

## **Finnish Plan for Aviation Safety 2019–2023**

Finnish Aviation Safety Programme Annex 1

# Contents

<b>Contents</b> .....	<b>1</b>
<b>Foreword</b> .....	<b>1</b>
<b>Finnish Plan for Aviation Safety, document version history</b> .....	<b>2</b>
<b>Acronyms</b> .....	<b>3</b>
<b>1 European Plan for Aviation Safety EPAS</b> .....	<b>4</b>
1.1 EPAS as part of safety management in European aviation .....	4
<b>2 Finnish Plan for Aviation Safety</b> .....	<b>6</b>
2.1 Role of the Safety Plan in Finnish aviation safety management .....	6
2.2 Safety Plan structure .....	7
<b>3 Safety Plan actions</b> .....	<b>8</b>
3.1 Systemic issues – safety management .....	8
3.1.1 SYS.001. Finnish Aviation Safety Programme .....	8
3.1.2 SYS.002. Finnish Plan for Aviation Safety .....	9
3.1.3 SYS.003. Finnish aviation safety performance targets and indicators .....	9
3.1.4 SYS.004. Finnish aviation safety risk management .....	10
3.1.5 SYS.005. Safety promotion .....	11
3.1.6 SYS.006. Just culture .....	12
3.1.7 SYS.007. Flight data monitoring (FDM) .....	13
SYS.007.1, National FDM forum	
SYS.007.2, FDM use in performance monitoring	
3.1.8 SYS.008. Safety management systems (SMS) .....	14
SYS.008.1, Assessment of safety management system (SMS) performance	
SYS.008.2, Management of change as part of safety management	
3.1.9 SYS.009. Cybersecurity in aviation .....	15
3.1.10 SYS.010. Focused attention topics .....	17
SYS.FOT.010.1, Resources and competence	
SYS.FOT.010.2, Cooperative oversight	
SYS.FOT.010.3, Performance- and risk-based operations management	
SYS.FOT.010.4, Using air traffic control services in general aviation	
3.1.11 SYS.011. Safe integration of new technologies and concepts .....	19
SYS.NBM.011.1, New business models	
SYS.NBM.011.2, Safety culture	
SYS.NPST.011.3, Radar systems	
3.2 Operational issues .....	21
3.2.1 OPER.001. Loss of control in flight (LOC-I) .....	21
3.2.2 OPER.002. Runway excursions (RE) .....	22
3.2.3 OPER.003. Runway safety .....	23
OPER.RWY.003.1, Local runway safety teams (LRST)	
OPER.RWY.003.2, Solutions to improve runway safety	
3.2.4 OPER.004. Runway incursions (RI) .....	24
OPER.RI.004.1, Runway incursions (RI)	
OPER.RI.004.2, Runway incursions (RI) and EAPPRI	
3.2.5 OPER.005. Mid-air collisions (MAC) .....	25
OPER.MAC.005.1, Mid-air collisions (MAC)	
OPER.MAC.005.2, Loss of separation between civil and military aircraft (MAC)	
OPER.MAC.005.3, Mid-air collisions (MAC) and SESAR solutions	
3.2.6 OPER.006. Ground safety .....	27
3.2.7 OPER.007. Controlled flight into terrain (CFIT) .....	28
3.2.8 OPER.008. Fire, smoke and fumes .....	29
3.3 Actions concerning individual domains of aviation .....	31
3.3.1 Helicopter safety .....	31
3.3.2 Aerodrome safety .....	32
3.3.3 Safety of flight training .....	33
3.3.4 Safety of commercial air transport .....	34
3.3.5 Ground handling safety .....	35
3.3.6 Airworthiness and maintenance safety .....	36
3.3.7 General aviation safety .....	37
3.3.8 Safety of unmanned aviation .....	38
Annex: List of actions by stakeholder groups	





## Foreword

Safety and passenger confidence in the air transport system are key objectives in **Finnish aviation safety policy**<sup>1</sup>. The aviation safety programme, plan for aviation safety and safety performance indicators are advanced safety management mechanisms at the national level. They help us respond to the challenges of increasing traffic volumes and the diversity of the aviation system and ensure that we can retain our high level of safety.

New technologies and operating and business models have many benefits, but they also bring new challenges and safety threats. Cybersecurity, drones, extreme weather events and numerous other themes within and outside the aviation system challenge the traditional approaches to ensuring safe operations. **Advanced safety management** requires **interaction and cooperation** among stakeholders, national authorities and EASA<sup>2</sup>. In this interaction, particular emphasis is placed on safety information, risk-based approaches and faster responses to the safety threats that have been identified. Alongside regulation and oversight, it is also important to strengthen the tools of safety promotion.

This document is the **Finnish Plan for Aviation Safety**<sup>3</sup>. It describes the actions that Traficom and aviation stakeholders are required to take as part of national risk management efforts, the parties responsible for the actions and the timeframes for their implementation in 2019–2023.

Pekka Henttu, Director-General of Civil Aviation

<sup>1</sup> The safety policy is discussed in chapter 1 of the Finnish Aviation Safety Programme (FASP).

<sup>2</sup> European Aviation Safety Agency.

<sup>3</sup> Annex 1 to the Finnish Aviation Safety Programme.

