it is feasible.

Status

Ongoing

Reference(s)

SESAR Solutions Catalogue:

https://www.sesarju.eu/sites/default/files/solutions/SESAR_Solutions_Catalogue_Ed2_2017.pdf

Affected stakeholders

CAT/GA

Owner

MS

EXPECTED OUTPUT

Deliverable(s)

Timeline

SPAS established

2020

⁶² More details about the related research projects can be found in https://www.atmmasterplan.eu/data/sesar_solutions



6.1.1.4 Terrain Collision

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 a fatal outcome, such as descending below weather minima, undue clearance below radar minima, etc.

What we want to achieve

Increase safety by continuously assessing and improving risk controls to mitigate the risk of CFIT.

How we monitor improvement

Continuous monitoring of safety issues identified in the CAT Safety Risk Portfolio for CAT Airline and NCC Business aeroplane operations (ref: ASR 2018).

How we want to achieve it: actions

Following completion of the actions included under this section in EPAS 2018-2022, no further actions are included in this EPAS edition. The section is maintained as a placeholder for future actions.



6.1.1.5 Aircraft environment

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 years involving fires, there have been occurrences in other parts of the world that make it an area of concern within EPAS.

What we want to achieve

Increase safety by continuously assessing and improving risk controls to mitigate the risk of fire, smoke and fumes.

How we monitor improvement

Continuous monitoring of safety issues identified in the CAT Safety Risk Portfolio for CAT Airline and NCC Business aeroplane operations (ref: ASR 2018).

How we want to achieve it: actions

RMT.0070	Additional airworthiness specifications for operations: fire hazard in Class D cargo compartments
RMT.0071	Additional airworthiness specifications for operations: thermal/acoustic insulation material (closed)

The full description for these actions is included in **Chapter 9**.

RES.003	Research study on cabin and cockpit air quality
Safety	Investigation of the quality level of the air inside the cabin and cockpit 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.
Status	Ongoing
Reference(s)	n/a
Affected stakeholders	CAT
Owner	EC (H2020)
EXPECTED OUTPUT	
Deliverable(s)	Timeline
Study report	2020



RES.004	Transport of lithium batteries by air
Safety	<p>Assess mitigating measures for the transport of lithium metal and lithium ion batteries as cargo on board an aircraft and develop a risk assessment tool and guidance for operators.</p> <p>This would include, at least:</p> <ul style="list-style-type: none">— Review of the state of the art and identification of potential risks— Identification and assessment of packaging solutions/standards— Identification and assessment of additional measures that may mitigate the risks of thermal runaway and propagation of the fire— Characterisation and evaluation of firefighting measures and suppression systems— Development of a risk assessment method to enable operators to establish and evaluate safe conditions for air transport— Conclusions, recommendations and provision of technical assistance to the contracting authority. <p>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.</p>
Status	Ongoing
Reference(s)	n/a
Affected stakeholders	CAT
Owner	EASA SM.0.1
EXPECTED OUTPUT	
Deliverable(s)	Timeline
Report	2020

RES.016	Fire risks caused by portable electronic devices on-board aircraft
Safety	<p>Research work aimed at the full characterisation of the fire risks associated to the transport of large portable electronic devices (PED) in aircraft, notably of those stored in the cargo compartment in the checked-in luggage; this encompasses theoretical and experimental work to deepen the knowledge related to the inception and propagation of PED originated fires as well as devising efficient and cost-effective means for their detection and suppression;</p>
Status	Ongoing
Reference(s)	n/a
Affected stakeholders	CAT
Owner	EASA SM.0.1
EXPECTED OUTPUT	
Deliverable(s)	Timeline
Report	2021

**6.1.1.6 Miscellaneous****Issue/rationale**

This section gathers the actions that do not relate to any of the KRAs listed in Section 6.1.1. They may involve different types of actions in the domain CAT by aeroplane and NCC (Business). The need for having such a category was driven by the constant development of EPAS towards new safety areas.

What we want to achieve

To increase safety with a combination of actions that addresses more than one issue.

How we monitor improvement

The EASA ABs will give feedback on the effectiveness of the activities.

How we want to achieve it: actions

RMT.0516	Update of the rules on air operations (Air OPS Regulation — all Annexes & related AMC & GM)				
Safety	<ul style="list-style-type: none"> — 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; — Ensure compliance with the ICAO Standards And Recommended Practices (SARPs); — Address identified safety issues such as pax seating and briefing; — GA Roadmap issues. 				
Status	This RMT will be completed in 2019, it is included in this draft EPAS for traceability. It will be removed in the final EPAS.				
Reference(s)	n/a				
Affected stakeholders	All operators and CAs				
Owner	EASA FS.2				
Priority	Yes	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
RMT.0516 & RMT.0517 16/09/2013		2015-05 27/11/2015	04/2017 29/06/2017	2019 Q2	2019 Q2



SPT.076	FDM precursors of main operational safety risks
Safety	EASA should, in partnership with the industry, complete the good practice documentation which supports the inclusion of main operational safety risks such as runway excursion (RE), loss of control in-flight (LOC-I), controlled flight into terrain (CFIT) and MAC into operators' FDM programmes.
Status	Ongoing
Reference(s)	n/a
Affected stakeholders	ALL
Owner	EASA SM.1
EXPECTED OUTPUT	
Deliverable(s)	Timeline
Good-practice document	2019

SPT.077	Good practices for the integration of operator's FDM data with other safety data sources
Safety	EASA should, in partnership with the industry, establish good practices that help an operator in integrating its FDM data with other safety data sources.
Status	Ongoing
Reference(s)	n/a
Affected stakeholders	CAT
Owner	EASA SM.1
EXPECTED OUTPUT	
Deliverable(s)	Timeline
Good-practice document	2019

SPT.101	Develop new safety promotion material on high-profile commercial flight operations safety issues
Safety	Develop new safety promotion material on high-profile safety issues for commercial flight operations. Such high-profile safety issues are to be determined from important risks identified from the SRM process, accidents/serious incidents and inputs from EASA stakeholders.
Status	Ongoing
Reference(s)	n/a
Affected stakeholders	CAT
Owner	EASA SM.1
EXPECTED OUTPUT	
Deliverable(s)	Timeline
Leaflets, videos, web-pages and/or applications	Continuous



EVT.0009 **Evaluation on European Operators Flight Data Monitoring**

Efficiency/proportionality The European Operators Flight Data Monitoring (EOFDM) forum, established in 2011, is a voluntary partnership between European operators and the European Aviation Safety Agency. The overall objective of the evaluation is to take stock of the current level of awareness and implementation of EOFDM best practice documents by European operators and to assess potential needs for the adaptation of the scope and/or the promotion strategy of EOFDM. The project is exemplary for the ex-post assessment of safety promotion actions in EASA.

Status Ongoing

Reference(s) n/a

Affected stakeholders Safety Managers, FDM Programme Managers at European operators

Owner EASA SM.1

EXPECTED OUTPUT

Deliverable(s)	Timeline
Evaluation report	2020

In addition to the above, the following actions are relevant for CAT by aeroplane and NCC safety:

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

RMT.0225 **Development of an ageing aircraft structure plan**

RMT.0276 **Technical records**

RMT.0581 **Loss of control prevention and recovery training**

RMT.0586 **Tyre pressure monitoring system**

The full description for these actions is included in **Chapter 9**.

RMT.0251 **Airworthiness review process**

RMT.0393 **Maintenance check flights (MCFs)**

The full description for these actions is included in **Chapter 10**.

SPT.103 **Develop new safety promotion material on high-profile ATM safety issues**

Refer to **Chapter 11** for the detailed action description.

RMT.0379 **All-weather operations**

Refer to **Section 11** for the detailed action description.



6.1.2 Level Playing Field

Issue/rationale

Rules may need to be harmonised within the EU as well as with the main international trade partners in order to either ensure fair competition or facilitate the free movement of goods, persons and services.

What we want to achieve

Harmonise requirements where this ensures fair competition or facilitates the free movement of goods, persons and services.

How we monitor improvement

The EASA ABs will give feedback on the effectiveness of the activities.

How we want to achieve it: actions

RMT.0278		Importing of aircraft from other regulatory systems and Part 21 Subpart H review			
Level playing field		Develop criteria for importing of aircraft from other regulatory systems and Part 21 Subpart H review.			
Status		Ongoing			
Reference(s)		n/a			
Affected stakeholders		Air operators and CAs			
Owner		EASA FS.1			
Priority	No	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0278 01/02/2013	2016-08 07/09/2016	2021 Q3	2022 Q3	2022 Q3

RMT.0312		Review of standard weights			
Level playing field		Transposed task from the JAA to review the standard weights due to demographic changes. Review of IRs/AMC & GM based on the weight survey commissioned by EASA.			
Status		This task is de-prioritised in accordance with criteria described in Chapter 3.			
Reference(s)		n/a			
Affected stakeholders		CAT and NCC operators			
Owner		EASA FS.2			
Priority	No	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	tbd	tbd	tbd	tbd	tbd

**RMT.0573 Fuel planning and management**

Level playing field Review and update the EU fuel rules, taking into account ICAO amendments and a related SR, and providing for operational flexibility.

Status Ongoing

Reference(s) n/a

Affected stakeholders AOC holders

Owner EASA FS.2

Priority No **RM Procedure** Standard **Harmonisation** n/a

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0573	2016-06	2020 Q2	2021 Q4	2021 Q4
	27/04/2015	15/07/2016			

RMT.0577 Extended diversion time operations

Level playing field To harmonise the extended diversion time operation (EDTO) rules with the related ICAO SARPs and modernise the EASA ETOPS rules.

Status This task is de-prioritised in accordance with criteria described in Chapter 3.

Reference(s) n/a

Affected stakeholders text

Owner EASA FS.2

Priority No **RM Procedure** Standard **Harmonisation** n/a

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
	tbd	tbd	tbd	tbd	tbd

RMT.0601 Transposition of provisions on electronic flight bag from ICAO Annex 6

Level playing field Transpose ICAO SARPs in EU rules and update the EU rules in line with the latest EFB developments.

Status This RMT is completed in 2019, it is included in this draft EPAS for traceability. It will be removed in the final EPAS.

Reference(s) ICAO Annex 6

Affected stakeholders CAs and air operators

Owner EASA FS.2

Priority No **RM Procedure** Standard **Harmonisation** n/a

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0601 & 0602	2016-12	10/2017	26/10/2018	2019/008/R
	05/10/2015	04/10/2016	18/12/2017		27/02/2019



SPT.097		Promote the new European provisions on fuel planning and management	
Level playing field	The objective is to complement the new regulatory package on fuel planning and management with relevant safety promotion material.		
Status	Ongoing		
Reference(s)	n/a		
Affected stakeholders	ALL		
Owner	EASA SM.1		
EXPECTED OUTPUT			
Deliverable(s)		Timeline	
Safety Promotion material		2019	

In addition to the above, the following action is relevant to Level Playing Field in CAT by Aeroplane & NCC:

RMT.0561	Update of AMC-20 'in-flight entertainment (IFE), lead-free soldering, harmonisation of safety and software criteria'
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Refer to **Chapter 9** for the detailed action description.



6.1.3 Efficiency/proportionality

Issue/rationale

Passenger and cargo transport by airlines generate producer, consumer and wider economic benefits. Regulatory and administrative burden reduce these benefits and need therefore to be fully justified by corresponding safety benefits.

What we want to achieve

Ensure an efficient regulatory framework for airlines.

How we monitor improvement

The EASA ABs and the CAT CAG will give feedback on the effectiveness of the activities.

How we want to achieve it: actions

RMT.0190 Requirements for relief pilots					
Efficiency/proportionality	Address the provisions for the use of relief pilots as regards experience, training, checking and CRM.				
Status	Ongoing				
Reference(s)	n/a				
Affected stakeholders	Pilots, ATOs, and air operators				
Owner	EASA FS.3				
Priority	No	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
RMT.0190		2014-25	2021 Q2	2022 Q2	2022 Q2
02/11/2012		04/11/2014			



RMT.0352	Non-commercial operations of aircraft listed in the operations specifications (OpSpecs) by an AOC holder				
Efficiency/proportionality	<p>Identify the categories of flights considered to be non-commercial flights conducted by AOC holders; Standardise the unofficial terms used in order to have a clear understanding of the different categories of non-commercial flights;</p> <p>Specify standards for non-commercial operations of AOC holders related to the preparation, programme and operational framework, as appropriate;</p> <p>Establish the minimum requirements for qualifications and training of the crews for each type of non-commercial flights conducted by AOC holders, as appropriate;</p> <p>Harmonise implementation.</p>				
Status	This RMT is completed in 2019, it is included in this draft EPAS for traceability. It will be removed in the final EPAS.				
Reference(s)	n/a				
Affected stakeholders	CAT operators				
Owner	EASA FS.2				
Priority	No	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0352	2015-05	04/2017	2019 Q2	2019 Q2
	04/12/2013	30/03/2015	29/06/2017		

RMT.0392	Regular update of OPS rules				
Efficiency/proportionality	<p>Necessary update reflecting technological and market developments</p> <p>This regular update task will lead to changes at IR level and at AMC/GM level. For the latter, for those changes that are not dependant on changes at IR level, a first Decision is expected in 2021 Q4.</p>				
Status	Ongoing				
Reference(s)	n/a				
Affected stakeholders	All operators and NAAs				
Owner	EASA FS.2				
Priority	No	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	2020 Q1	2021 Q1	2021 Q4	n/a	2021 Q4
	as above	as above	as above	2022 Q3	2022 Q3



RMT.0721	RAMP simplification				
Efficiency/proportionality	Taking into account feedback and standardisation results, it appears that the current AMC & GM to Part-ARO Subpart RAMP (Regulation (EU) 965/2012) are currently too prescriptive in some areas, and lack clarity in others. With RAMP deregulation, EASA intends to reduce the size of the AMC & GM by means of developing a new ramp inspections manual where most of the AMC & GM are being transposed. The resulting documents would also be reviewed in order to modernise them and reduce the level of prescription.				
Status	This RMT is completed, it is included in this draft EPAS for traceability. It will be removed in the final EPAS.				
Reference(s)	n/a				
Affected stakeholders	CAs and operators (commercial and non-commercial)				
Owner	EASA FS.2				
Priority	No	RM Procedure	AP	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0721	n/a	n/a	n/a	2019/007/R
	28/05/2018				27/02/2019

EVT.0008	Evaluation on Third Country Operator Regulation	
Efficiency/proportionality	Commission Regulation (EU) No. 452/2014 ('TCO Regulation') was adopted in 2014. Now, five years after the entry into force, the Regulation is assessed whether it is still fit for purpose and remains efficient and serviceable.	
Status	Ongoing	
Reference(s)	n/a	
Affected stakeholders	Third Country operators, EASA MS, EASA	
Owner	EASA FS.2	
EXPECTED OUTPUT		
Deliverable(s)	Timeline	
Evaluation report	2020	

In addition to the above, the following actions are relevant to efficiency/proportionality in CAT by Aeroplane & NCC:

RMT.0499	Regular update of CS-MMEL
RMT.0695	Non-ETOPS operations using performance class A aeroplanes with a MOPSC of 19 or less

The full description for this action (these actions) is included in **Chapter 9**.



6.2 SPO Aeroplane

Issue/rationale

Operators other than CAT, e.g. conducting specialised operations, make an important contribution to aviation's overall role in modern economies. There is thus a need for an efficient regulatory framework. An analysis per type of operation shows that the type of operations with the highest number of accidents and serious incidents, on average in the period 2008-2017 were:

- Parachute drop
- Towing
- Airshow/race

In 2018 the top 3 specialised operation types in terms of accidents and serious incidents were Towing, Parachute drop and Agricultural.

The highest risk safety issues in this domain all relate to human factors.

SPO Aeroplane

Key Risk Areas

Priority 1	Priority 2	Priority 3	Priority 4
<ul style="list-style-type: none">▪ Aircraft Upset▪ Airborne Collision	<ul style="list-style-type: none">▪ Terrain Collision▪ Runway Excursion	<ul style="list-style-type: none">▪ Obstacle Collision in flight▪ Unsurvivable Aircraft Environment	<ul style="list-style-type: none">• Runway Collision• Ground Damage• Taxiway/Apron Excursion

What we want to achieve

Increase efficiency by enabling implementation of appropriate balanced approach.

How we monitor improvement

The EASA ABs will give feedback on the effectiveness of the activities.

Following completion of the actions included under this section in EPAS 2018-2022, no further actions are included in this EPAS edition. The section is maintained as a placeholder for future actions.

For SPO Rotorcraft please refer to **Chapter 7**.



7 Rotorcraft

This chapter groups all actions in the area of rotorcraft operations, as well as design, manufacture and maintenance, in line with EASA's **Rotorcraft Safety Roadmap**⁶³ delivered and endorsed in November 2018.

Issue/rationale

The Roadmap aims at significantly reducing the number of rotorcraft accidents and incidents and focuses on traditional/conventional rotorcraft including General Aviation (GA) rotorcraft where the number of accidents is recognised to be greater. It focuses on safety and transversal issues that are affected by the different domains including training, operations, initial and continuing airworthiness, environment and innovation.

Helicopter operators perform a wide range of highly specialised operations that are important for the European economy and citizens. There is a need to further develop towards an efficient regulatory framework, considering technological advancements.

This area includes four types of operations:

- offshore operations (CAT);
- other CAT operations by holders of an EASA MS AOC;
- specialised operations (Part SPO)/aerial work operations; and
- non-commercial operations (certified helicopters registered in an EASA MS or for which an EASA MS is State of Operator).

The key risk areas for the different types of operation are as follows:

Offshore Helicopters

Key Risk Areas

Priority 1	Priority 2	Priority 3	Priority 4
<ul style="list-style-type: none">▪ Aircraft Upset▪ Obstacle Collision	<ul style="list-style-type: none">▪ Ground Damage▪ Terrain Collision▪ Airborne Collision	<ul style="list-style-type: none">▪ Runway Collision▪ Unsurvivable Aircraft Environment	<ul style="list-style-type: none">▪ Excursions▪ Injuries

In the CAT offshore helicopter domain, there were no accidents (either fatal or non-fatal) in 2017. Instead, there were 2 serious incidents, which is above the 10-year average for serious incidents. Prior to 2017, there were 2 fatal accidents (one in 2013 and another one in 2016).

Other CAT Helicopters

Key Risk Areas

Priority 1	Priority 2	Priority 3	Priority 4
<ul style="list-style-type: none">▪ Aircraft Upset▪ Obstacle Collision▪ Terrain Collision	<ul style="list-style-type: none">▪ Airborne Collision▪ Ground Damage	<ul style="list-style-type: none">▪ Runway Collision▪ Unsurvivable Aircraft Environment	<ul style="list-style-type: none">▪ Excursions▪ Injuries

⁶³ <https://www.easa.europa.eu/download/Events/Rotorcraft%20Safety%20Roadmap%20-%20Final.pdf>



In other CAT helicopter operations, there were 1 fatal accident, 4 non-fatal accidents and 6 serious incidents in 2017, leading to 6 fatalities and 3 serious injuries. The fatal accident involved a collision with mountains during HEMS operations.

SPO Helicopters

Key Risk Areas

Priority 1	Priority 2	Priority 3	Priority 4
<ul style="list-style-type: none">Obstacle Collision in FlightAircraft Upset	<ul style="list-style-type: none">Terrain CollisionRunway Excursion	<ul style="list-style-type: none">Ground DamageAirborne Collision	<ul style="list-style-type: none">Runway CollisionTaxiway/Apron ExcursionUnsurvivable Aircraft Environment

In Part SPO/aerial work operations, there were 3 fatal accidents, 12 non-fatal accidents and 5 serious incidents in 2017, leading to 4 fatalities and 5 serious injuries. The number of serious incidents was considerably higher than the average of the preceding 10-year period.

NCO Helicopters

Key Risk Areas

Priority 1	Priority 2	Priority 3	Priority 4
<ul style="list-style-type: none">Aircraft UpsetObstacle CollisionTerrain Collision	<ul style="list-style-type: none">Airborne CollisionGround Damage	<ul style="list-style-type: none">Runway CollisionUnsurvivable Aircraft Environment	<ul style="list-style-type: none">ExcursionsInjuries

In non-commercial operations, there were 3 fatal accidents, 22 non-fatal accidents and 8 serious incidents in 2017, leading to 7 fatalities and 11 serious injuries. The number of fatal accidents decreased in 2017 compared to 2016 and the 10-year average. There were also fewer non-fatal accidents and serious incidents in 2017 compared to 2016 and to the 10-year average.

The safety issues identified for the above key risk areas for the different types of operation are listed in the ASR.

Based on the data supporting the different portfolios (Offshore, other CAT, SPO and non-commercial operations), the following priority 1 key risk areas can be highlighted:

- helicopter upset in flight (loss of control)

This is key risk area with the highest priority in offshore and CAT helicopter operations. Loss of control for offshore helicopter operations generally falls into two scenarios, technical failure that renders the aircraft uncontrollable or human factors. In addition, it is the second most common accident outcome for aerial work operations. The following actions contribute to mitigating risks in this area: RMT.0127, RMT.0709 and RMT.0711.

- terrain and obstacle conflict

This is the second priority key risk area for helicopter operations (offshore, other CAT, SPO and non-commercial operations), although equipment is now fitted to helicopters in this domain that will



significantly mitigate the risk of this outcome. Obstacle collisions is the second most common accident outcome in the CAT helicopters domain. This highlights the challenges of HEMS operations and their limited selection and planning for landing sites. Terrain and obstacle conflict is the most common outcome for SPO (aerial work operations). The following action contributes to mitigating risks in this area: RMT.0708.

In addition, from an airspace perspective, it is important to ensure that the airspace and routes design facilitate safe operations of helicopters which typically fly at low levels. Within SESAR 1, there have been solutions aiming to improve safety and efficiency of helicopter operations such as those supporting the establishment of low-level IFR routes⁶⁴.

What we want to achieve

Increase safety by continuously assessing and improving risk controls in the above areas. Increase efficiency by enabling implementation of appropriate and balanced regulation.

How we monitor improvement

Continuous monitoring of safety issues identified in the specific safety risk portfolios established for offshore helicopter operations, for other CAT helicopter operations, for specialised helicopter operations and for non-commercial helicopter operations (ref: ASR 2018).

The EASA ABs will give feedback on the actions where efficiency/proportionality is the main driver.

