

THE EUROPEAN PLAN for AVIATION SAFETY

(EPAS 2020-2024)



Part 2 EPAS 2020-2024

6. Flight operations — aeroplanes

This chapter groups all actions in the area of CAT by aeroplane (airlines and air taxi, passengers/cargo, aeroplanes of all mass categories), non commercial operations with complex motor-powered aircraft (NCC), as well as specialised operations (SPO) involving aeroplanes of all mass categories.

6.1 CAT & NCC operations

The operational domain CAT and NCC by aeroplane remains the greatest focus of the EASA safety activities. For CAT by large aeroplane and NCC, sufficient safety and exposure data is available in these domains to enable the definition of specific safety performance metrics (see **Section 4.2**).

6.1.1 Safety

This section includes a significant number of EPAS actions and therefore it is further subdivided to group actions per key risk area (KRA – see **Sections 6.1.1.1**to **6.1.1.5**) for which mitigation actions are included in the current EPAS. **Section 6.1.1.6** includes the safety actions that do not relate to any of the KRAs in particular.

The top three KRAs identified in the ASR 2019 for CAT aeroplane and NCC operations are listed below (refer to ASR 2019 Figure 17 and Table 7).

CAT & NCC operations by aeroplane			
KRA 1	KRA 2	KRA 3	
Aircraft upset	Runway excursions	Security	

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 key risk area with the highest cumulative risk score (cf. ASR 2019) related to 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 intended 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 SRP for CAT by aeroplane & NCC.





How we want to achieve it: actions

SPT.109	Raise of awareness of the risk posed by icing in-flight and potential mitigations		
Safety	Help to mitigate the risk of accidents and other occurrences due to icing in-flight by raising awareness of this safety Issue. This should include information on the situations where icing in-flight may occur and how flight crew can recognise some of the factors that might lead to accidents. Information should also be provided on the measures that operators and flight crew specifically can take to mitigate the risk of an accident occurring.		
Status	New		
Reference(s)	GASP SEIs (industry) – Mitigate contributing factors to LOC-I accidents and incidents		
Dependencies			
Affected stakeh	Affected stakeholders Aircraft operators, pilots, groundhandling service providers		
Owner	EASA SM.1 Safety Intelligence & Performance Department		
	EXPECTED OUTPUT		
Deliverable(s)	Deliverable(s) Timeline		
Promotional Web Material and Social Media 2020			
	CHANGES SINCE LAST EDITION		
n/a			

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

RES.010	Ice crystal detection
RES.017	Icing hazard linked to super cooled large droplet (SLD)

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 a strategic priority.

Runway excursion covers materialised runway excursions, both at high and low speed, and occurrences where the flight crew had difficulties in 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 by aeroplane & NCC operations .

Runway incursion refers to the incorrect presence of an aircraft, vehicle or person on an active runway or in its areas of protection, which can potentially lead to runway collision as the most credible accident outcome. Manifested or potential 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 Aerodromes and Groundhandling as well as the ATM and ANS SRPs (see ASR 2019 Table 25 and Table 30 respectively).

How we want to achieve it: actions

RMT.0296	Review of	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)	(s) n/a				
Dependencies					
Affected stake	Affected stakeholders Aeroplane Operators, POA holders, CAs				
Owner		EASA FS.2	Air Operations	Department	
Priority	Yes	RM Procedure	Standard	Harmonisation	Yes
			PLANNING MILESTO	NES	
SubT ToR		NPA	Opinion	Commission IR	Decision
RMT.0 (OPS.0 09/06,	08(A))	2016-11 2019-02 8(A)) 30/09/2016 22/02/2019 2020 Q3 2020 Q3			
	CHANGES SINCE LAST EDITION				
n/a					





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

RMT.0570	Reduction of runway excursions	
The full description for this action is included in Chapter 9		
RMT.0703	Runway safety	
RMT.0722	Provision of aeronautical data by the aerodrome 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 Member States, this key risk area has been raised by a number of Member States 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 SRP for CAT by aeroplane & NCC operations (see ASR 2019, Table 7).

How we want to achieve it: actions

Information on BIS updated.

RMT.0376		sion and traffic awar 19 passengers	eness systems for a	ircraft with MTOMs less th	nan 5 700 kg or carrying
Safety	assessme	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, as well as other systems intended to improve the pilot's situational awareness.			
	Note: The BIS 'Airborne collision risk' is currently being developed to propose actions to mitigate this safety risk (for more information, refer to the overview of new and ongoing BIS in Appendix D. It includes an assessment of this RMT.			•	
Status	Subject to	o BIS			
Reference(s)	n/a				
Dependencies					
Affected stake	holders	AOC holders, GA,	ANSPs		
Owner		EASA FS.4	ATM/ANS & Ae	rodromes Department	
Priority	Yes	RM Procedure	Standard	Harmonisation	No
	PLANNING MILESTONES				
SubT ToR		NPA	Opinion	Commission IR	Decision
tbd		tbd	tbd	tbd	tbd
	CHANGES SINCE LAST EDITION				

MST.024

Loss of separation between civil and military aircraft

Safety

Several EU Member States 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 Member States:

- endorse and fully apply ICAO 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;
- support the development and harmonisation of 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 Member States 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, which is expected to be replaced by ICAO Doc 10088

Dependencies MST.001

Affected stakeholders CAT

Owner Member States

	EXPECTED OUTPUT
Deliverable(s)	Timeline
Report	2020
	CHANGES SINCE LAST EDITION
n/a	

Implementation of SESAR solutions aiming to reduce the risk of mid-air collision en-route and in terminal manoeuvring areas

Safety HF

MST.030

Member States should evaluate together with ANSPs delegated to provide services in their airspace the needs for implementing SESAR solutions related to enhanced Short Term Conflict Alerts (STCA)/enhanced safety nets⁹⁵ such as solutions #60 & #69. These SESAR solutions, designed to improve safety, should be implemented as far as it is feasible.

Status Ongoing

Reference(s) ATM Master Plan Level 3 – Plan (2019): ATC02.9 – Enhanced STCA for TMAs

Dependencies

Affected stakeholders ANSP

Owner Member States

	EXPECTED OUTPUT
Deliverable(s)	Timeline
SPAS established	2020

CHANGES SINCE LAST EDITION

ATM Master Plan reference updated.

⁹⁵ More details about the related research projects can be found in https://www.atmmasterplan.eu/data/sesar_solutions.



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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 controlled flight into terrain (CFIT).

How we monitor improvement

Continuous monitoring of safety issues identified in the SRP for CAT by aeroplane & NCC operations (see ASR 2019, Table 7).

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.



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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. Aircraft depressurisations and post-crash fire are also addressed in this section, which looks at situations where the internal environment of the aircraft may become hazardous or even unsurvivable.

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 Member States' operators in the last years related to fires, there have been occurrences in other parts of the world that make it an area of concern within EPAS.

The issue of cabin air quality (CAQ) on board commercial aircraft is the subject of several investigations and research projects worldwide regarding the health and safety implications for crews and passengers.

Although representing a small proportion of CAQ events, contaminations by oil or aircraft fluids and their by-products are those that raise the utmost concerns. For this reason, the EC (DG MOVE) and EASA have launched a dedicated research project focusing on oil-related contamination. Other types of events, such as smell in cabin, are beyond the scope of such research.

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 SRP for CAT by aeroplane & NCC operations (see ASR 2019, Table 7).

How we want to achieve it: actions

RMT.0070 Additional airworthiness specifications for operations: fire hazard in Class D cargo compartments

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



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RES.003 Research study on cabin and cockpit air quality

Investigation of cabin air contamination events induced by engine oil entering the bleed air system

Safety and their health implication. The work aims at demonstrating, on the basis of a sound scientific

and their 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) https://www.facts.aero/

Dependencies

Affected stakeholders CAT

Owner EASA SM.0.1 Strategy & Safety Management Director's Office

and CT Certification Directorate

	PLANNING MILESTO	NES	
Starting date	Interim Report	Final Report	
2017	n/a	2021	
CHANGES SINCE LAST EDITION			

Adjustment of the task description; project planning.

RES.004 Transport of lithium batteries by air

Safety

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.

This would include, at least:

- 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; and
- conclusions, recommendations and provision of technical assistance to the contracting authority.

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

Status Ongoing

Reference(s) n/a

Dependencies

Affected stakeholders CAT

Owner EASA SM.0.1 Strategy & Safety Management Director's Office

PLANNING MILESTONES				
Starting date	Interim Report	Final Report		
2017	n/a	2020		
	CHANGES SINCE LAST E	DITION		
n/a				



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RES.016 Fire risks caused by portable electronic devices on board aircraft

Research work aimed at the full characterisation of the fire risks associated with the transport of

Safety large portable electronic devices (PEDs) in aircraft, notably of those stored in the cargo

large portable electronic devices (PEDs) 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.

Status Ongoing

Reference(s) n/a

Dependencies

Affected stakeholders CAT

Owner EASA SM.0.1 Strategy & Safety Management Director's Office

PLANNING MILESTONES

Starting date Interim Report Final Report

2020 n/a 2021

CHANGES SINCE LAST EDITION

Updating task title and description; project planning

RES.030 Cabin Air Quality – Chronic exposure to contamination events

Investigation of the potential health risks that might evolve from long-term exposure – notably for

cockpit and cabin crews - to low dose cabin air contamination events and their possible mitigations;

this should encompass the collection and analysis of combined samples of contaminants cocktails and ultra-fine particles and the evaluation of their effects by comparison with epidemiological data; aggregation with currently on-going and past research work towards a more comprehensive, robust and validated picture between levels of contamination of cabin air and potential health impacts.

Status New. Not started.

Reference(s) n/a

Dependencies

Safety

Affected stakeholders CAT operators and aircrew

Owner EASA SM.0.1 Strategy & Safety Management Director's Office

and CT Certification Directorate

PLANNING MILESTONES

Starting date Interim Report Final Report

2021 2024

CHANGES SINCE LAST EDITION

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 & NCC operations. The need for having such a category was driven by the constant development of EPAS towards new safety areas. For example, standardisation in the OPS domain will continue to focus on the effective implementation of operators' flight time specifications schemes, particularly those including provisions subject to fatigue risk management. A dedicated MST action (MST.034) has been included, following discussions and agreement by the Air Ops TeB.

What we want to achieve

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

How we monitor improvement

The EASA ABs regularly provide feedback on the effectiveness of the activities.

How we want to achieve it: actions

MST.003	Member States should maintain a regu data monitoring programmes	ar dialogue with their national aircraft operators on flight
Safety	 objectives of: promoting the operational safety k subject matter experts, and encouraging operators to make us similar safety initiatives. 	gue with their operators on FDM programmes, with the senefits of FDM and the exchange of experience between se of good-practice documents produced by EOFDM and anal Aviation Authorities on setting up a national flight data b) is offering guidance for this purpose.
Status	Ongoing	
Reference(s)	n/a	
Dependencies		
Affected stakeh	olders AOC holders (CAT)	
Owner	Member States	
	EXPECTED	ОИТРИТ
Deliverable(s)	Deliverable(s) Timeline	
Report on activities performed to promote FDM Continuous		
	CHANGES SINC	LAST EDITION
n/a		



Safety

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MST.019 Better understanding of operators' governance structure

CAs to have a thorough understanding of operators' governance structure. This should in particular apply in the area of group operations.

Aspects to be considered include:

- extensive use of outsourcing,
- the influence of financial stakeholders, and
- controlling management personnel, where such personnel are located outside the scope of approval.

Note: The Agency will support this MST by providing guidance on how to effectively oversee group operations.

Status Ongoing

Reference(s) n/a

Dependencies

Affected stakeholders AOC holders (CAT)

Owner Member States

	EXPECTED OUTPUT	
Deliverable(s)	Timeline	
Research/guidance material	2020	
CHANGES SINCE LAST EDITION		

CHANGES SINCE LAST EDITIO

n/a

MST.034 Oversight capabilities/focus area: flight time specification schemes

Safety Member States to ensure that the CAs possess the required competence to approve and oversee

the operators' flight time specification schemes; in particular, those including fatigue risk management. CAs should focus on the verification of effective implementation of processes established to meet operators' responsibilities requirements and to ensure an adequate management of fatigue risks. CAs should consider the latter when performing audits of the

operator's management system.

Status New

Reference(s) GASP SEI-5 — Qualified technical personnel to support effective safety oversight

Dependencies

Affected stakeholders AOC holders (CAT)

Owner Member States

EXPECTED OUTPUT				
Deliverable(s)	Timeline			
Report on actions implemented to foster capabilities 2020				
CHANCES SINCE LAST EDITION				

CHANGES SINCE LAST EDITION



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SPT.076 Flight data monitoring precursors of main operational safety risks

EASA should, in partnership with the industry, complete the good-practice documentation which Safety

supports the inclusion of main operational safety risks such as RE, LOC-I, CFIT and MAC into

operators' FDM programmes.

Status Ongoing

GASP SEIs (industry) - Mitigate contributing factors to CFIT, LOC-I, MAC, RE, and RI accidents and Reference(s)

Dependencies

Affected stakeholders ALL

Owner EASA SM.1 Safety Intelligence & Performance Department

EXPECTED OUTPUT Deliverable(s) **Timeline** Good-practice document 2020 **CHANGES SINCE LAST EDITION**

n/a

Safety

SPT.101 Development of new safety promotion material on high-profile commercial flight operations

safety issues

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

Dependencies

Affected stakeholders CAT

Owner EASA SM.1 Safety Intelligence & Performance Department

EXPECTED OUTPUT Deliverable(s) Timeline Leaflets, videos, web pages and/or applications Continuous **CHANGES SINCE LAST EDITION**



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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 EASA. 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 New Reference(s) n/a

Dependencies

Affected stakeholders Safety managers, FDM programme managers at European operators

Owner EASA SM.1 Safety Intelligence & Performance Department

EXPECTED OUTPUT

Deliverable(s) Timeline

Evaluation report 2020

CHANGES SINCE LAST EDITION

n/a

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

RMT.0225	Development of an ageing aircraft structure plan	
RMT.0276	Technical records	
RMT.0586	Tyre pressure monitoring system	

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

RMT.0251 Embodiment of safety management system requirements into Commission Regulations (EU) Nos 1321/2014 and 748/2012

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

SPT.103 Development of new safety promotion material on high-profile air traffic management safety issues

Refer to **Chapter 11.1** for the detailed action description.

RMT.0379 All-weather operations

Refer to **Section 15.1.4** 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 regularly provide feedback on the effectiveness of the activities.

How we want to achieve it: actions

RMT.0278	Importing	of aircraft from otl	her regulatory syste	ms and Part 21 Subpart H r	eview
Level playing field	Develop c	Develop criteria for importing of aircraft from other regulatory systems and Part 21 Subpart H review.			
Status	Ongoing				
Reference(s)	n/a				
Dependencies					
Affected stake	holders	Air operators and	l CAs		
Owner		EASA FS.1	Maintenance 8	k Production Department	
Priority	No	RM Procedure	Standard	Harmonisation	No
	PLANNING MILESTONES				
SubT ToR		NPA	Opinion	Commission IR	Decision
RMT.0 01/02	_	2016-08 07/09/2016	2021 Q3	2022 Q3	2022 Q3
		CHA	ANGES SINCE LAST E	DITION	
n/a					



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RMT.0312 Review of standard weights

Transposed task from the JAA to review the standard weights due to demographic changes. Review

Level playing of IRs/AMC & GM based on the weight survey commissioned by EASA.

field

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

Reference(s) n/a

Dependencies

Affected stakeholders CAT and NCC operators

Owner EASA FS.2 Air Operations Department

Priority No RM Procedure Standard Harmonisation No

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

CHANGES SINCE LAST EDITION

n/a

RMT.0573 Fuel/energy planning and management

Review and update the EU fuel rules, taking into account ICAO amendments and a related SR, and

Level playing field

providing for operational flexibility.

The RMT will also address a first set of OPS electric and hybrid propulsion-related requirements for

other non-complex aircraft types that are not covered by RMT.0230.

Status Ongoing

Reference(s) (SR) FRAN-2012-026

Dependencies RMT.0731; RMT.0230; SPT.097

Affected stakeholders AOC holders

Owner EASA FS.2 Air Operations Department

Priority No RM Procedure Standard Harmonisation No

 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
 2020 Q2
 2021 Q4
 2021 Q4

CHANGES SINCE LAST EDITION

Adjustment of the task title; inclusion of a new item 'OPS requirements for electric/hybrid propulsion'.

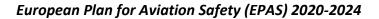


Addition of subtasks.