How we want to achieve it: actions

RMT.0120 Helicopter ditching and water impact occupant survivability					
Safety	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).				
	In a first phase EASA plans to address CS-27/29. In a second phase, EASA will consider whether the safety issue also necessitates amendment of Part-26/CS-26.				
Status	Ongoing				
Reference(s)	n/a				
Affected stakeholders	DAHs and helicopter operators				
Owner	EASA CT.5				
Priority	Yes	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
1	RMT.0120 24/10/2012	2016-01 23/03/2016	n/a	n/a	2018/007/R 25/06/2018
2		2020 Q1	2021 Q1	2023 Q3	2023 Q3

⁶⁴ See SESAR solution # 113 from the SESAR Solution Catalogue:
https://www.sesarju.eu/sites/default/files/solutions/SESAR_Solutions_Catalogue.pdf

**RMT.0127 Pilot compartment view****Safety**

The objective of this RMT is to address 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.

Status Ongoing

Reference(s) n/a

Affected stakeholders DOA holders, POA holders and helicopter operators

Owner EASA CT.5

Priority No **RM Procedure** Standard **Harmonisation** n/a

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
	2019 Q3	2020 Q1	n/a	n/a	2020 Q4

RMT.0318 Single-engine helicopter operations

Review the applicable rules and the associated AMC and GM in order to re-evaluate:

Level playing field

- Restrictions on piston engine helicopters to operate over hostile environment;
- Restrictions on single-engine helicopters to operate over congested environment

Status This task is de-prioritised in accordance with criteria described in Chapter 3.

Reference(s) n/a

Affected stakeholders Helicopter operators

Owner EASA FS.2

Priority No **RM Procedure** Standard **Harmonisation** n/a

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0318 06/02/2018	tbd	tbd	tbd	tbd



RMT.0325 HEMS performance and public interest sites					
Safety		To properly address the issues stemming from non-implementation or deviation from JAR-OPS 3 performance and public interest sites (PIS) provisions, in particular performance in high mountains considering review of HEMS flights at night safety level following a UK Safety Directive.			
Status		Ongoing			
Reference(s)		n/a			
Affected stakeholders		Helicopter CAT, HEMS operators and MOs (Part-145)			
Owner		EASA FS.2			
Priority	No	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0325 26/03/2014	2018-04 18/06/2018	2021 Q3	2022 Q4	2022 Q4

RMT.0708 Controlled flight into terrain prevention with helicopter terrain avoidance warning systems (HTAWS)					
Safety		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 visual flight rules (VFR) operations (night and day). For offshore helicopter operations, this also includes the involvement of the EASA Certification Directorate working with stakeholders on the evaluation of updated HTAWS standards.			
Status		Ongoing			
Reference(s)		n/a			
Affected stakeholders		Helicopter operators			
Owner		EASA FS.2			
Priority	No	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	2019 Q2	2019 Q4	2021 Q2	2023 Q2	2023 Q2

In addition to the above RMTs, the following RMTs are directly relevant to Rotorcraft safety:

RMT.0494 FTL requirements for helicopter operations					
The full description for these actions is included in Section 5.2 .					



RMT.0134	Regular update of rotorcraft AMC
RMT.0709	Prevention of catastrophic accidents due to rotorcraft hoist issues
RMT.0710	Improvement in the survivability of rotorcraft occupants in the event of a crash
RMT.0711	Reduction in accidents caused by failures of critical rotor and rotor drive components through improved vibration health monitoring systems
RMT.0712	Enhancement of the safety assessment processes for rotorcraft designs
RMT.0713	Reduction in human-factor-caused rotorcraft accidents that are attributed to the rotorcraft design
RMT.0714	Enable the safe introduction of rotorcraft Fly-by-Wire technology
RMT.0724	Rotorcraft flight crew operating manuals (FCOMs)
RMT.0725	Rotorcraft chip detection system
RMT.0726	Rotorcraft occupant safety in event of a bird strike

The full description for these actions is included in **Chapter 9**.

RMT.0379	All-weather operations
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The full description for this action is included in **Section 15.4**.

SPT.082	Support the development and implementation of FCOM for offshore helicopter operations
Safety	To provide support to manufacturers, if needed, in the development of FCOMs for different helicopter types and support/encourage operators in their implementation.
Status	Ongoing
Reference(s)	n/a
Affected stakeholders	HE
Owner	Offshore Helicopter CAG
EXPECTED OUTPUT	
Deliverable(s)	Timeline
Report	2019



SPT.092	Improve dissemination of existing safety promotion material by developing mobile applications & e-platforms
Safety	Reaching target audience is one of the main challenges of safety promotion. This task aims at improving dissemination of existing safety promotion material by developing mobile applications & e-platforms. This will increase user-friendliness of existing paper format safety promotion material and will facilitate translations and future revisions.
Status	This SPT will be completed in 2019, it is included in this draft EPAS for traceability. It will be removed in the final EPAS.
Reference(s)	n/a

Affected stakeholders	HE
Owner	ESPN-R
EXPECTED OUTPUT	
Deliverable(s)	Timeline
Mobile applications and/or e-platforms	2019

SPT.093	Develop new safety promotion material on high-profile helicopter issues
Safety	In cooperation with the IHST, develop new safety promotion material (leaflets, videos, applications, etc.) on subjects such as performance-based navigation, point in space, low level IFR, bird strike, operational and passenger pressure management, aimed at pilots and owners of private helicopters. Such safety promotion material shall address the most important areas of rotorcraft as directed through the Rotorcraft Committee and EASA Rotorcraft Strategy.
Status	Ongoing. This SPT now incorporates SPT.098.
Reference(s)	n/a

Affected stakeholders	HE
Owner	
EXPECTED OUTPUT	
Deliverable(s)	Timeline
Leaflets, videos, web-pages and/or applications	2021

SPT.094	Helicopter safety and risk management
Safety	Review existing helicopter safety & risk management material to check consistency and update (when applicable) material to new rules, standards and international good practice coming for example from IHST and SMICG.
Status	Ongoing
Reference(s)	n/a

Affected stakeholders	HE
Owner	ESPN-R
EXPECTED OUTPUT	
Deliverable(s)	Timeline
Revised helicopter safety & risk management manuals and/or toolkits	2021



SPT.095	Promote helicopter technologies with safety benefits
Safety	Following the RES identifying promising helicopter technologies (update of the study performed by the NLR for EHEST), promote the helicopter technologies having high safety benefits.
Status	Ongoing
Reference(s)	n/a
Affected stakeholders	HE
Owner	ESPN-R
EXPECTED OUTPUT	
Deliverable(s)	Timeline
Web-page, flyer and/or report	2020

SPT.096	Organise an annual safety workshop
Safety	The European Safety Promotion Network Rotorcraft (ESPN-R) to organise a safety forum, in cooperation with the trade shows. This high-profile event promotes safe helicopter operations and fosters interactions within the community. The event theme changes every year.
Status	Ongoing
Reference(s)	n/a
Affected stakeholders	HE
Owner	ESPN-R
EXPECTED OUTPUT	
Deliverable(s)	Timeline
Safety Workshop	Continuous

SPT.098	European safety promotion task on rotorcraft
Safety	Develop and implement a safety promotion task on the most important areas of rotorcraft as directed through the Rotorcraft Committee and EASA Rotorcraft Strategy.
Status	This SPT is merged with SPT.093. It is kept here for traceability and will be deleted for the final EPAS.
Reference(s)	n/a
Affected stakeholders	HE
Owner	
EXPECTED OUTPUT	
Deliverable(s)	Timeline
Safety Promotion material	Continuous



SPT.099	Helicopter hoist safety promotion
Safety	Develop safety promotion material for helicopter hoists
Status	This SPT will be completed in 2019, it is included in this draft EPAS for traceability. It will be removed in the final EPAS.
Reference(s)	n/a
Affected stakeholders	HE
Owner	
EXPECTED OUTPUT	
Deliverable(s)	Timeline
Safety Promotion material	2019



RES.008	Integrity improvement of rotorcraft main gear boxes (MGB)
Safety	Research aimed at identifying threats to the integrity of critical components of rotor drive systems and at developing methods for evaluating flaw-tolerant critical component designs; specifically, this includes enhancements to the design of helicopter MGB and its attachments, to preclude separation of the mast and main rotor from the helicopter and enabling autorotation even in the event of major failure of the main gear box components;
Status	Ongoing
Reference(s)	n/a
Affected stakeholders	HE
Owner	SM.0.1
EXPECTED OUTPUT	
Deliverable(s)	Timeline
Report	2022

RES.009	Helicopter Offshore operations – New floatation systems
Safety	Assessment of technical solutions for enhancing helicopter floatation at sea in view of heightening survivability following helicopter capsizes - which is the major event conducive to fatalities due to drowning;
Status	Ongoing
Reference(s)	n/a
Affected stakeholders	HE
Owner	SM.0.1
EXPECTED OUTPUT	
Deliverable(s)	Timeline
Report	2022

RES.011	Helicopter, tilt rotor and hybrid aircraft gearbox health monitoring — in-situ failure detection
Safety	New technologies for in-situ detection of tilt rotor, helicopter and hybrid aircraft gearbox failures.
Status	Ongoing
Reference(s)	Safety recommendation number UNKG-2011-041.
Affected stakeholders	HE
Owner	SM.0.1
EXPECTED OUTPUT	
Deliverable(s)	Timeline
Report	2022



RES.020	Identify helicopter technologies with safety benefits
Safety	Revise and update the study performed by the NLR-Netherlands Aerospace Centre for ESPN-Ron the safety benefits of technologies to assess and when relevant include new technologies addressing safety threats such as laser pointing, drones, bird strike, wire strike, etc.
Status	Ongoing
Reference(s)	n/a
Affected stakeholders	HE
Owner	SM.0.1
EXPECTED OUTPUT	
Deliverable(s)	Timeline
Report	2021

MST.015	Helicopter safety events
Safety	CAs, in partnership with industry representatives, to organise helicopter safety events annually or every two years. The EHEST, IHST, CA, Heli Offshore or other sources of safety promotion materials could be freely used and promoted.
Status	Ongoing
Reference(s)	n/a
Affected stakeholders	HE
Owner	MS
EXPECTED OUTPUT	
Deliverable(s)	Timeline
Workshop	Continuous

MST.031	Implementation of SESAR solutions aiming to facilitate safe IFR operations
Safety	<p>MSs together with their ANSPs and their flight procedures designers (if different from ANSPs) should evaluate the possibility to establish a network of low level IFR routes in their airspace to facilitate safe helicopter operations. These SESAR solutions designed to improve safety should be implemented as far as it is feasible.</p> <p>See SESAR Solutions Catalogue: https://www.sesarju.eu/sites/default/files/solutions/SESAR_Solutions_Catalogue_Ed2_2017.pdf</p>
Status	Ongoing
Reference(s)	This EPAS action is aligned with the ATM MP's (Level 3 Ed 2018) action NAV12 Low level IFR Routes for Rotorcraft.
Affected stakeholders	HE
Owner	MS
EXPECTED OUTPUT	
Deliverable(s)	Timeline
IFR routes/report	2025



EVT.0010	Evaluation on Helicopter Operations
Efficiency/prop ortionality	In compliance with the EASA Rotorcraft Safety Roadmap, an evaluation on small helicopter operations (criteria for defining small operation will be spelled out in the assessment) is foreseen to assess the administrative burden put on the operators and to identify proposals for simplification and reducing the administrative burden and the cost for the operators.
Status	Ongoing
Reference(s)	n/a
Affected stakeholders	Rotorcraft operators, pilots and CAs
Owner	EASA FS.2.1 and CT 3
EXPECTED OUTPUT	
Deliverable(s)	Timeline
Evaluation report	2020



8 General aviation

This Chapter covers General Aviation (GA) non-commercial operations involving aeroplanes of mass groups below 5 700 kg registered in an EASA MS, as well as all operations with balloons and sailplanes.

GA is remaining a high priority for EASA and the EU Commission. This has been emphasized by Patrick Ky, Executive Director, during the EASA Annual Safety Conference 2018 in Vienna, and by the EU Commission during Aero Friedrichshafen 2019.

GA in Europe is maintaining a stable activity involving 10 times more aircraft and airfields than CAT. GA is since its origin the cradle for innovation and recruitment of young professionals (Air Traffic Controllers, mechanics, pilots...) and a means to connect people across Europe.

Recognising the importance of GA and its contribution to a safe European aviation system, EASA in partnership with the EC and other stakeholders has created the GA roadmap and is now starting a new phase of the project called GA Roadmap 2.0

EASA is dedicating effort and resources to make GA safer and cheaper.

Addressing safety risks in GA in a proportionate and effective manner is a strategic priority. In the last years, accidents involving recreational aeroplanes have led to an average of 86 fatalities per year in Europe (based on 2009-2018 figures, excluding fatal accidents involving microlight airplanes, gliders and balloons), which makes it one of the sectors of aviation with the highest yearly number of fatalities. In 2018, there were 49 accidents causing 95 fatalities in non-commercial operations with aeroplanes and 16 fatal accidents causing 17 fatalities in the domain of sailplane operations (the 2009-2018 average was 27 fatalities per year in Europe). The GA roadmap is key to the EASA strategy in this domain. 2018 seems to show an improvement for gliders, and a deterioration for GA fixed wing.

Although it is difficult to precisely measure the evolution of safety performance in GA due to lack of consolidated exposure data (e.g. accumulated flight hours), it is reasonable to assume that more initiatives and efforts are needed to mitigate risks leading to these fatalities.

Based on the data supporting the safety risk portfolios for non-commercial operations aeroplanes the following KRAs can be highlighted:

GA Fixed-Wing Aeroplanes			
Key Risk Areas			
Priority 1	Priority 2	Priority 3	Priority 4
<ul style="list-style-type: none">Aircraft UpsetTerrain CollisionObstacle Collision in FlightRunway Excursion	<ul style="list-style-type: none">Airborne CollisionUnsurvivable Aircraft Environment	<ul style="list-style-type: none">Ground DamageTaxiway/Apron ExcursionRunway Collision	---

For sailplanes the main KRAs used in other domains are omitted and Safety Issues (SIs)/Accident Categories are used instead. It is well worth noting that these safety issues or accident categories are formed by the apparent immediate cause of the accident. The largest killers are:



- Collision with hill
- Winch launches
- Stall/Spin
- Mid-Air collision

Key risk areas in balloon operations are as follows:

Balloons			
Key Risk Areas			
Priority 1	Priority 2	Priority 3	Priority 4
<ul style="list-style-type: none">▪ Balloon landings▪ Obstacle Collision in Flight	<ul style="list-style-type: none">▪ Aircraft Upset▪ Terrain Collision	<ul style="list-style-type: none">▪ Unsurvivable Aircraft Environment▪ Airborne collision	----

8.1 Safety

8.1.1 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

Increase safety by continuously monitoring of safety issues identified in the GA fixed wing NCO Safety Risk Portfolio and the sailplane Safety Risk Portfolio (ref: ASR 2018).

How we want to achieve it: actions



RMT.0698	Revision of the operational rules for sailplanes				
Efficiency/proportionality	Establish a set of rules, which addresses the specificities and associated risks in an efficient and proportionate manner, for air operations with sailplanes as the only regulatory reference for such operations.				
Status	Ongoing				
Reference(s)	n/a				
Affected stakeholders	Sailplane operators				
Owner	EASA FS.2				
Priority	Yes	RM Procedure	AP	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0698	n/a	07/2017	26/10/2018	2019/001/R
	26/04/2016		29/08/2017		28/01/2019
SPT.083	Flight instruction				
Safety	Develop safety promotional material aimed at making more effective use of and maximising the safety benefits of biennial class rating revalidation check flights with examiners and refresher training with flight instructors, including differences between aircraft types.				
Status	This SPT is completed, it is included in this draft EPAS for traceability. It will be removed in the final EPAS.				
Reference(s)	n/a				
Affected stakeholders	GA				
Owner	GA Roadmap				
EXPECTED OUTPUT					
Deliverable(s)				Timeline	
Safety Promotion material				2019	
SPT.084	Promoting safety by improving technology				
Safety	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. Promote the development of new technologies through the GA Safety Award.				
Status	Ongoing				
Reference(s)	n/a				
Affected stakeholders	GA				
Owner					
EXPECTED OUTPUT					
Deliverable(s)				Timeline	
Safety Promotion material / Dissemination				2019	



MST.025		Improve the dissemination of safety messages	
Safety	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.		
Status	Ongoing		
Reference(s)	n/a		
Affected stakeholders	GA		
Owner	MS		
EXPECTED OUTPUT			
Deliverable(s)		Timeline	
Safety workshops and safety days/evenings		Continuous	

MST.027		Develop just culture in GA
Safety	CAs should include provisions for just culture in GA in their SSPs to encourage occurrence reporting and foster positive safety behaviours.	
Status	Ongoing	
Reference(s)	n/a	
Affected stakeholders	GA	
Owner	MS	
EXPECTED OUTPUT		
Deliverable(s)	Timeline	
Just culture included in SSP	Continuous	

8.1.2 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 409 higher-risk occurrences recorded in the period 2015 to 2017, aircraft upset, including loss of control, is the most significant key risk area for EASA MS non-commercial operations with aeroplanes of mass groups below 5 700 kg with an EASA State of Registry.

What we want to achieve

Increase safety by reducing the risk of loss of control accidents.



How we monitor improvement

Continuous monitoring of safety issues identified in the GA-related safety risk portfolios (ref: ASR 2018).

Following completion of the actions included under this section in EPAS 2018-2022, no further actions are included in this EPAS edition. The section is maintained as a placeholder for future actions.

8.1.3 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 situational 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. In the future, the EASA work on weather information to pilots, currently focusing on CAT, will be extended to also include recommendations and possible actions for GA⁶⁵.

What we want to achieve

Increase safety by reducing the number of weather-related accidents.

How we monitor improvement

Continuous monitoring of safety issues identified in the GA-related portfolios (ref: ASR 2018).

How we want to achieve it: actions

SPT.087	Weather awareness for pilots
Safety	Produce 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 air traffic control (ATC), inadvertent entry into IMC, TEM, and HF.
Status	Ongoing
Reference(s)	n/a
Affected stakeholders	GA
Owner	GA Roadmap
EXPECTED OUTPUT	
Deliverable(s)	Timeline
Video/media product	2019

⁶⁵ <https://www.easa.europa.eu/sites/default/files/dfu/EASA-Weather-Information-to-Pilot-Strategy-Paper.pdf>



SPT.088	Launch a safety promotion task promoting instrument flying for GA pilots
Safety	Promote the results of RMT.0677 on the easier access of GA pilots to IFR flying in order to ensure that the safety and efficiency benefits materialise across Europe and that the Basic Instrument Rating is widely adopted in Europe.
Status	Ongoing
Reference(s)	n/a
Affected stakeholders	GA
Owner	GA Roadmap
EXPECTED OUTPUT	
Deliverable(s)	Timeline
Safety Promotion material	2019

8.1.4 Preventing mid-air collisions

Issue/rationale

This section addresses subjects such as airspace complexity, airspace infringement and use of technology. Statistics show that MAC risks 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

Increase safety by reducing the risk of MACs and airspace infringements in GA.

How we monitor improvement

Continuous monitoring of safety issues identified in the GA-related portfolios (ref: ASR 2018).

How we want to achieve it: actions

RMT.0376	Anti-collision and traffic awareness systems for aircraft with MTOM less than 5 700 kg or less than 19 passengers
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The full description for this action is included in **Section 6.1.1.3**.



RES.021	SESAR 2020 research projects aiming to prevent mid-air collision risks
Safety	<p>The following research activities are being addressed under the SESAR 2020 programme:</p> <ul style="list-style-type: none">Enhanced rotorcraft and general aviation operations around airports (TMA) (PJ.01-06);Enhanced airborne collision avoidance for GA (PJ. 11-A4)⁶⁶.
Status	Ongoing
Reference(s)	SESAR solution PJ.01-06 and PJ.11-A4
Affected stakeholders	GA
Owner	SESAR
EXPECTED OUTPUT	
Deliverable(s)	Timeline
Report	2022

8.1.5 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 of the aircraft and survival of its occupants.

What we want to achieve

Reduce the number of fatalities and serious injuries in GA.

How we monitor improvement

Continuous monitoring of safety issues identified in the GA-related portfolios (ref: ASR 2018)

Following completion of the actions included under this section in EPAS 2018-2022, no further actions are included in this EPAS edition. The section is maintained as a placeholder for future actions.



8.2 Efficiency/proportionality

Issue/rationale

This section provides references to additional EPAS actions that are directly relevant to GA, where efficiency/proportionality is the main driver. Detailed information for each of those actions is included in the domain specific EPAS chapter.

This section also includes regular update RMTs in the GA domain.

What we want to achieve

Reduce the regulatory burden and cost for GA while improving the level of safety.

How we monitor improvement

The key risk areas and underlying safety issues will continue to be monitored as part of the safety risk portfolios.

The GA Committee (GA.COM) and the GA TeB will provide feedback on the effectiveness of the activities that aim at improving efficiency/proportionality and ensuring a level playing field.

RMT.0135	B2L and L Part-66 aircraft maintenance licences
RMT.0654	Revision of the balloon licensing requirements
RMT.0677	Easier access of general aviation (GA) pilots to instrument flight rules (IFR) flying
RMT.0678	Simpler, lighter and better Part-FCL requirements for general aviation
RMT.0701	Revision of the sailplane licensing requirements

The full description for these actions is included in **Chapter 5 Section 5.3**.

RMT.0698	Revision of the operational rules for sailplanes
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The full description for this action is included in **Chapter 8 Section 8.2**.

RMT.0502	Regular update of CS for balloons
RMT.0605	Regular update of CS-LSA
RMT.0689	'Part 21 proportionality' - Introduction of proportionality and simplification of airworthiness and environmental certification regulations for small aircraft (completed)
RMT.0690	Regular update of CS-STAN
RMT.0727	Implementation of the new basic Regulation into Part 21 (including simple and proportionate rules for General Aviation)

The full description for these actions is included in **Chapter 9**.

RMT.0547	Task force for the review of Part-M for general aviation (PHASE II)
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Refer to **Chapter 10** for the detailed action description.



9 Design and Production

This chapter includes all actions that are relevant to design and production, for the drivers safety, efficiency/proportionality and level playing field.

Issue/rationale

Design and production improvements may limit the probability and/or severity of technical failures. Many fatal accidents involve some sort of technical failure, in many cases not properly managed during flight, thus making it a precursor of other types of accident. This does not necessarily mean that the technical failure was the direct cause of the accident, but that a system component failure was identified in the sequence of events in a number of serious incidents and accidents over the past years. For example, the handling of technical failures ranked 7th in the list of safety issues identified in the CAT Airline and NCC Business aeroplane operations Safety Risk Portfolio in 2018 (based on the aggregated ERCS score of those occurrences where this safety issue was present). Handling of technical failures in this context means the ineffective handling of a non-catastrophic technical failure by the flight crew. 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 design and production. Non-accident data will be used for the analysis.

In terms of efficiency/proportionality, and with aircraft design evolving at a rapid pace, requirements for initial airworthiness and CSs need to be constantly reviewed and adjusted for cost-effectiveness and to keep pace with technological developments.

In terms of level playing field rules may need to be harmonised within the EU as well as with the main international trade partners in order to either ensure fair competition or facilitate the free movement of goods, persons and services.

What we want to achieve

Increase safety by continuously assessing and improving risk controls related to design and production. Ensure an efficient regulatory framework for manufacturers. Harmonise requirements where this ensures fair competition or facilitates the free movement of goods, persons and services.

How we monitor improvement

Continuous monitoring of safety issues identified in the Safety Risk Portfolios for the different types of air operations (see ASR 2018). The EASA ABs will give feedback on the effectiveness of actions in the area of efficiency/proportionality and level playing field.



How we want to achieve it: actions

RMT.0031 Regular update of AMC & GM to Part 21					
Efficiency/proportionality					
This RMT will be completed in 2019, it is included in this draft EPAS for traceability. It will be removed in the final EPAS.					
Status					
n/a					
Reference(s)					
n/a					
Affected stakeholders					
n/a					
Owner					
EASA CT.5					
Priority					
n/a					
RM Procedure					
Standard					
Harmonisation					
n/a					
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
RMT.0031 15/12/2016		2019 Q2	n/a	n/a	2019 Q4

RMT.0037 Regular update of CS-22					
Efficiency/proportionality					
Ongoing					
Status					
n/a					
Reference(s)					
n/a					
Affected stakeholders					
n/a					
Owner					
EASA CT.5					
Priority					
n/a					
RM Procedure					
Standard					
Harmonisation					
n/a					
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
RMT.0128 28/09/2016		2020 Q2	n/a	n/a	2021 Q1



RMT.0049	Specific risk and standardised criteria for conducting aeroplane-level safety assessments of critical systems				
Safety	<p>The objective of this RMT is 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).</p> <p>In addition, this RMT will consider</p> <ul style="list-style-type: none"> - to amend AMC 25.1309 taking into account the latest updates of industry documents, such as ED79A/ARP4754A; and - 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). <p>Harmonisation with the FAA, the TCCA and ANAC will be ensured as much as possible.</p>				
Status	This RMT will be completed in 2019, it is included in this draft EPAS for traceability. It will be removed in the final EPAS.				
Reference(s)	n/a				
Affected stakeholders	DAHs				
Owner	EASA CT.5				
Priority	No	RM Procedure	Standard	Harmonisation	FAA, TCCA and ANAC
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	25.029 (RMT.0049) Issue 2 18/03/2013	2014-02 27/01/2014	n/a	n/a	2019 Q2
RMT.0069	Seat crashworthiness improvement on large aeroplanes — Dynamic testing 16g				
Safety	<p>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.</p> <p>This improvement would be reached by introducing on large aeroplanes used for CAT 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.</p>				
Status	This RMT is completed, it is included in this draft EPAS for traceability. It will be removed in the final EPAS.				
Reference(s)	n/a				
Affected stakeholders	CAT operators and POA holders				
Owner	EASA CT.5				
Priority	No	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	26.002 Issue 1 17/09/2010	2013-20 10/10/2013	02/2016 20/05/2016	26/10/2018	2019/006/R 27/02/2019



RMT.0070	Additional airworthiness specifications for operations: fire hazard in Class D cargo compartments				
Safety	The objective of this RMT is to improve the protection of occupants on-board large aeroplanes operated in CAT, by removing the risk of uncontrollable fire in Class D compartments.				
Status	Ongoing				
Reference(s)	n/a				
Affected stakeholders	Air operators and POA holders				
Owner	EASA CT.5				
Priority	No	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0070 17/09/2010	2019-02 01/03/2019	2019 Q3	2021 Q2	2021 Q2

RMT.0071	Additional airworthiness specifications for operations: thermal/acoustic insulation material				
Safety	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.				
Status	This RMT is completed, it is included in this draft EPAS for traceability. It will be removed in the final EPAS.				
Reference(s)	CS 25.856(a) and (b)				
Affected stakeholders	Air operators and POA holders				
Owner	EASA CT.5				
Priority	No	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0071 18/09/2014	2015-15 01/10/2015	04/2016 23/05/2016	26/10/2018	2019/006/R 27/02/2019



RMT.0116	Real weight and balance of an aircraft				
Safety	<p>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. Based on safety and cost-effectiveness consideration, the following might be proposed:</p> <ul style="list-style-type: none"> — A retroactive requirement for such system to be installed on already type-certified large aeroplanes (using a Part-26/CS-26 rule). — CS-23 amendment for commuter's aeroplanes. <p>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.</p>				
Status	This task is deleted as its updated BIS no longer shows any need for rulemaking action. It is included in this draft EPAS for traceability. It will be removed in the final EPAS.				
Reference(s)	n/a				
Affected stakeholders	DAHs and large and commuter aeroplane operators				
Owner	EASA CT.5				
Priority	Yes	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
n/a	n/a	n/a	n/a	n/a	n/a

RMT.0118	Analysis of on-ground wings contamination effect on take-off performance degradation				
Safety	<p>The objective of this task is to assess the need for an amendment of CS-23 and 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.</p>				
Status	Ongoing				
Reference(s)	CS-23 and CS-25				
Affected stakeholders	DOA holders				
Owner	EASA CT.5				
Priority	Yes	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0118 21/03/2017	2020 Q1	n/a	n/a	2021 Q1



RMT.0128		Regular update of CS-27&29, CS-VLR			
Efficiency/proportionality					
Status		Ongoing			
Reference(s)		n/a			
Affected stakeholders		n/a			
Owner		EASA CT.5			
Priority	n/a	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0128 29/06/2016	2020 Q2	n/a	n/a	2021 Q1

RMT.0134 Regular update of rotorcraft AMC					
Efficiency/proportionality					
Status		Ongoing			
Reference(s)		n/a			
Affected stakeholders		n/a			
Owner		EASA CT.5			
Priority	n/a	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0134 20/10/2010	2020 Q1	n/a	n/a	2021 Q1



RMT.0184		Regular update of CS-E			
Efficiency/proportionality					
Status		Ongoing			
Reference(s)		n/a			
Affected stakeholders		n/a			
Owner		EASA CT.5			
Priority	n/a	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0184 27/07/2015	2020 Q2	n/a	n/a	2021 Q1

**RMT.0225 Development of an ageing aircraft structure plan****Safety**

The objective of this RMT is to 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 complex as it is necessary to address the following items:

- Amendment to CS 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 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.

Status Ongoing

Reference(s) n/a

Affected stakeholders DAHs and Air Operators

Owner EASA CT.5

Priority No

RM Procedure

Standard

Harmonisation

FAA

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
RMT.0225 (MDM.028) 08/05/2007		2013-07 23/04/2013	12/2016 10/10/2016	2020 Q1	2020 Q1



RMT.0397

Unintended or inappropriate rudder usage — rudder reversals

Safety

—

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 taking actions to mitigate erroneous rudder inputs from pilots to ensure safe flight, or by proposing actions 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.

Status

This RMT is completed, it is included in this draft EPAS for traceability. It will be removed in the final EPAS.

Reference(s)

n/a

Affected stakeholders

DAHs

Owner

EASA CT.5

Priority

No

RM Procedure

Standard

Harmonisation

n/a

PLANNING MILESTONES

SubT

ToR

NPA

Opinion

Commission IR

Decision

RMR.0397

2017-18

n/a

n/a

2018/010/R

30/05/2017

27/11/2017

06/11/2018

RMT.0457

Regular update of EASA TSOs

Efficiency/proportionality

Status

Ongoing

Reference(s)

n/a

Affected stakeholders

n/a

Owner

EASA CT.5

Priority

n/a

RM Procedure

Standard

Harmonisation

n/a

PLANNING MILESTONES

SubT

ToR

NPA

Opinion

Commission IR

Decision

RMT.0457

2020 Q2

n/a

n/a

2020 Q4

21/08/2015



RMT.0499 Regular update of CS-MMEL

Efficiency/pro
portionality

Status This RMT will be completed in 2019, it is included in this draft EPAS for traceability. It will be removed in the final EPAS.

Reference(s) n/a

Affected stakeholders n/a

Owner EASA CT.5

Priority n/a **RM Procedure** Standard **Harmonisation** n/a

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0499	2018-08	n/a	n/a	2019 Q3
	09/04/2018	22/08/2018			

RMT.0502 Regular update of CS for balloons

Efficiency/pro
portionality

Status Ongoing

Reference(s) n/a

Affected stakeholders n/a

Owner EASA CT.5

Priority n/a **RM Procedure** Standard **Harmonisation** n/a

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
	tbd	tbd	n/a	n/a	tbd



RMT.0503		Regular update of CS-APU			
Efficiency/proportionality					
Status		Ongoing			
Reference(s)		n/a			
Affected stakeholders		n/a			
Owner		EASA CT.5			
Priority	n/a	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	tbd	tbd	n/a	n/a	tbd

RMT.0508						Regular update of CS-CC					
Efficiency/proportionality											
Status		Ongoing									
Reference(s)		n/a									
Affected stakeholders		n/a									
Owner		EASA CT.5									
Priority		n/a		RM Procedure		Standard		Harmonisation		n/a	
PLANNING MILESTONES											
SubT	ToR	NPA		Opinion		Commission IR		Decision			
	2019 Q3	2020 Q1		n/a		n/a		2020 Q3			



RMT.0570 **Reduction of runway excursions**

Safety

The objective of this task is to increase the level of safety by reducing the number of runway excursions 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 runway excursions putting more emphasis on safety objectives against the risk of runway excursions, while providing more flexibility in terms of design solutions. The means to achieve these objectives it is proposed to refer to technical standard developed jointly by industry and CAs with the support of an international standardisation body (EUROCAE).

Status Ongoing

Reference(s) n/a

Affected stakeholders Air Operators, POA holders, applicants for TC/STC

Owner EASA CT.5

Priority Yes **RM Procedure** Standard **Harmonisation** n/a

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0570 09/10/2012	2013-09 10/5/2013	n/a	n/a	n/a
		2018-12 15/10/2018	2019 Q3	2021 Q2	2021 Q2

RMT.0605 **Regular update of CS-LSA**

Efficiency/proportionality

Status Ongoing

Reference(s) n/a

Affected stakeholders n/a

Owner EASA CT.5

Priority n/a **RM Procedure** Standard **Harmonisation** n/a

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0605 14/01/2016	2020 Q2	n/a	n/a	2020 Q4

**RMT.0643 Regular update of AMC-20****Efficiency/proportionality**

Status This RMT will be completed in 2019, it is included in this draft EPAS for traceability. It will be removed in the final EPAS.

Reference(s) n/a

Affected stakeholders n/a

Owner EASA CT.5

Priority n/a **RM Procedure** Standard **Harmonisation** n/a

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0643 20/07/2015	2018-09 24/08/2018	n/a	n/a	2019 Q2

RMT.0673 Regular update of CS-25**Efficiency/proportionality**

Status Ongoing

Reference(s) n/a

Affected stakeholders n/a

Owner EASA CT.5

Priority n/a **RM Procedure** Standard **Harmonisation** n/a

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0673 27/04/2015	2019 Q2	n/a	n/a	2020 Q1

RMT.0684 Regular update of CS-P**Efficiency/proportionality**

Status Ongoing

Reference(s) n/a

Affected stakeholders n/a

Owner EASA CT.5

Priority n/a **RM Procedure** Standard **Harmonisation** n/a

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
	tbd	tbd	n/a	n/a	tbd



RMT.0687		Regular update of CS-23			
Efficiency/proportionality		*Instead of the NPA, Article 15/16 will apply			
Status		This RMT will be completed in 2019, it is included in this draft EPAS for traceability. It will be removed in the final EPAS			
Reference(s)		n/a			
Affected stakeholders		n/a			
Owner		EASA CT.5			
Priority	n/a	RM Procedure	AP/DP	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0687 09/08/2017	n/a	n/a	n/a	2019 Q3

RMT.0688						Regular update of CS-SIMD					
Efficiency/proportionality											
Status			Ongoing								
Reference(s)			n/a								
Affected stakeholders			n/a								
Owner			EASA CT.5								
Priority		n/a	RM Procedure		Standard		Harmonisation		n/a		
PLANNING MILESTONES											
SubT		ToR		NPA		Opinion		Commission IR		Decision	
		2020 Q1		2020 Q3		n/a		n/a		2021 Q1	

**RMT.0709 Prevention of catastrophic accidents due to rotorcraft hoist issues****Safety**

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.

Status Ongoing

Reference(s) n/a

Affected stakeholders DOA holders, POA holders and helicopter operators

Owner EASA CT.5

Priority No **RM Procedure** Standard **Harmonisation** n/a

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
	2019 Q3	2020 Q2	n/a	n/a	2021 Q1

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

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. Safety Recommendations 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 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.

Status Ongoing

Reference(s) n/a

Affected stakeholders DOA and POA holders

Owner EASA CT.5

Priority No **RM Procedure** Standard **Harmonisation** FAA

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
	2019 Q3	2020 Q3	2021 Q3	2022 Q3	2022 Q3



RMT.0711	Reduction in accidents caused by failures of critical rotor and rotor drive components through improved vibration health monitoring systems				
Safety	<p>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.</p> <p>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.</p>				
Status	Ongoing				
Reference(s)	n/a				
Affected stakeholders		DOA and POA holders			
Owner		EASA CT.5			
Priority	No	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	2019 Q2	2020 Q2	n/a	n/a	2021 Q1



RMT.0712 Enhancement of the safety assessment processes for rotorcraft designs

Efficiency/proportionality

The safety assessment of the design of aircraft systems and equipment can help to identify shortfalls in the robustness of the design and also help aircraft designers to mitigate the risk of undesirable events by introducing means to reduce their likelihood. Ensuring robust safety assessment of rotorcraft designs can be considered to be even more critical due to the high number of single-point failures. Technology and techniques have evolved since the inception of formal safety assessment processes and therefore it is vital that CSs keep abreast with the latest thinking on safety assessment to maximise the potential that safety issues are identified during certification.

The safety requirements for equipment, systems and installations contained in the CSs should be improved for small and large rotorcraft to reflect current best practice for safety assessment. The FAA is also developing new rules for the safety assessment of rotorcraft and these changes will create significant standard differences between the EU and US regulations and are likely to result in a lower regulatory efficiency. The proposed RMT also aims at reviewing these changes to achieve harmonisation where possible.

Status Ongoing

Reference(s) n/a

Affected stakeholders DAHs and POA holders

Owner EASA CT.5

Priority No **RM Procedure** Standard **Harmonisation** FAA

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0712 15/10/2018	2020 Q1	n/a	n/a	2021 Q1



RMT.0713		Reduction in human-factor-caused rotorcraft accidents that are attributed to the rotorcraft design			
Safety HF	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.				
Status	Ongoing				
Reference(s)	n/a				
Affected stakeholders	DOA holders				
Owner	EASA CT.5				
Priority	No	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	31/08/2018	2019 Q3	n/a	n/a	2020 Q2

**RMT.0714 Enable the safe introduction of rotorcraft Fly-by-Wire technology****Efficiency/proportionality**

Currently, civil rotorcraft are equipped with mechanical flight controls (with or without hydraulic assistance), and trim and automatic flight control system (AFCS) functions are typically introduced in the mechanical flight control chains. Fly-By-Wire (FbW/FBW) technology has been in service on civil large aeroplanes for more than 40 years and this technology is now being applied to civil rotorcraft. This technology allows the introduction of advanced flight control laws and flight control protections which greatly increase the complexity of the flight control system and integration with the other systems and interaction with the aircraft handling qualities. FbW flight control systems are highly complex and also highly safety-critical.

EASA has already been involved in a validation activity with a US applicant, for which a set of dedicated and bespoke requirements are being developed by the FAA and EASA. It is expected that there will be an application for a design containing FBW technology from an EU applicant shortly. It is for these reasons that appropriate certification specifications for rotorcraft FbW systems should be developed to enable the safe introduction of this technology to rotorcraft.

Status Ongoing

Reference(s) n/a

Affected stakeholders DAHs and POA holders

Owner EASA CT.5

Priority No **RM Procedure** Standard **Harmonisation** FAA

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
	2020 Q2	2021 Q1	n/a	n/a	2021 Q3

RMT.0724 Rotorcraft flight crew operating manuals (FCOMs)**Safety**

The objective of this RMT is to improve the operating information provided to rotorcraft flight crew in the aircrew manuals. This could be achieved by standardising the structure and approach used to present operational information in rotorcraft manuals, thereby improving the clarity of this information. This RMT will consider the current approach utilised in CS-25 AMC, and other initiatives such as the activity undertaken by Heli Offshore.

Status Ongoing

Reference(s) n/a

Affected stakeholders Rotorcraft operators

Owner EASA CT.5

Priority Yes **RM Procedure** Standard **Harmonisation** n/a

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
	2019 Q3	2021 Q1	n/a	n/a	2022 Q1



RMT.0725		Rotorcraft chip detection system			
Safety	CS-27 and CS-29 require the installation of chip detectors to detect particles of ferromagnetic material that are released by elements of the rotor drive system as a result of damage or wear. Chip detectors provide a warning to the crew when particles of a sufficient size (or accumulation of particles) are detected and allow the crew to check the correct operation of the relevant drive system components. However, there is no explicit provision in the CS, nor detailed AMC, for consistently demonstrating that the chip detectors perform their intended function (i.e. particles are collected at a sufficient rate to provide the intended means of detection).				
	The task will also consider proportionate retrospective application of applicable CS-27 and CS-29 to existing fleets and types that are not compliant with the latest provisions.				
Status	Ongoing				
Reference(s)	n/a				
Affected stakeholders		DOA and POA holders			
Owner		EASA CT.5			
Priority	Yes	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	2020 Q1	2021 Q1	n/a 2022 Q1	n/a 2023 Q1	2022 Q1 2023 Q1

RMT.0726		Rotorcraft occupant safety in event of a bird strike			
Safety	Since the 1980s there have been an increasing number of accidents involving rotorcraft bird strikes where the rotorcraft was not certified in accordance with the latest bird strike protection provisions. This has resulted in a number of occurrences where rotorcraft bird impacts have had an adverse effect on safety. The objective of this RMT is to improve rotorcraft occupant safety in the event of a bird strike. This will be achieved by considering the development of new CS-27 provisions for bird strike and also considering proportionate retrospective application of applicable CS-27 and CS-29 to existing fleets and types that are not compliant with the latest provisions.				
Status	Ongoing				
Reference(s)	n/a				
Affected stakeholders		DOA and POA holders			
Owner		EASA CT.5			
Priority	Yes	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
1	2020 Q1	2021 Q1	n/a	n/a	2022 Q1
2			2022 Q1	2023 Q1	2023 Q1



RMT.0727	Implementation of the Basic Regulation into Part 21 (including simple and proportionate rules for General Aviation)				
Efficiency/proportionality	<p>The objective of this RMT is to revisit Part 21 in view of the new and amended requirements in Regulation (EU) 2018/1139. The focus of this task is to introduce simple rules that will allow to apply a proportionate approach for sports and recreational aircraft. It will take into account the various risk levels in GA in the initial airworthiness process, and is aiming at achieving a reduction of administrative burden and costs, while at the same time supporting GA innovation. The task will include the preparatory work done under RMT.0689 'Part 21 proportionality'.</p> <p>In the first phase of this RMT, EASA will develop proposals required by Article 140 (3) of Regulation (EU) 2018/1139 and a few other topics, while in the second phase EASA will develop proposals for the implementation of all amendments to Part 21 as required by the BR.</p>				
Status	Ongoing				
Reference(s)	n/a				
Affected stakeholders	DOA and POA holders and CAs including EASA				
Owner	EASA CT.5				
Priority	Yes	RM Procedure	See field 'SubT'	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
1: ST/AP	2019 Q3	2019 Q4	2020 Q4	2022 Q1	2022 Q1
2: ST		2022 Q1	2023 Q1	2024 Q3	2024 Q3

RMT.0689	'Part 21 proportionality'				
	Introduction of proportionality and simplification of airworthiness and environmental certification regulations for small aircraft				
Efficiency/proportionality	<p>Simplification of the approval process and the oversight of small design, production and maintenance organisations. A template manual should simplify the approval process. The oversight should be streamlined and privileges can be granted to organisations based on the demonstrated experience. For individual simple aircraft, the task's objective is to explore if private operation of aircraft where the owner takes full responsibility should be allowed.</p> <p>This RMT was initially planned to be completed in two phases. In the context of the activities of the former first phase (now being the sole one), EASA investigated whether some immediate benefits could be derived by amendments to AMC & GM to Part 21. The initially planned second phase of this RMT has been cancelled. The related activities will take place as part of the new RMT.0727.</p>				
Status	This RMT is completed, it is included in this draft EPAS for traceability. It will be removed in the final EPAS.				
Reference(s)	RMT.0727				
Affected stakeholders	DOA holders, POA holders, AMOs (Part-145 and Part-M Subpart F)				
Owner	EASA CT.5				
Priority	Yes	RM Procedure	AP	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0689 9/6/2016	FC	n/a	n/a	2019/003/R 13/02/2019



RMT.0180		CS-E engine testing, endurance/IMI/ETOPS			
Efficiency/proportionality	Endurance: The objective of this RMT is to review the existing engine endurance test requirements, assess their suitability for all engines, and consider an alternate endurance test and associated methods of compliance. The current requirements may not adequately address the technological advancements in modern engines, as related to the current engine endurance test.				
	Furthermore, it has become increasingly clear that reliance upon robust development testing to support a certification programme can no longer be guaranteed. There is now a need to consider a potential revision to the CSs to better ensure that any reliability and integrity issues regarding the engine’s design are identified and rectified prior to the engine entering service.				
	This task will introduce into CS-E a requirement based upon, if not identical to, the current FAR 33.90. This will ensure that engine tests are conducted at conditions representative of those expected to occur in service prior to the issue of a TC. The expected benefits of this include a reduction in the number of issues that arise following type certification, and a more robust certification programme.				
Status	Ongoing				
Reference(s)	n/a				
Affected stakeholders		DAHs			
Owner		EASA CT.5			
Priority	No	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	2021 Q1	2022 Q1	n/a	n/a	2023 Q1

**RMT.0252 Instructions for continued airworthiness (ICA)**

The objective of this RMT is to revisit the existing requirements on ICA as follows:

Level playing field**Subtask 1:**

- Definition and identification of ICA (to be provided during the certification process)
- Completeness of ICA (during the certification process)
- LOI of the CA (during the certification process)

Subtask 2:

- Availability of ICA (to owners, operators, MOs, etc.)