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RMT.0577	Extended (Extended diversion time operations			
Level playing field		To consider alignment of the extended diversion time operation (EDTO) rules with the related ICAO SARPs and modernise the EASA ETOPS rules.			
Status	Merged				
Reference(s)	n/a				
Dependencies	RMT.0392				
Affected stake	holders	AOC holders (CAT	·)		
Owner		EASA FS.2	Air Operations	Department	
Priority	No	RM Procedure	Standard	Harmonisation	No
		ı	PLANNING MILESTO	NES	
SubT ToR		NPA	Opinion	Commission IR	Decision
n/a		n/a	n/a	n/a	n/a
		CHA	NGES SINCE LAST EI	DITION	

SPT.097	Promotion of the new European provisions on fuel /energy planning and management
Level playing field	The objective is to complement the new regulatory package on fuel/energy planning and management with relevant safety promotion material.
	 The three main tasks are: EASA fuel scheme manual Workshop and events Safety promotion leaflets, website, video
Status	Ongoing
Reference(s)	n/a
Dependencies	RMT.0573
Affected stakeho	olders ALL
Owner	EASA SM.1 Safety Intelligence & Performance Department
	EXPECTED OUTPUT
Deliverable(s)	Timeline
Safety Promotion	material 2022
	CHANGES SINCE LAST EDITION





In addition to the above, the following action is relevant to level playing field in CAT by aeroplane & NCC operations:

DNAT OF 61	Update of AMC-20 — in-flight entertainment (IFE), lead-free soldering, harmonisation of safety
RMT.0561	and software criteria

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 benefits in terms of safety and/or environmental protection.

What we want to achieve

Ensure an efficient regulatory framework for airlines.

How we monitor improvement

The EASA ABs and the CAT CAG regularly provide feedback on the effectiveness of the activities.

How we want to achieve it: actions

RMT.0190	Requirem	nents for relief pilots				
Efficiency/ proportionality	Address t	Address the provisions for the use of relief pilots as regards experience, training, checking and CRM.				
Status	Ongoing					
Reference(s)	n/a					
Dependencies						
Affected stake	Affected stakeholders Pilots, ATOs, and air operators					
Owner		EASA FS.3	Aircrew & Med	ical Department		
Priority	No	RM Procedure	Standard	Harmonisation	No	
		P	LANNING MILESTON	IES		
SubT ToR		NPA	Opinion	Commission IR	Decision	
RMT.0 02/11,		2014-25 04/11/2014	2021 Q2	2022 Q2	2022 Q2	
		СНА	NGES SINCE LAST ED	ITION		
The task status	is changed	to 'ongoing' from 'de	-prioritised'.			

RMT.0392 Regular update of air operation rules

Efficiency/ proportionality

Necessary update reflecting technological and market developments

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.

Ongoing

Reference(s) n/a

Dependencies

Status

Affected stakeholders All operators and NAAs

Owner EASA FS.2 Air Operations Department

Priority No RM Procedure Standard Harmonisation Yes

	PLANNING MILESTONES					
SubT	SubT ToR NPA Opinion Commission IR Decision					
	2020 Q1	2021 Q1	n/a	n/a	2021 Q4	
		n/a	2022 Q1	2022 Q3	2022 Q2	

CHANGES SINCE LAST EDITION

Addition of the task description. This task now also includes topics from RMT.0294 and RMT.0577. The task status is changed to 'ongoing' from 'de-prioritised'.

EVT.0008 Evaluation on Commission Regulation (EU) No 452/2014 (the 'third-country operator (TCO)

Regulation')

Efficiency/ proportionality

The TCO Regulation was adopted in 2014. The Regulation is assessed to determine whether it is still

fit for purpose and remains efficient and serviceable.

Status New Reference(s) n/a

Dependencies

Affected stakeholders Third-country operators, EASA Member States, EASA

Owner EASA FS.2 Air Operations Department

ОЦТРИТ			
Timeline			
2020			
CHANGES SINCE LAST EDITION			

n/a

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

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

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

6.2 Specialised operations (SPO)

NB: For SPO helicopters please refer to Chapter 7.

Issue/rationale

Operators other than CAT or NCC, e.g. conducting aeroplane SPO, make an important contribution to the 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; and
- airshow/race

In 2018, the top three SPO types in terms of accidents and serious incidents were towing, parachute drop and agricultural.

The top three KRAs for aeroplane SPO are indicated below (refer to ASR 2019 Figure 24 and Table 9):

Specialised operations - aeroplanes

KRA 1	KRA 2	KRA 3
Aircraft upset	Airborne collision	Terrain collision

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

What we want to achieve

Increase safety by continuously assessing and improving risk controls to mitigate the key risks.

How we monitor improvement

Continuous monitoring of safety issues identified in the SRP for Specialised Operations Aeroplane.

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.



7. Rotorcraft

This chapter groups all actions in the area of rotorcraft operations and provides links to rotorcraft related actions in the domains of crew training, design, manufacture and maintenance, in line with EASA's **Rotorcraft Safety Roadmap**⁹⁶ 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 GA rotorcraft where the number of accidents is recognised to be higher. 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 involving certified helicopters:

- passenger and cargo flights to and from offshore oil and gas installations in CAT (EASA Member States' AOC holders);
- other CAT operations, passenger and cargo (EASA Member States' AOC holders), excluding offshore;
- SPO, such as advertisement, photography, with an EASA Member State as the State of operator or State
 of registry; and
- non-commercial operations (NCO) with helicopters registered in an EASA Member State or for which an EASA Member State is the State of operator.

7.1 Safety

The top three key risk areas for each of the four types of operation are as follows:

Offshore helicopters		
KRA 1	KRA 2	KRA 3
Aircraft upset	Helideck excursions	Obstacle collision in flight

In the CAT offshore helicopter domain, no accidents (either fatal or non-fatal) occurred in 2017 and 2018. Instead, there were 4 serious incidents in 2018, 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		
KRA 1	KRA 2	KRA 3
Terrain collision	Aircraft upset	Obstacle collision in flight

^{96 &}lt;u>https://www.easa.europa.eu/download/Events/Rotorcraft%20Safety%20Roadmap%20-%20Final.pdf</u>



7. Rotorcraft

In other CAT helicopter operations, there were 2 fatal accidents, 9 non-fatal accidents and 8 serious incidents in 2018, leading to 8 fatalities. Both fatal accidents involved HEMS operations. The number of non-fatal accidents was almost twice the average of the previous decade.

SPO helicopters

KRA 1	KRA 2	KRA 3
Aircraft upset	Terrain collision	Obstacle collision in flight

In SPO there were 2 fatal accidents, 10 non-fatal accidents and 6 serious incidents in 2018, leading to 2 fatalities and 1 serious injury. While the number of fatal accidents and non-fatal accidents in 2018 was slightly lower than the average of the preceding 10-year period, the number of serious incidents was higher than that average.

NCO helicopters

KRA 1	KRA 2	KRA 3
Aircraft Upset	Terrain Collision	Injuries/Damage

In non-commercial operations, there were 6 fatal accidents, 24 non-fatal accidents and 3 serious incidents in 2018, leading to 15 fatalities and 5 serious injuries. The number of fatal accidents increased in 2018 compared to 2017 and the 10-year average. The number of non-fatal accidents and serious incidents remains below the 10-year average.

The safety issues identified for all KRAs, for the different types of operation, are listed in the ASR 2019 (refer to Table 13 – Offshore CAT, Table 15 – CAT other than Offshore, Table 17 - SPO and Table 19 – NCO).

Based on the data supporting the different portfolios, 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 NCO), 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 routes⁹⁷.

See SESAR solution # 113 from the SESAR Solution Catalogue: https://www.sesarju.eu/sites/default/files/documents/reports/SESAR Solutions Catalogue 2019 web.pdf



n/a

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 SRPs established for offshore CAT helicopter operations, other CAT helicopter operations, helicopter SPO and NCO (ref: ASR 2019).

The EASA ABs regularly provide feedback on the actions where efficiency/proportionality is the main driver.

How we want to achieve it: actions

RMT.0120	Helicopte	r ditching and water	r impact occupant su	ırvivability	
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				
Dependencies					
Affected stake	holders	DAHs and helicop	ter operators		
Owner		EASA CT.5	Certification Str	ategy & Programming Dep	partment
Priority	Yes	RM Procedure	Standard	Harmonisation	No
		ı	PLANNING MILESTOI	NES	
SubT ToR		NPA	Opinion	Commission IR	Decision
1 RMT.0 24/10		2016-01 23/03/2016	n/a	n/a	2018/007/R 25/06/2018
2		2020 Q1	2021 Q1	2022 Q3	2022 Q3
		CHA	NGES SINCE LAST EL	DITION	



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

Dependencies

Affecte	ed stakeholders	DOA holders, POA	DOA holders, POA holders and helicopter operators			
Owner		EASA CT.5	SA CT.5 Certification Strategy & Programming Department			
Priority	y No	RM Procedure	Standard	Harmonisation	No	
			PLANNING MILESTON	IES		
SubT	ToR	NPA	Opinion	Commission IR	Decision	
	2020 Q1 2021 Q1 n/a n/a 2022 Q1					
CHANGES SINCE LAST EDITION						

7. Rotorcraft

RMT.0325 Helicopter emergency medical services' performance and public interest sites

To properly address the issues stemming from non-implementation or deviation from JAR-OPS 3 Safety 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

Dependencies UK Safety Directive 2014/00398

Affected stakeholders Helicopter CAT, HEMS operators and MOs (Part-145)

Air Operations Department **Owner** EASA FS.2

Priority No **RM Procedure** Standard Harmonisation No

PLANNING MILESTONES SubT ToR NPA Opinion Commission IR Decision RMT.0325 2018-04 2021 Q3 2022 Q3 2022 Q3 26/03/2014 18/06/2018

CHANGES SINCE LAST EDITION

n/a

RMT.0708 Controlled flight into terrain prevention with helicopter terrain awareness 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

Dependencies

Affected stakeholders Helicopter operators

EASA FS.2 Owner Air Operations Department

Priority RM Procedure Standard Harmonisation Nο Nο

	,		0.0000.0			
			PLANNING MILI	ESTONES		
SubT	ToR	NPA	Opinion	Commission IR	Decision	
	31/07/2019	2021 Q2	2022 Q1	2023 Q2	2023 Q2	
	CHANCE CINCE LACE EDITION					

CHANGES SINCE LAST EDITION

⁹⁸ https://publicapps.caa.co.uk/docs/33/SafetyDirective2014003.pdf



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 operating 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

Dependencies

Affected stakeholders Rotorcraft operators

Owner EASA CT.5 Certification Strategy & Programming Department

Priority No RM Procedure Standard Harmonisation No

PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	2020 Q3	2021 Q3	n/a	n/a	2022 Q3

CHANGES SINCE LAST EDITION

n/a

SPT.082 Support the development and implementation of flight crew operating manuals (FCOMs) 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

Dependencies

Affected stakeholders HE

Owner SM.1 Safety Intelligence & Performance Department

	EXPECTED OUTPUT	
Deliverable(s)	Timeline	
Report	2020	
CHANGES SINCE LAST EDITION		

7. Rotorcraft

SPT.092	Improv & e-pla		of existing safety promotion material by developing mobile applications		
Safety	Reaching target audience is one of the main challenges of safety promotion. This tasks 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	ongoing	3			
Reference(s)	n/a				
Dependencies					
Affected stakeh	olders	HE			
Owner		ESPN-R	European Safety Promotion Network Rotorcraft		
			EXPECTED OUTPUT		
Deliverable(s)			Timeline		
Mobile applicati	ons and/or	e-platforms	2020		
			CHANGES SINCE LAST EDITION		
n/a					

SPT.093	Development of 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	Ongoing			
Reference(s)	n/a	n/a			
Dependencies					
Affected stakeh	olders HE				
Owner	ESPN-R	European Safety Promotion Network Rotorcraft			
		EXPECTED OUTPUT			
Deliverable(s)		Timeline			
Leaflets, videos,	Leaflets, videos, web pages and/or applications 2021				
		CHANGES SINCE LAST EDITION			
Enhancement of	task description. This ta	sk now incorporates SPT.098.			

7. Rotorcraft

SPT.094 Helicopter safety and risk management

Safety Review existing helicopter safety & risk management material to check consistency and update

(when applicable) material to reflect new rules, standards and international good practice coming

for example from IHST and SMICG.

Status Ongoing

Reference(s) n/a

Dependencies

Affected stakeholders HE

Owner ESPN-R European Safety Promotion Network Rotorcraft

EXPECTED OUTPUT

Deliverable(s)

Revised helicopter safety & risk management manuals and/or toolkits

CHANGES SINCE LAST EDITION

n/a

SPT.095 Promotion of helicopter technologies with safety benefits

Safety Following the identification of promising helicopter technologies (study performed by the NLR for

EHEST and the Technology Work Stream stemming for the EASA Rotorcraft Safety Roadmap),

promote the helicopter technologies having high safety benefits.

Status Ongoing

Reference(s) NLR-TP-2014-311⁹⁹

Dependencies

Affected stakeholders HE

Owner ESPN-R European Safety Promotion Network Rotorcraft

Deliverable(s) Timeline
Web page, flyer and/or report 2020

CHANGES SINCE LAST EDITION

Enhancement of the task description.

⁹⁹ https://www.easa.europa.eu/sites/default/files/dfu/NLR-TP-2014-311.pdf



Organisation of an annual safety workshop **SPT.096**

The European Safety Promotion Network Rotorcraft (ESPN-R) to organise a safety forum, in Safety 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

Dependencies

Affected stakeholders ΗE

Owner ESPN-R **European Safety Promotion Network Rotorcraft**

EXPECTED OUTPUT Deliverable(s) **Timeline** Safety Workshop Continuous **CHANGES SINCE LAST EDITION**

n/a

SPT.099 Helicopter hoist safety promotion

Safety Develop safety promotion material for helicopter hoists

NB: 2019 deliverables already available are shared via the LinkedIn group¹⁰⁰. The group is called

"ESPN-R Hoist Operation Safety Promotion".

Ongoing **Status**

Reference(s) n/a

Dependencies

Affected stakeholders ΗE

Owner EASA SM.1 Safety Intelligence & Performance Department

EXPECTED OUTPUT Deliverable(s) **Timeline** Continuous Safety Promotion material **CHANGES SINCE LAST EDITION**

Status changed to 'ongoing' as the task will continue to produce deliverables.

¹⁰⁰ https://www.linkedin.com/groups/8693588/



RES.008 Integrity improvement of rotorcraft main gear boxes (MGB)

Further to the investigation of the EC225 LN-OJF accident, the research aimed at identifying threats Safety 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 to enable autorotation even in the event of major failure of the main gear

box components.

Status Ongoing

Reference(s) n/a

Dependencies

Affected stakeholders ΗE

EASA SM.0.1 **Owner** Strategy & Safety Management Director's Office

PLANNING MILESTONES Starting date Interim Report Final Report 2020 Q1 n/a 2023 Q1

CHANGES SINCE LAST EDITION

Enhancement of the task description. The research action will be funded through H2020; contracting and technical management is delegated to EASA by the European Commission.

RES.009 Helicopter offshore operations — new floatation systems

Assessment of technical solutions for enhancing helicopter floatation at sea in view of heightening Safety

survivability following helicopter capsizes, which is the major event conducive to fatalities due to

drowning.

Status Ongoing

Reference(s) n/a

Dependencies

Affected stakeholders ΗE

SM.0.1 **Owner** Strategy & Safety Management Director's Office

PLANNING MILESTONES Starting date Final Report Interim Report 2020 Q1 2023 Q1 n/a

CHANGES SINCE LAST EDITION

Update of the task title and description. The research action will be funded through H2020; contracting and technical management is delegated to EASA by the European Commission.

7. Rotorcraft

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 Not started

Reference(s) (SR) UNKG-2011-041

Cleansky 2 iGear project: Intelligent Gearbox for Endurance Advanced Rotorcraft

https://www.researchgate.net/publication/333827990 Vibration analysis under varying operat

ing conditions for rotorcraft gearbox monitoring;

UK MENtOR project: Methods and Experiments for NOvel Rotorcraft

https://gtr.ukri.org/projects?ref=EP%2FS013814%2F1.

Dependencies

Affected stakeholders ΗE

Owner EASA SM.0.1 Strategy & Safety Management Director's Office

	<u> </u>						
	PLANNING MILESTONES						
Starting date	Interim Report	Final Report					
Not planned yet	tbd	tbd					
CHANGES SINCE LAST EDITION							
n/a							

MST.015 **Helicopter safety events**

CAs, in partnership with industry representatives, to organise helicopter safety events annually or Safety

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

Dependencies

Affected stakeholders ΗE

Owner Member States

EXPECTED OUTPUT				
Deliverable(s)	Timeline			
Workshop	Continuous			
	CHANGES SINCE LAST EDITION			
n/a				



MST.031 Implementation of SESAR solutions aiming to facilitate safe instrument flight rules operations

Member States together with their ANSPs and their flight procedure 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, such as solution #113 that are

designed to improve safety, should be implemented as far as it is feasible.