Subtask 3:

MRB Scheduling Information (guidance on the MRB process) -> cancelled

Subtask 4:

- Acceptance/approval of ICAs by other than the authority.

Subtask 5:

- Certification maintenance requirements.

With regard to Subtasks 1, 2 and 4, EASA developed an NPA, which was published in 2018. Following the NPA public consultation, EASA will develop an opinion proposing amendments to Regulation (EU) No 748/2012 (Initial Airworthiness) and Regulation (EU) No 1321/2014 (Continuing Airworthiness).

Subtask 5, is completed with the amendment to CS-25 (ED Decision 2017/018/R issued on 30/08/2017)

Status

Ongoing

Reference(s)

n/a

Affected stakeholders

DAHs and POA holders

Owner

EASA CT.5

Priority

No

RM Procedure

Standard

Harmonisation

n/a

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
5	RMT.0252 15/05/2013	2016-15 23/11/2016	n/a	n/a	2017/018/R 30/8/2017
1,2,4		2018-01 29/01/2018	2019 Q3	2020 Q3	2020 Q3

RMT.0348 Flights related to design and production activities**Level playing field**

To establish IRs and associated AMC & GM on operational requirements for flights related to design and production activities ('manufacturers flights').

This task is put on hold due to resource restrictions, giving support to more pressing matters. Nonetheless, EASA is following the development still and envisages to integrate it into next available rulemaking opportunities.

Status

This RMT is put on hold until further notice.

Reference(s)

n/a

Affected stakeholders

DOA and POA holders

Owner

EASA CT.5

Priority

n/a

RM Procedure

n/a

Harmonisation

n/a

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision



RMT.0384 Enable open rotor engine & installation

Level playing field

A new engine concept is being proposed to power future large transport aircraft as a means of improving aircraft fuel burn and emissions. This concept is known as the 'open rotor engine'. The objective of this task is to identify and recommend harmonised draft requirements and advisory material for CS-E, 14 CFR Part 33, CS-25 and 14 CFR Part 25 to address the novel features inherent in open rotor engine designs and their integration with the aircraft.

Consideration should also be given to the development of new requirements to provide the required safety objectives based on the unique nature of the open rotor configuration. These new provisions and associated AMC material should ensure that the safety levels of open rotor engine installations are consistent with those of the existing turbofan fleet.

This RMT was stopped and will be deleted from the EPAS, as there is no immediate need for an amendment of CS-E, and in order to allow the Agency to focus its resources on more pressing safety issues.

Should EASA receive an application for type certification which includes an open rotor design, it will develop a special condition. This special condition will be based on the work already completed or discussed in the context of this RMT.

In the mid-term, based on the experience gathered in first certification projects with engine open rotor design, CS provisions may be developed based on that special condition (using the regular update RMTs).

Status

This RMT is deleted. The RMT description is kept here for traceability and will be removed from the final EPAS.

Reference(s) n/a

Affected stakeholders Engine DOA and POA holders

Owner EASA CT.5

Priority No **RM Procedure** Standard **Harmonisation** FAA

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0384	2015-22	n/a	n/a	n/a
	14/03/2011	21/12/2015			

RMT.0453 Ditching parameters without engine power

Safety

The objective of this RMT is consider whether ditching parameters can be attained by pilots without the use of exceptional skills, including without engine power.

Status

This RMT is de-prioritised in accordance with the NBR roadmap.

Reference(s) n/a

Affected stakeholders DAHs

Owner EASA CT.5

Priority No **RM Procedure** Standard **Harmonisation** n/a

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
	2021 Q1	2022 Q2	n/a	n/a	2023 Q1


RMT.0561 **Update of AMC-20 'in-flight entertainment (IFE), lead-free soldering, harmonisation of safety and software criteria'**
Level playing field

The objective of this task is to address issues related to those parts of AMC-20 that contain provisions on airworthiness for various systems that can be installed on different aircraft categories, namely related to the criteria for safety assurance and software development, lead-free soldering and IFE systems.

Status

This RMT will be completed in 2019, it is included in this draft EPAS for traceability. It will be removed in the final EPAS.

Reference(s)

n/a

Affected stakeholders AOC holders, POA holders of aircraft and equipment

Owner EASA CT.5

Priority No **RM Procedure** Standard **Harmonisation** n/a

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0561	2017-09	n/a	n/a	2019 Q2
	20/07/2015	22/06/2017			

RMT.0586 **Tyre pressure monitoring system**
Safety

The specific objective of this RMT is to ensure that large aeroplanes tyres inflation pressures remains 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 continued 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.

Status

Ongoing

Reference(s)

n/a

Affected stakeholders Aeroplane Operators

Owner EASA CT.5

Priority No **RM Procedure** Standard **Harmonisation** n/a

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
1	30/05/2017	2020 Q1	2021 Q1	2022 Q3	2022 Q3
2		n/a	n/a	n/a	2021 Q1



RMT.0671 Engine bird ingestion					
Safety	A US ARAC group has been tasked to work on several improvements to the bird ingestion requirements.				
Status	This RMT is completed, it is included in this draft EPAS for traceability. It will be removed in the final EPAS.				
Reference(s)	n/a				
Affected stakeholders	DOA and POA holders				
Owner	EASA CT.5				
Priority	No	RM Procedure	Standard	Harmonisation	FAA
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0671 30/05/2017	2017-16 02/10/2017	n/a	n/a	2018/014/R 14/12/2018

RMT.0686 HP rotor integrity and loss-of-load (due to shaft failure)					
Safety	The objective of this RMT is to review and amend CS-E 840 and CS-E 850 to address certification issues for new designs.				
Status	Ongoing				
Reference(s)	n/a				
Affected stakeholders	DAHs				
Owner	EASA CT.5				
Priority	No	RM Procedure	Standard	Harmonisation	FAA
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	2021 Q1	2022 Q1	n/a	n/a	2023 Q1

RMT.0690 Regular update of CS-STAN					
Efficiency/proportionality					
Status	Ongoing				
Reference(s)	n/a				
Affected stakeholders	n/a				
Owner	EASA CT.5				
Priority	n/a	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0690 09/06/2016	2020 Q3	n/a	n/a	2021 Q1



RMT.0695	Non-ETOPS operations using performance class A aeroplanes with a MOPSC of 19 or less				
Level playing field	The objective is to accommodate new business-jet aeroplanes operated by European CAT operators in the 180' non-ETOPS category				
Status	Ongoing				
Reference(s)	n/a				
Affected stakeholders	DOA holders, Air operators				
Owner	EASA FS.2				
Priority	No	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0695	2017-15	2019-02		
	15/12/2015	25/09/2017	22/02/2019	2020 Q2	2020 Q2

RES.010	Ice crystal detection	
Safety	Ice crystal icing phenomenon is still posing a severe threat to high-altitude flying, in particular to new engine designs. Pilots have little or no means to detect and/or avoid it, especially at night. A research is proposed in order to better detect the presence of ice crystal icing and to develop an equipment suitable to detect such a phenomenon.	
Status	Ongoing	
Reference(s)	n/a	
Affected stakeholders	CAT	
Owner	EASA SM.0.1	
EXPECTED OUTPUT		
Deliverable(s)	Timeline	
Report	2022	

RES.014	Air data enhanced fault detection & diagnosis	
Safety	Develop new fault detection & diagnosis (FDD) and fault tolerant control (FTC) methods of the following types: <ul style="list-style-type: none">• model-based analytical redundancy (e.g. virtual sensors),• data-based (i.e. model free-methods), or• a combination of both types.	
Status	Ongoing	
Reference(s)	n/a	
Affected stakeholders	CAT	
Owner	EASA SM.0.1	
EXPECTED OUTPUT		
Deliverable(s)	Timeline	
Report	2022	



RES.017	Icing hazard linked to Super cooled Large droplet (SLD)
Safety	Characterisation of phenomena (SLD icing) and analysis of impact/mitigation for safety in order to develop relevant airworthiness standards and means of compliance.
Status	Ongoing
Reference(s)	n/a
Affected stakeholders	CAT
Owner	
EXPECTED OUTPUT	
Deliverable(s)	Timeline
Report	2022

EVT.0007	Evaluation on Regulation 748/2012
Efficiency/prop ortionality	Evaluation of several aspects of the Regulation, including continued validity of type certificates issued by MS on the basis of bilateral agreements with third countries (Art. 3 (a)(1) of Regulation (EU) No 748/2012).
Status	Ongoing
Reference(s)	n/a
Affected stakeholders	Part-21 organisations (DO, PO, ETSO, etc), NAA, EASA
Owner	EASA CT.5.1
EXPECTED OUTPUT	
Deliverable(s)	Timeline
ToR	2022

In addition to the above RMTs, the following RMT is directly relevant to Design and Production:

RMT.0018	Installation of parts and appliances that are released without an EASA Form 1 or equivalent
The full description for this action is included in Chapter 10 .	



10 Maintenance and Continuing Airworthiness management

This chapter includes all actions that are relevant to maintenance and continuing airworthiness management, for the drivers safety, efficiency/proportionality and level playing field.

Issue/rationale

Like in the case of design and manufacture improvements, maintenance improvements may limit the probability and/or severity of technical failures. Many fatal accidents involve some sort of technical failure, in many cases not properly managed during flight, thus making it a precursor of other types of accident. This does not necessarily mean that the technical failure was the direct cause of the accident, but that a system component failure was identified in the sequence of events in a number of serious incidents and accidents over the past years. Handling of technical failures in this context means the ineffective handling of a non-catastrophic technical failure by the flight crew. 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 maintenance domain. Non-accident data will be used for the analysis.

Certain existing requirements are either not efficient or not proportionate to the risks involved.

In terms of level playing field rules may need to be harmonised within the EU as well as with the main international trade partners in order to either ensure fair competition or facilitate the free movement of goods, persons and services.

What we want to achieve

Increase safety by continuously assessing and improving risk controls related to maintenance. Increase proportionality and efficiency in the continuing airworthiness field. Harmonise requirements where this ensures fair competition or facilitates the free movement of goods, persons and services.

How we monitor improvement

Continuous monitoring of safety issues identified in the Safety Risk Portfolios for the different types of air operations (see ASR 2018). The EASA ABs will give feedback on the effectiveness of the actions in terms of efficiency/proportionality and level playing field.



How we want to achieve it: actions

RMT.0018 Installation of parts and appliances that are released without an EASA Form 1 or equivalent					
Efficiency/proportionality	<p>The intent of this task is:</p> <ul style="list-style-type: none"> — to provide a consistent interpretation of the definition of ‘parts & appliances’ and other terms used in the various rules; — to develop criteria for the acceptance of parts and appliances with different production background for installation in certified aircraft; — to create a parts classification for commercial parts, allowing an installer to install commercial parts on a type-certified product without having to obtain parts manufactured under a POA. This proposal will also allow manufacturers to continue to use parts now categorised as commercial parts in their type designs. The added benefit of the proposal is to have the manufacturers identify for EASA approval the commercial parts they intend to use; — to develop criteria for production and release of parts and appliances proportionate to the potential impact on safety as determined in the design certification process; — to develop the draft amendments to Regulations (EU) Nos 748/2012 and 1321/2014 as necessary to incorporate the above concepts and integrate the existing alleviations for sailplanes and European light aircraft (ELA); — to develop the necessary AMC and GM to accompany the amendments to the regulations; — to develop AMC and GM to support the interpretation of the above-mentioned provisions in the Basic Regulation related to parts and appliances; and — to elaborate the AMC and GM related to standard parts. 				
Status	Ongoing				
Reference(s)	n/a				
Affected stakeholders	DAHs, POA holders, aircraft operators, AMOs (Part-145 and Part-M Subpart F) and maintenance personnel				
Owner	EASA FS.1				
Priority	No	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
RMT.0018		2017-19			
01/11/2012		14/12/2017	2019 Q3	2020 Q3	2020 Q3



RMT.0096 Amendments (IR and AMC & GM) in line with the process of granting foreign Part-145 approvals

Streamline the approval process.

Level playing field

Status Ongoing

Reference(s) n/a

Affected stakeholders AMOs (Part-145)

Owner EASA FS.1

Priority No **RM Procedure** Standard **Harmonisation** n/a

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0096 (145.023) 17/06/2008	2013-12 11/07/2013	n/a	n/a	2020 Q3

RMT.0097 Functions of B1 and B2 support staff and responsibilities

Safety Introduce principles for increased robustness of the maintenance certification process eliminating potential 'safety gaps' by clarifying the roles and responsibilities of certifying staff, support staff and 'sign-off' staff, both in line and base maintenance.

Status Ongoing

Reference(s) n/a

Affected stakeholders Part-145 MOs

Owner EASA FS.1

Priority No **RM Procedure** Standard **Harmonisation** n/a

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0097 02/11/2011	2014-11 13/05/2014	2021 Q3	2022 Q3	2022 Q3



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

Safety 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.

Status This task is de-prioritised in accordance with criteria described in Chapter 3.

Reference(s) n/a

Affected stakeholders Air operators and CAMOs

Owner EASA FS.1

Priority No **RM Procedure** Standard **Harmonisation** n/a

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0217	2014-27	tbd	tbd	tbd
	12/03/2013	02/12/2014			

RMT.0276 Technical records

Safety Clarification of criteria for preventing incomplete records. Incomplete records may lead to a wrong assessment of the airworthiness status of the product with a consequent safety risk, development of back-to-birth concept, components traceability, and use of radio frequency identification devices (RFIDs).

Status This RMT will be completed in 2019, it is included in this draft EPAS for traceability. It will be removed in the final EPAS.

Reference(s) n/a

Affected stakeholders Air operators, CAMOs and AMOs (Part-145 and Part-M Subpart-F)

Owner

Priority No **RM Procedure** Standard **Harmonisation** n/a

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0276	2014-04	13/2016	2019 Q3	2019 Q3
	28/11/2011	07/02/2014	17/11/2016		



RMT.0393	Maintenance check flights				
Safety	Establish operational requirements and crew competence criteria for the performance of Maintenance Check Flights (MCFs) to reduce the probability of incidents and accidents of this type of flights. This will apply not only for AOC holders, but also for any operator performing these flights.				
Status	This RMT will be completed in 2019, it is included in this draft EPAS for traceability. It will be removed in the final EPAS.				
Reference(s)	n/a				
Affected stakeholders	Operators, CAMOs, and AMOs (Part-145 and Part-M Subpart-F)				
Owner	EASA FS.1				
Priority	No	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	MDM.097(a)&(b)	2012-08	01/2017		
	04/04/2011	30/07/2012	08/03/2017	2019 Q3	2019 Q3

RMT.0547	Task force for the review of Part-M for general aviation (PHASE II)				
Efficiency/proportionality	<p>The following important topics are part of this task:</p> <ul style="list-style-type: none"> — Light Part-M; — Defect management; and — Time between overhaul (TBO) extension. 				
Status	This RMT will be completed in 2019, it is included in this draft EPAS for traceability. It will be removed in the final EPAS.				
Reference(s)	n/a				
Affected stakeholders	AMOs (Part-145 and Part-M Subpart F), CAMOs, operators other than airlines, GAs and CAs				
Owner	EASA FS.1				
Priority	Yes	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0547	2015-08	05/2016		
	23/10/2012	09/07/2015	13/04/2016	2019 Q2	2019 Q2



RMT.0521	Airworthiness review process				
Safety	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.				
Status	Ongoing				
Reference(s)	n/a				
Affected stakeholders	Air operators, CAMOs and CAs				
Owner	EASA FS.1				
Priority	No	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0521/2 07/05/2013	2015-17 05/11/2015	2021 Q3	2022 Q3	2022 Q3

RMT.0555	Control of Suppliers				
Safety	<p>The objective of this task is to include requirements and guidance material to establish component supplier evaluation procedures in order to help organisations to:</p> <ul style="list-style-type: none"> · reduce risks associated to the use of external suppliers; · reduce burden and costs associated to the evaluation of suppliers which serve to more than one maintenance organisation. <p>The working group should assess whether already existing industry standards and accreditation programmes such as AC00-56A, ASA 100, and AS/EN 9120 could be accepted as an alternative method of compliance for the maintenance organisation.</p>				
Status	This RMT is completed, it is included in this draft EPAS for traceability. It will be removed in the final EPAS.				
Reference(s)	n/a				
Affected stakeholders	Maintenance organisations, CAs				
Owner	EASA FS.1				
Priority	No	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	ToR 145.017 15/04/2011	NPA 2012-03 12/04/2012	12/2013 10/12/2013	01/08/2018	2019/009/R 28/03/2019



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

Safety 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.

Status Ongoing

Reference(s) AMC3 M.B.303(b), GM1 M.B.303(b) and Appendix III to GM1 M.B.303(b)

Affected stakeholders CAs

Owner EASA FS.1

Priority No **RM Procedure** Standard **Harmonisation** n/a

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
	2021 Q1	2022 Q1	n/a	n/a	2023 Q1

SPT.104 Develop new safety promotion material on high-profile maintenance safety issues

Safety Develop new safety promotion material on high-profile safety issues in the maintenance domain. Such high-profile safety issues are to be determined from important risks identified from the SRM process, accidents/serious incidents and inputs from EASA stakeholders.

Status Ongoing

Reference(s) n/a

Affected stakeholders ALL

Owner EASA FS.1

EXPECTED OUTPUT

Deliverable(s)	Timeline
Leaflets, videos, web-pages and/or applications	Continuous

In addition to the above RMTs, the following RMT is directly relevant to Maintenance and Continuing Airworthiness Management:

RMT.0690 Regular update of CS-STAN

The full description for this action is included in **Chapter 9**.



Finally, the below SPT is directly relevant to Maintenance and Continuing Airworthiness Management:

SPT.106	Preventing, detecting and mitigating fraud cases in Part-147 organisations.
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The full description is included in **Chapter 5 Section 5.3.3**



11 Air Traffic Management / Air Navigation Services

Issue/rationale

There is still a lack of harmonised rules based on ICAO SARPs in order to ensure compliance with the essential requirements that apply to ATM/ANS. In addition, Regulation (EC) 552/2004 has been repealed, so new rules must ensure that ATM/ANS systems and their constituents are successfully designed, manufactured and installed. If not, the achievement of the overall objectives of ATM/ANS may be compromised.

What we want to achieve

Regulation (EU) 2017/373 requires the inclusion of additional requirements concerning flight procedure design, ATS, AIS/AIM. Safe and cost-efficient ATM/ANS provision also needs to ensure harmonised conformity assessment of their supporting systems and constituents, so that the equipment involved performs as expected during the intended operation. After the adoption of the new rules, implementation issues associated with ATM/ANS systems and constituents should decrease, especially those related to lack of interoperability and performance that may have an impact on operations.

ATM/ANS Services

Key Risk Areas

Priority 1	Priority 2	Priority 3	Priority 4
<ul style="list-style-type: none">Airborne CollisionRunway Collision	<ul style="list-style-type: none">Runway ExcursionTerrain CollisionInjuries/Damages	<ul style="list-style-type: none">Ground CollisionAircraft UpsetTechnical FailureTaxiway Excursion	<ul style="list-style-type: none">SecurityObstacle Collision

How we monitor improvement

The key risk areas and underlying safety issues will continue to be monitored as part of the ATM/ANS safety risk portfolio, with the support of the ATM CAG. The EASA ABs will provide feedback on the efficiency/proportionality of the actions.

How we want to achieve it: actions



RMT.0161					
Conformity assessment					
<p>Efficiency/proportionality Development and introduction of new technologies and systems that conform to agreed goals needs to be achieved in a harmonised and consistent manner. The general objective is to develop the requirements and guidance material for the declaration or certification of systems and constituents in a manner consistent with the existing process related to changes to the functional systems.</p>					
<p>Status This RMT is de-prioritised in accordance with criteria described in Chapter 3.</p>					
<p>Reference(s) n/a</p>					
<p>Affected stakeholders ANSPs, POA holders of ATM/ANS systems and constituents, organisations maintaining ATM/ANS systems and constituents and CAs (including EASA)</p>					
<p>Owner EASA FS.4</p>					
Priority	No	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	tbd	tbd	tbd	tbd	tbd

RMT.0445					
Technical requirements and operating procedures for airspace design, including flight procedure design					
<p>Efficiency/proportionality 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.</p>					
<p>Status Ongoing</p>					
<p>Reference(s) n/a</p>					
<p>Affected stakeholders MSs, CAs, ANSPs, ADR operators and air operators</p>					
<p>Owner EASA FS.4</p>					
Priority	Yes	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0445	2016-13	02/2018	2020 Q1	2020 Q1
	14/07/2014	25/10/2016	08/03/2018		



RMT.0464		Requirements for air traffic services			
Efficiency/proportionality		Transposition of the relevant ICAO provisions on ATS. The objective is to establish a sufficient level of harmonisation throughout the EU, based on mandatory and flexible requirements, and to define proportionate and cost-efficient rules.			
Status		Ongoing			
Reference(s)		n/a			
Affected stakeholders		MSs, CAs, ANSPs, ATCOs, ADR operators, aircraft operators, trade unions, pilots and ATCOs			
Owner		EASA FS.4			
Priority	Yes	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0464	2016-09	03/2018		
	09/07/2014	14/09/2016	22/05/2018	2020 Q1	2020 Q1

RMT.0469		Assessment of changes to functional systems by service providers in ATM/ANS and the oversight of these changes by CAs			
Safety		Development of the necessary AMC & GM for the service providers and the CAs.			
Status		This RMT is expected to be completed in 2019. It is included in this draft EPAS for traceability. When completed it will be removed in the final EPAS.			
Reference(s)		Refer also to RMT.0470 issued 19/06/2012			
Affected stakeholders		ANSPs, CAs			
Owner		EASA FS.4			
Priority	No	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
1	RMT.0469	2014-13	03/2014	2017/373	2017/001/R
	and RMT.0470 19/06/2012	24/06/2014	16/12/2014	08/03/2017	08/03/2017
2		2017-10 28/06/2017	n/a	n/a	2019 Q4



RMT.0476						Regular update of SERA implementing rules (stemming from ICAO SL)					
Efficiency/proportionality											
Status		Ongoing									
Reference(s)		n/a									
Affected stakeholders		n/a									
Owner		EASA FS.4.2									
Priority		n/a		RM Procedure		Standard		Harmonisation		n/a	
PLANNING MILESTONES											
SubT	ToR	NPA		Opinion		Commission IR		Decision			
	RMT.0476 18/08/2017	2021 Q4 ⁶⁷		2022 Q3		2023 Q4		2023 Q4			

RMT.0477	Technical requirements and operational procedures for aeronautical information services and aeronautical information management				
Efficiency/proportionality	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.				
Status	Ongoing				
Reference(s)	n/a				
Affected stakeholders	MSs, CAs, ANSPs, ADR operators and air operators				
Owner	EASA FS.4				
Priority	Yes	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0477	2016-02	2018-02	2020 Q1	2020 Q1
	11/10/2013	27/04/2016	08/03/2018		

⁶⁷ Instead of the NPA, Article 15 will apply



RMT.0519 Regular update of CS-ACNS

Efficiency/pro
portionality

Status Ongoing

Reference(s) n/a

Affected stakeholders n/a

Owner EASA CT.5

Priority n/a RM Procedure Standard Harmonisation n/a

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0519 12/09/2015	tbd	n/a	n/a	tbd

RMT.0692 Regular update of the acceptable means of compliance and guidance material on the safety (key) performance indicators

Efficiency/pro
portionality

Status This task is merged into RMT.0723 and will no longer appear in the final EPAS.

Reference(s) n/a

Affected stakeholders n/a

Owner EASA.4.2

Priority n/a RM Procedure Standard Harmonisation n/a

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
	08/10/2015	2019 Q1	n/a	n/a	2019 Q3



RMT.0719 Regular update of ATM/ANS rules (IRs/AMC & GM)

Efficiency/proportionality

Status Ongoing

Reference(s) n/a

Affected stakeholders n/a

Owner EASA FS.4.1

Priority n/a **RM Procedure** Standard **Harmonisation** n/a

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
	18/08/2017	20/12/2017 ⁶⁸	02/2018 8/3/2018	2020 Q1	2020 Q1

RMT.0723 Regular update of development of AMC & GM for SKPI (ATM performance IRs)

Efficiency/proportionality Reference Period 3

An accelerated rulemaking procedure will be used, involving the NPA public consultation, but will not include a regulatory impact assessment (RIA), as per Article 16 of the Rulemaking Procedure, as the options are linked with low expected impact and no controversy.

Status Ongoing. This RMT also includes the content from RMT.0692

Reference(s) n/a

Affected stakeholders n/a

Owner EASA SM.1

Priority n/a **RM Procedure** Standard **Harmonisation** n/a

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
	29/06/2018	2019 Q3	n/a	n/a	2020 Q2

⁶⁸ ABs consultation



SPT.103	Develop new safety promotion material on high-profile ATM safety issues
Safety	Develop new safety promotion material on high-profile safety issues for ATM. Such high-profile safety issues are to be determined from important risks identified from the SRM process, accidents/serious incidents and inputs from EASA stakeholders.
Status	Ongoing
Reference(s)	n/a
Affected stakeholders	CAT
Owner	EASA FS.4
EXPECTED OUTPUT	
Deliverable(s)	Timeline
Leaflets, videos, web-pages and/or applications	Continuous

MST.020	Loss of radar detection
Safety	<p>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 put forward 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.</p> <p>MSs 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.</p>
Status	Ongoing
Reference(s)	n/a
Affected stakeholders	ALL
Owner	MS
EXPECTED OUTPUT	
Deliverable(s)	Timeline
Report	2020

In addition to the above, the following RMTs are also relevant for ATM/ANS:

RMT.0524	Data link services
RMT.0624	Remote aerodrome ATS
RMT.0639	Performance-based navigation implementation in the European ATM network (task completed)
RMT.0679	Revision of surveillance performance and interoperability (SPI)
RMT.0682	Implementation of the regulatory needs of the SESAR projects

The full description for these actions is included in **Section 15.3**.



12 Aerodromes

This Chapter addresses aerodrome design and operations, as well as aerodrome operators.

Issue/rationale

Actions in this Chapter address safety, as well as efficiency/proportionality in terms of developing and maintaining of a legal framework commensurate with the complexity of ADR activities and management of potential risks. This Chapter also includes actions to ensure a level playing field on the basis of the regulatory requirements stemming from the Basic Regulation.

What we want to achieve

Ensure safety with sufficient flexibility for ADR operators to adjust to local conditions.

Ensure compliance with ICAO SARPs on the provision of AMS, maintain a uniform and high level of safety in the MSs and ensure a harmonised approach which will support the free movement of services within the MSs.

Reduce the administrative burden especially for those providers providing AMS in different MSs.

Aerodromes and Groundhandling

Key Risk Areas

Priority 1	Priority 2	Priority 3	Priority 4
<ul style="list-style-type: none">Ground DamageAircraft Upset	<ul style="list-style-type: none">Runway ExcursionObstacle Collision in Flight	<ul style="list-style-type: none">Terrain CollisionUnsurvivable Aircraft Environment	<ul style="list-style-type: none">Airborne CollisionTaxiway/Apron ExcursionRunway Collision

How we monitor improvement

The key risk areas and underlying safety issues will continue to be monitored as part of the ADR and GH safety risk portfolio, with the support of the ADR CAG. The EASA ABs will provide feedback on the efficiency/proportionality of the actions

How we want to achieve it: actions



RMT.0485 Requirements for apron management services at ADRs					
Level playing field	The changes proposed allow the AMS to be provided either by the ADR operator or by the ANSP (or any subcontractor to them). The changes are expected to ensure compliance with ICAO SARPs on the provision of AMS, maintain a uniform and high level of safety in the MSs and ensure a harmonised approach which will support the free movement of services within the MSs and reduce the administrative burden especially for those providers providing AMS in different MSs. Opinion 02/2014 will be reviewed in 2019 and updated as necessary to bring in line with the NBR.				
Status	Ongoing				
Reference(s)	n/a				
Affected stakeholders	ADR operators and APs				
Owner	EASA FS.4				
Priority	No	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0485 and 0465 20/07/2012	2013-24 18/12/2013	02/2014 24/09/2014	2020 Q2	2020 Q4

RMT.0591 Regular update of ADR rules					
Efficiency/proportionality	The first stream is for the Update of CS, while the second (NPA planned for 2020 Q3) one is for the update of IR/AMC.				
Status	Ongoing				
Reference(s)	n/a				
Affected stakeholders	n/a				
Owner	EASA FS4.3				
Priority	n/a	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
1	RMT.0591 29/07/2016	2019 Q4	n/a	n/a	2020 Q4
2		2020 Q3	2021 Q2	2021 Q4	2022 Q1



RMT.0638	Certification requirements for VFR heliports located at ADRs falling under the scope of the Basic Regulation				
Efficiency/proportionality	Ensure a high uniform level of safety at ADRs by aligning Regulation (EU) No 139/2014 with ICAO Annex 14, Volume II, Heliports; develop necessary CS and GM for design and, if necessary, AMC & GM for operation and oversight of VFR heliports co-located at ADRs (falling under the scope of the Basic Regulation).				
Status	This RMT will be completed in 2019, it is included in this draft EPAS for traceability. It will be removed in the final EPAS.				
Reference(s)	ICAO Annex 14				
Affected stakeholders	ADR operators				
Owner	EASA FS.4				
Priority	No	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0638 22/09/2014	2017-14 01/08/2017	n/a	n/a	2019 Q2

RMT.0703	Runway safety				
Safety	EAPPRI and EAPPRE contain several recommendations to CAs, ADR operators and EASA in order to mitigate the risks. In the ADR domain, EASA had included in Regulation (EU) No 139/2014 ⁶⁹ and in the relevant AMC & GM and CS many of these recommendations; however, there are some of them that have not been addressed.				
Status	Ongoing. This RMT now includes RMT.0704 'Runway surface condition assessment and reporting'.				
Reference(s)	n/a				
Affected stakeholders	ADR operators, AOC holders, GA, ANSPs and CAs				
Owner	EASA FS.4				
Priority	Yes	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0703 14/0/2017	2018-14 17/12/2018	2019 Q2	2020 Q1	2020 Q1

⁶⁹ [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](#)



RMT.0705 Addition of a new requirement for the handling of dangerous goods at aerodromes

Efficiency/proportionality

Under the current provisions of Regulation (EU) No 139/2014 (ADR.OR.D.020), ADR operators are required to designate appropriate areas for the storage of dangerous goods. However, Regulation (EU) No 139/2014 does not contain any requirement for the establishment of the methods for the delivery storage, dispensing and handling of dangerous goods at the ADR.

Under the current provisions of Regulation (EU) No 139/2014, there is no direct requirement for ADR operators to train their personnel in the handling of dangerous goods, in the case that the ADR operator is acting as sub-contractor (handling agent) of air operators.

It is therefore recommended to address these issues by incorporating relevant ICAO provisions in Regulation (EU) No 139/2014.

Status

This task will be discontinued as a stand-alone RMT. The new requirements will be developed as part of RMT.0728.

Reference(s)

n/a

Affected stakeholders

ADR operators

Owner

EASA FS.4

Priority

n/a

RM Procedure

n/a

Harmonisation

n/a

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
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RMT.0722 Provision of aeronautical data by the ADR operator

Safety

Revision and update of Regulation (EU) No 139/2014 and of the related AMC and GM in order to include the provisions of Chapter 2 of ICAO Annex 14 and the provisions of ICAO Annex 15 in regard to the provision of aeronautical data by the ADR operator.

Status

This task is de-prioritised in accordance with criteria described in Chapter 3.

Reference(s)

n/a

Affected stakeholders

ADR operators

Owner

EASA FS.4

Priority

Yes

RM Procedure

Standard

Harmonisation

n/a

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
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tbd

tbd

tbd

tbd

tbd



SPT.102	Develop new safety promotion material on high-profile aerodrome and groundhandling safety issues
Safety	Develop new safety promotion material on high-profile safety issues for aerodromes and groundhandling. Such high-profile safety issues are to be determined from important risks identified from the SRM process, accidents/serious incidents, inputs from EASA stakeholders and groundhandling safety topics that have been defined by the groundhandling roadmap, including groundhandling safety topics stemming from the NBR.
Status	Ongoing
Reference(s)	n/a
Affected stakeholders	CAT
Owner	EASA FS.4
EXPECTED OUTPUT	
Deliverable(s)	Timeline
Leaflets, videos, web-pages and/or applications	Continuous

MST.029	Implementation of SESAR runway safety solutions
Safety	MSs should evaluate together with the ADR operators and ANSPs the needs for implementing the related SESAR solutions such as those related to ground situational awareness, airport safety net vehicles and enhanced airport safety nets ⁷⁰ .
HF	These SESAR solutions designed to improve runway safety should be implemented as far as it is feasible. See SESAR Solutions Catalogue: https://www.sesarju.eu/sites/default/files/solutions/SESAR_Solutions_Catalogue_Ed2_2017.pdf
Status	Ongoing
Reference(s)	This EPAS action is aligned with the ATM MP's (Level 3 Ed 2018) action ATC02.9 Enhanced STCA in TMAs.
Affected stakeholders	CAT/GA
Owner	MS
EXPECTED OUTPUT	
Deliverable(s)	Timeline
SPAS	2020

⁷⁰ See link <https://www.atmmasterplan.eu/exec/operational-changes>



EVT.0012	Evaluation on Aerodrome Regulation
Efficiency/prop ortionality	Commission Regulation (EU) No 139/2014 – Aerodrome Regulation was adopted in 2014. Since 2018 rules are subject to monitoring through EASA Standardisation. An evaluation is envisaged to assess the relevance, effectiveness and efficiency of the rules.
Status	Ongoing
Reference(s)	n/a
Affected stakeholders	Aerodrome operators, CA
Owner	EASA FS.4.3
EXPECTED OUTPUT	
Deliverable(s)	Timeline
Evaluation report	2023



13 Groundhandling

This Chapter addresses all groundhandling related aspects, with the exception of aerodrome design and operations, as well as aerodrome operators, being dealt with in the previous Chapter.

Issue/rationale

This risk area includes all groundhandling and apron management-related issues (aircraft loading, de-icing, refuelling, ground damage, etc.) as well as 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 does not include collisions on the runway. While it was not the accident outcome for any fatal accidents in the past years, the risk score warrants its inclusion as a key risk area in this domain.

What we want to achieve

Increase safety by continuously assessing and improving risk controls to mitigate the risks in the area of ground safety.

How we monitor improvement

The key risk areas and underlying safety issues will continue to be monitored as part of the ADR and GH safety risk portfolio, with the support of the ADR CAG. The EASA ABs will provide feedback on the efficiency/proportionality of the actions and on the effect on level playing field.

How we want to achieve it: actions

RMT.0728	Development of requirements for groundhandling				
Safety	<p>Develop IR/AMC & GM to ensure compliance with the essential requirements contained in Annex VII to the NBR. This will consider operational requirements, organisational requirements and authority requirements, as deemed necessary. Detailed objectives and actions will be defined by a GH Roadmap which was subject to a focused consultation in Q1/2019.</p> <p>Develop requirements for</p> <ul style="list-style-type: none"> the establishment of the methods for the delivery storage, dispensing and handling of dangerous goods at the ADR. ADR operators to train their personnel in the handling of dangerous goods, in the case the ADR operator is acting as sub-contractor (handling agent) of air operators. 				
Status	Ongoing – This RMT now includes RMT.0705.				
Reference(s)	n/a				
Affected stakeholders	CAs, groundhandling service providers, aerodrome operators, air operators and groundhandling staff				
Owner	EASA FS.4				
Priority	n/a	RM Procedure	AP	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
1	2019 Q2	n/a	2021 Q4	2022 Q4	2022 Q4

In addition to the above, the following SPT is also directly relevant to Groundhandling:

SPT.102	Develop new safety promotion material on high-profile aerodrome and groundhandling safety issues
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The full description for this action is included in **Chapter 12**.



14 Unmanned Aircraft Systems

This chapter includes all actions that are relevant to civil unmanned aircraft systems, for the drivers safety, efficiency/proportionality and level playing field.

Issue/rationale

Most of the EU MSs have adopted national regulations to *ensure safe operations* of UASs with MTOM below 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 NBR extends the scope of the EU competence to regulate UAS below the MTOM of 150 kg, also to allow free circulation of UASs throughout the EU.

While this task has multiple drivers due to its very nature, there are also very strong efficiency and level playing field aspects.

In order to ensure safe UAS operations, it is extremely important to manage the safe integration of UASs in the airspace. SJU has worked with the support of EASA and all relevant stakeholders on the development of what is named U-space⁷¹. U-space is a set of new services and specific procedures designed to support the safe, efficient and secure access to airspace for large numbers of drones. In 2017, SJU prepared the U-space Blue Print⁷² describing the vision for U-space. In addition, the European Roadmap for safe integration of drones in all airspace classes⁷³ was also prepared by SJU with EASA support and adopted by the EC. The ATM MP reflects the details about the integration of UAS in the EU airspace.

What we want to achieve

To create a level playing field in all EU MSs, using an operation-centric concept, which is proportionate and risk-and performance-based, so that all companies can make best use of UAS technologies to create jobs and growth. At the same time, to enable the safe integration of drones in the European airspace while maintaining a high and uniform level of safety.

How we monitor improvement

The EASA ABs will give feedback on the effectiveness of the activities.

How we want to achieve it: actions

⁷¹ U-space is the European name for Unmanned Traffic Management (UTM)

⁷² <https://www.sesarju.eu/u-space-blueprint>

⁷³ <https://www.sesarju.eu/sites/default/files/documents/reports/European%20ATM%20Master%20Plan%20Drone%20roadmap.pdf>

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

Development of IRs (including implementing and delegated acts) for UAS, implementing Articles 55 to 57 and Annex IX to Regulation (EU) No 2018/1139. 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 seven subtasks were identified:

- 1 Open and specific category with development of new, dedicated implementing rules
- 2 Certified category with amendments to IAW, CAW, FCL, OPS, SERA, ADR, ATM/ANS
- 3 Specific category with standard scenarios in appendix to implementing act and pre-defined risk assessment in AMC
- 4 Certified category with amendments to CS-ETSO and CS-36
- 5 Certified category with development of a new CS-UAS
- 6 Development of adequate rules to enable U-space implementation
- 7 Certified category with further amendments to ATM/ANS, ATCO, SERA, ACAS and CS-ACNS

For the maintenance of the Regulation and the AMC developed under subtasks one and three, two new RMTs have been created. Please refer to the section on Regular Updates (RMT.0729 and RMT.0730).

Status Ongoing

Reference(s) n/a

Affected stakeholders Member States, UAS operators (individuals and organisations), UAS manufacturers, manned aviation community, model aircraft community, ATM/ANS providers, ADR operators, all airspace users

Owner EASA CT.5

Priority Yes **RM Procedure** ST/DP **Harmonisation** n/a

PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
1	22/12/2016	04/05/2017	01/2018 06/02/2018	2019 Q1	2019 Q2
2		2020 Q1	2021 Q2	2023 Q2	2023 Q3
3		2019 Q2 ⁷⁴	n/a	n/a	2019 Q2
4		2020 Q4	n/a	n/a	2021 Q4
5		2020 Q4 ⁷⁵	n/a	n/a	2021 Q2
6		2019 Q4 ⁷⁶	2019 Q4	2020 Q4	2021 Q1
7		2022 Q1	2023 Q1	2024 Q3	2024 Q4

⁷⁴ Instead of an NPA, Article 15 will apply

⁷⁵ Instead of an NPA, Article 15 will apply

⁷⁶ Instead of an NPA, Article 15 will apply



RMT.0729		Regular update of Regulation 2019/xxxx (drones in the open and specific category)			
Efficiency/proportionality					
Status		Ongoing			
Reference(s)		n/a			
Affected stakeholders		n/a			
Owner		EASA CT.5			
Priority	n/a	RM Procedure	DP	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	2019 Q2	2021 Q1 ⁷⁷	2022 Q1	2023 Q2	2023 Q3

RMT.0730 Regular update of the AMC & GM to Regulation 2019/xxxx (drones in the open and specific category)					
Efficiency/proportionality					
Status		Ongoing			
Reference(s)		n/a			
Affected stakeholders		n/a			
Owner		EASA CT.5			
Priority		n/a	RM Procedure	Standard	Harmonisation n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	2019 Q2	2020 Q2	n/a	n/a	2020 Q3

⁷⁷ Instead of an NPA, Article 15 will apply.



SPT.091	European safety promotion on civil drones
Safety	Coordinate European activities to promote safe operation of drones to the general public.
Status	Ongoing
Reference(s)	n/a
Affected stakeholders	Drone operators
Owner	SPN
EXPECTED OUTPUT	
Deliverable(s)	Timeline
Safety Promotion material	2021

RES.015	Vulnerability of manned aircraft to drone strikes
Safety	Assessment of the potential collision threats posed by drones to manned aircraft and evaluation of their estimated impacts; establishment of a risk model to support regulatory and operational stances to be validated by means of a comprehensive set of simulated impact tests.
Status	Ongoing
Reference(s)	n/a
Affected stakeholders	Air operators in CAT & NCC, SPO, HE, GA
Owner	SM.0.1
EXPECTED OUTPUT	
Deliverable(s)	Timeline
Report	2022

RES.022	SESAR 2020 research projects aiming to safely integrate drones in the airspace
Safety	The following research activities are being addressed under the SESAR 2020 programme: surface operations by RPAS (PJ.03a-09); IFR RPAS Integration (PJ. 10-05) and airborne detect and avoid systems supporting integrated RPAS operations (PJ.13-01-01) ⁷⁸ .
Status	Ongoing
Reference(s)	SESAR solution PJ.03a-09, PJ.10-05 and PJ.13-01-01
Affected stakeholders	RPAS
Owner	SESAR
EXPECTED OUTPUT	
Deliverable(s)	Timeline
Report	2022

⁷⁸ More details about the related research projects can be found in https://www.atmmasterplan.eu/data/sesar_solutions



RES.023	SESAR exploratory projects on U-space
Safety	<p>SESAR JU has launched U-space exploratory research as steps towards realising the European Commission's U-space vision for ensuring safe and secure access to airspace for drones.</p> <p>The ER projects complete their work in 2020, there will be others in ER4 for the U3 and U4 services and capabilities.</p>
Status	Ongoing
Reference(s)	SESAR ⁷⁹
Affected stakeholders	RPAS/drones
Owner	SESAR
EXPECTED OUTPUT	
Deliverable(s)	Timeline
Research reports	2020

⁷⁹ <https://www.sesarju.eu/news/sesar-launches-u-space>



15 New technologies and concepts

This Chapter addresses the safe integration of new technologies and innovative solutions into the aviation system, with the exception of civil drones, which are addressed in the previous Chapter.

While many of the technologies and innovations emerging in the aviation industry bear significant potential to further improve the level of safety, EPAS gives due consideration to the safety issues derived from new technologies, new operational concepts or novel business models.

In the ATM domain, SESAR covers the development of new technologies for a better management of Europe's airspace as well as their contribution to the achievement of the SES goals and safety targets.

What we want to achieve

Facilitate European emerging technologies and innovative concepts, while ensuring their safe integration into the aviation system.

15.1 New business models

Issue/rationale

This section addresses risks related to new and emerging business models arising from the increased complexity of the aviation industry, the number of interfaces between organisations, their contracted services and regulators. Some new business models are emerging: the increased demand for flying in the cities, urban air mobility; the increased digitalisation in aviation systems, the introduction of more autonomous vehicles, platforms starting for single pilot operations and completely autonomous cargo aircraft. These will challenge the way authorities regulate and oversee the aviation system. CAs should work better together 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 MSs, EASA tasked a working group of CAs to assess airlines' emerging 'new' business models and to identify related safety risks posed to the aviation system.

The same approach could be applied to monitor the development of urban air mobility should the MSs request EASA to do so. So far no actions have been foreseen in this EPAS update.

Managing current and future safety risks arising from new and emerging business models is a strategic priority.

What we want to achieve

Increase safety by continuously assessing and mitigating risks posed by new and emerging business models.

How we monitor improvement

The EASA ABs will give feedback on the effectiveness of the activities.

How we want to achieve it: actions



RMT.0300 Operations with airships

Development of rules for the operation of airships.

Level playing field

This task is put on hold due to resource restrictions, giving support to more pressing matters. Nonetheless, EASA is following the development still and envisages to integrate it into next available rulemaking opportunities. One such opportunity might exist, partially, with RMT.0731 'New Air Mobility'. EASA will ensure timely addressing the regulatory frame for the technologies at stake.

Status This task is put on hold until further notice.

Reference(s) n/a

Affected stakeholders Airship operators and airship DOA/POA holders

Owner EASA FS.2

Priority n/a **RM Procedure** n/a **Harmonisation** n/a

PLANNING MILESTONES

SubT ToR NPA Opinion Commission IR Decision

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

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

Safety

This task is put on hold due to resource restrictions, giving support to more pressing matters. Nonetheless, EASA is following the development still and envisages to integrate it into next available rulemaking opportunities.

Status This task is put on hold until further notice.