See SESAR Solutions Catalogue2019 Third Edition:

https://www.sesarju.eu/sites/default/files/documents/reports/SESAR Solutions Catalogue 2019

web.pdf

Status Ongoing

Reference(s) ATM Master Plan (Level 3 Ed 2019) action NAV12 (ATS IFR Routes for Rotorcraft Operations)

Dependencies

Affected stakeholders HE

Owner Member States

	EXPECTED OUTPUT
Deliverable(s)	Timeline
IFR routes/report	2025

CHANGES SINCE LAST EDITION

Updated Reference to SESAR Solutions Catalogue

In addition to the above RMTs, the following RMTs are directly relevant to rotorcraft safety:

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	Human factors in rotorcraft design
RMT.0725	Rotorcraft chip detection system
RMT.0726	Rotorcraft occupant safety in the 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 15.1.4.**

7. Rotorcraft

7.2 Level playing field

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; and

restrictions on single-engine helicopters to operate over congested environment.

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

Reference(s) n/a

Dependencies

Affected stakeholders Helicopter operators

Owner EASA FS.2 Air Operations Department

Priority No RM Procedure Standard Harmonisation No

			PLANNING MILESTO	NES	
SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0318 06/02/2018	tbd	tbd	tbd	tbd

CHANGES SINCE LAST EDITION

The BIS for the task will be updated, which might lead to different prioritisation/status.



n/a

7.3 Efficiency/proportionality

EVT.0010	Evaluation on helicopter of	pperations
Efficiency/ proportionality	operations (criteria for de to assess the administrativ	EASA Rotorcraft Safety Roadmap, an evaluation on small helicopter fining small operation will be spelled out in the assessment) is foreseen be burden put on the operators and to identify proposals for simplification administrative burden and the cost for the operators.
Status	New	
Reference(s)	n/a	
Dependencies		
Affected stakeho	olders Rotorcraft opera	ators, pilots and CAs
Owner	EASA FS.2 and	Air Operations Department and
	EASA CT.3	Vertical Take-Off and Landing (VTOL) Department
		EXPECTED OUTPUT
Deliverable(s)		Timeline
Evaluation report	t	2020
	Cl	HANGES SINCE LAST EDITION

In addition to the above actions, the following RMTs are directly relevant to Rotorcraft efficiency/proportionality:

RMT.0494	Flight time limitation rules for helicopter operations		
The full descrip	tion for this action is included in Section 5.2 .		
RMT.0134	Regular update of rotorcraft AMC		
RMT.0714	Enablement of the safe introduction of rotorcraft fly-by-wire technology		

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



8. General Aviation

This Chapter covers GA non-commercial operations involving aeroplanes with MTOMs below 5 700 kg registered in an EASA Member States, as well as all operations with balloons and sailplanes.

GA is remaining a high priority for EASA and the EC. This has been emphasized by Patrick Ky, Executive Director, during the EASA Annual Safety Conference 2018 in Vienna, and by the EC during Aero Friedrichshafen 2019.

GA in Europe is maintaining a stable activity involving 10 times more aircraft and airfields than CAT. GA has been since its origin the cradle for innovation and recruitment of young professionals (ATCOs, mechanics, pilots, etc.) 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 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 accidents causing 95 fatalities in non-commercial operations with aeroplanes and 16 fatal accidents causing 17 fatalities in the domain of sailplane operations (the 2008-2017 average was 28 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), the above statistics justify the various initiatives and efforts already undertaken, ongoing or planned, to mitigate risks leading to those fatalities; these are explained on the following pages.

Based on the data supporting the SRP for non-commercially operated small aeroplanes (MTOMs below 5 700 kg), the following top three KRAs can be highlighted (refer to ASR 2019 Table 11):

Non-commercially operated small aeroplanes		
KRA 1	KRA 2	KRA 3
Aircraft upset	Terrain collision	Obstacle collision in flight

For sailplanes, the top three KRAs are indicated below (refer to ASR 2019 Table 23):

Sailplanes		
KRA 1	KRA 2	KRA 3
Aircraft upset	Landing area excursions	Terrain collision

European Plan for Aviation Safety (EPAS) 2020-2024



8. General Aviation

The associated priority 1 safety issues are:

- stall/spin;
- collision with hill;
- loss of control (other);
- perception and situational awareness;
- incomplete winch launches; and
- decision-making and planning.

The top three KRAs in balloon operations are as follows (refer to ASR 2019 Table 21):

Balloons KRA 1 KRA 2 KRA 3 Balloon landings Obstacle collision in flight Balloon upset



8.1 Safety

This section is further subdivided to group actions per main safety issue (see 8.1.1 to 8.1.5). While the current EPAS may not include mitigation actions for each of those, the safety issue description is maintained to raise awareness.

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 safety issues identified in the SRP for non-commercially operated small aeroplanes as well as for sailplanes and balloons. (refer to ASR 2019 Tables 11, 23 and 21 respectively).

How we want to achieve it: actions

SPT.083	Flight i	nstruction	
Safety	safety	benefits of bienni	on material aimed at making more effective use of and maximising the ial class rating revalidation check flights with examiners and refresher ctors, including differences between aircraft types.
Status	Ongoing		
Reference(s)	n/a		
Dependencies	RMT.0678		
Affected stakeho	olders	GA	
Owner		EASA SM.1	Safety Intelligence & Performance Department
			EXPECTED OUTPUT
Deliverable(s)			Timeline
Safety Promotion material			2020
		C	CHANGES SINCE LAST EDITION
n/a			





8. General Aviation

MST.025 Improvement in 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

Dependencies

Affected stakeholders GA

Owner Member States

	EXPECTED OUTPUT
Deliverable(s)	Timeline
Safety workshops and safety days/evenings	Continuous

CHANGES SINCE LAST EDITION

n/a

Safety

MST.027 Promotion of safety culture in GA

 ${\it CAs should include provisions to facilitate and promote safety culture (including just culture) in {\it GA}}$

as part of their State safety management activities in order to foster positive safety behaviours and

encourage occurrence reporting.

Status Ongoing

Reference(s) n/a

Dependencies

Affected stakeholders GA

Owner Member States

EXPECTED OUTPUT	
Deliverable(s)	Timeline
Provisions to facilitate and promote safety culture as part of SSP/SPAS	Continuous
CHANGES SINCE LAST EDITION	

Adjustment of task title and description.



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 Member States' non-commercial operations with aeroplanes with MTOMs 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 SRP for non-commercially operated small aeroplanes as well as for sailplanes and balloons (refer to ASR 2019 Tables 11, 23 and 21 respectively).

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.

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 GA¹⁰¹.

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 SRP for non-commercially operated small aeroplanes as well as for sailplanes and balloons (refer to ASR 2019 Tables 11, 23 and 21 respectively).

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

8. General Aviation

How we want to achieve it: actions

SPT.087	Weathe	r awareness for p	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)	GASP SEI (industry) - Mitigate contributing factors to LOC-I accidents and incidents		
Dependencies			
Affected stakeh	olders	GA	
Owner		EASA SM.1	Safety Intelligence & Performance Department
			EXPECTED OUTPUT
Deliverable(s)			Timeline
Video/media pro	oducts		2019
		С	HANGES SINCE LAST EDITION
n/a			

SPT.088	Promot	e instrument flyin	g for GA pilots
Safety	GA pilot	s to IFR flying in o	on campaign to promote the results of RMT.0677 on the easier access of order to ensure that the safety and efficiency benefits materialise across Instrument Rating is widely adopted in Europe.
Status	Ongoing		
Reference(s)	n/a		
Dependencies	RMT.06	77	
Affected stakeho	lders	GA	
Owner		EASA SM.1	Safety Intelligence & Performance Department
			EXPECTED OUTPUT
Deliverable(s)			Timeline
Safety Promotion	material		2020 Q1
		С	HANGES SINCE LAST EDITION
Enhancement of the task description.			



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 SRP for non-commercially operated small aeroplanes as well as for sailplanes and balloons (refer to ASR 2019 Tables 11, 23 and 21 respectively).

How we want to achieve it: actions

RMT.0376	Anti-collision and traffic awareness systems for aircraft with MTOMs less than 5 700 kg or less than
	19 passengers

The full description for this action is included in **Section 6.1.1.3.**

RES.021	SESAR 2020 research projects aiming to prever	nt mid-air collision risks
Safety	The following research activities are being addr — Enhanced rotorcraft and general aviation — Enhanced airborne collision avoidance for	n operations around airports (TMA) (PJ.01-06);
Status	Ongoing	
Reference(s)	SESAR solution PJ.01-06 https://www.sesarju.eu	u/index.php/projects/ead;
	PJ.11-A4 https://www.sesarju.eu/sesar-solut-and-rotorcraft-acas-xp	ions/airborne-collision-avoidance-general-aviation-
Affected stakeh	olders GA	
Owner	SESAR	
	PLANNING MILESTO	DNES
Starting date	Interim Report	Final Report
2016	n/a	2019 Q4 (for PJ.01-06)
	CHANGES SINCE LAST E	DITION
Project planning		

8. General Aviation

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 SRP for non-commercially operated small aeroplanes as well as for sailplanes and balloons. (refer to ASR 2019 Tables 11, 23 and 21 respectively).

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.



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 SRPs for non-commercially operated small aeroplanes, sailplanes and balloons respectively.

The GA Committee (GA.COM) and the GA TeB regularly provide feedback on the effectiveness of the activities that aim at improving efficiency/proportionality and ensuring a level playing field.

How we want to achieve it: actions

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 flight crew licensing requirements for general aviation

The full description for these actions is included in **Section 5.3.**

RMT.0502	Regular update of CS for balloons
RMT.0605	Regular update of CS-LSA
RMT.0690	Regular update of CS-STAN
RMT.0727	Alignment of Part 21 with Regulation (EU) 2018/1139 (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)

Refer to **Chapter 10** for the detailed action description.

9. Design and production

This chapter includes all the actions that are relevant to design and production, for the drivers safety, efficiency/proportionality and level playing field.

9.1 Safety

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 by aeroplane & NCC operations SRP 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 advancements.

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 SRPs for the different types of air operations (see ASR 2019). The EASA ABs regularly provide feedback on the effectiveness of actions in the area of efficiency/proportionality and level playing field.



R	м	Τ.	O	N	19

Aeroplane-level safety assessments of critical systems, specifications for flight control systems and aeroelastic stability

Safety

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, r update AMC to CS 25.1309), based on the results of the Aviation Rulemaking Advisory Committee (ARAC) Airplane-level Safety Analysis Working Group (ASAWG).

In addition, this RMT will consider

- the amendment of AMC 25.1309 taking into account the latest updates of industry documents, such as ED79A/ARP4754A; and
- the update of CS 25.671 on safety assessment of flight control systems, based on the results of the ARAC Flight Controls Harmonisation Working Group (FCHWG).

Harmonisation with the FAA, the TCCA and ANAC will be ensured as much as possible.

Status

Ongoing

Reference(s)

n/a

Dependencies

Affected stakeholders	DAHs
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Owner EASA CT.5 Certification Strategy & Programming Department

Priority No RM Procedure Standard Harmonisation Yes

	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	2020 Q1	

CHANGES SINCE LAST EDITION

n/a

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 and to harmonise with similar requirements existing in the regulatory framework of bilateral partners.

Status Ongoing
Reference(s) n/a

Dependencies

Affected stakeholders	Air operators and POA holders
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Owner EASA CT.5 Certification Strategy & Programming Department

Priority No RM Procedure Standard Harmonisation Yes

			PLANNING MILESTONES		
SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0070 17/09/2010	2019-02 01/03/2019	Opinion 04/2019 07/10/2019	2021 Q2	2021 Q2

CHANGES SINCE LAST EDITION

Enhancement of the task description.





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

Safety 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.

Status Ongoing

Reference(s) CS-23 and CS-25

Dependencies

Affected stakeholders DOA holders

Owner EASA CT.5 Certification Strategy & Programming Department

Priority Yes RM Procedure Standard Harmonisation No

			PLANNING MILESTO	ONES	
SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0118 21/03/2017	2020 Q1	n/a	n/a	2021 Q1

CHANGES SINCE LAST EDITION

Revision of the task description.

European Plan for Aviation Safety (EPAS) 2020-2024



9. Design and production

RMT.0225 Development of an ageing aircraft structure plan

Safety

The objective of this RMT is to harmonise with existing requirements in the legal framework of bilateral partners and 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, as well as 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

Dependencies

Affected stakeholders DAHs and air operators					
Owner EASA CT.5 Certification Strategy & Programming Department			partment		
Priority	, No	RM Procedure	Standard	Harmonisation	Yes
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
		СНА	NGES SINCE LAST ED	ITION	
Adjustr	nent of the task de	scription.			





RMT.0453 Aeroplane ditching survivability

Safety The objective is to amend the certification specifications for large aeroplanes in order to improve the

survivability after a ditching.

Amendments should be proposed in the structure and cabin safety areas. EASA will take into account the related recommendations issued by the TACDWG (Transport Aircraft Crashworthiness

and Ditching Working Group) to the FAA in 2018.'

Status Ongoing

Reference(s) n/a

Dependencies

Affected stakeholders DAHs

Owner EASA CT.5 Certification Strategy & Programming Department

Priority No RM Procedure Standard Harmonisation No

 PLANNING MILESTONES

 SubT
 ToR
 NPA
 Opinion
 Commission IR
 Decision

 2021 Q1
 2022 Q2
 n/a
 n/a
 2023 Q1

CHANGES SINCE LAST EDITION

Adjustment of the task title.

2019 Q4

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 aeroplanes that allow measurement of the 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 proposed means to achieve these objectives is to refer to technical standards developed jointly by industry and CAs with the support of an international standardisation body (EUROCAE).

The Agency issued an Opinion (04/2019) proposing amendments to Part-26, which will be followed by a Decision with related CS-26 (SubT 1). As part of this RMT the Agency will also issue a Decision amending CS-25 (SubT 2).

Status Ongoing

Reference(s)

ATM Master Plan Level 3 – Plan (2019): SAF11 – Improve runway safety by preventing runway excursions

n/a

Dependencies

2

Affecte	ed stakeholders	Air operators, POA holders, applicants for TC/STC				
Owner	•	EASA CT.5	EASA CT.5 Certification Strategy & Programming Department			
Priorit	y Yes	RM Procedure	Standard	Harmonisation	No	
	PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision	
1	RMT.0570 09/10/2012	2013-09 10/5/2013 2018-12 15/10/2018	Opinion 04/2019 07/10/2019	2021 Q2	2021 Q2	

CHANGES SINCE LAST EDITION

n/a

Reference to ATM Master Plan Level 3 updated

RMT.0586 Tyre pressure monitoring system

Safety

The specific objective of this RMT is to ensure that tyres inflation pressure of large aeroplanes 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.

The Agency plans to issue a Decision amending CS-25 (Subtask 2), as well as an opinion proposing to the EC an amendment of Part 26; once Part-26 is amended, the Agency will issue a second decision with the related CS-26 specifications to Part-26 (subtask 2). Both subtasks are planned to be conducted in parallel (i.e. common NPA and the opinion on Part 26 in parallel as the Decision amending CS-25).

Status Ongoing

Reference(s) n/a

Dependencies

Affected stakeholders	Aeroplane Operators

Owner EASA CT.5 Certification Strategy & Programming Department

Priority No RM Procedure Standard Harmonisation No

			PLANNING MILESTO	NES		
SubT	ToR	NPA	Opinion	Commission IR	Decision	
1	30/05/2017	2020 Q1	2021 Q1	2022 Q3	2022 Q3	
2		2020 Q1	n/a	n/a	2021 Q1	

CHANGES SINCE LAST EDITION

Enhancement of the task description. Introduction of Subtask 2. The task status is changed to 'ongoing' from 'deprioritised'.





Safety

9. Design and production

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

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

Dependencies

Affected stakeholders DAHs

Owner EASA CT.5 Certification Strategy & Programming Department

Priority No RM Procedure Standard Harmonisation Yes

 PLANNING MILESTONES

 SubT
 ToR
 NPA
 Opinion
 Commission IR
 Decision

 2021 Q1
 2022 Q1
 n/a
 n/a
 2023 Q1

CHANGES SINCE LAST EDITION

Adjustment of the task description.

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 development of an ETSO may allow new hoist designs, which address some existing design shortfalls along with improvements to the rotorcraft external load certification specifications. Moreover, cargo hook aspects will also be considered along with the safety effects to people on the ground during non-human external cargo operations. The task is planned to be developed in cooperation with the FAA.

Status Ongoing
Reference(s) n/a

Dependencies

Affected stakeholders DOA holders, POA holders and helicopter operators

Owner EASA CT.5 Certification Strategy & Programming Department

Priority No RM Procedure Standard Harmonisation Yes

PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	2020 Q2	2021 Q1	n/a	n/a	2021 Q3

CHANGES SINCE LAST EDITION

Enhancement of the task description.