Reference(s) n/a

Affected stakeholders n/a

Owner EASA FS.2

Priority n/a **RM Procedure** n/a **Harmonisation** n/a

PLANNING MILESTONES

SubT ToR NPA Opinion Commission IR Decision



MST.019	Better understanding of operators' governance structure
Safety	<p>CAs to have a thorough understanding of operators' governance structure. This should in particular apply in the area of group operations.</p> <p>Aspects to be considered include:</p> <ul style="list-style-type: none">- extensive use of outsourcing,- the influence of financial stakeholders, and- controlling management personnel, where such personnel are located outside the scope of approval. <p>Note: The Agency will support this MST by providing guidance on how to effectively oversee group operations.</p>
Status	This MST will be completed in 2019, it is included in this draft EPAS for traceability. It will be removed in the final EPAS.
Reference(s)	n/a
Affected stakeholders	CAT/HE
Owner	MS
EXPECTED OUTPUT	
Deliverable(s)	Timeline
Research/guidance material	2019



15.2 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.

What we want to achieve

Manage the safe introduction of new products, systems, technologies and operations and continuously assess and mitigate safety risks related to new designs, technologies or types of operation.

How we monitor improvement

The EASA ABs will give feedback on the effectiveness of the activities.

How we want to achieve it: actions

RMT.0266 Powered lift (tilt rotor) applicable requirements (pilot licensing with synthetic training devices, air operations and maintenance)					
Safety To develop IRs for powered lift pilot licensing and operations.					
This task is put on hold due to resource restrictions, giving support to more pressing matters. Nonetheless, EASA is following the development still and envisages to integrate it into next available rulemaking opportunities. One such opportunity might exist, partially, with RMT.0731 'New Air Mobility'. EASA will ensure timely addressing the regulatory frame for the technologies at stake.					
Status This task is put on hold until further notice.					
Reference(s) n/a					
Affected stakeholders n/a					
Owner EASA FS.0					
Priority	n/a	RM Procedure	n/a	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision



RMT.0731 **New air mobility**

Level Playing Field

The current European regulatory framework for aviation safety has initially been designed for conventional fixed wing aircraft, rotorcraft, balloons and sailplanes. The existing framework relies on active contribution of human beings, increasingly assisted by automation, be it on board or on the ground. Propulsion is mostly provided by piston or turbine engines using fossil fuels

The introduction of new technologies and concepts of air transport (from multi-modal vehicles to autonomous vehicles) requires to revisit this framework. The purpose of this RMT is to develop rules or amend existing ones, where necessary, to address new technologies and operational air transport concepts, with the objective to be agile and to adapt the regulatory framework in line with Performance Based Regulations principles. The resulting framework should be operation centric and address the total aviation system.

EASA is still at the conceptual phase with regard to the set-up of this RMT. It is expected to have a concept of operations decided by the time EPAS 2020-2024 will be finalised. This RMT is expected to lead to different streams of activity. For instance, draft rules for gyroplanes (type of aircraft currently not addressed by EASA rules), including interfaces with multi-modal operational solutions, could be one of such streams. A general principle that will govern this RMT is to ensure that future requirements are technology-neutral where possible, while ensuring legal certainty.

Status New

Reference(s) n/a

Affected stakeholders All

Owner tbd

Priority Yes **RM Procedure** tbd **Harmonisation** tbd

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
	2019 Q4	2020 Q2	2020 Q4	2021 Q2	2021 Q2



15.3 SESAR deployment

Issue/rationale

Implement the regulatory needs of the SESAR pilot common projects.

What we want to achieve

The rationale behind the following actions is to cater for the regulatory needs of the SESAR common projects and other new technological advancements (e.g. such as, but not limited to U-space deployment, virtualisation and cloud-based architecture and remote tower operations) by enabling the implementation of new working methods and technologies developed by SESAR. Interoperability, civil-military cooperation and compatibility, and NextGen international compatibility (e.g. such as but not limited to ICAO GANP/ASBUS and NextGen) will form an integral part of EASA's work in impact assessment and future rulemaking. In addition, there is a need to initiate a consolidated and coordinated implementation support action that should look holistically to the implementation needs of the necessary enabling infrastructure to facilitate the achievement of the needed operational improvements and new ATM operational concepts.

How we monitor improvement

The EASA ABs will give feedback on the effectiveness of the activities.

How we want to achieve it: actions

RMT.0524 Data link services					
Safety		The analysis of the technical issues observed during the deployment of Regulation (EC) No 29/2009 resulted in various recommendations. This RMT will consider these regulatory recommendations to support the data link operations, including regulatory needs to support the ELSA Model D multi-frequency implementation, the identification and development of an 'end-to-end certification/validation' framework and the clarification of the notion of 'best in class' performance and the related avionics improvements. Furthermore, to improve the predictability of the aircraft trajectory leading to less tactical interventions and improved deconfliction, this RMT will address elements of the 'Pilot Common Project' (PCP) air traffic management (ATM) functionality 6 requirements ('Initial Trajectory Information Sharing'); in particular, the regulatory support for the implementation of the 'Extended Projected Profile' (EPP).			
Status		Ongoing			
Reference(s)		n/a			
Affected stakeholders		CAs, ANSPs, ADR operators, Air operators, manufacturers and ATCOs			
Owner		EASA FS.4			
Priority	Yes	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0524 29/01/2018	2020 Q2	2021 Q2	2022 Q4	2022 Q4

**RMT.0624 Remote aerodrome ATS****Safety**

The development and introduction of new technologies enables provision of ADR ATS (aerodrome control service (ATC) or aerodrome flight information service (AFIS)) from geographically independent locations/facilities where direct visual observation is not available.

Phase 1 of this RMT resulted in the publication of 'Guidance Material on the implementation of the remote tower concept for single mode of operation' (ED Decision 2015/014/R) and 'Requirements on Air Traffic Controller licensing regarding remote tower operations' (ED Decision 2015/015/R amending Acceptable Means of Compliance and Guidance Material to Commission Regulation (EU) 2015/340).

Phase 2 of this RMT, which is ongoing, is extending the scope to cover also more complex modes of operations and to provide enhanced and extended generic guidance and requirements (hence not limited to any specific operational context/mode) for CAs, ANSPs and ADR operators, encompassing all possible types of operational modes/contexts, such as single and multiple mode of operation, contingency solutions and the use of new technical enablers which have traditionally not been available for ADR ATS. The general objective of the RMT is to ensure that ADR ATS provided from a remote tower meet the applicable EU and ICAO requirements and to ensure at least the same level of safety as when provided from a conventional tower.'

Status

Ongoing

Reference(s)

This EPAS task is aligned with the ATM MP's (Level 3 Ed 2018) action AOP14 (only single operation) (Remote TWR).

Affected stakeholders CAs, ANSPs and aerodrome operators

Owner EASA FS.4

Priority Yes **RM Procedure** Standard **Harmonisation** n/a

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
1	RMT.0624 0/12/2014	2015-04 23/03/2015	n/a	n/a	2015/014/R & 2015/015/R 03/07/2015
2		2017-21 20/12/2017	n/a	n/a	2019/004/R 19/02/2019
3		2020 Q4	n/a	n/a	2021 Q4



RMT.0639 Performance-based navigation implementation in the European ATM network

Safety

PBN implementation that supports the improved performance of the EATMN, the uniform use of PBN specifications and functionalities. The optimal and safe use of airspace and the improved safe access to ADRs through the improved airspace design, arrival/departure routes and approach procedures would be ensured based on a common application of navigation specifications and functionalities.

These regulatory measures define the ICAO PBN specifications and functionalities that are to be used in the EU airspace and the dates by which they are to be applied in accordance with the SES objectives and the PCP implementation.

Status This RMT was completed in November 2018, it is included in this draft EPAS for traceability.

Reference(s) n/a

Affected stakeholders MSs, CAs, ANSPs and Air Operators

Owner EASA FS.4.2

Priority Yes **RM Procedure** Standard **Harmonisation** n/a

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0639	2015-01	10/2016		2018/013/R
	25/06/2014	19/01/2015	28/07/2016	01/08/2018	21/11/2018

RMT.0679 Revision of surveillance performance and interoperability (SPI)

Safety

The current SPI Regulation (Regulation (EU) No 1207/2011⁸⁰) details the requirements for the carriage and operation of airborne surveillance equipment by both civil and State registered aircraft, and the dates by which qualifying aircraft must be equipped.

Note: Based on the Cost-Benefit Analysis results, EASA decided not to propose significant changes to the present SPI Regulation. Therefore, EASA will not publish an NPA but prepare a report to the European Commission. However, there is a proposal to change the Regulation. In addition, EASA may decide to provide some GM on items already identified by the rulemaking group. Therefore, the date for the ED Decision is also kept.

Status This RMT will be completed in 2019, it is included in this draft EPAS for traceability. It will be removed in the final EPAS.

Reference(s) n/a

Affected stakeholders MS, CAs, ANSPs, aircraft operators and Air Traffic Controllers.

Owner EASA FS.4

Priority Yes **RM Procedure** Standard **Harmonisation** n/a

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0679	n/a	n/a	n/a	2019 Q2
	18/03/2016				

⁸⁰ Commission Implementing Regulation (EU) No 1207/2011 of 22 November 2011 laying down requirements for the performance and the interoperability of surveillance for the single European sky (OJ L 305, 23.11.2011, p. 35).



RMT.0682 Implementation of the regulatory needs of the SESAR projects

Safety

The general objective of the task is the development of the implementing measures as required to enable the timely deployment of the ATM functionalities and other operational changes stemming from SESAR and the European ATM MP by addressing those issues which are not covered by existing RMTs.

The initial purpose of this task is to address the implementation needs, among others and when known, of the following:

- Extended arrival management (AMAN) in high-density terminal manoeuvring areas (TMAs);
- Airport integration and throughput;
- Flexible airspace management and free route;
- Network collaborative management;
- Initial system-wide information management (SWIM);
- Development of the requirements for the use of GBAS augmented GNSS to support CAT I/II/III operations;
- Other new essential operational changes (e.g. user-driven prioritisation process (UDPP), trajectory-based tools, sector-based operations, etc.)

Status This task is de-prioritised in accordance with criteria described in Chapter 3.

Reference(s) n/a

Affected stakeholders MSs, CAs, ANSPs, Air Operators, ADR operators, POA holders

Owner EASA FS.4

Priority No **RM Procedure** Standard **Harmonisation** n/a

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
	2019 Q4	tbd	tbd	tbd	tbd



15.4 All-weather operations (AWOs)

Issue/rationale

AWOs are currently addressed by regulations in the following aviation domains: airworthiness, air operations, aircrew, aerodromes, air traffic management (ATM)/air navigation services (ANS) as well as in the standardised European rules of the air (SERA). The existing rules in these domains have a number of deficiencies that need to be addressed. Work on AWOs will allow to sufficiently address technological advancements, align with the ICAO SARPs (e.g. ICAO Annex 6 amendments introducing lower category (CAT) II and CAT III minima and the concept of operational credits, in particular for operations with vision systems), increase consistency of rules across different domains, carry out cross-domain risk assessments, ensure that better weather information is provided to pilots, as well as harmonise with the FAA and other regulators.

What we want to achieve

The European industry should be enabled to take full advantage of safety and economic benefits generated through new technologies and operational experience.

How we monitor improvement

Continuous monitoring of safety issues related to AWO will be ensured on the basis of the CAT Safety Risk Portfolio for CAT Airline and NCC Business aeroplane operations. The EASA ABs will give feedback on the effectiveness of the activities.

How we want to achieve it: actions



RMT.0379 All-weather operations

Safety

Review and update the AWO rules in all aviation domains, as regards:

- possibility of applying safety performance principle in redrafting of current rules with the aim of allowing a better integration of new and future technologies supporting AWOs, as e.g. enhanced flight vision systems (EFVSs), synthetic vision systems (SVSs), synthetic vision guidance systems (SVGSs), combined vision systems (CVSs), head-up displays (HUDs);
- conventional low-visibility operations (LVOs), such as instrument landing system (ILS)-based CAT II and CAT III approach operations or low-visibility take-offs (LVTOs);
- other than AWO, such as CAT I operations using ILS, GLS or SBAS, or approach operations to higher minima using area navigation (RNAV)(GNSS), non-directional beacons (NDBs) or very high frequency (VHF) omnidirectional ranges (VORs);
- miscellaneous items, such as the improvement of existing rules text and the transposition of the new ICAO approach classification;
- harmonisation with bilateral partners (e.g. FAA) to the extent possible;
- introduction of operations with operational credits such as newly introduced SA CAT I⁸¹ not being yet part of the ICAO regulatory system.

Recommendations and consequent follow up actions to the Weather Information to Pilots Strategy Paper, itself an outcome of RMT.0379 are now being taken forward as a stand-alone project. Phase 2 (subtask 2) will address AWOs for helicopters.

Status Ongoing

Reference(s) n/a

Affected stakeholders POA holders, Air operators, ATOs, ADR operators and ATM/ANS

Owner EASA FS.2

Priority Yes **RM Procedure** Standard **Harmonisation** n/a

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
1	RMT.0379 09/12/2015	2018-06 13/07/2018	2020 Q2	2022 Q2	2022 Q2
2		2019 Q2	2020 Q2	2022 Q2	2022 Q2

⁸¹ Special authorisation CAT I represents a type of LVOs operations with operational credits with the following provisions:

- the decision height (DH) of an SA CAT I operation should not be lower than the highest of the minimum DH specified in the AFM (if stated), the applicable obstacle clearance height (OCH) for the category of aeroplane, the DH to which the flight crew is qualified to operate; or 150 ft; and
- the lowest RVR minima to be used are specified vs approach lighting system and are typically between 400 and 700 (m).



16 Environmental protection

Environmental protection and sustainability are key challenges for the aviation industry, MSs, EC and EASA. Sustainable aviation is about combatting climate change, and reducing the health effects from aircraft noise and air pollution. This needs to be considered in the global context in order to ensure a level playing field such that European industry remains competitive in a rapidly changing world. Environmental standards are key to achieving this.

EASA is helping tackle the challenge of ensuring a cleaner, quieter and more sustainable future for the aviation system, including supporting the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA).

The information below reports on the status of environmental standards. For the full picture, including stakeholder actions and market-based measures, see the European Aviation Environmental Report⁸², which provides an overview of the historic, current and forecasted environmental performance of the European aviation sector.

As European standards are developed by reference to ICAO standards, the below actions are directly aligned with the ICAO process. The ICAO Committee on Aviation Environmental Protection (CAEP) agreed in February 2019 on a new non-volatile particulate matter (nvPM) emissions standard, and proposed improvements to the existing noise, aircraft engine emissions and aeroplane CO₂ emissions standards. The agreed updates to the environmental standards will need to be implemented into European legislation in order to become effective.

The actions to implement ICAO standards in Europe will be adjusted and detailed once the outcome of the ICAO adoption process is communicated in an ICAO State Letter.

⁸² www.easa.europa.eu/eaer



16.1 Noise, local air quality and climate change standards

Issue/rationale

Implement ICAO Annex 16 Volume I, Volume II and Volume III standards into the EASA regulation

What we want to achieve

- Implement the ICAO SARPs and guidance material resulting from the CAEP/11 work cycle into:
 - The Basic Regulation (2018/1139); and
 - The Implementing Rules (currently 748/2012); and
 - The AMC & GM to the Implementing Rules; and
 - The CS34, CS36 and CS CO₂.

How we monitor improvement

Continuous monitoring of ICAO adoption process

Continuous monitoring of ICAO / CAEP work related to Annex 16 Volume I, Volume II and Volume III

Monitoring of aviation environmental impact through the European Aviation Environmental Report (EAER)

How we want to achieve it: actions

RMT.0513	Update CS 36 to refer to the environmental technical manual on noise certification as amended after CAEP				
	Align CS-36 with the ICAO CAEP recommendations				
Environment	NB: The below timelines are related to the implementation of CAEP 10. The implementation of CAEP 11 will start in 2019 under this same RMT.				
Status	This task is merged into RMT.0513 and will no longer appear in the final EPAS.				
Reference(s)	CS-36				
Affected stakeholders	DOA and POA holders				
Owner	EASA CT.4				
Priority	Yes	RM Procedure	Standard	Harmonisation	n/a
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
RMT.0513 & RMT.0514 13/06/2016		2017-01 17/01/2017	09/2017 07/11/2017	2018 Q4	2018 Q4
		2019 Q3	2020 Q4	2022 Q1	2022 Q1

**RMT.0514 Implementation of the CAEP amendments**

Implement the ICAO SARPs and guidance material resulting from the CAEP/11 work cycle into:

- The Basic Regulation (2018/1139); and
- The Implementing Rules (currently 748/2012); and
- The AMC & GM to the Implementing Rules; and
- The CS34, CS36 and CS CO₂.

NB: The below timelines are related to the implementation of CAEP/10 and CAEP/11 ICAO SARPs. The implementation of CAEP/10 ICAO SARPs (RMT.0513 and RMT.0514) should be finalised by 2019 Q2/Q3 for the AMC&GM to Part 21 and the CS34, CS36 and CS CO₂. The implementation of CAEP/11 ICAOP SARPs will start in 2019 under the newly merged RMT.0514.

Status Ongoing

Reference(s) BR Article 9 and CS-34

Affected stakeholders DOA and POA holders

Owner EASA CT.4

Priority Yes **RM Procedure** Standard **Harmonisation** n/a

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0513 & RMT.0514 13/06/2016	2017-01 17/01/2017	09/2017 07/11/2017	2018 Q4	2018 Q4
		2020 Q1	2020 Q3	2022 Q1	2022 Q1

RMT.0560 Halon — Update of Part-26 to comply with ICAO standards

Balance the environmental needs with safety and with cost-efficient rules for progressive phase-out of halon.

Status This RMT is completed, it is included in this draft EPAS for traceability. It will be removed in the final EPAS.

Reference(s) n/a

Affected stakeholders AOC holders (large aircraft), AMOs (Part-145) and POA holders

Owner EASA CT.5

Priority Yes **RM Procedure** Standard **Harmonisation** n/a

PLANNING MILESTONES

SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0560 18/09/2013	2014-26 18/11/2014	08/2016 02/08/2016	26/10/2018	2019/006/R 27/02/2019



RES.018	Development of particulate matter (PM) regulations and guidelines
	Acquire high-quality PM data, analysis, modelling and expert support for regulatory action.
Environment	
Status	This task is merged into RES.024 and will no longer appear in the final EPAS.
Reference(s)	n/a
Affected stakeholders	ALL
Owner	
EXPECTED OUTPUT	
Deliverable(s)	Timeline
Report	2022

RES.019	Aviation emissions support
	Obtain high-quality technical expert support on standardisation issues.
Status	This task is merged into RES.024 and will no longer appear in the final EPAS.
Reference(s)	n/a
Affected stakeholders	CAT
Owner	
EXPECTED OUTPUT	
Deliverable(s)	Timeline
Report	2021

RES.024	Assessment of Environmental Impacts - Engine emissions
	Development of extended and more robust standards for the purpose of supporting the assessment of engine emissions. The emphasis shall be on robust methods for non-volatile particulate matter (nvPM) mass and number determination including, notably, particle size measurement and sampling techniques, consideration of the effect of both ambient conditions and volatile PM, and sensitivity and uncertainty analyses.
Status	New. This task now includes RES.018 and RES.019.
Reference(s)	n/a
Affected stakeholders	DOA holders, Air operators (CAT)
Owner	SM.0.1
EXPECTED OUTPUT	
Deliverable(s)	Timeline
Report	2023



RES.025		Assessment of Environmental Impacts - Aircraft Noise	
		<p>Development of extended and more robust standards for the purpose of supporting the assessment of <u>aircraft noise</u> footprints. The focus will be two-fold:</p> <ul style="list-style-type: none">- extension of current helicopter noise models towards ensuring the coverage of current types of helicopters within the European fleet;- extension of prevailing modelling approaches in view of the assessment of the noise footprint of new aircraft concepts prior to their certification – centred on supersonic aircraft and vertical take-off and landing (VTOL) aircraft.	
Status	New		
Reference(s)	n/a		
Affected stakeholders	DOA holders and organisations intending to develop new aircraft concepts (VTOL, supersonic etc.)		
Owner	SM.0.1		
EXPECTED OUTPUT			
Deliverable(s)	Timeline		
Report	2023		



16.2 Market Based Measures

Issue/rationale

The adoption of the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) by the International Civil Aviation Organization (ICAO) in 2016 was the first time a single industry sector agreed to a global market-based measure in the field of climate action. It is forecast that CORSIA will mitigate around 2.5 billion tonnes of CO₂ between 2021 and 2035, making CORSIA one of the largest carbon pricing instruments in the world in terms of greenhouse gas emissions coverage.

The CORSIA monitoring, reporting and verification system, which started on January 1st 2019, is important as it will establish the emissions baseline from which growth will be measured for the first carbon offsetting obligations in 2021.

Currently 78 States, representing 76% of international aviation activity, have volunteered to start offsetting their CO₂ emissions under CORSIA in 2021; others will follow in 2027 when the scheme becomes mandatory.

What we want to achieve

Support the preparation of CORSIA implementation through the development of standard methods and tools for the assessment of global emission units and the related off-setting requirements.

How we monitor improvement

The EASA ABs will give feedback on the effectiveness of the activities.