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. SRs have been put forward 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

Dependencies

Affected stakeholders DOA and POA holders

Owner EASA CT.5 Certification Strategy & Programming Department

Priority Yes RM Procedure Standard Harmonisation No

PLANNING MILESTONES						
SubT	ToR	NPA	Opinion	Commission IR	Decision	
	2020 Q1	2020 Q3	2022 Q1	2023 Q1	2023 Q1	
CHANGES SINCE LAST EDITION						

CHANGES SINCE LAST EDITION





RMT.0711

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

Safety

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

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

Status Ongoing

Reference(s) n/a

Dependencies

Affected stakeholders	DOA and POA holders

Owner EASA CT.5 Certification Strategy & Programming Department

Priority No RM Procedure Standard Harmonisation No

PLANNING MILESTONES						
SubT	ToR	NPA	Opinion	Commission IR	Decision	
	2020 Q2	2021 Q1	n/a	n/a	2021 Q3	
CHANGES SINCE LAST EDITION						

CHANGES SINCE LAST EDITION

European Plan for Aviation Safety (EPAS) 2020-2024



9. Design and production

RMT.0713 Human factors in 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 factors assessment to be carried out. Large transport aircraft have benefitted 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 leading to an accident.

Status Ongoing

Reference(s) n/a

Dependencies

Septimentals					
Affected stakeholders DOA holders					
Owner EASA CT.5		Certification Strateg	Certification Strategy & Programming Department		
Priorit	Priority No RM Procedure Standard Harmonisation No			No	
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	31/08/2018	2019-11 24/10/2019	n/a	n/a	2020 Q3
CHANGES SINCE LAST EDITION					

European Plan for Aviation Safety (EPAS) 2020-2024



9. Design and production

RMT.0725 Rotorcraft chip detection system

Subtask 1:

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).

Subtask 2:

The task will also consider proportionate retrospective application of the currently 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

Depen	Dependencies				
Affected stakeholders DOA and POA holders		ders			
Owner EASA CT.5		Certification Str	Certification Strategy & Programming Department		
Priorit	y No	RM Procedure	Standard	Harmonisation	No
	PLANNING MILESTONES				
SubT	ToR	NPA	Opinion	Commission IR	Decision
1	2020 Q1	2021 Q1	n/a	n/a	2022 Q1
2	n/a	n/a	2022 Q1	2023 Q3	2023 Q3
	CHANGES SINCE LAST EDITION				
n/a	n/a				





	RMT.0726	Rotorcraft occur	pant safety in t	he event of a bird strik	e
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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 based on the recommendations of the ARAC Bird Strike WG (rev. B) and also considering proportionate retrospective application of the currently 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

Dependencies

Affected stakeholders DOA and POA holders			ders		
Owner EASA CT.5		Certification St	Certification Strategy & Programming Department		
Priorit	y No	RM Procedure	Standard	Harmonisation	No
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
1	2020 Q3	2021 Q3	n/a	n/a	2022 Q3
2			2022 Q3	2024 Q1	2024 Q1
CHANGES SINCE LAST EDITION					

Addition recommendation to the task description of the ARAC Bird Strike WG (rev. B)



RMT.0727

Alignment of Part 21 with Regulation (EU) 2018/1139 (including simple and proportionate rules for General Aviation)

Efficiency/ proportionality

The objective of this RMT is to revisit Part 21 in view of the new and amended requirements introduced with the Basic Regulation. The focus of this task is to introduce simple rules that will allow the application of 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'.

In the first phase of this RMT, EASA will develop proposals required by Article 140 (3) of the Basic Regulation and a few other topics such as e.g. the certification of non-installed equipment. EASA will use different means of consultation, which is shown under subtasks 1a and 1b; in the second phase, EASA will develop proposals for the implementation of all amendments to Part 21 as required by the Basic Regulation.

Status Ongoing

Reference(s) n/a

Dependencies

2 cpc. uc. uc. cc						
Affected stakeholders DOA and POA holders and CAs including EASA						
Owner		EASA CT.5	Certification Strategy & Programming Department			
Priority	Yes	RM Procedure	See field 'SubT'	Harmonisation	No	
PLANNING MILESTONES						
SubT	ToR	Consultation	Opinion	Commission IR	Decision	
1a: AP	28/08/2019	2019/20	2020 Q4	2022 Q1	2022 Q1	
		(FoC ¹⁰²)				
1b: ST		2020 Q1 (NPA)	2020 Q4	2022 Q1	2022 Q1	
2: ST		2022 Q1	2023 Q1	2024 Q3	2024 Q3	
		CH	ANGES SINCE LAST ED	DITION		

European Plan for Aviation Safety (EPAS) 2020-2024



9. Design and production

RES.010 Ice crystal detection

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) EU funded project SENS4ICE https://www.sens4ice-project.eu/

Dependencies

Affected stakeholders CAT

Owner EASA SM.0.1 Strategy & Safety Management Director's Office

PLANNING MILESTONES					
Starting date Interim Report Final Report					
2019 Q1 n/a 2022 Q4					
CHANGES SINCE LAST EDITION					

n/a

RES.014 Air data enhanced fault detection and diagnosis

Develop new methods for the verification and monitoring of complex flight control systems (e.g. Safety flight control laws, air data sensors) and investigate new techniques for fault detection and

flight control laws, air data sensors) and investigate new techniques for fault detection and diagnosis and fault control (e.g. model-based, model-free methods and their combination).

They will serve to improve EASA certification standards, and to prepare the evaluation of new

designs proposed by the aircraft manufacturers.

Status Not started

Reference(s) n/a

Dependencies

Affected stakeholders CAT

Owner EASA SM.0.1 Strategy & Safety Management Director's Office

PLANNING MILESTONES					
Starting date Interim Report Final Report					
Not planned yet	Not planned	Not planned			
CHANGES SINCE LAST EDITION					
n/a					

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.

The H2020 funded project ICE GENESIS shall provide the European aeronautical industry with a validated new generation of 3D icing engineering tools (numerical simulation tools and upgraded test capabilities), addressing App C, O and snow conditions for the design and certification of future regional, business and large aircraft, rotorcraft and engines. ICE GENESIS shall permit weather hazards to be more precisely evaluated and properly mitigated thanks to adapted design or optimised protection through either active or passive means. Furthermore, ICE GENESIS shall pave the way for 3D digital tools to be used in the future as acceptable means of compliance by the regulation authorities.

EASA is contributing to this research project in an advisory role.

Status Ongoing

Reference(s) EU funded project ICE GENESIS

Dependencies

Affected stakeholders CAT, DO

Owner EASA SM.0.1 Strategy & Safety Management Director's Office

PLANNING MILESTONES					
Starting date	Interim Report	Final Report			
2019 Q1	n/a	2022 Q4			

CHANGES SINCE LAST EDITION

Enhancement of the task description. This research action is followed up by the H2020 funded research project ICE GENESIS.

RES.027	Sandwich structured composites

Safety

This research project shall help to develop further insight and guidance for the consistent and standardised design and safe use of sandwich structures in aviation. The results of the research shall be used to further complement the Composite Materials Handbook-17 and to refine regulatory material for initial and continuous airworthiness. This project has a high priority from a safety and environmental perspective.

Status New. Not started

Reference(s) Composite Material Handbook 17 (CMH-17)

Dependencies n/a

Affected stakeholders DO, MO

Owner EASA SM.0.1 Strategy & Safety Management Director's Office

PLANNING MILESTONES						
Starting date	Interim Report	Final Report				
2021 Q1	2022 Q4	2024 Q1				
	CHANGES SINCE LAST EDI	TION				
n/a						

9.2 Level playing field

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); and
- 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

Dependencies

Affecte	d stakeholders	DAHs and POA holders			
Owner		EASA CT.5 Certification Strategy & Programming Department			partment
Priority	, No	RM Procedure	Standard	Harmonisation	No
		P	LANNING 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 Q4	2021 Q3	2021 Q3
CHANGES SINCE LAST EDITION					
n/a					

European Plan for Aviation Safety (EPAS) 2020-2024

9. Design and production

RMT.0348 Flights related to design and production activities

To establish IRs and associated AMC & GM on operational requirements for flights related to design

Level playing and production activities ('manufacturers flights').

field

Status On hold (until further notice)

Reference(s) n/a

Dependencies

Affected stakeholders DOA and POA holders

Owner EASA FS.2 Air Operations Department

Priority No RM Procedure tbd Harmonisation tbd

PLANNING MILESTONES
SubT ToR NPA Opinion Commission IR Decision

CHANGES SINCE LAST EDITION

This task is put on hold due to resource restrictions, giving priority to more pressing matters. Nonetheless, EASA is still following the development and envisages integrating it into next available rulemaking opportunities.

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.

While the Decision amending AMC-20 on all other subjects was published in 2019, the guidance on

lead-free soldering will be finalised in a separate Decision to be published in 2020

Status ongoing

Reference(s) n/a

Dependencies

Affected stakeholders AOC holders, POA holders of aircraft and equipment

Owner EASA CT.5 Certification Strategy & Programming Department

Priority No RM Procedure Standard Harmonisation No

	PLANNING MILESTONES							
SubT	ToR	NPA	Opinion	Commission IR	Decision			
	DMT OF 61	2017.00			ED Decision			
	RMT.0561	2017-09	n/a	n/a	2019/019/R			
	20/07/2015	22/06/2017			17/09/2019			
					2020 Q2			

CHANGES SINCE LAST EDITION





RMT.0695 Non-ETOPS operations using performance class A aeroplanes with an MOPSC of 19 or less

The objective is to accommodate new business-jet aeroplanes operated by European CAT operators

Level playing

field

Status

in the 180' non-ETOPS category.

Ongoing

Reference(s) n/a

Dependencies

Affected stakeholders DOA holders, AOC holders (CAT)

EASA FS.2 Air Operations Department **Owner**

Priority RM Procedure Standard No Harmonisation No

0 1					
SubT To	oR .	NPA	Opinion	Commission IR	Decision
RN	MT.0695	2017-15	2019-02	2020.02	2020 02
15	5/12/2015	25/09/2017	22/02/2019	2020 Q2	2020 Q2

CHANGES SINCE LAST EDITION

9.3 Efficiency/proportionality

RMT.0031 F	Regular update	of AMC &	GM to Part 21
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Efficiency/ proportionality

The objective of this RMT is to regularly address miscellaneous issues of non-controversial nature, which are required to ensure that the AMC & GM to Part 21 are fit for purpose, cost-effective, can be implemented in practice, and are in line with the latest ICAO SARPs. In particular, a regular update is used to transpose certification memoranda and other material supporting the application and interpretation of Part 21 as established by EASA during previous certification projects, and to address non-complex and non-controversial issues raised by stakeholders.

Status Ongoing

Reference(s) n/a

Dependencies

Owner EASA CT.5 Certification Strategy & Programming Department

Priority No RM Procedure Standard Harmonisation No

	PLANNING MILESTONES						
SubT	ToR	NPA	Opinion	Commission IR	Decision		
DOA	RMT.0031	2010.04	n /n	n/a	2020.02		
issues	15/12/2016	2019 Q4	n/a	n/a	2020 Q2		
POA		2021 02	n/2	n/a	2022.01		
issues		2021 Q2	n/a	n/a	2022 Q1		

CHANGES SINCE LAST EDITION

Efficiency/ proportionality

The objective of this RMT is to regularly address miscellaneous issues of non-controversial nature, which are required to ensure that the CS are fit for purpose, cost-effective andcan be implemented in practice. In particular, a regular update is used to transpose special conditions, certification memoranda and other material supporting the application and interpretation of existing CS as established by EASA during previous certification projects, and to address non-complex and non-controversial issues raised by stakeholders.

Status Ongoing

Reference(s) n/a

Dependencies

Affected stakeholders Sailplane and powered sailplane manufacturers and other design organisations dealing

with supplemental type certificates (STCs), repairs or changes to sailplanes or powered

sailplanes.

Owner EASA CT.5 Certification Strategy & Programming Department

Priority No RM Procedure Standard Harmonisation No

PLANNING MILESTONES							
SubT	ToR	NPA	Opinion	Commission IR	Decision		
	RMT.0037 14/01/2016	2020 Q2	n/a	n/a	2020 Q4		

CHANGES SINCE LAST EDITION

Addition of the task description.

RMT.0128 Regular update of CS-27&29, and CS-VLR

Efficiency/ proportionality

The objective of this RMT is to regularly address miscellaneous issues of non-controversial nature, which are required to ensure that the CS are fit for purpose, cost-effective, can be implemented in practice, and are in line with the latest ICAO SARPs. In particular, a regular update is used to transpose special conditions, certification memoranda and other material supporting the application and interpretation of existing CS as established by EASA during previous certification projects, and to address non-complex and non-controversial issues raised by stakeholders.

Status Ongoing

n/a

Reference(s)

Dependencies

Affected stakeholders DAHs; rotorcraft manufacturers and other design organisations dealing with

Supplemental Type Certificates, repairs or changes to rotorcraft

Owner EASA CT.5 Certification Strategy & Programming Department

Priority No RM Procedure Standard Harmonisation No

PLANNING MILESTONES						
SubT	ToR	NPA	Opinion	Commission IR	Decision	
Current	RMT.0128 29/09/2016	2021 Q1	n/a	n/a	2021 Q4	
Next		2022 Q4	n/a	n/a	2023 Q3	

CHANGES SINCE LAST EDITION

RMT.0134 Regu

Regular update of rotorcraft AMC

Efficiency/ proportionality

The objective of this RMT is to regularly address miscellaneous issues of non-controversial nature, which are required to ensure that the AMC to CS-27&29, CS-VLR are fit for purpose, cost-effective, can be implemented in practice, and are in line with the latest ICAO SARPs. In particular, a regular update is used to transpose special conditions, certification memoranda and other material supporting the application and interpretation of existing CS as established by EASA during previous certification projects, and to address non-complex and non-controversial issues raised by stakeholders.

Status Ongoing

Reference(s) n/a

Dependencies

Affected stakeholders DAHs

Owner EASA CT.5 Certification Strategy & Programming Department

Priority No RM Procedure Standard Harmonisation No

PLANNING MILESTONES						
SubT	ToR	NPA	Opinion	Commission IR	Decision	
Current	RMT.0134 20/10/2010	2021 Q1	n/a	n/a	2021 Q4	
Next		2022 Q4	n/a	n/a	2023 Q3	
		CI	LANCES SINCE LAST E	DITION		

CHANGES SINCE LAST EDITION

Addition of the task description.

RMT.0180 CS-E engine testing, endurance/IMI/ETOPS

Efficiency/ proportionality

The objective of this RMT is to review the existing engine test requirements that are required prior to entry into service in order to assess their suitability for all engines. Consideration will be given to introducing an alternate endurance test and also tests to identify any reliability and integrity issues prior to the engine entering service. The current requirements may not adequately address the current state of the art and technological advancements in modern engines. Prior to the issue of a TC, these engine tests should be conducted at conditions that are representative of those expected to occur in service.

Status Ongoing

Reference(s)

Dependencies

Affected stakeholders DAHs

n/a

Owner EASA CT.5 Certification Strategy & Programming Department

Priority No RM Procedure Standard Harmonisation No

PLANNING MILESTONES						
SubT	ToR	NPA	Opinion	Commission IR	Decision	
	2021 Q1	2022 Q1	n/a	n/a	2023 Q1	

CHANGES SINCE LAST EDITION

RMT.0184 Regular update of CS-E

Efficiency/ proportionality

The objective of this RMT is to regularly address miscellaneous issues of non-controversial nature, which are required to ensure that the CS are fit for purpose, cost-effective, can be implemented in practice, and are in line with the latest ICAO SARPs. In particular, a regular update is used to transpose special conditions, certification memoranda and other material supporting the application and interpretation of existing CS as established by EASA during previous certification projects, and to address non-complex and non-controversial issues raised by stakeholders.

Status Ongoing

Reference(s) n/a

Dependencies

Affected stakeholders Engine manufacturers

Owner EASA CT.5 Certification Strategy & Programming Department

Priority No RM Procedure Standard Harmonisation No

PLANNING MILESTONES						
SubT	ToR	NPA	Opinion	Commission IR	Decision	
Current	RMT.0184 27/07/2015	2021 Q1	n/a	n/a	2022 Q1	
Next		2023 Q2	n/a	n/a	2024 Q1	

CHANGES SINCE LAST EDITION

Addition of the task description.

RMT.0457 Regular update of CS-ETSO

Efficiency/
proportionality

The objective of this RMT is to regularly address miscellaneous issues of non-controversial nature, which are required to ensure that the CS are fit for purpose, cost-effective, can be implemented in practice, and are in line with the latest ICAO SARPs. In particular, a regular update is used to transpose special conditions, certification memoranda and other material supporting the application and interpretation of existing CS as established by EASA during previous certification projects, and to address non-complex and non-controversial issues raised by stakeholders.

Status Ongoing
Reference(s) n/a
Dependencies RMT.0230

Affected stakeholders Design and production organisation

Owner EASA CT.5 Certification Strategy & Programming Department

Priority No RM Procedure Standard Harmonisation No

			PLANNING MILEST	ONES		
SubT	ToR	NPA	Opinion	Commission IR	Decision	
Current	RMT.0457 21/08/2015	2019-06 22/05/2019	n/a	n/a	2020 Q1	
Next		2021 Q1	n/a	n/a	2022 Q1	
Next		2022 Q3	n/a	n/a	2023 Q1	

CHANGES SINCE LAST EDITION

Adjustment of the task title. Addition of the task description.

RMT.0499 Regular updat	e of	f CS-MMEL
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Efficiency/ proportionality

The objective of this RMT is to regularly address miscellaneous issues of non-controversial nature, which are required to ensure that the CS are fit for purpose, cost-effective, can be implemented in practice, and are in line with the latest ICAO SARPs. In particular, a regular update is used to transpose special conditions, certification memoranda and other material supporting the application and interpretation of existing CS as established by EASA during previous certification projects, and to address non-complex and non-controversial issues raised by stakeholders.

Status Ongoing

Reference(s) n/a

Dependencies

Affected stakeholders Design organisations of complex motor-powered aircraft and other design organisations

dealing with changes or supplemental type certificates to these aircraft,

Design organisations of other-than-complex motor-powered aircraft

Owner EASA CT.5 Certification Strategy & Programming Department

Priority No RM Procedure Standard Harmonisation No

PLANNING MILESTONES						
SubT	ToR	NPA	Opinion	Commission IR	Decision	
	RMT.0499 09/04/2018	2018-08 22/08/2018	n/a	n/a	2020 Q1	

CHANGES SINCE LAST EDITION

RMT.0502 Regular update of CS for balloons

Efficiency/ proportionality

The objective of this RMT is to regularly address miscellaneous issues of non-controversial nature, which are required to ensure that the CS are fit for purpose, cost-effective andcan be implemented in practice. In particular, a regular update is used to transpose special conditions, certification memoranda and other material supporting the application and interpretation of existing CS as established by EASA during previous certification projects, and to address non-complex and non-controversial issues raised by stakeholders.

Status Ongoing

Reference(s) n/a

Dependencies

Affected stakeholders Balloon DAHs

Owner EASA CT.5 Certification Strategy & Programming Department

Priority No RM Procedure Standard Harmonisation No

PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	tbd	tbd	n/a	n/a	tbd

CHANGES SINCE LAST EDITION

Addition of the task description.

RMT.0503 Regular update of CS-APU

Efficiency/ proportionality

The objective of this RMT is to regularly address miscellaneous issues of non-controversial nature, which are required to ensure that the CS are fit for purpose, cost-effective, can be implemented in practice, and are in line with the latest ICAO SARPs. In particular, a regular update is used to transpose special conditions, certification memoranda and other material supporting the application and interpretation of existing CS as established by EASA during previous certification projects, and to address non-complex and non-controversial issues raised by stakeholders.

Status Ongoing

Reference(s) n/a

Dependencies

Affected stakeholders DAHs

Owner EASA CT.5 Certification Strategy & Programming Department

Priority No RM Procedure Standard Harmonisation No

PLANNING MILESTONES						
SubT	ToR	NPA	Opinion	Commission IR	Decision	
	tbd	tbd	n/a	n/a	tbd	
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CHANGES SINCE LAST EDITION

RMT.0508	Regular update of CS-CCD (Certification Specifications for Cabin Crew Data)

Efficiency/ proportionality

The objective of this RMT is to regularly address miscellaneous issues of non-controversial nature, which are required to ensure that the CS are fit for purpose, cost-effective, can be implemented in practice, and are in line with the latest ICAO SARPs. In particular, a regular update is used to transpose special conditions, certification memoranda and other material supporting the application and interpretation of existing CS as established by EASA during previous certification projects, and to address non-complex and non-controversial issues raised by stakeholders.

Status Ongoing

Reference(s) n/a

Dependencies

Affected stakeholders Design Organisations of complex motor-powered aircraft and other design

organisations dealing with changes or supplemental type certificates to these aircraft

Owner EASA CT.5 Certification Strategy & Programming Department

Priority No RM Procedure Standard Harmonisation No

PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	10/09/2019	2020 Q2	n/a	n/a	2020 Q4

CHANGES SINCE LAST EDITION

Addition of the task description.

Efficiency/ proportionality

The objective of this RMT is to regularly address miscellaneous issues of non-controversial nature, which are required to ensure that the CS are fit for purpose, cost-effective, can be implemented in practice, and are in line with the latest ICAO SARPs. In particular, a regular update is used to transpose special conditions, certification memoranda and other material supporting the application and interpretation of existing CS as established by EASA during previous certification projects, and to address non-complex and non-controversial issues raised by stakeholders.

Status Ongoing

Reference(s) ATM Master Plan Level 3 – Plan (2019): ITY-SPI – Surveillance performance and interoperability

Dependencies

Affected sta	keholders	Aircraft operators,	POA holders, DOA	holders, and NAAs	
Owner		EASA CT.5	Certification St	rategy & Programming Depa	rtment
Priority	No	RM Procedure	Standard	Harmonisation	No
		PL	ANNING MILESTO	NES	

			PLANNING MILEST	ONES	
SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0519 12/09/2015	2018-02 22/02/2018	n/a	n/a	Decision 2019/011/R 30/04/2019
Current		2020 Q3	n/a	n/a	2021 Q2
Next		2022 Q3	n/a	n/a	2023 Q2

CHANGES SINCE LAST EDITION

Addition of the task description. ATM Master Plan reference updated.





RMT.0605 Regular update of CS-LSA

Efficiency/ proportionality

The objective of this RMT is to regularly address miscellaneous issues of non-controversial nature, which are required to ensure that the CS are fit for purpose, cost-effective, can be implemented in practice, and are in line with the latest ICAO SARPs. In particular, a regular update is used to transpose special conditions, certification memoranda and other material supporting the application and interpretation of existing CS as established by EASA during previous certification projects, and to address non-complex and non-controversial issues raised by stakeholders.

Status Ongoing

Reference(s) n/a

Dependencies

Affected stakeholders LSA DAHs

Owner EASA CT.5 Certification Strategy & Programming Department

Priority No RM Procedure Standard Harmonisation No

PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0605 14/01/2016	2021 Q2	n/a	n/a	2022 Q1

CHANGES SINCE LAST EDITION

Harmonisation

9. Design and production

SubT 1: Yes

RMT.0643 Regular update of AMC-20

Efficiency/ proportionality

The objective of this RMT is to regularly address miscellaneous issues of non-controversial nature, which are required to ensure that the CS are fit for purpose, cost-effective, can be implemented in practice, and are in line with the latest ICAO SARPs. In particular, a regular update is used to transpose special conditions, certification memoranda and other material supporting the application and interpretation of existing CS as established by EASA during previous certification projects, and to address non-complex and non-controversial issues raised by stakeholders.

Subtask 1: AMC 20-152 on Airborne Electronic Hardware and AMC 20-189 on Management of Open

Problem Reports; harmonised with the FAA

RM Procedure

Subtask 2: HIRF and lightning Subtask 3: Multi core processors

Subtask 4: ETOPS, EWIS Subtask 5: Next cycle

Status Ongoing

Reference(s) ATM Master Plan Level 3 – Plan (2019): NAV10 – RNP Approach procedures to instrument RWY

Standard

Dependencies RMT.0681

No

Priority

Affected stakeholders	Manufacturers, maintenance organisations and air operators

Owner EASA CT.5 Certification Strategy & Programming Department

			PLANNING MILEST	ONES	
SubT	ToR	NPA	Opinion	Commission IR	Decision
1	RMT.0643 20/07/2015	2018-09 24/08/2018	n/a	n/a	2019 Q4
2		2020 Q2	n/a	n/a	2021 Q2
3		2020 Q3	n/a	n/a	2021 Q3
4		2020 Q2	n/a	n/a	2021 Q1
5		2022 O3	n/a	n/a	2023 O1

CHANGES SINCE LAST EDITION

Addition of the task description and subtasks. ATM Master Plan reference updated.

RMT.0673 Regular update of CS-25

Efficiency/ proportionality

The objective of this RMT is to regularly address miscellaneous issues of non-controversial nature, which are required to ensure that the CS are fit for purpose, cost-effective, can be implemented in practice, and are in line with the latest ICAO SARPs. In particular, a regular update is used to transpose special conditions, certification memoranda and other material supporting the application and interpretation of existing CS as established by EASA during previous certification projects, and to address non-complex and non-controversial issues raised by stakeholders.

Status Ongoing

Reference(s) n/a

Dependencies

Affected stakeholders Large aeroplane DAHs

Owner EASA CT.5 Certification Strategy & Programming Department

Priority No RM Procedure Standard Harmonisation No

			PLANNING MILESTO	NES	
SubT	ToR	NPA	Opinion	Commission IR	Decision
Current	RMT.0673 27/04/2015	2019 Q4	n/a	n/a	2020 Q3
Next		2021 Q1	n/a	n/a	2022 Q1

CHANGES SINCE LAST EDITION

Addition of the task description.





RMT.0684 Regular update of CS-P

Efficiency/ proportionality

The objective of this RMT is to regularly address miscellaneous issues of non-controversial nature, which are required to ensure that the CS are fit for purpose, cost-effective, can be implemented in practice, and are in line with the latest ICAO SARPs. In particular, a regular update is used to transpose special conditions, certification memoranda and other material supporting the application and interpretation of existing CS as established by EASA during previous certification projects, and to address non-complex and non-controversial issues raised by stakeholders.

Status Ongoing

Reference(s) n/a

Dependencies

Affected stakeholders Propeller DAHs

Owner EASA CT.5 Certification Strategy & Programming Department

Priority No RM Procedure Standard Harmonisation No

PLANNING MILESTONES							
SubT	ToR	NPA	Opinion	Commission IR	Decision		
tbd tbd n/a n/a tbd							
	CHANCEC CINICE LAST EDITION						

CHANGES SINCE LAST EDITION

Addition of the task description.

RMT.0687 Regular update of CS-23

Efficiency/ proportionality

The objective of this RMT is to regularly address miscellaneous issues of non-controversial nature, which are required to ensure that the CS are fit for purpose, cost-effective, can be implemented in practice, and are in line with the latest ICAO SARPs. In particular, a regular update is used to transpose special conditions, certification memoranda and other material supporting the application and interpretation of existing CS as established by EASA during previous certification projects, and to address non-complex and non-controversial issues raised by stakeholders.

Note: SubT 2 is the current cycle, SubT 3 is the next cycle.

*Instead of an NPA public consultation, the procedure in Article 15 or that in Article 16 of MB Decision No 18-2015 will be applied (the date indicates the end of the consultation)

Status Ongoing

Reference(s) n/a

Dependencies

Affected	stakeholders	DAHs						
Owner		EASA CT.5	Certification St	rategy & Programming De	partment			
Priority	No	RM Procedure	See SubT	Harmonisation	No			
	PLANNING MILESTONES							
SubT	ToR	NPA*	Opinion	Commission IR	Decision			

	PLANNING MILESTONES							
SubT	ToR	NPA*	Opinion	Commission IR	Decision			
1(AP)	1(AB) RMT.0687	06/09/2019*	n/a	n/2	2019/020/R			
I(AP)	09/08/2017	06/09/2019	n/a	n/a	08/10/2019			
2(ST)		2021 Q1	n/a	n/a	2021 Q3			
3(DP)		2022 Q2*	n/a	n/a	2022 Q3			

CHANGES SINCE LAST EDITION

Addition of the task description.

Addition of the task description.

9. Design and production

RMT.0688	Regular ı	Regular update of CS-SIMD			
Efficiency/proportionality	The state of the s				
Status	Ongoing				
Reference(s)	n/a				
Dependencie	5				
Affected stak	eholders	use of approved for helicopters, and o	ull flight simulators (lev	or which the pilot type ravel B, C, D) or flight training with changes to an alreadata	ng devices for
Owner		EASA CT.5	Certification Stra	tegy & Programming Dep	partment
Priority	No	RM Procedure	Standard	Harmonisation	No
		Р	LANNING MILESTONE	S	
SubT ToR		NPA	Opinion	Commission IR	Decision
16/	10/2019	2020 Q3	n/a	n/a	2021 Q1
		СНА	NGES SINCE LAST EDIT	TION	

RMT.069	0 Regular	Regular update of CS-STAN				
	The objective of this RMT is to regularly address miscellaneous issues of non-controversial nature, which are required to ensure that the CS are fit for purpose, cost-effective, can be implemented in practice.					
Status	Ongoing					
Referenc	ce(s) n/a					
Depende	encies					
Affected	stakeholders	•	han airlines, AMOs (neers or mechanics	Part-145 and Part-M Subpa	art F) , and	
Owner		EASA CT.5	Certification St	rategy & Programming Dep	partment	
Priority	No	RM Procedure	Standard	Harmonisation	No	
		F	PLANNING MILESTO	NES		
SubT	ToR	NPA	Opinion	Commission IR	Decision	
Current	RMT.0690 09/06/2016	2021 Q1	n/a n/a 2022 Q1			
Next		2023 Q1 n/a n/a 2024 Q1				
CHANGES SINCE LAST EDITION						
Addition	Addition of the task description.					

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

Dependencies

Affected stakeholders DAHs and POA holders		lders				
Owner EASA CT.5 Certific			Certification Strateg	y & Programming Depa	artment	
Priorit	y No	RM Procedure	Standard	Harmonisation	Yes	
		F	LANNING MILESTONES			
SubT	ToR	NPA	Opinion	Commission IR	Decision	
	RMT.0712 15/10/2018	2021 Q1	n/a	n/a	2022 Q1	
CHANGES SINCE LAST EDITION						

RMT.0714 Enablement of 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 both highly complex and 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 in cooperation with the FAA to enable the safe introduction of this technology to rotorcraft.

Status Ongoing

Reference(s) n/a

Dependencies

n/a

Affected sta	keholders	DAHs and POA hold	ers		
Owner		EASA CT.5	Certification Strateg	y & Programming Depa	rtment
Priority	No	RM Procedure	Standard	Harmonisation	Yes
		PL	ANNING MILESTONES		
SubT ToR	1	NPA	Opinion	Commission IR	Decision

	PLANNING MILESTONES							
SubT	ToR	NPA	Opinion	Commission IR	Decision			
	2020 Q1	2021 Q3	n/a	n/a	2022 Q2			
	CHANGES SINCE LAST EDITION							
		(HANGES SINCE LAST	EDITION				

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**.





EVT.0007 Evaluation on Regulation (EU) No 748/2012

Efficiency/ proportionality

Evaluation of several aspects of the Regulation, including continued validity of type certificates issued by Member States on the basis of bilateral agreements with third countries (Article 3 (a)(1)

of Regulation (EU) No 748/2012).

Status Ongoing

Reference(s) n/a

Dependencies

Affected stakeholders EASA Part 21 organisations (DOA and POA holders, ETSOA holders, etc.), CAs

Owner EASA CT.5 Certification Strategy & Programming Department

EXPECTED OUTPUT

Deliverable(s) Timeline

Evaluation report 2021

CHANGES SINCE LAST EDITION

Adjustment of the task description.

10. Maintenance and continuing airworthiness management

This chapter includes all the 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 SRPs for the different types of air operations (see ASR 2019). The EASA ABs regularly provide feedback on the effectiveness of the actions in terms of efficiency/proportionality and level playing field.





10.1 Safety

RMT.0097 Functions of B1 and B2 support staff and responsibilities

Introduce principles for increased robustness of the maintenance certification process eliminating Safety

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

Dependencies

Affected stakeholders Part-145 MOs

EASA FS.1 **Owner** Maintenance & Production Department

Priority RM Procedure Harmonisation No Standard No

PLANNING MILESTONES NPA SubT **ToR Opinion Commission IR Decision** RMT.0097 2014-11 2021 Q3 2022 Q3 2022 Q3 02/11/2011 13/05/2014

CHANGES SINCE LAST EDITION

The task status is changed to 'ongoing' from 'de-prioritised'.





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 the criteria described in Chapter 3.

Reference(s) n/a

Dependencies RMT.0251

Affected stakeholders Air operators and CAMOs

Owner EASA FS.1 Maintenance & Production Department

Priority No RM Procedure Standard Harmonisation No

 PLANNING MILESTONES

 SubT
 ToR
 NPA
 Opinion
 Commission IR
 Decision

 RMT.0217
 2014-27
 tbd
 tbd
 tbd

 12/03/2013
 02/12/2014
 tbd
 tbd

CHANGES SINCE LAST EDITION

n/a

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 Ongoing

Reference(s) n/a

Dependencies

Affected stakeholders Air operators, CAMOs and AMOs (Part-145 and Part-M Subpart-F)

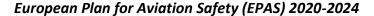
Owner EASA FS.1 Maintenance & Production Department

Priority No RM Procedure Standard Harmonisation No

PLANNING MILESTONES NPA Commission IR Decision SubT **ToR Opinion** RMT.0276 2014-04 13/2016 2019/1383 of 2020 Q1 08/07/2019103 28/11/2011 07/02/2014 17/11/2016

CHANGES SINCE LAST EDITION

¹⁰³ https://eur-lex.europa.eu/legal-





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

Dependencies

Affected stakeholders Air operators, CAMOs and CAs

Owner EASA FS.1 Maintenance & Production Department

Priority No RM Procedure Standard Harmonisation No

 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

CHANGES SINCE LAST EDITION

The task status is changed to 'ongoing' from 'de-prioritised'.