How we want to achieve it: actions

RES.026	Market-based Measures (ETS⁸³ and CORSIA)
	Extension and updating of existing capabilities for assessment of Market-based Measures (e.g. EU Emissions Trading System (ETS) and ICAO Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA)) notably to cater for new traffic data and forecasts, handling of novel scenarios and measures, ensuring their fitness-for-purpose and credibility for supporting critical policy-making both at European (EC, Member States) and international (ICAO) level.
Status	New
Reference(s)	n/a
Affected stakeholders	Air operators
Owner	SM.0.1
EXPECTED OUTPUT	
Deliverable(s)	Timeline
Report	2022

⁸³ <https://www.emissions-euets.com/carbon-market-glossary/872-european-union-emissions-trading-system-eu-ets>



Appendix A: Decisions and Opinions published in 2019

Title of official publication	Date	Task Number	Task Title
ED Decision 2019/001/R	28/01/2019	RMT.0698	Revision of the operational rules for sailplanes
ED Decision 2019/002/R	28/01/2019	RMT.0287	Updating Part-MED and related AMC and GM
ED Decision 2019/003/R	13/02/2019	RMT.0689	"PART-21 proportionality"
ED Decision 2019/004/R	19/02/2019	RMT.0624	Remote aerodrome ATS
ED Decision 2019/005/R	27/02/2019	RMT.0581	Loss of control prevention and recovery training
ED Decision 2019/006/R	27/02/2019	RMT.0069	Seat crashworthiness improvement on large aeroplanes — Dynamic testing 16g
ED Decision 2019/006/R	27/02/2019	RMT.0071	Additional airworthiness specifications for operations: Thermal/acoustic insulation material
ED Decision 2019/006/R	27/02/2019	RMT.0560	Halon — Update of Part-26 to comply with ICAO standards
ED Decision 2019/007/R	27/02/2019	RMT.0721	RAMP simplification
ED Decision 2019/008/R	27/02/2019	RMT.0601	Transposition of provisions on electronic flight bag from ICAO Annex 6
ED Decision 2019/009/R	28/03/2019	RMT.0135	B2L and L Part-66 aircraft maintenance licences
ED Decision 2019/009/R	28/03/2019	RMT.0697	Part-66 basic examinations performed by Part-147 maintenance training organisations (MTOs)
ED Decision 2019/009/R	28/03/2019	RMT.0555	Control of suppliers
ED Decision 2019/010/R	04/04/2019	RMT.0690	Regular update of CS-STAN
ED Decision 2019/011/R	30/04/2019	RMT.0519	Maintaining CS-ACNS
Opinion 01/2019	19/02/2019	RMT.0654	Revision of the balloon licensing requirements
Opinion 01/2019	19/02/2019	RMT.0677	Easier access of General Aviation (GA) pilots to instrument flight rules (IFR) flying
Opinion 01/2019	19/02/2019	RMT.0701	Revision of the sailplane licensing requirement
Opinion 02/2019	22/02/2019	RMT.0249	Recorders installation and maintenance thereof — certification aspects
Opinion 02/2019	22/02/2019	RMT.0271	In-flight recording for light aircraft
Opinion 02/2019	22/02/2019	RMT.0296	Review of aeroplane performance requirements for CAT operations
Opinion 02/2019	22/02/2019	RMT.0695	Non-ETOPS operations using performance class A aeroplanes with an MOPSC of 19 or less



Appendix B: Deliverables expected in 2020

Terms of Reference (ToRs):

Driver	Baseline Quarter	Task Number	Task Title	Count
Safety	1	RMT.0194	Modernising the European pilot training system and improve the supply of competent flight instructors	1.0
	1	RMT.0294	Data link recording retrofit for aircraft used in CAT	1.0
	1	RMT.0725	Rotorcraft chip detection system	1.0
	1	RMT.0726	Rotorcraft bird strike	1.0
Efficiency / Proportionality	1	RMT.0392	Regular updates of OPS rules	1.0
	2	RMT.0714	Enable the safe introduction of rotorcraft Fly-by-Wire technology	1.0
Level Playing field	2	RMT.0495	FTL requirements for commercial operations other than CAT	1.0
	3	RMT.0494	FTL requirements for CAT operations of helicopters	1.0
TOTAL				8.0



Notice of Proposed Amendments (NPAs):

Driver	Baseline Quarter	Task Number	Task Title	Count
Safety	1	RMT.0118	Analysis of on-ground wings contamination effect on take-off performance degradation	1.0
	1	RMT.0120	Helicopter ditching and water impact occupant survivability	1.0
	1	RMT.0127	Pilot compartment view	1.0
	1	RMT.0586	Tyre pressure monitoring system	1.0
	1	RMT.0595	Technical review and regular update of learning objectives and syllabi for commercial licences (IR)	1.0
	2	RMT.0709	Prevention of catastrophic accidents due to rotorcraft hoists issues	1.0
	2	RMT.0711	Reduction in accidents caused by failures of critical rotor and rotor drive components through improved Vibration Health Monitoring Systems	1.0
	3	RMT.0544	Review of Part-147	1.0
	3	RMT.0710	Improvement in the survivability of rotorcraft occupants in the event of a crash	1.0
Efficiency / Proportionality	1	RMT.0134	Rotorcraft AMC revision	1.0
	1	RMT.0508	Regular update of CS-CC	1.0
	1	RMT.0712	Enhancement of the safety assessment processes for rotorcraft designs	1.0
	2	RMT.0730	Regular update of the AMC/GM to Regulation 2019/xxxx (drones in the open and specific category)	1.0
	2	RMT.0037	Regular update of CS-22	1.0
	2	RMT.0128	Regular update of CS-27&29, CS VLR	1.0
	2	RMT.0184	Regular update of CS-E	1.0
	2	RMT.0524	Data link services	1.0
	2	RMT.0605	Regular update of CS-LSA	1.0
	2	RMT.0673	Regular update of CS-25	1.0
	3	RMT.0255	Review of Part-66	1.0
	3	RMT.0591	Regular update of aerodrome rules	1.0
	3	RMT.0687	Regular update of CS 23	1.0
	3	RMT.0688	Regular update of CS SIMD	1.0
	3	RMT.0690	Regular update of CS-STAN	1.0
	4	RMT.0230	Introduction of a regulatory framework for the operation of drones	1.0
	4	RMT.0624	Remote aerodrome ATS	1.0
	4	RMT.0668	Regular update of ATCO licencing rules (IR/AMC/GM)	1.0
	4	RMT.0682	Implementation of the regulatory needs of the SESAR common projects	1.0
TOTAL				28.0



Decisions:

Driver	Baseline Quarter	Task Number	Task Title	Count
Safety	2	RMT.0196	Update of flight simulation training devices requirements	1.0
	2	RMT.0713	Reduction in human factors caused rotorcraft accidents that are attributed to the rotorcraft design	1.0
	3	RMT.0249	Recorders installation and maintenance thereof — certification aspects	1.0
	4	RMT.0127	Pilot compartment view	1.0
	4	RMT.0708	Controlled Flight into Terrain (CFIT) prevention with Helicopter Terrain Avoidance Warning Systems (HTAWS)	1.0
Efficiency / Proportionality	1	RMT.0643	Regular update of AMC-20	1.0
	1	RMT.0673	Regular update of CS-25	1.0
	2	RMT.0509	Regular update of CS-FC	1.0
	2	RMT.0519	Maintaining CS-ACNS	1.0
	2	RMT.0723	Development of AMC/GM for SKPI (ATM performance IR)	1.0
	2	RMT.0031	Regular update of AMC/GM to Part-21	1.0
	3	RMT.0508	Regular update of CS-CC	1.0
	3	RMT.0730	Regular update of the AMC/GM to Regulation 2019/xxxx (drones in the open and specific category)	1.0
	4	RMT.0037	Regular update of CS-22	1.0
	4	RMT.0591	Regular update of aerodrome rules	1.0
	4	RMT.0605	Regular update of CS-LSA	1.0
Level Playing field	3	RMT.0096	Amendments (IR and AMC/GM) in line with the process of granting foreign Part-145 approvals	1.0
TOTAL				17.0



Opinions:

Opinion	Task Number	Driver	Task Title	Baseline Quarter
1	RMT.0251	Safety	Embodiment of safety management system requirements into Commission Regulations (EU) Nos 1321/2014 and 748/2012	2
	RMT.0720		Cybersecurity risks	
2	RMT.0573		Fuel planning and management	
3	RMT.0379		All-weather operations	
4	RMT.0678	Efficiency / Proportionality	Addressing other FCL GA issues (FCL 'Light')	4
5	RMT.0719		Regular update of ATM/ANS rules (IR/AMC/GM) - Part Met	
6	RMT.0731	Level Playing field	New technologies and operational air transport concepts	
7	RMT.0514	Environment	Implementation of the CAEP amendments	
	RMT.0727	Safety	Implementing NBR into Part 21	



Decisions pending IR:

Driver	Baseline Quarter	Task Number	Task Title	Count
Safety	1	RMT.0225	Development of an ageing aircraft structure plan	1.0
	1	RMT.0703	Runway Safety	1.0
	2	RMT.0599	Update of ORO.FC	1.0
	3	RMT.0271	In-flight recording for light aircraft	1.0
	3	RMT.0296	Review of aeroplane performance requirements for CAT operations	1.0
Efficiency / Proportionality	1	RMT.0445	Technical requirements and operational procedures for airspace design, including flight procedure design	1.0
	1	RMT.0464	Requirements for air traffic services	1.0
	1	RMT.0477	Technical requirements and operational procedures for aeronautical information services and aeronautical information management	1.0
	1	RMT.0719	Regular update of ATM/ANS rules (IR/AMC/GM)	1.0
	2	RMT.0654	Revision of the balloon licensing requirements	1.0
	2	RMT.0677	Easier access of General Aviation (GA) pilots to instrument flight rules (IFR) flying	1.0
	2	RMT.0701	Revision of the sailplane licensing requirement	1.0
Level Playing field	2	RMT.0695	Non-ETOPS operations using performance class A aeroplanes with an MOPSC of 19 or less	1
	4	RMT.0485	Requirements for Apron Management Services at aerodromes	1
TOTAL				14.0



Appendix C: New actions, deleted actions and negative priorities overview

New tasks

Type	Strategic Priorities	Driver	Task Number	Task Title
RMT	strategic	Level Playing field	RMT.0731	New air mobility
SPT		Safety	SPT.105	Language proficiency requirements
MST			SPT.106	Preventing, detecting and mitigating fraud cases in Part-147 organisations
	MST.032		Oversight capabilities	
EVT	standard	Efficiency / Proportionality	MST.033	Language proficiency requirements
			EVT.0008	Third Country Operator Regulation
			EVT.0009	European Operators Flight Data Monitoring
			EVT.0010	Helicopter Operations
			EVT.0011	Support programmes, psychological assessment of flight crew etc.
RES	strategic	Environment	EVT.0012	Aerodrome Regulation
			RES.026	Market-based Measures (ETS and CORSIA)
			RES.024	Assessment of Environmental Impacts - Engine emissions
			RES.025	Assessment of Environmental Impacts - Aircraft Noise

Deleted tasks

Task Number	Task Title	Driver	Reason
RMT.0384	Open rotor engine & installation	Level Playing field	<p>This RMT was stopped and will be deleted from the EPAS, as there is no immediate need for an amendment of CS-E, and in order to allow the Agency to focus its resources on more pressing safety issues.</p> <p>Should EASA receive an application for type certification which includes an open rotor design, it will develop a special condition. This special condition will be based on the work already completed or discussed in the context of this RMT.</p> <p>In the mid-term, based on the experiences gathered in first certification projects with engine open rotor design, CS provisions may be developed based on that special condition (using the regular update RMTs).</p>



De-prioritised tasks

Driver	Task Number	Task Title	Domains
Safety	RMT.0116	Real weight and balance of an aircraft	IAW
	RMT.0217	CAMOs' and Part-145 organisations' responsibilities	CAW
	RMT.0486	Alignment with ICAO on ATCO fatigue management provisions	ATM/ANS
	RMT.0706	Update of authority and organisation requirements	SM
	RMT.0722	Provision of aeronautical data by the aerodrome operator	ADR
Efficiency / Proportionality	RMT.0161	Conformity assessment	ATM/ANS
	RMT.0412	Update of the authority and organisation requirements pertaining to Part-FCL	Aircrew
	RMT.0424	Regular update of Part-MED	Aircrew
	RMT.0587	Regular update of regulations regarding pilot training, testing and checking and the related oversight	Aircrew
Level Playing field	RMT.0312	Review of standard weights	OPS
	RMT.0318	Single-engine helicopter operations	OPS
	RMT.0577	Extended diversion time operations	OPS
	RMT.0707	Medical Regulation – Combine and harmonise Part-MED and ATCO MED	Aircrew



Appendix D: European Commission's priorities and EASA's Strategic Plan

EASA is a European Union body, therefore its planning exercise must be aligned to the 10 key priorities defined by the Juncker's Commission at the beginning of its mandate, which are the following:

1. Jobs, Growth and Investment

- ✓ Creating jobs and boosting growth

2. Digital Single Market

- ✓ Bringing down barriers to unlock online opportunities

3. Energy Union and Climate

- ✓ Making energy more secure, affordable and sustainable

4. Internal Market

- ✓ Stronger industry, fewer national trade barriers, stricter business ethics

5. Economic and Monetary Union

- ✓ A deeper and fairer economic and monetary Union

6. EU-US Free Trade

- ✓ Reaching a reasonable and balanced trade agreement

7. Justice and Fundamental Rights

- ✓ Upholding shared values, the rule of law and fundamental rights

8. Migration

- ✓ Towards a European agenda on Migration

9. EU as a Global Actor

- ✓ A stronger global actor

10. Democratic Change

- ✓ Making the EU more democratic

Out of the above priorities for the transport sector, Commissioner Bulc identified the following as key priorities:

- Jobs, Growth and Investment
- Internal Market
- EU as a Global Actor
- Democratic Change

Cascading from these priorities, the Transport Agencies of the EC have been assigned the following objectives:

- Become global leaders
- One-stop shop for all domain-related matters
- Efficiency effort to be made, in particular on the simplification of processes
- Support to the industry
- Strategic alignment with the Juncker Objectives
- Innovative funding schemes

EASA reviewed its planning framework taking into account all the elements above, aiming for a clear cascade from the Commission's vision to its objectives and actions. This led to the development of 6 strategic statements that represent the goals to be achieved. The strategic statements respond to the inputs analysed by EASA as well as the objectives set by Commissioner Bulc.

1. Our ambition is to be the foremost Aviation Safety Agency in the world

(Linked to the Juncker objective: EU as Global Actor)

2. EASA works on safety, in a proactive manner, helped by an enhanced safety analysis capability

(Linked to the Juncker objective: EU as Global Actor)

3. One system based on partners working in an integrated, harmonised and coordinated manner

(Linked to the Juncker objective: Jobs, Growth and Investment)

4. EASA builds on committed, agile and talented staff

(Linked to the Juncker objective: EU as Global Actor)

5. Rules are smart, proportionate and contribute to the competitiveness of the industry



(Linked to the Juncker objective: Jobs, Growth and Investment)

6. EASA will continue to be independent from political or economic influence in all its safety actions
(Linked to the Juncker objective: EU as Global Actor)

Strategic objectives

Each strategic statement has a set of underlying strategic objectives which are further described through the expected outcomes and a brief description of the actions EASA will take to achieve the objectives. The strategic actions will be monitored through specific KPIs that together with the ones used to monitor the recurrent activities of EASA will constitute the 'operational dashboard'.

Strategic statement	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. EASA 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 NAAs 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 simplified, efficient and information is accessible to multiple parties	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 risks.
	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 NAAs throughout Europe.	EASA shall harmonise the training and assessment standards for aviation authority staff through the Common Training Initiative Group (CTIG) and through training course approvals in accordance with Article 92 of EASA's Basic Regulation 2018/1139. EASA shall lead the integration of planning, deployment and support for the 'common pool' of experts.
	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 will also ensure a proper use of funds to sustain the European Aviation Safety System.	EASA shall investigate, report and recommend innovative and proportionate new funding mechanisms.



Strategic statement		Objective	Outcome	Action
4. EASA 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. EASA shall train its staff based on training programmes and prioritised needs assessments.
	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 developing stakeholders' two-way feedback.
5. Rules are smart, proportionate and contribute to the competitiveness of the industry.	5.1	Optimising Rulemaking activities to ensure a consistent, efficient and effective approach	Consultation mechanisms and rules, opinions and guidance that are objective, understandable and responsive to demand	EASA shall monitor the rulemaking process, in order to ensure a consistent, efficient, and effective approach. In addition EASA shall consistently conduct preliminary impact assessments.
	5.2	Assessing implementation of 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. EASA 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 E: 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 report 'Harmonised European Approach to a Performance Based Environment'⁸⁴ EASA identified that effective implementation of SMS is the most important driver for implementing a risk- and performance-based approach⁸⁵.

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 requirements. 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.
- 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.
- 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.

⁸⁴ <https://www.easa.europa.eu/document-library/general-publications/harmonised-european-approach-performance-based-environment>

⁸⁵ 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, which gave birth to [Regulation \(EU\) 2018/1139](#).



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 F: Acronyms and definitions

14 CFR Part 25	US Code of Federal regulations (CFR) Title 14 Part-25 Airworthiness Standards: Transport Category Airplanes
14 CFR Part 33	Code of Federal regulations (CFR) Title 14 Part 33 Airworthiness Standards: Aircraft Engines
4G	fourth generation of wireless mobile telecommunications technology
AAD	advanced anomaly detection
AAS	Airspace Architecture Study – Proposal for the future architecture of the European airspace created by SESAR Joint Undertaking, 2019
ABs	Advisory Bodies
ACARE	Advisory Council for Aviation Research and Innovation in Europe
ACAS	airborne collision avoidance system
ACNS	Airborne Communications, Navigation and Surveillance
ADR	aerodromes
ADS-B	automatic dependent surveillance - broadcast
ADS-C	automatic dependent surveillance - contract
airprox	An AIRPROX is a situation in which, in the opinion of a pilot or air traffic services personnel, the distance between aircraft as well as their relative positions and speed have been such that the safety of the aircraft involved may have been compromised. (ICAO Doc 4444: PANS-ATM).
AMTO	approved maintenance training organisation (Part-147)
EAER	European Aviation Environmental Report
AFCS	automatic flight control system
AFIS	aerodrome flight information service
AI	Artificial Intelligence
AIW	Airworthiness
AltMoC	alternative means of compliance
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)



A-NPA	advance notice of proposed amendment
ANS	air navigation services
ANSP	air navigation service provider
AOC	air operator certificate
AP	accelerated procedure
ARA	authority requirements (in the aircrew Regulation)
ARAC	Aviation Rulemaking Advisory Committee
ASAGA	aeroplane state awareness during go-around
ASAWG	ARAC Airplane-level Safety Analysis Working Group
ASBUs	Aviation System Block Upgrades
ASISP	Aircraft Systems Information Security/Protection
ASR	annual safety review
ATC	air traffic control
ATCO	air traffic controller
ATM	air traffic management
ATM MP	The ATM Master Plan
ATO	approved training organisation
ATPL	air transport pilot licence
ATQP	Alternative and Training Qualification Programme
ATS	air traffic services
AV-CERT	Aviation Computer Emergency Response Team
AWOs	all-weather operations
B777	Boeing 777
BASA	Bilateral Aviation Safety Agreement
BEA	Bureau d'Enquêtes et d'Analyses (French Safety Investigation Authority)
BIS	Best Intervention Strategy
BPL	balloon pilot licence
BR	Basic Regulation - Regulation (EU) 2018/1139 of the European Parliament and of the Council of 4 July 2018 on common rules in the field of civil aviation and establishing a European Union Aviation Safety Agency, and amending Regulations (EC) No 2111/2005, (EC) No 1008/2008, (EU) No 996/2010, (EU) No 376/2014 and Directives 2014/30/EU and 2014/53/EU of the European Parliament and of the Council, and repealing Regulations (EC) No 552/2004 and (EC) No 216/2008 of the European Parliament and of the Council and Council Regulation (EEC) No 3922/91
CA	competent authority



CAA	civil aviation authority
CABA	Certification Authorities for Bilateral Agreements & Certification Procedures
CAEP	Committee on Aviation Environmental Protection (ICAO)
CAEP/10	tenth meeting of the committee on Aviation Environmental Protection
CAG	Collaborative Analysis Group
CAMO	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
CB	Cumulonimbus
CBTA	competency-based training and assessment
CE	Critical Element
CERT-EU	Computer Emergency Response Team
CFIT	controlled flight into terrain
CMT	Certification Management Team
CO ₂	carbon dioxide
CORAL	Certification and ORganisation Approval information hub programme
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
CS-FCD	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
CTIG	Common Training Initiative Group
CVS	combined vision systems
CZ	Czech Republic
DAH	design approval holder
DAT provider	(aeronautical) data provider, indirectly, competent authority
DAT.OR	organisational requirements for the data service providers
DAT.TR	technical requirements for the provision of data services
D-ATIS	Data link-automatic terminal information service
DCL	departure clearance
DLS	data link services
DOA	design organisation approval
DP	direct publication
D-TAXI	delivery of planned and cleared departure routes by datalink
DTO	declared training organisation
EACTB	Engine Aircraft Certification Tracking Board
EACWG	Engine/Aircraft Certification Working Group
EAFDM	European Authorities Coordination Group on Flight Data Monitoring
EAPPRE	European Action Plan for the Prevention of Runway Excursions
EAPPRI	European Action Plan for the Prevention of Runway Incursions
EASA	European Union Aviation Safety Agency
EATMN	European air traffic management network
EBT	evidence-based training
EC	European Commission
ECCSA	European Centre for Cyber Security in Aviation



ECQB	European Central Question Bank
ECR	European Central Repository for accident and incident reports in aviation
ECTRL	Eurocontrol
EDTO	extended diversion time operation
EEA	European Environment Agency
EFB	electronic flight bag
EFVS	enhanced flight vision systems
EHEST	European Helicopter Safety Team
EI	Effective Implementation
ELA	European light aircraft
EMS	emergency medical services
EOFDM	European Operators Flight Data Monitoring forum
EPAS	European Plan for Aviation Safety
ERCS	European Risk Classification Scheme
EREA	European Research Establishments in Aeronautics
ESCP	European Strategic Coordination Platform
ESSI	European Strategic Safety Initiative
ETOPS	extended-range twin-engine operational performance standards
ETS	European Union Emissions Trading System (EU ETS) is the cornerstone of the European Union's policy to tackle climate change and its key tool for cost-effective reduction of emissions of carbon dioxide (CO ₂) and other greenhouse gases (GHG) in the power, aviation and industrial sectors. The EU ETS works on the 'cap and trade' principle and is a market-based measure where participants are required to monitor and report their emissions and surrender sufficient emission allowances to cover their reported emissions in each year.
ETSO	European technical standard order
ETSOA	European technical standard order (authorisation)
EU	European Union
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
FDD	fault detection & diagnosis
FDM	flight data monitoring
FEM	flight examiner manual
FIS	flight information services
F-NI	fire - non-impact
FRM	fatigue risk management
FTC	fault tolerant control
FSTD	flight synthetic training devices
FTE	flight test engineer
FTL	flight time limitation
FTS	flight time specifications
FW	fixed wing
GA	general aviation
GA.COM	General Aviation Committee (EASA Advisory Body)
GANP	Global Air Navigation Plan
GASP	Global Aviation Safety Plan (ICAO)
GBAS	Ground-based augmentation system
GCOL	ground collision
GH	Groundhandling
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 manufacturers, operators, training organisations, maintenance organisations
HEMS	helicopter emergency medical services
HF	human factors
HF CAG	Human Factors Collaborative Analysis Group
HOSSWG	Helicopter Offshore Safety and Survival Working Group
HP	human performance
HPA	high-performance aircraft
HTAWS	helicopter terrain avoidance warning systems