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
- assess the appropriateness of each KRE,
- determine the need for additional KREs, and
- 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)

Dependencies

Affected stakeholders CAs, CAMOs

Owner EASA FS.1 Maintenance & Production Department

Priority No RM Procedure Standard Harmonisation No

PLANNING MILESTONES							
SubT	ToR	NPA	Opinion	Commission IR	Decision		
	2021 Q1	2022 Q1	n/a	n/a	2023 Q1		
	CHANGES SINCE LAST EDITION						

CHANGES SINCE LAST EDITION



10. Maintenance and continuing airworthiness management

Develop new safety promotion material on high-profile maintenance safety issues **SPT.104**

Develop new safety promotion material on high-profile safety issues in the maintenance domain. Safety

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

Dependencies

Affected stakeholders ALL

EASA SM.1 **Owner** Maintenance & Production Department

EXPECTED OUTPUT Deliverable(s) **Timeline** Leaflets, videos, web pages and/or applications Continuous

CHANGES SINCE LAST EDITION





10.2 Level playing field

RMT.0096 Amendments (IRs and AMC & GM) in line with the process of granting foreign Part-145 approvals

Level playing field

The objective of this RMT is to modify existing or adopt additional AMC to Part-145, in order to solve current shortcomings and inconsistencies when dealing with foreign maintenance organisations, i.e. located outside the territories of the Member States. Some of these amended AMC may also be applicable to the approval of organisations within the Member States.

In most of the cases, these proposals cover issues that have already been discussed with accredited CAs working on behalf of the Agency or issues where the Agency has provided interpretation.

Status Ongoing

Reference(s) n/a

Dependencies

Affected stakeholders AMOs (Part-145)

Owner EASA FS.1 Maintenance & Production Department

Priority No RM Procedure Standard Harmonisation No

			PLANNING MILESTO	DNES	
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

CHANGES SINCE LAST EDITION

10.3 Efficiency/proportionality

RMT.0018 Installation of parts and appliances that are released without an EASA Form 1 or equivalent

Efficiency/pro portionality

The intent of this task is:

- 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

Dependencies

Affected stakeholders	DAHs, POA holders, a	aircraft operators, AMOs	(Part-145 and	Part-M Subpart F) and
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maintenance personnel

Owner EASA FS.1 Maintenance & Production Department

Priority No RM Procedure Standard Harmonisation No

PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0018 01/11/2012	2017-19 14/12/2017	2019 Q4	2021 Q3	2021 Q3

CHANGES SINCE LAST EDITION





RMT.0547 Task force for the review of Part-M for general aviation (PHASE II)

The following important topics are part of this task:

Efficiency/pro

Light Part-M;

portionality

Defect management; and

Time between overhaul (TBO) extension.

Status Ongoing.

Reference(s) n/a

Dependencies

Affected stakeholders AMOs (Part-145 and Part-M Subpart F), CAMOs, operators other than airlines, GA and

CAs

Owner EASA FS.1 Maintenance & Production Department

Priority Yes RM Procedure Standard Harmonisation No

			PLANNING MILESTON	IES		
SubT	ToR	NPA	Opinion	Commission IR	Decision	
	RMT.0547	2015-08	05/2016	2019/1383 of	2020 01	
	23/10/2012	09/07/2015	13/04/2016	08/07/2019 ¹⁰⁴	2020 Q1	
	CHANCES SINCE LAST EDITION					

CHANGES SINCE LAST EDITION

n/a

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

Finally, the below actions are directly relevant to maintenance and continuing airworthiness management:

SPT.106	Prevention, detection and mitigation of fraud cases in Part-147 organisations
MST.035	Oversight capabilities/focus area: fraud cases in Part-147

The full description is included in Section 5.3.5.

-

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) No 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-effective 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.

How we monitor improvement

The key risk areas and underlying safety issues will continue to be monitored as part of the SRP for ATM and ANS, with the support of the ATM CAG. The EASA ABs regularly provide feedback on the efficiency/proportionality of the actions.

11.1 Safety

The top three KRAs for ATM/ANS are listed below (refer to ASR 2019 Figure 86 and Table 30).

ATM/ANS		
KRA 1	KRA 2	KRA 3
Runway collision	Airborne collision	Runway excursion

How we want to achieve it: actions





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 completed in 2019.

Reference(s) n/a

Dependencies RMT.0470

Affected stakeholders ANSPs, CAs

Owner EASA FS.4 ATM/ANS & Aerodromes Department

Priority No RM Procedure Standard Harmonisation No

PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
1	RMT.0469 and RMT.0470 19/06/2012	2014-13 24/06/2014	03/2014 16/12/2014	2017/373 of 01/03/2017 ¹⁰⁵	2017/001/R 08/03/2017
2		2017-10 28/06/2017	n/a	n/a	2019/022/R 30/10/2019
		CH	IANGES SINCE LAST ED	ITION	

CHANGES SINCE LAST EDITION

n/a

Safety

SPT.103 Development of new safety promotion material on high-profile air traffic management safety

issues

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

Dependencies

Affected stakeholders CAT

Owner EASA SM.1 Safety Intelligence & Performance Department

Deliverable(s)

Leaflets, videos, web pages and/or applications

Continuous

CHANGES SINCE LAST EDITION

¹⁰⁵ https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32017R0373

11.2 Efficiency/proportionality

RMT.0161	Conformity	assessment

Efficiency/ proportionality

The development and introduction of systems necessitate that ground systems and constituents used in the provision of ATM/ANS demonstrate compliance with relevant requirements for safety, performance and interoperability in order to ensure the proper functioning of European ATM operations. Noting that the existing requirements for the issuance of EC declarations in Regulation (EC) No 552/2004 will cease to apply, this task will develop harmonised and mutually recognised mechanisms to attest compliance.

Status Ongoing

Reference(s) n/a

Dependencies

Affected stakeholders ATM/ANS providers, organisations involved in the design, production and maintenance

of ATM/ANS systems and constituents, and CAs (including EASA)

Owner EASA FS.4 ATM/ANS & Aerodromes Department

Priority No RM Procedure Standard Harmonisation No

			PLANNING MILESTO	NES		
SubT	ToR	NPA	Opinion	Commission IR	Decision	
	2020 Q1	2021 Q3	2022 Q3	2023 Q2	2023 Q2	

CHANGES SINCE LAST EDITION

Update of the task description. The task status is changed to 'ongoing' from 'de-prioritised'.



11. Air traffic management/air navigation services

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

design

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 to 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.

Status Ongoing

Reference(s) Commission Implementing Regulation (EU) 2018/1048 of 18 July 2018 (OJ L 189 26.7.2018 p. 3)

ATM Master Plan Level 3 – Plan (2019): NAV03.1 – RNAV1 in TMA Operations ATM Master Plan Level 3 – Plan (2019): NAV03.2 – RNP1 in TMA Operations

ATM Master Plan Level 3 - Plan (2019): NAV10 - RNP Approach procedures to instrument RWY

Dependencies

Affect	Affected stakeholders Member States, CAs, ANSPs, ADR operators and air operators				
Owner	r	EASA FS.4	ATM/ANS & Aerodromes Department		
Priorit	y Yes	RM Procedure	Standard	Harmonisation	No
		Р	LANNING MILESTON	NES	
SubT	ToR	NPA	Opinion	Commission IR	Decision
	RMT.0445 14/07/2014	2016-13 25/10/2016	02/2018 08/03/2018	2020 Q1	2020 Q1
CHANGES SINCE LAST EDITION					

CHANGES SINCE LAST EDITIO

ATM Master Plan references updated.

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-effective rules.

Status Ongoing
Reference(s) n/a

Dependencies

Affected stakeholders Member States, CAs, ANSPs, ATCOs, ADR operators, aircraft operators, pilots and trade

unions

Owner EASA FS.4 ATM/ANS & Aerodromes Department

Priority Yes RM Procedure Standard Harmonisation No

	·		PLANNING MILESTON	IES		
SubT	ToR	NPA	Opinion	Commission IR	Decision	
	RMT.0464	2016-09	03/2018	2020.01	2020 04	
	09/07/2014	14/09/2016	22/05/2018	2020 Q1	2020 Q1	
	CHANCES SINCE LAST EDITION					

CHANGES SINCE LAST EDITION



11. Air traffic management/air navigation services

RMT.0476	Regular u	Regular update of the standardised European rules of the air (stemming from ICAO SL)					
Efficiency/ proportionality		Review of the implementing rule to assure alignment with the new/amended ICAO annexes, including he development of AMC/GM.					
	SID and S	ne scope of the currently planned update includes the loss of radio communication procedures, the D and STAR phraseology and necessary corrections of the text identified during the implementation.					
Status	Ongoing	Ongoing					
Reference(s)	This RMT	may be affected by t	he recommendat	ions stemming from the WPG	R and the AAS.		
Dependencies							
Affected stakeholders Member States, CAs/NSAs, ATM/ANS providers, airspace users (e.g. aircraft oper aerodrome operators and EASA				e.g. aircraft operators),			
Owner		EASA FS.4	ATM/ANS & Aerodromes Department				
Priority	No	RM Procedure	DP	Harmonisation	No		
		F	PLANNING MILES	TONES			
SubT ToR		NPA	Opinion	Commission IR	Decision		
RMT.0- 18/08/		2021 Q4	2022 Q3	2023 Q4	2023 Q4		
		СНА	NGES SINCE LAS	EDITION			
Addition of the	task descrip	otion.					

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)	ATM Master Plan Level 3 $-$ Plan (2019): ITY-ADQ $-$ Ensure quality of aeronautical data and aeronautical information
Dependencies	

Affected stakeholders Member		Member States, C	States, CAs, ANSPs, ADR operators and air operators			
Owner		EASA FS.4	ATM/ANS & Ae	ATM/ANS & Aerodromes Department		
Priority	y Yes	RM Procedure	Standard	Harmonisation	No	
		ı	PLANNING MILESTO	NES		
SubT	ToR	NPA	Opinion	Commission IR	Decision	
	RMT.0477 11/10/2013	2016-02 27/04/2016	02/2018 08/03/2018	2020 Q1	2020 Q1	
		CHA	NGES SINCE LAST EI	DITION		
n/a	n/a					

RMT.0719 Regular update of air traffic management/air navigation services rules (IRs and AMC & GM)

Subtask 1

Efficiency/ proportionality

The objective is to transpose the latest amendments of ICAO Annex 3 provisions to Part-MET and V (Part-MET).

Subtask 2:

The objective is to maintain the set of AMC & GM on Subpart-ATSEP up-to date.

Subtask 3:

The objective is to introduce a set of additional AMC & GM, which are based on SESAR Safety Reference Material, as regards the scope of the change, the risk analysis process and the safety criteria determination by the providers of ATM/ANS.

Subtask 4:

The objective is o the transposethe relevant latest amendments of ICAO Annex 3 provisions to Part-

MET.

Status Ongoing

Reference(s) This RMT may be affected by the recommendations stemming from the WPGR and the AAS.

Dependencies RMT.0681, RMT.0445, RMT.0477.

Affected stakeholders ATM/ANS service providers, Network Manager, aircraft operators, CAs **Owner** EASA FS.4 ATM/ANS & Aerodromes Department **Priority** No **RM Procedure** see SubT Harmonisation No **PLANNING MILESTONES** ToR **NPA** SubT **Opinion Commission IR Decision** 02/2018 20/12/2017106 2020 Q1 1(DP) 18/08/2017 2020 Q1

8/3/2018 2(DP) 2020 Q2 2020 Q1 n/a n/a 2019-04 3(ST) n/a n/a 2020 Q2 11/04/2019 4(ST) 2021 Q3 2020 Q3 2021 Q1 2021 Q3

CHANGES SINCE LAST EDITION

Addition of the task description and subtasks.

¹⁰⁶ AB consultation.





RMT.0723 Regular update of development of AMC & GM for SKPI (ATM performance IRs)

Efficiency/

Reference Period 3

proportionality

The material will be published as European Commission material, not as AMC and GM. Therefore, no

Decision will be published by the Agency.

Status Ongoing

Reference(s) n/a

Dependencies

Affected stakeholders ANSPs and CAs

Owner EASA SM.1 Safety Intelligence & Performance Department

RM Procedure ST Harmonisation **Priority** No No

PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	29/06/2018	2019-10 19/09/2019	n/a	n/a	n/a

CHANGES SINCE LAST EDITION

Adjustment of the task title; Addition of the task description.

In addition to the above, the following RMTs are is also relevant for ATM/ANS:

RMT.0486 Alignment with the ICAO Standards and Recommended Practices as regards the provisions for air traffic controller fatigue management

The full description for this action is included in **Section 5.2.1.**

RMT.0519 **Regular update of CS-ACNS**

The full description for this action is included in **Section 9.3.**

RMT.0524	Data link services
RMT.0624	Remote aerodrome air traffic services
RMT.0679	Revision of surveillance performance and interoperability (SPI)

The full description for these actions is included in **Section 15.1.3**.



12. Aerodromes

This Chapter addresses aerodrome design and operations, as well as aerodrome operators. Actions in this Chapter address safety, as well as efficiency/proportionality in terms of developing and maintaining 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.

Actions in this Chapter aim at maintaining a high uniform level of safety in the Member States, ensuring compliance with the ICAO SAPRs and a harmonised approach which will support the free movement of services within the Member States.

How we monitor improvement

The key risk areas and underlying safety issues will continue to be monitored as part of the joint SRP for ADR and GH, with the support of the ADR CAG. The EASA ABs will provide feedback on the efficiency/proportionality of the actions.

12.1 Safety

The top three KRAs for aerodromes and groundhandling are listed below (refer to ASR 2019 Figure 75 and Table 25).

Aerodromes and groundhandling (ADR and GH)						
KRA 1	KRA 2	KRA 3				
Ground collision	Aircraft upset	Runway excursion				

How we want to achieve it: actions

Commission IR

2020 Q2

Decision

2020 Q2



RMT.0703	Runway sa	afety					
Safety		d EAPPRE contain sev	veral recommendat	ions addressed to CAs, ADR	R operators and EASA in		
	GM and C	In the ADR domain, EASA had included in Regulation (EU) No $139/2014^{107}$ 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	Ongoing					
	GASP SEIs (States) – Mitigate contributing factors to the risks of RE and RI;						
Reference(s)	ATM Massexcursions		lan (2019): SAF11	– Improve runway safety	by preventing runway		
	ATM Mast	er Plan Level 3 – Plar	n (2019): INF07 – Ele	ectronic Terrain and Obstac	le Data (e-TOD)		
Dependencies							
Affected stake	holders	Aerodrome operate	ors, AOC holders, G	A, ANSPs and CAs			
Owner		EASA FS.4	ATM/ANS & Ae	rodromes Department			
Priority	Yes	RM Procedure	Standard	Harmonisation	No		
		Pl	LANNING MILESTO	NES			

Opinion

03-2019

24/06/2019
CHANGES SINCE LAST EDITION

NPA

2018-14

17/12/2018

RMT.0722	Provision of aeronautical data by the aerodrome 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 the criteria described in Chapter 3.
Reference(s)	ATM Master Plan Level 3 – Plan (2019): INF07 – Electronic Terrain and Obstacle Data (e-TOD)
	ATM Master Plan Level 3 – Plan (2019): ITY-ADQ – Ensure quality of aeronautical data and aeronautical information

Dependencies

SubT

n/a

ToR

RMT.0703

14/0/2017

Affected stakeholders A		Aerodrome opera	tors		
Owner		EASA FS.4	ATM/ANS & Aerodromes Department		
Priority	No	RM Procedure	Standard	Harmonisation	No
PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
	tbd	tbd	tbd	tbd	tbd
		СНА	NGES SINCE LAST EI	DITION	
Referenc	es to ATM Maste	er Plan updated.			

¹⁰⁷ 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.

12. Aerodromes

SPT.102 Development of 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 Basic Regulation.

Status Ongoing

Reference(s) n/a

Dependencies

Affected stakeholders A Aerodrome operators, AOC holders, ANSPs and CAs

Owner EASA SM.1 Safety Intelligence & Performance Department

EXPECTED OUTPUT Deliverable(s) **Timeline** Leaflets, videos, web pages and/or applications Continuous

CHANGES SINCE LAST EDITION

n/a

MST.029 Implementation of SESAR runway safety solutions

Safety HF

Member States 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 108.

These SESAR solutions (solutions #01, #02, #04, #26, #47, #48, #70), designed to improve runway safety, should be considered as far as it is feasible.

See SESAR Solutions Catalogue 2019 third edition:

https://www.sesarju.eu/sites/default/files/documents/reports/SESAR Solutions Catalogue 2019

web.pdf

Status Ongoing

Reference(s) GASP SEIs (States) - Mitigate contributing factors to the risks of RE and RI

Dependencies

Affected stakeholders Aerodrome operators, AOC holders, ANSPs and CAs

Owner Member States

EXPECTED OUTPUT Deliverable(s) Timeline **SPAS** 2020 **CHANGES SINCE LAST EDITION**

¹⁰⁸ https://www.atmmasterplan.eu/exec/operational-changes

12. Aerodromes

12.2 Level playing field

RMT.0485 Requirements for apron management services at aerodromes

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 Member States and ensure a harmonised approach which will support the free movement of services within the Member States and reduce the administrative burden especially for those providers providing AMS in different Member States. Opinion No 02/2014 will be reviewed in 2019 and updated as necessary to be in line with the Basic Regulation.

Status Ongoing

Reference(s) n/a

Dependencies

Affected stakeholders Aerodrome operators, ANSPs, AOC holders and CAs

Owner EASA FS.4 ATM/ANS & Aerodromes Department

Priority No RM Procedure Standard Harmonisation No

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 Q4	2020 Q4	

CHANGES SINCE LAST EDITION



12.3 Efficiency/proportionality

RMT.0591 Regular update of aerodrome rules

Efficiency/ The

The first stream is for the update of CS, while the second one is for the update of IRs and AMC/GM.

proportionality

Status Ongoing

Reference(s) n/a

Dependencies RMT.0681

Affected stakeholders Aerodrome operators, CAs

Owner EASA FS4 ATM/ANS & Aerodromes Department

Priority No RM Procedure Standard Harmonisation No

PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
1	RMT.0591 29/07/2016	2020 Q3	n/a	n/a	2021 Q3
2		2020 Q3	2021 Q2	2022 Q1	2022 Q1

CHANGES SINCE LAST EDITION

Addition of the task description.

Evaluation on Commission Regulation (EU) No 139/2014 (the 'Aerodrome Regulation')

Efficiency/ proportionality

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 New Reference(s) n/a

Dependencies

Affected stakeholders Aerodrome operators, CAs

Owner EASA FS.4 ATM/ANS & Aerodromes Department

EXPECTED OUTPUT

Deliverable(s)

Evaluation report

CHANGES SINCE LAST EDITION

13. Groundhandling

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.

13.1 Safety

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. Baggage and cargo loading in passenger aircraft is the top safety issue based on the number of occurrences in the ECR. The second issue that will be assessed in the European SRM process will be ground staff movement around aircraft (see ASR 2019).

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 joint SRP for ADR and GH, with the support of the ADR CAG. The EASA ABs regularly provide feedback on the efficiency/proportionality of the actions and on the effect on level playing field.

13. Groundhandling

How we want to achieve it: actions

RMT.0728 Development of requirements for groundhandling

Safety

Develop IRs/AMC & GM to ensure compliance with the essential requirements contained in Annex VII to the Basic Regulation. This will consider operational requirements, organisational requirements and authority requirements, as deemed necessary. Detailed objectives and actions are defined by the Groundhandling Roadmap which was subject to a focused consultation in Q1/2019. In addition, the task will include RMT.0705.

Develop requirements for:

- the establishment of the methods for the delivery, storage, dispending and handling of dangerous goods at the ADR; and
- 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 Reference(s) n/a

Dependencies

Affected stakeholders CAs, groundhandling service providers, aerodrome operators, AOC holders and

groundhandling staff

Owner EASA FS.4 ATM/ANS & Aerodromes Department

Priority Yes **RM Procedure** AP Harmonisation No

PLANNING MILESTONES						
SubT	ToR	NPA	Opinion	Commission IR	Decision	
1	2019 Q4	2020 Q1 ¹⁰⁹	2021 Q4	2022 Q4	2022 Q4	

CHANGES SINCE LAST EDITION

The task description is updated. This RMT now includes RMT.0705.

In addition to the above, the following SPT is also directly relevant to groundhandling:

SPT.102	Development of new safety promotion material on high-profile aerodrome and groundhandling safety issues
SPT.109	Raise of awareness of the risk posed by icing in-flight and potential mitigations

The full description for these actions is included in Chapter 6 (SPT.109) and Chapter 12 (SPT.102).



14. Unmanned aircraft systems

14. Unmanned aircraft systems

This chapter includes all the actions that are relevant to ensure the safe integration of civil unmanned aircraft systems into the aviation system.

14.1 Safety

Issue/rationale

Most of the EU Member States have adopted national regulations to *ensure safe operations* of UASs with MTOMs below 150 kg. With the extension of the scope of the EU competence through Regulation (EU) 2018/1139 to regulate UASs with MTOMs below 150 kg and the recent adoption of the EU requirements for the operation of UASs in the 'open' and 'specific' categories (Commission Implementing Regulations (EU) 2019/947 and 2019/945), Member States will need to modify the already adopted national regulations.

The already adopted regulations need to be complemented with additional actions as explained in **Section 3.1.1.4.** These actions aim at completing this framework and thus enable harmonised rules at EU level. They are also linked with other actions in EPAS (such as RMT.0731) and aim at enabling standardised UAS operations as well as more complex operations of UAS such as operations in an urban environment (e.g. urban air mobility).

While regulating UAS 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 into the airspace. SJU has worked with the support of EASA and all relevant stakeholders on the development of what is named U-space¹¹⁰. 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, the SJU prepared the U-space Blue Print¹¹¹ describing the vision for U-space. In addition, the European Roadmap for safe integration of drones in all airspace classes¹¹² was also prepared by the SJU with EASA support and adopted by the EC. The ATM Master Plan reflects the details about the integration of UASs into the EU airspace.

What we want to achieve

To create a level playing field in all EU Member States, using an operation-centric concept, which is proportionate and risk- and performance-based, so that all companies can make best use of 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 relevant EASA ABs regularly provide feedback on the effectiveness of the activities.

How we want to achieve it: actions

¹¹⁰ U-space is the European name for unmanned traffic management (UTM).

https://www.sesarju.eu/u-space-blueprint

 $^{{\}color{blue} {}^{112}} \ \underline{\text{https://www.sesarju.eu/sites/default/files/documents/reports/European\%20ATM\%20Master\%20Plan\%20Drone\%20roadmap.pdf}$



14. Unmanned aircraft systems

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

Safety

Development of IRs (including implementing and delegated acts) for UASs, implementing Articles 55 to 57 of and Annex IX to Regulation (EU) No 2018/1139.

This task will also cover the development of a high-level regulatory framework on U-space, which is expected to result in an Opinion early 2020.

There are three categories of UAS defined:

- 'Open' category: low-risk operation not requiring authorisation or declaration before flight
- "Specific' 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 and to address U-space, the following seven subtasks were identified:

- 1 'Open' and 'specific' category with development of new, dedicated implementing and delegated acts
- 2 'Certified' category with amendments to IAW, CAW, FCL, OPS, SERA, ADR, ATM/ANS for 3 types of operations:
 - Operations type #1: IFR operations of certified UAS cargo flying in airspace classes A-C and taking-off and landing at aerodromes under EASA's scope
 - Operations type #2: UAS operations in urban environment using predefined routes in volume of airspaces where U-space services are provided. This includes operations of UAS VTOL type carrying passengers (i.e. air taxis) and small UAS cargo providing delivery services.
 - Operations type #3: Operations as in type#2 conducted with manned VTOL.

This task will among others address electric and hybrid propulsion for all domains with the exception of CAW. Indeed, considering the extent of the modifications expected for this specific domain, it has been decided to manage the CAW development for electric and hybrid propulsion in the dedicated RMT.0731.

- 3 Covered by RMT.0729 and RMT.0730
- 4 'Certified' category with amendments to CS-ETSO and CS-36
- 5 'Certified' category with development of a new CS-UAS and a new CS-Light UAS
- 6 Development of high-level regulatory framework on U-space
- 7 'Certified' category with further amendments to ATM/ANS, ATCO, SERA, ACAS and CS-ACNS mainly in relation to the introduction of detect and avoid systems/capabilities, but not only.

For the maintenance of the Regulation and the AMC & GM developed under subtasks one and three, two new RMTs have been created. Please refer to RMT.0729 and RMT.0730.

Status Ongoing

Reference(s) n/a

Dependencies RMT.0729, RMT.0730, RMT.0731

Affected stakeholders Member States, UAS operators (individuals and organisations), UAS manufacturers, manned

aviation community, model aircraft community, ATM/ANS service providers, U-space service

providers, ADR operators, all airspace users

Owner EASA ED.0 Executive Director's Office

Priority Yes RM Procedure See SubT Harmonisation No



14. Unmanned aircraft systems

PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
				2019/945 of	
1(ST)	22/12/2016	04/05/2017	01/2018	12/03/2019 ¹¹³	ED 2019/021/R
			06/02/2018	2019/947 of	10/10/2019
				24/05/2019 ¹¹⁴	
2(ST)		2020 Q4	2021 Q4	2022 Q4	2023 Q1
3		n/a	n/a	n/a	n/a
4(ST)		2021 Q4	n/a	n/a	2022 Q3
5(DP)		2021 Q4	n/a	n/a	2022 Q3
6(AP)		2019 Q4	2020 Q1	2020 Q4	2021 Q1
7(ST)		2022 Q4	2023 Q4	2024 Q4	2025 Q1

https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32019R0945
 https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32019R0947



14. Unmanned aircraft systems

RMT.0729 Regular update of Regulations (EU) 2019/945 & 2019/947 (drones in the 'open' and 'specific' categories)

Safety

Addition of two standard scenarios (STSs) in Appendix 1 to the Annex to Regulation (EU) 2019/947, defining the conditions when a UAS operator can start an operation after having submitted a declaration to the competent authority. Moreover, the inclusion of two new Parts in the Annex to Regulation (EU) 2019/945 is proposed, including the technical requirements that UAS need to meet in order to be operated in the STSs, and establishing two new UAS classes — classes C5 and C6.

Subtask 1:

It covers two standard scenarios:

- VLOS (visual line of sight) in urban over controlled area; and
- BVLOS (beyond visual line of sight) in sparsely populated environment over controlled area using visual observers.

Subtask 2:

It will cover another standard scenario for operation over powerlines (in BVLOS and atypical airspace).

Status Ongoing
Reference(s) n/a
Dependencies RMT.0230

Affected stakeholders

UAS operators (private and commercial); competent authorities; flight crews; remote pilots; maintenance staff; design and production organisations; other airspace users (manned aircraft); service providers of air traffic management/air navigation services (ATM/ANS) and other ATM network functions; air traffic services (ATS) personnel; aerodrome operators; general public; model aircraft associations

Owner EASA ED.0 Executive Director's Office

Priority No RM Procedure DP Harmonisation No

PLANNING MILESTONES					
SubT	ToR	NPA	Opinion	Commission IR	Decision
1	26/07/2019	2019 Q4 ¹¹⁵	05/2019 07/11/2019	2020 Q2	n/a
2	26/07/2019	2021 Q1 ¹¹⁶	2021 Q1	2021 Q3	n/a

CHANGES SINCE LAST EDITION

Adjustment of the task title. Addition of the task description and subtasks.

¹¹⁵ Instead of an NPA public consultation, the procedure laid down in Article 16 of MB Decision No 18-2015 was applied.

¹¹⁶ Instead of an NPA public consultation, the procedure laid down in Article 15 of MB Decision No 18-2015 will be applied.



14. Unmanned aircraft systems

RMT.0730 Regular update of the AMC & GM to Regulations (EU) 2019/945 & 2019/947 (drones in the 'open'

and 'specific' categories)

Safety Predefined risk assessment (PDRA) and recognition of industry standards in support of the specific

operations risk assessment (SORA) methodology

Subtask 1:

PDRA for BVLOS operations over sparsely populated areas at less than 150 m above the overflown

surface and in uncontrolled airspace

Subtask 2:

Additional PDRA and additional industry standards

Status Ongoing

Reference(s) n/a

Dependencies

Affected stakeholders UAS operators (private and commercial); competent authorities; flight crews; remote

> pilots; maintenance staff; design and production organisations; other airspace users (manned aircraft); service providers of air traffic management/air navigation services (ATM/ANS) and other ATM network functions; air traffic services (ATS) personnel;

aerodrome operators; general public; model aircraft associations

Owner EASA ED.0 Executive Director's Office

RM Procedure Standard Harmonisation **Priority** No No

PLANNING MILESTONES						
SubT	ToR	NPA	Opinion	Commission IR	Decision	
1	26/07/2019	2020 Q3	n/a	n/a	2021 Q2	
2	26/07/2019	2021 Q3	n/a	n/a	2022 Q2	

CHANGES SINCE LAST EDITION

Adjustment of the task title. Addition of the task description and subtasks.

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

Safety

Status Ongoing Reference(s) n/a

Dependencies

Affected stakeholders UAS operators (private and commercial);

SPN Owner Safety Promotion Network

EXPECTED OUTPUT					
Deliverable(s)	Timeline				
Safety Promotion material	2021				
CHANGES SINCE LAST EDITION					



14. Unmanned aircraft systems

RES.015 Vulnerability of manned aircraft to drone strikes

Assessment of the potential collision threats posed by drones to manned aircraft and evaluation Safety

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

Dependencies

Air operators in CAT & NCC, SPO, HE, GA Affected stakeholders

Owner EASA SM.0.1 Strategy & Safety Management Director's Office

PLANNING MILESTONES Starting date Interim Report Final Report 2020 Q1 n/a 2023 Q1

CHANGES SINCE LAST EDITION

The research action will be funded through H2020; contracting and technical management has been delegated to EASA by the EC.

RES.022 SESAR 2020 research projects aiming to safely integrate drones in the airspace

The following research activities are being addressed under the SESAR 2020 programme: surface

operations by UAS (PJ.03a-09); IFR UAS Integration (PJ. 10-05).

A first project for large-scale demonstrations (SESAR-VLD1-10-2016 (PODIUM project)) was launched in 2017, followed by Explorary Research calls in 2019, SESAR-ER4-28-2019 and SESAR-ER4-29-2019

(proposals under evaluation).

Status Ongoing

Reference(s) SESAR solution PJ.03a-09, PJ.10-05 - https://www.sesarju.eu/projects/podium

Dependencies

Safety

Affected stakeholders UAS, OEM

Owner SESAR

PLANNING MILESTONES					
Starting date	Interim Report	Final Report			
2017 n/a		2022			
CHANGES SINCE LAST EDITION					

Update of the task description.





Safety

14. Unmanned aircraft systems

RES.023 SESAR exploratory projects on U-space

SESAR JU has launched U-space exploratory research as a step towards realising the European

Commission's U-space vision for ensuring safe and secure access to airspace for drones.

Implemented through SESAR Call for proposal H2020-SESAR-2016-1 (CORUS project) and Exploratory

Research call SESAR-ER4-31-2019 (proposals under evaluation).

Status Ongoing

SESAR¹¹⁷ - https://www.sesarju.eu/projects/corus Reference(s)

Dependencies n/a

Affected stakeholders UAS/drones

Owner SESAR

PLANNING MILESTONES							
Starting date Interim Report Final Report							
2017 Q3	2017 Q3 n/a 2022						
CHANGES SINCE LAST EDITION							

Update of the task description.

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 and/or efficiency, EPAS gives due consideration to the safety issues deriving 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 Safety

15.1.1 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 Member States, 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 Member States 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 regularly provide feedback on the effectiveness of the activities.



15. New technologies and concepts

RMT.0300 Operations with airships

Development of rules for the safe operation of airships.

Safety

Status On hold (until further notice)

Reference(s) n/a

Dependencies

Affected stakeholders Airship operators and airship DOA/POA holders

Owner EASA FS.2 Air Operations Department

Priority No RM Procedure tbd Harmonisation tbd

PLANNING MILESTONES

SubT TOR NPA Opinion Commission IR Decision

CHANGES SINCE LAST EDITION

This task is put on hold due to resource restrictions, giving priority to more pressing matters. Nonetheless, EASA is still following the development and envisages integrating it into next available rulemaking opportunities. One such opportunity might exist, partially, with RMT.0731 'New air mobility'.

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

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

Status On hold (until further notice)

Reference(s) n/a

Dependencies

Affected stakeholders CAT, SPO, NCC helicopter operators, flight crew

Owner EASA FS.2 Air Operations Department

Priority No RM Procedure tbd Harmonisation tbd

PLANNING MILESTONES

SubT ToR NPA Opinion Commission IR Decision

CHANGES SINCE LAST EDITION

This task is put on hold due to resource restrictions, giving priority to more pressing matters. Nonetheless, EASA is still following the development and envisages integrating it into next available rulemaking opportunities.





RES.028 Single pilot operations risk assessment framework

Development of the risk assessment framework to assess the main hazards associated to the Safety

pproposed concepts for reduced crew operations or single pilot operations, investigation of hazard

timitigations and means to perform compliance demonstrations.