HUD	head-up displays
HUMS	health and usage monitoring systems
IAW	initial airworthiness
IATA	International Air Transport Association
ICA	instructions for Continued Airworthiness
ICAO	International Civil Aviation Organization
ICAO SL	ICAO State letter
IFE	in-flight entertainment
IFR	instrument flight rules
IHST	International Helicopter Safety Team
ILS	instrument landing system
IMA	Integrated modular avionics
IMC	instrument meteorological conditions
IMI	initial maintenance inspection
IR	(Commission) implementing rule
IR	Instrument rating
JAA	Joint Aviation Authorities
JAR-25	joint aviation requirements
JARUS	Joint Authorities for Rulemaking on Unmanned Systems
KPI	key performance indicator
KRE	key risk element
LAFI	light aircraft flight instructor
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
LO	learning objective
LOCART	loss of control avoidance and recovery training
LOC-I	loss of control - inflight
LOI	level of involvement
LPR	language proficiency requirements
LVO	low-visibility operation
MA	medical assessor
MB	Management Board



MAC	mid-air collision
MCF	maintenance check flights
MET	meteorology/meteorologic
MET provider	Meteorological service provider, indirectly, competent authority
MGB	main gearbox
MH17	Malaysia Airlines flight 17
MMEL	master minimum equipment list
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' task
MTO	maintenance training organisation
MTOM	maximum take-off mass
NCC	non-commercial air operations with complex motor-powered aircraft*
NCO	non-commercial air operations with other-than-complex motor-powered aircraft*
<p>* The term 'complex motor-powered aircraft' is no longer defined in Regulation (EU) 2018/1139. Article 140 (2) of that regulation provides that no later than 12 September 2023 implementing rules adopted under Regulations (EC) 216/2008 and 552/2004 shall be adapted to the new Basic Regulation. Until then deleted or altered definitions will continue to apply.</p>	
NDB	non-directional beacon
NextGen	next generation
NO	Norway
NoAs	Network of Analysts
NPA	notice of proposed amendment
nvPM	non-volatile Particulate Matter
OEM	original equipment manufacturer
OJ	Official Journal of the European Union
OPS	air operations
OpSpecs	operations specifications
ORO.FC	organisation requirements for air operations - flight crew
PANS	procedures for air navigation services (ICAO)



Part-145	maintenance organisation approvals
Part-147	training organisations requirements
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 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-ORA	Organisation requirements for aircrew
Part-ORO	Organisation requirements for air operations
Part-SPO	specialised operations
pax	passengers
PBN	performance-based navigation
PBAOM	performance based aerodrome operating minima
PBR	performance-based regulation
PCP	pilot common project (SESAR)
PED	personal electronic device
PIS	public interest sites
PM CPDLC	protected mode controller–pilot data link communication
POA	production organisation approval
PoC	proof of concept
PPL	private pilot license
Q	Quarter
RASG	Regional Aviation Safety Group
RASP	Regional Aviation Safety Plan
RAMP	aerodrome ramp
RE	runway excursion
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals – EC Directive 1907/2006
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)
RMT	rulemaking task
RNAV	area navigation
R.COM	Rotorcraft Committee (Advisory Body)
RSOO	Regional Safety Oversight Organisation
RT	radio telephony
SA CAT I	Special authorisation CAT I
SAR	Standardisation Annual Report
SARPS	Standards and Recommended Practices (ICAO)
SATCOM	Satellite Communications
SBAS	satellite-based augmentation system
SCF-NP	system component failure (non-powerplant)
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-engine turbine
SIA	safety issue assessment
SHARP	Safety Helmet Assessment and Rating Programme
SJU	SESAR Joint Undertaking
SLD	super-cooled large droplets
SMICG	Safety Management International Collaboration Group
SMS	safety management system
SM TeB	Safety Management Technical Body
SOPs	standard operating procedures
SORA	specific operation risk assessment



SPAS	State Plan for Aviation Safety
SPD	Single Programming Document
SPI	safety performance indicator
SPL	sailplane pilot license
SPN	Safety Promotion Network
SPO	specialised operations
SPT	safety promotion task
SR	safety recommendation
SRIA	Strategic Research and Innovation Agenda
SRM	safety risk management
SSIP	supplemental structural inspection programme
SSP	state safety programme
SSR	secondary surveillance radar (SSR)
ST	standard (rulemaking) procedure
STC	supplemental type certificate
STD	synthetic training device
Subparts J & K of Part-FCL	instructors and examiners
SVGS	synthetic vision guidance systems
SVS	synthetic vision systems
SWI	survivable water impact
SWIM	system-wide information management
TAWS	terrain awareness warning system
TBD	to be determined
TBO	time between overhaul
TC	type certificate
TCO	third-country operator
TCAS	traffic collision avoidance system
TCCA	Transport Canada Civil Aviation
TeB	Member State technical body
TeC	Stakeholder technical body
TEM	threat and error management
TMA	terminal manoeuvring area
TMG	touring motor glider



TO	training organisation
ToR	terms of reference
TSO	technical standard order
UAS	unmanned aircraft systems
UDPP	user-driven prioritisation process
UK	United Kingdom
UNCs	Undertaking Non-Compliances
UPRT	upset prevention and recovery training
USOAP	Universal Safety Oversight Audit Programme
UTM	unmanned traffic management
VFR	visual flight rules
VHF	very high frequency
VHM	vibration health monitoring
VLA	very light aeroplane
VLD	very large-scale demonstration
VOR	VHF omnidirectional range
WFD	widespread fatigue damage
WIDDCWG	Water Impact, Ditching Design and Crashworthiness Working Group
WP	working paper
WPGR	Report of the Wise Person Group on the Future of the Single European Sky, April 2019



Appendix G: Working groups and bodies having a role in EPAS

ACARE Working Group 'Safety – Security' (WG4)

[Web Link](#)

The Advisory Council for Aeronautics Research in Europe (ACARE) serves as the European technology platform for the aviation and air transport sectors.

ACARE gathers the main actors involved in aviation research, i.e. industry, research centres, universities, public authorities. The ACARE Strategic Research and Innovation Agenda (SRIA) provides the strategic roadmap for aviation research, development and innovation developed by ACARE that accounts for both evolutionary and revolutionary approaches. It aims to provide a guide to future actions in public and private funding programmes to ensure that research is adequately supported and funded.

As aviation is marked by the high complexity of its products and their components which are subject to very long R&D cycles (up to 20 years) and is technology and capital intensive, research efforts need to be based on a long-term programming approach.

ACARE WG4 maintains the list of research actions dedicated to safety and security identified to meet the long-term objectives of EU Aviation in those fields.

Advisory Bodies

[Web Link](#)

The **Advisory Bodies (ABs)** provide EASA with a forum for consultation of interested parties and national authorities. to the main purpose of the ABs is to :

- facilitate the discussion of strategic/technical priorities as well as controversial or horizontal issues at early Agency programming stage,
- provide EASA with a forum to consult on strategic safety priorities,

When the proposed actions affect the MS, the purpose of the ABs is to:

- provide advice to EASA on content, priorities and execution of its safety programmes,
- provide advice on ongoing efforts to improve EPAS, rulemaking, standardisation, safety promotion, and research programming process.

The following ABs are relevant for the EPAS:

Member States Technical Bodies (TeBs): The TeBs encompass the scope of the TAGs and Standardisation meetings and enlarge their scope to also include safety promotion.

Stakeholder Technical Bodies (TeCs): The TeCs replaces the sub-committees of the Safety Standards Consultative Committee (SSCC). 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 body advising on strategic developments. It encompasses and extends the scope of RAG, EASAC and EASp Summit.

Stakeholder Advisory Body (SAB): The SAB replaced the Safety Standards Consultative Committee (SSCC) and the EASA Advisory Board (EAB). Within the SRM process is responsible for advising on strategic developments.

The **Safety Management TeB (SM TeB)** is particularly relevant for the EPAS as it is the forum to

- advise MSs with the implementation and maintenance of their SSPs and SPASs by exchanging information and addressing implementation issues;
- provide input and feedback on the implementation of the EPAS in regards to systemic issues;
- provide recommendations to EASA/EC on further actions required to support SSP / EPAS implementation;
- address issues stemming from the Standardisation SYS inspections; and
- discuss and provide recommendations where action is required on any safety management implementation issues.

ARAC/ARC

Rulemaking deliberations often start years before a formal rulemaking process is launched. Sometimes the FAA finds it beneficial to get industry and the public's advice and recommendations prior to starting rulemaking to prepare and facilitate the development of the draft regulations. There are two different types of consultative bodies FAA can employ for this purpose:



- The **Aviation Rulemaking Advisory Committee (ARAC)** standing committee, which aims to build a consensus amongst aviation stakeholders on certain issues, which the FAA in its subsequent rulemaking process may (or may not) consider.
- The **Aviation Rulemaking Committee (ARC)** is formed on ad hoc basis for specific purposes with limited duration. It is essentially a group of aviation specialist who are selected to evaluate issues and provide advice and recommendations to the FAA.

Both Committees provide FAA with information, advice and recommendations. Both mechanisms hold the benefit that they allow to take advantage of industry technical expertise and experience, they help resolving controversies in an open forum by broadening public and industry participation in the process, and they may resolve issues before the formal rulemaking process begins.

EASA is a non-voting member of the ARAC, and it is invited and decides on a case by case basis whether to join specific task groups of these committees.

CAG

The **Collaborative Analysis Groups (CAGs)** enable EASA to work with both the EASA MSs and industry on the tasks of identifying Safety Issues, Safety Risk Assessment and the monitoring of Safety Performance.

The CAGs produce the following outputs:

- Safety Risk Portfolios per aviation domain,
- Safety Issue Assessments (SIA),
- Best Intervention Strategy (BIS)

These outputs can stem in action proposals for EPAS.

The CAGs provide a mechanism for external engagement with industry and the MS' 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 operate at a domain level and have been established for the following ones: CAT Aeroplanes, offshore helicopters, Balloons, Human Factors, ATM, Aerodrome/groundhandling, HEMS and GA aeroplanes.

CTIG

The **Common Training Initiative Group (CTIG)**, is composed of training managers from CAs. The CTIG plays a crucial role in the implementation of the new EASA aviation training strategy. The Group is mandated to harmonise training and assessment standards for aviation inspectors, with the aim to provide for highly qualified and sufficiently trained authority inspectors across Europe.

EACWG

Engine/Aircraft Certification Working Group (EACWG), is an initiative of FAA and EASA to streamline the overall certification process by improving engine/aircraft interface certification and standard-setting practices. The EACWG aims at reducing unnecessary burden in the certification process and better address the interdependencies between aircraft and engine certification programmes of transport category aircraft with turbine engines.

EAFDM

[Web Link](#)

EASA and CAs 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 objectives of contributing to:

- improving the implementation of FDM programmes and to making them more safety effective;
- EASA's objective of a high and uniform level of safety in Europe;
- a better overview of air transport operational safety in Europe for EASA and CAs.

Among the topics covered by EAFDM are:

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

EOFDM

[Web Link](#)

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

- facilitate the implementation of Flight Data Monitoring (FDM) by Operators,



- help operators draw the maximum safety benefits from an FDM Programme.

The EOFDM steering groups manages its work with a series of working groups. Depending on the group the following organisations may participate: Operators, Operator associations, Flight-crew associations, Aircraft Manufacturers, Flight-data-monitoring software vendors, Research and educational institutions, Regulators (national aviation authorities and international aviation regulators) and EASA. Non-European organisations are encouraged to join this safety initiative.

ESPN-R

[Web Link](#)

The **European Safety Promotion Network Rotorcraft (ESPN-R)** is a mixed industry-authorities team established by the Rotorcraft Sectorial Committee (RSC) in January 2017.

The ESPN-R develops, disseminates and evaluates Safety Promotion (SP) material and actions on a voluntary basis in support of the RSC, of EASA and of the industry. The ESPN-R can also contribute to Safety Promotion campaigns and ensuring that Safety Promotion material reaches the target audience.

The ESPN-R contributes to the implementation of rotorcraft Safety Promotion actions from EPAS, rotorcraft section, and can suggest Safety Promotion actions for inclusion in EPAS or other considerations. Scope includes but is not limited to operations and SMS, training and emerging safety-enhancing technologies.

Members come from the former European Helicopter Safety Team (HEST) community and the former European Helicopter Safety Implementation Team (EHSIT), the implementation team of the HEST. The ESPN-R leverages the former EHSIT competences for development, dissemination and evaluation of Safety Promotion material and actions.

Eurocontrol Agency Research Team (ART)

[Web Link](#)

The Agency Research Team (ART) is an advisory body of the Eurocontrol Agency. It disseminates research topics, projects and results with relevance for ATM amongst its members.

NoAs

The **Network of Analysts** was established in 2011 to provide a collaborative framework for the EASA MSs to work together on safety analysis activities. The NoAs was formalised within European Regulation (EU) 376/2014. It has the purpose (at Union level) of:

- reporting, analysing and following -up of occurrences in civil aviation using the European Central Repository of mandatory occurrences,
- assisting States in assessing their priorities for the State Safety Programmes (SSP),
- supporting both EPAS and to assist States in assessing their priorities for the State Safety Programmes (SSP).
- working 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)** was created in February 2009. It is a joint collaboration activity between aviation regulatory authorities in order to

- promote a common understanding and collaboration of SMS / State Safety Programme (SSP) principles and requirements in different countries, facilitating their implementation across the international aviation community
- share lessons learned
- encourage the progression of a harmonised SMS.
- collaborate with international organisations such as ICAO and civil aviation authorities that have implemented or are implementing SSP/SMS

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, TCCA, EASA, DGAC France, AESA Spain, ENAC Italy, FOCA Switzerland, the Irish Aviation Authority, Trafi Finland, UK CAA, CASA of Australia, CAA of the Netherlands, JCAB of Japan, CAA of New Zealand, ANAC of Brazil, United Arab Emirates General Civil Aviation Authority, Civil Aviation Authority of Singapore and Civil Aviation Department of Hong Kong. The International Civil Aviation Organization (ICAO) is an observer 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 SPN is to enhance aviation safety in Europe by providing a framework for the collaboration of safety promotion activity throughout the MSs.

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.

The Network activities will include coordinating, cooperating and collaboration with respect to the design, development, publication, translation and dissemination of safety information. The Network will also explore common tools and develop means to measure the effectiveness of Safety Promotion products that have been disseminated.



Appendix H: List of EASA Departments owning EPAS actions

Strategy & Safety Management Directorate	
SM.0.1	Strategy & Safety Management Director's Office
SM.1	Safety Intelligence & Performance Department
SM.2	Strategy & Programmes Department
SM.3	International Cooperation Department
Certification Directorate	
CT.1	Large Aeroplanes Department
CT.2	General Aviation Department
CT.3	Vertical Take-Off and Landing (VTOL) Department
CT.4	Environment & Propulsion Systems Department
CT.5	Certification Strategy & Programming Department
CT.6	Design Organisations & ETSO Department
Flight Standards Directorate	
FS.1	Maintenance & Production Department
FS.2	Air Operations Department
FS.3	Aircrew & Medical Department
FS.4	ATM/ANS & Aerodromes Department



Appendix I: Volume II – new structure

EPAS 2019-2023		EPAS 2020-2024	
§	Title	§	Title
5.1.1	Safety management	5.1	Systemic safety - Safety management
5.1.2	Human factors and competence of personnel	5.2	Systemic Safety - Human Factors and Human performance
5.1.2	Human factors and competence of personnel	5.3	Systemic Safety - Competence of personnel
5.1.3	Aircraft tracking, rescue operations and accident investigation	5.4	Systemic Safety - Aircraft tracking, rescue operations and accident investigation
5.1.4	Impact of security on safety	5.5	Systemic Safety - Impact of security on safety
5.1.5	Standardisation and oversight	5.6	Systemic Safety – Oversight and Standardisation
5.2.1	Aircraft upset in flight (LOC-I)	6.1	Flight operations - CAT by Aeroplane & NCC (Business)
5.2.2	Runway safety	6.1	Flight operations - CAT by Aeroplane & NCC (Business)
5.2.3	Airborne conflict (Mid-air collisions)	6.1	Flight operations - CAT by Aeroplane & NCC (Business)
5.2.4	Design and maintenance improvements	9	Design and Production
5.2.4	Design and maintenance improvements	10	Maintenance and continuing airworthiness management
5.2.5	Ground safety (ADR)	12	Aerodromes
5.2.5	Ground safety (Groundhandling)	13	Groundhandling
5.2.6	Terrain collision (CAT)	6.1	Flight operations - CAT by Aeroplane & NCC (Business)
5.2.7	Aircraft environment (CAT aeroplanes)	6.1	Flight operations - CAT by Aeroplane & NCC (Business)
5.2.8	Miscellaneous (CAT)	6.1	Flight operations - CAT by Aeroplane & NCC (Business)
5.3.0	Rotorcraft operations	7	Rotorcraft
5.4.1	Systemic enablers (GA)	8.1.1	General Aviation - Systemic enablers
5.4.2	Staying in control (GA)	8.1.2	General Aviation - Staying in control
5.4.3	Coping with weather (GA - NCO)	8.1.3	General Aviation - Coping with weather
5.4.4	Preventing mid-air collisions (GA)	8.1.4	General Aviation - Preventing mid-air collisions
5.4.5	Managing the flight (GA)	8.1.5	General Aviation - Managing the flight
5.5.1	Civil drones (Unmanned Aircraft Systems)	14	Unmanned Aircraft Systems
5.5.2	New business models (new technologies and concepts)	15.1	New business models
5.5.3	New products, systems, technologies and operations	15.2	New products, systems, technologies and operations
5.5.4	SESAR deployment	15.3	SESAR deployment
5.5.5	All Weather Operations	15.4	All Weather Operations
6.1	Climate change and air quality	16.1	Noise , local air quality and climate change standards
6.2	Aircraft noise	16.1	Noise , local air quality and climate change standards
7.1	Aerodrome design and operations	12	Aerodromes
7.2	Evaluations	n/a	reallocated as per operational domain
7.3	ATM/ANS	11	Air Traffic Management / Air Navigation Services
7.4	Airlines (AOC holders in CAT)	6.1	Flight operations - CAT by Aeroplane & NCC (Business)
7.5	General Aviation	8.2	General Aviation - Efficiency/proportionality
7.5	General Aviation (Balloons and sailplanes)	8.2	General Aviation - Efficiency/proportionality
7.6	Manufacturers (Design and Production)	9	Design and Production
7.7	Rotorcraft operations	7	Rotorcraft
7.8	Specialised operations	6.2	Flight operations - SPO aeroplane
7.9	Maintenance training organisations	5.3	Systemic Safety - Competence of personnel



EPAS 2019-2023		EPAS 2020-2024	
§	Title	§	Title
7.10	Maintenance organisations	10	Maintenance and continuing airworthiness management
7.11	Regular updates	n/a	reallocated as per operational domain
8.1	Aerodromes operators	12	Aerodromes
8.2	Airlines (AOC holders)	6.1.2	Flight operations - Level playing field
8.3	Manufacturers (Design and Production)	9	Design and Production
8.4	Operators other than airlines (AOC holders): e.g. air taxi, EMS	n/a	all FTL tasks moved to 5.2 - remaining ones reallocated per operational domain
8.5	Maintenance organisations – CAMOs	10	Maintenance and Continuing Airworthiness Management
8.6	Medical requirements	5.2	Systemic Safety - Human Factors and Human performance



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'RMT.0278'	124
'RMT.0281'	95
'RMT.0287'	80
'RMT.0294'	103
'RMT.0296'	114
'RMT.0300'	207
'RMT.0312'	124
'RMT.0318'	134
'RMT.0325'	135
'RMT.0348'	173
'RMT.0352'	128
'RMT.0376'	116
'RMT.0379'	216
'RMT.0384'	174

'RMT.0392'	128
'RMT.0393'	183
'RMT.0397'	159
'RMT.0400'	104
'RMT.0412'	86
'RMT.0414'	207
'RMT.0424'	80
'RMT.0445'	188
'RMT.0453'	174
'RMT.0457'	159
'RMT.0464'	189
'RMT.0469'	189
'RMT.0476'	190
'RMT.0477'	190
'RMT.0485'	195
'RMT.0486'	79
'RMT.0492'	77
'RMT.0493'	78
'RMT.0494'	78
'RMT.0495'	78
'RMT.0499'	160
'RMT.0502'	160
'RMT.0503'	161
'RMT.0508'	161
'RMT.0509'	86
'RMT.0513'	218
'RMT.0514'	219
'RMT.0516'	121
'RMT.0519'	191
'RMT.0521'	184
'RMT.0524'	211
'RMT.0541'	95
'RMT.0544'	96
'RMT.0547'	183
'RMT.0555'	184
'RMT.0560'	219
'RMT.0561'	175
'RMT.0570'	162
'RMT.0573'	125
'RMT.0577'	125
'RMT.0581'	87
'RMT.0586'	175
'RMT.0587'	87
'RMT.0588'	185
'RMT.0589'	81
'RMT.0591'	195
'RMT.0595'	88
'RMT.0599'	88
'RMT.0601'	125
'RMT.0605'	162
'RMT.0624'	212
'RMT.0638'	196
'RMT.0639'	213
'RMT.0643'	163
'RMT.0648'	106
'RMT.0654'	89
'RMT.0668'	97
'RMT.0671'	176
'RMT.0673'	163
'RMT.0677'	88

'RMT.0678'	90
'RMT.0679'	213
'RMT.0681'	72
'RMT.0682'	214
'RMT.0684'	163
'RMT.0686'	176
'RMT.0687'	164
'RMT.0688'	164
'RMT.0689'	171
'RMT.0690'	176
'RMT.0692'	191
'RMT.0695'	176
'RMT.0698'	145
'RMT.0700'	81
'RMT.0701'	91
'RMT.0703'	196
'RMT.0705'	197
'RMT.0706'	72
'RMT.0707'	82
'RMT.0708'	135
'RMT.0709'	165
'RMT.0710'	165
'RMT.0711'	166
'RMT.0712'	167
'RMT.0713'	168
'RMT.0714'	169
'RMT.0719'	192
'RMT.0720'	107
'RMT.0721'	129
'RMT.0722'	197
'RMT.0723'	192
'RMT.0724'	169
'RMT.0725'	170
'RMT.0726'	170
'RMT.0727'	171
'RMT.0728'	200
'RMT.0729'	203
'RMT.0730'	203
'RMT.0731'	211

Safety Promotion Tasks

'SPT.012'	91
'SPT.057'	73
'SPT.071'	108
'SPT.076'	122
'SPT.077'	122
'SPT.078'	108
'SPT.082'	136
'SPT.083'	145
'SPT.084'	145
'SPT.087'	147
'SPT.088'	148
'SPT.091'	204
'SPT.092'	137
'SPT.093'	137
'SPT.094'	137
'SPT.095'	138



'SPT.096'	138	'SPT.102'	198
'SPT.097'	126	'SPT.103'	193
'SPT.098'	138	'SPT.104'	185
'SPT.099'	139	'SPT.105'	99
'SPT.100'	109	'SPT.106'	96
'SPT.101'	122		