Status New. Not started

Reference(s) Reduced-Crew Operations (ReCO) & Single-Pilot Operations (SiPO) Agency's project ToR

Dependencies

Affected stakeholders CAT operators and aircrew

Owner Strategy & Safety Management Director's Office EASA SM.0.1

> and CT **Certification Directorate**

PLANNING MILESTONES						
Starting date	Interim Report	Final Report				
2020	2021	2022				
	CHANGES SINCE LAST ED	ITION				
n/a						

15.1.2 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 regularly provide 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 develo	To develop IRs for powered lift pilot licensing and operations.				
Status	On hold (On hold (until further notice)				
Reference(s)	n/a					
Affected stake	eholders	Pilots, ATOs, and C	As			
Owner		EASA FS	Flight Stand	ards Directorate		
Priority	No	RM Procedure	tbd	Harmonisation	tbd	
		P	LANNING MILES	TONES		
SubT ToR		NPA	Opinion	Commission IR	Decision	
		CHAI	NGFS SINCE LAS	FEDITION		

CHANGES SINCE LAST EDITION

This task is put on hold due to resource restrictions, giving priority to more pressing matters. Nonetheless, EASA is still following the development and envisages integrating it into next available rulemaking opportunities. One such opportunity might exist, partially, with RMT.0731 'New air mobility'.

RMT.0731

New air mobility

Safety

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 air transport concepts (from multi-modal vehicles to autonomous vehicles) requires revisiting 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 of adapting the regulatory framework in line with PBR principles. A general principle that will govern this RMT is that future requirements should be technology-neutral where possible, while ensuring legal certainty.

This RMT is expected to lead to different streams of activity. A first stream has been defined, indicated here below as subtask 1. Potentially, more streams to cover other future projects will be added, including the development of CSs based on experience gained in certification projects applying SCs such as for VTOL or electric and hybrid propulsion.

Subtask 1:

Electric and hybrid propulsion: Continuing airworthiness requirements for electric and hybrid propulsion for all types of aircraft. The activities in the context of this subtask need to be coordinated with those of RMT.0230.

Note:

- * e-VTOL electric propulsion aspects related to ADR, ATM, FCL, OPS domains are being addressed through RMT.0230,
- * A first set of FCL and OPS electric and hybrid propulsion-related requirements for other aircraft types are being addressed through RMT.0678 (FCL) and RMT.0573 (OPS) respectively.

Status New Reference(s) n/a

Dependencies RMT.0230; RMT.0678; RMT.0573.

Affected stakeholders All		All					
Owner E		EASA SM.2	EASA SM.2 Strategy & Programmes Department				
Priority	y Yes	RM Procedure	ST	Harmonisation	No		
	PLANNING MILESTONES						
SubT	ToR	NPA	Opinion	Commission IR	Decision		
1	2020 Q1	2020 Q3	2021 Q1	2022 Q1	2022 Q1		
	CHANGES SINCE LAST EDITION						
n/a	_		_				



15. New technologies and concepts

15.1.3 SESAR deployment

Issue/rationale

This section includes relevant EPAS actions to implement the regulatory needs supporting the modernisation of the Single European Sky ATM System, with the exception of SESAR items that are only relevant to UAS (and therefore are included in **Chapter 14**).

What we want to achieve

The rationale behind the following actions is to cater for the regulatory and implementation needs of the SESAR essential operational changes and other new technological advancements (such as, but not limited to, U-space technological solutions, virtualisation and cloud-based architecture and remote tower operations) by enabling the use of new working methods, operational improvements and technologies developed by the SESAR programme. Interoperability, civil-military cooperation and international compatibility (e.g. such as but not limited to ICAO GANP/ASBUs and NextGen alignment) will form an integral part of EASA's work. In addition, consolidated and coordinated implementation support actions that facilitate the operational improvements and new ATM operational concepts need to be established.

How we monitor improvement

The EASA ABs regularly provide feedback on the effectiveness of the activities.



15. New technologies and concepts

How we want to achieve it: actions

RMT.0524 Data link services

Safety

Subtask 1: Provide regulatory clarity and alignment with the latest ICAO documents and industry standards on the operational usage of Downlink Message (DM) 89 'MONITORING', while ensuring a negligible impact on data link installations that already comply with Commission Regulation (EC) No 29/2009.

Subtask 2: Consider regulatory recommendations resulting from the analysis of the technical issues observed during the deployment of Regulation (EC) No 29/2009 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).

*Instead of an NPA public consultation, the procedure in Article 15 or that in Article 16 of MB Decision No 18-2015 will be applied.

Status

Ongoing

Reference(s)

ATM Master Plan Level 3 - Plan (2019): ITY-AGDL - Initial ATC air-ground data link services

Dependencies

Affecte	Affected stakeholders CAs, ANSPs, ADR operators, air operators, manufacturers and ATCOs						
Owner	EASA FS.4 ATM/ANS & Aerodromes Department						
Priority Yes		RM Procedure	See field 'SubT' Harmonisation		No		
PLANNING MILESTONES							
SubT	ToR	NPA	Opinion	Commission IR	Decision		
1(DP)	1(DP) RMT.0524 29/01/2018 17/10/2019* 2019 Q4 2019 Q4 2019 Q4				2019 Q4		
2(ST)	2(ST) n/a 2021 Q2 2022 Q2 2023 Q4 2023 Q4						
CHANGES SINCE LAST EDITION							

Addition of Subt 1 information.

Note: This RMT supports the CNS infrastructure and services Essential Operational Change (EOC) of the ATM Master Plan fourth edition.



15. New technologies and concepts

RMT.0624 Remote aerodrome air traffic services

Safety

The development and introduction of new technologies enables provision of aerodrome ATS (aerodrome air traffic control service or aerodrome flight information service) from geographically independent locations/facilities, rather than by direct visual observation.

As a follow-up of the substantial work undertaken to produce, develop and further expand soft law on remote aerodrome ATS provision, EASA intends to continue monitoring the rapid evolution of the research and implementation on remote/virtual tower from its various perspectives, in particular the technological, operational and human performance developments. For this purposes, EASA will amend the ToR for RMT.0624 to set the objectives, the processes and the deadlines to maintain its regulatory framework up to date with the evolution of the remote/virtual tower concept.

Status Ongoing

Reference(s) ATM Master Plan (Level 3 Ed 2019) action AOP14 (Remote Tower Services)

Dependencies

Affect	fected stakeholders CAs, ANSPs and aerodrome operators					
Owner	r	EASA FS.4	ATM/ANS & Aerodromes Department			
Priorit	Priority Yes RM Procedure Standard Harmonisation No				No	
		Р	LANNING MILESTO	NES		
SubT	ToR	NPA	Opinion	Commission IR	Decision	
1	1 2019 Q4 2022 Q1 n/a n/a 2023 Q1					
	CHANGES SINCE LAST EDITION					
Update	Update of the task description.					



15. New technologies and concepts

RMT.0679 Revision of surveillance performance and interoperability (SPI)

Safety

The current SPI Regulation (Regulation (EU) No 1207/2011¹¹⁸) 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 with such equipment.

Note: Based on the CBAs results, EASA has decided not to propose significant changes to the present SPI Regulation. Therefore, EASA will not publish an NPA but prepare a report to the EC. 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.

*Instead of an NPA public consultation, the procedure in Article 15 or that in Article 16 of MB Decision No 18-2015 will be applied.

Status Ongoing

Reference(s) ATM Master Plan Level 3 – Plan (2019): ITY-SPI – Surveillance performance and interoperability

Dependencies

PHOTILY	Priority Yes RM Procedure DP Harmonisation No PLANNING MILESTONES					
Duiouitu	Vos	DM Dropoduro	, DD	Harmonisation No.		
Owner EASA FS.4		ATM/ANS & Aerodromes Department				
Affected stakeholders Member States, CA			s, ANSPs, aircr	aft operators and Air Traffic Controllers.		

	PLANNING MILESTONES						
SubT	ToR	NPA*	Opinion	Commission IR	Decision		
	RMT.0679 18/03/2016	2020 Q1*	n/a	2020 Q1	2020 Q1		

CHANGES SINCE LAST EDITION

This RMT supports the CNS infrastructure and services Essential Operational Change (EOC) of the ATM Master Plan fourth edition. It is expected to be completed by the end of 2019/early 2020, subject to the publication of the corresponding Implementing Regulation.

¹¹⁸ 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

Timeline

2020



Deliverable(s)

n/a

Safety Promotion material

15. New technologies and concepts

RMT.0682	Implementation of the regulatory needs of the SESAR common projects				
Safety	safe deplo	oyment of SESAR Il changes stemmin	Solutions that enable grow the SESAR promether section is the SESAR prometries.	e necessary measures as repleted the Essential Operation of the Essential Operation of the European Action issues which are not cover	onal Changes and other ATM Master Plan and the
Status	Ongoing				
Reference(s)				tions stemming from the es (EOC) of the ATM Master	
Dependencies					
Affected stakeh	olders	Member States, C	CAs, ANSPs, air opera	tors, ADR operators, POA h	nolders
Owner		EASA FS.4	ATM/ANS & Ae	rodromes Department	
Priority	No	RM Procedure	Standard	Harmonisation	No
			PLANNING MILESTO	ONES	
SubT ToR		NPA	Opinion	Commission IR	Decision
2019 Q	4	2021 Q2	2022 Q4	2023 Q1	2023 Q1
- Full and a source at a f			ANGES SINCE LAST E		and a Chartan 2
Ennancement of	the task de	scription. This task	is rescheduled in acc	cordance with the criteria d	escribed in Chapter 3.
SPT.108			ppean provisions on operational changes	performance-based navig	ation and the associated
Safety	The objective is to complement Regulation (EU) 2018/1048 with respect to airspace usage requirements and operating procedures concerning performance-based navigation with relevant promotion material.				•
Status	New				
Reference(s)	n/a				
Dependencies					
Affected stakeh	olders	ANSPs, ADR opera	ators, aircraft operat	ors, procedure designers, N	Network Manager
Owner		EASA FS.4	ATM/ANS & Aerod	romes Department	

EXPECTED OUTPUT

CHANGES SINCE LAST EDITION



15. New technologies and concepts

15.1.4 All-weather operations (AWOs)

Issue/rationale

AWOs are currently addressed by regulations in the following aviation domains: airworthiness, air operations, aircrew, aerodromes, ATM/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 AWOs will be ensured on the basis of the CAT SRP for CAT by aeroplane & NCC operations. The EASA ABs regularly provide feedback on the effectiveness of the activities.



15. New technologies and concepts

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);
- operations other than AWOs, 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 I¹¹⁹ not being yet part of the ICAO regulatory system.

Recommendations and consequent follow-up actions to the Weather Information to Pilots Strategy Paper, also an outcome of RMT.0379, are now being taken forward as a stand-alone project. Phase 2 (subtask 2) will address AWOs for helicopters.

Substask 3 is addressing Certification Specifications.

Status Ongoing

Reference(s) n/a

Dependencies

Affect	ected stakeholders POA holders, air operators, ATOs, ADR operators and ATM/ANS						
Owner	r	EASA FS.2	Air Operations Department				
Priorit	y Yes	RM Procedure	Standard	Harmonisation	Yes		
PLANNING MILESTONES							
SubT	ToR	NPA	Opinion	Commission IR	Decision		
1	RMT.0379 09/12/2015	2018-06 13/07/2018	2020 Q3	2022 Q2	2022 Q2		
2		2019-09 12/09/2019	2020 Q3	2022 Q2	2022 Q2		
3	3 n/a n/a n/a 2020 Q2						
CHANGES SINCE LAST EDITION							
Additio	Addition of phase (Subtask) 3.						

¹¹⁹ Special authorisation CAT I represents a type of LVOs 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, Member States, the 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 EAER, which provides an overview of the historic, current and forecasted environmental performance of the European aviation sector.

In February 2019 the ICAO Committee on Aviation Environmental Protection (CAEP) agreed on a new nvPM emissions standard and proposed improvements to the existing noise, aircraft engine emissions and aeroplane CO_2 emissions standards and guidance. As European environmental standards are defined by reference to ICAO standards, the agreed updates to the environmental standards as well as guidance will need to be incorporated into the European regulatory framework in order to be implemented in Europe.

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

16.1 Noise, local air quality and climate change standards

Issue/rationale

Implement the ICAO Annex 16 Volume I, Volume II and Volume III standards in Europe.

What we want to achieve

Align the:

- Basic Regulation;
- Implementing Rules (currently, Regulation (EU) No 748/2012);
- AMC & GM to the Implementing Rules; and
- CS-34, CS-36 and CS-CO₂.

with the ICAO SARPs and guidance material resulting from the CAEP/11 work cycle.

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 EAER.

RMT.0514 Implementation of the CAEP amendments

The implementation of CAEP/11 ICAO SARPs will start in 2020 under Subtask 2 and will align the:

- Basic Regulation;
- Implementing Rules (currently, Regulation (EU) No 748/2012);
- AMC & GM to the Implementing Rules; and
- CS-34, CS-36 and CS-CO₂

with the ICAO SARPs and guidance material resulting from the CAEP/11 work cycle.

NB: The below timelines under Subtask 1 are related to the implementation of CAEP/10 ICAO SARPs. The implementation of CAEP/10 ICAO SARPs (RMT.0513 and RMT.0514) was finalised for the AMC & GM to Part 21 and the CS-34, CS-36 and CS-CO $_2$ through Decisions 2019/014/R, 2019/015/R and 2019/016/R.

The content of RMT.0513 is incorporated in RMT.0514.

Status Ongoing

Reference(s)

Basic Regulation Article 9, Basic Regulation Implementing Rules, AMC&GM to Part 21, CS-34, CS-36 and

CS-CO₂

Dependencies

Affecte	ed stakeholders	DOA and POA holders					
Owner	r	EASA CT.4	Environment & Prop	ulsion Systems Departr	ment		
Priorit	y Yes	RM Procedure	Standard	Harmonisation	n/a		
	PLANNING MILESTONES						
SubT	ToR	NPA	Opinion	Commission IR	Decision		
	RMT.0513 &				2019/014/R		
1	RMT.0514	2017-01	09/2017	2019/897 of	2019/015/R		
1	13/06/2016	17/01/2017	07/11/2017	12/03/2019 ¹²⁰	2019/016/R		
	13/00/2010				29/07/2019		
2	n/a	2020 Q1	2020 Q4	2022 Q1	2022 Q1		

CHANGES SINCE LAST EDITION

Enhancement of the task description.

¹²⁰ https://eur-lex.europa.eu/legal-content/GA/TXT/?uri=CELEX:32019R0897



16. Environmental protection

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 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 Reference(s) n/a

Dependencies

Affected stakeholders DOA holders, air operators (CAT)

Owner SM.0.1 Strategy & Safety Management Director's Office

PLANNING MILESTONES

Starting date Interim Report Final Report
2020 Q1 n/a 2023 Q1

CHANGES SINCE LAST EDITION

RES.018 and RES.019 have been merged to RES.024. The research action will be funded through H2020; contracting and technical management has been delegated to EASA by the EC.

RES.025 Assessment of environmental impacts — aircraft noise

Development of extended and more robust standards for the purpose of supporting the assessment of <u>aircraft noise</u> footprints. The focus will be twofold:

- 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 VTOL
 aircraft.

Status New Reference(s) n/a

Dependencies

Affected stakeholders DOA holders and organisations intending to develop new aircraft concepts (VTOL,

supersonic, etc.)

Owner SM.0.1 Strategy & Safety Management Director's Office

PLANNING MILESTONES

Starting date Interim Report Final Report

2020 Q1 n/a 2023 Q1

CHANGES SINCE LAST EDITION

n/a

16.2 Market-based measures

Issue/rationale

The adoption of the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) by 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 1 January 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 CO_2 emissions under CORSIA in 2021; others will follow in 2027 when the scheme becomes mandatory.

What we want to achieve

Support the preparation of the CORSIA implementation through the development of standard methods and tools for the assessment of global emission units and the related offsetting requirements.

How we monitor improvement

The EASA ABs regularly provide feedback on the effectiveness of the activities.

RES.026	Marke	Market-based measures (ETS ¹²¹ and CORSIA)				
Extension and update of existing capabilities for assessment of market-based measures Emissions Trading System (ETS) and ICAO CORSIA), notably to cater for new traffic data and for handling of novel scenarios and measures, ensuring their fitness for purpose and credit supporting critical policy-making both at European (EC, Member States) and international level.				A), notably to cater for new traffic data and forecasts, nsuring their fitness for purpose and credibility for		
Status	New					
Reference(s)	n/a					
Dependencies						
Affected stakeh	olders	Air operators				
Owner		SM.0.1	Strategy & Safety	Management Director's Office		
			PLANNING MILEST	ONES		
Starting date		Int	erim Report	Final Report		
2020 Q1	n/a 2023 Q1					
			CHANGES SINCE LAST	EDITION		
n/a	•	•				

 $^{{\}color{red}^{121}} \ \underline{\text{https://www.emissions-euets.com/carbon-market-glossary/872-european-union-emissions-trading-system-eu-ets}$