## Finnish Plan for Aviation Safety, document version history

<b>Date issued</b>	<b>Date valid</b>	<b>Valid</b>
21 March 2019	21 March 2019	Until further notice
<b>Underlying international standards, recommendations and other documents:</b>		
Aviation Act 864/2014		
Convention on International Civil Aviation, Annex 19 (Safety Management),		
Global Aviation Safety Plan GASP 2017–2019 (ICAO Doc 10004),		
The European Aviation Safety Programme		
European Plan for Aviation Safety (EPAS) 2019–2023		
COM(2011) 144 White Paper – Roadmap to a Single European Transport Area		
COM(2015) 598 final, COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS, An Aviation Strategy for Europe		
<b>Reference number:</b>	TRAFICOM/118927/07.00.05.00/2019	
<b>Revision details:</b>		
<b>Date</b>	<b>Version</b>	<b>Change</b>
20 December 2013	1.0	First publication
11 February 2015	2.0	Status of actions updated for 2014. OPS.009 Fire and smoke, added.
9 May 2017	3.0	Extensive update: layout and structure modified, measures updated based on EPAS 2017–2021 and the Finnish Aviation Safety Risk management
19 February 2018	4.0	Annual update based on EPAS 2018–2022 and Finnish Aviation Safety Risk Management
21 March 2019	5.0	Annual update based on EPAS 2019–2023 and Finnish Aviation Safety Risk Management

## Acronyms

EASA	European Aviation Safety Agency
EASP	European Aviation Safety Programme
EPAS	European Plan for Aviation Safety
Eurocontrol	European Organisation for Safety of Air Navigation
FASP	Finnish Aviation Safety Programme
FPAS	Finnish Plan for Aviation Safety
FDM	Flight Data Monitoring
GASP	Global Aviation Safety Plan
ICAO	International Civil Aviation Organization
JARUS	Joint Authorities for Rulemaking on Unmanned Systems
RPAS	Remotely Piloted Aircraft System
SMICG	Safety Management International Collaboration Group
SMS	Safety Management System
SPI	Safety Performance Indicator
SPT	Safety Performance Target
SSP	State Safety Programme
UAS	Unmanned Aircraft System

# 1 European Plan for Aviation Safety EPAS

## 1.1 EPAS as part of safety management in European aviation

While the commercial aviation safety situation in Europe is good at the moment, measures will be required in the future to reduce the number of accidents and keep the annual number of fatalities at its present low level, even if the number of flights increases as forecasted. Advanced safety management will also be needed to respond to changes in the structures, business models and technical solutions of the aviation system, which may at times be rapid, and to respond to the challenges brought about by new threats.

In 2011, the European Commission issued a White Paper on Transport that set the objective of the European Union being the safest region in the world for aviation. In the same year, the Commission also issued a Communication to the Council and to the European Parliament outlining the measures needed to attain the objective set in the White Paper. In this Communication, the Commission also notes that in addition to regulatory compliance there is a need for a systemic approach to safety, in other words the introduction of safety management systems.

Together with the Communication, the Commission issued in 2011 the first version of the **European Aviation Safety Programme (EASP)**, describing how aviation safety is managed at the EU level. In December 2015, the Commission published the first update of the Safety Programme annexed to its report.

A **European Plan for Aviation Safety (EPAS)** has also been published since 2011. It contains key identified safety risks to aviation at the European level and strategic safety objectives and actions for achieving them, and addresses the global objectives defined in the **Global Aviation Safety Plan (GASP)** published by ICAO.

The **revised EASA Basic Regulation<sup>4</sup> entered into force on 11 September 2019**. It contains the obligations of preparing a European Aviation Safety Programme and Plan as well as national aviation safety programmes and plans. These obligations already apply to states under ICAO Annex 19.

**The strategic priorities of the EPAS are based on the Commission's Aviation Strategy<sup>5</sup> and the EASA strategic plan (EPAS 2019–2023, Annex D)**. The EPAS is prepared as part of EASA's Safety Risk Management process (SRM). Within the framework of its SRM process, EASA coordinates the identification of key safety risks in European aviation and the development of the European Safety Risk Portfolio. Through forums of the annual programming cycle, the Member States and aviation stakeholders can participate in and influence safety risk management in European aviation. The actions defined as a result of this process are published annually in the EPAS and implemented in a coordinated manner both at the European and national level.

---

<sup>4</sup> [Regulation \(EU\) 2018/1139 of the European Parliament and of the Council](#); [Traficom's online article on the publication of the EASA Basic Regulation](#)

<sup>5</sup> [https://ec.europa.eu/transport/modes/air/aviation-strategy\\_en](https://ec.europa.eu/transport/modes/air/aviation-strategy_en)

The actions contained in the EPAS seek to influence **systemic and operational safety** in commercial air transport and general aviation. These actions concern manned aviation with aeroplanes and helicopters and unmanned aviation. They are also a means to prepare for **changes in the aviation system, such as new technologies or operating models, threats caused by these changes, such as cyber threats, and the proactive and safe integration of these changes in the aviation system.**



Figure 1. EPAS as part of the European aviation system. Source: EASA.

The actions included in the EPAS, i.e. the range of tools for improving safety, can be divided into five categories: **safety promotion, focused attention topics, regulation, research** and **evaluation**. The most appropriate means of safety management is chosen for each action.

The European Plan for Aviation Safety is drawn up by EASA for a five-year period at a time, and it is updated annually. The actions defined in the plan are assigned to EASA, the European Commission, the Member States and various networks and teams that participate in EASA’s SRM process as well as various working groups owning the actions.

Finland includes the EPAS actions assigned to the Member States in the Finnish Plan for Aviation Safety. Aviation stakeholders must process, document and implement the actions where applicable. Traficom oversees the processing and implementation of the actions and annually reports to EASA on their progress.

The European Aviation Safety Programme and Safety Plan are available on [EASA’s safety management website](#) and [Traficom’s aviation safety management web pages](#). The pages are also available in English.



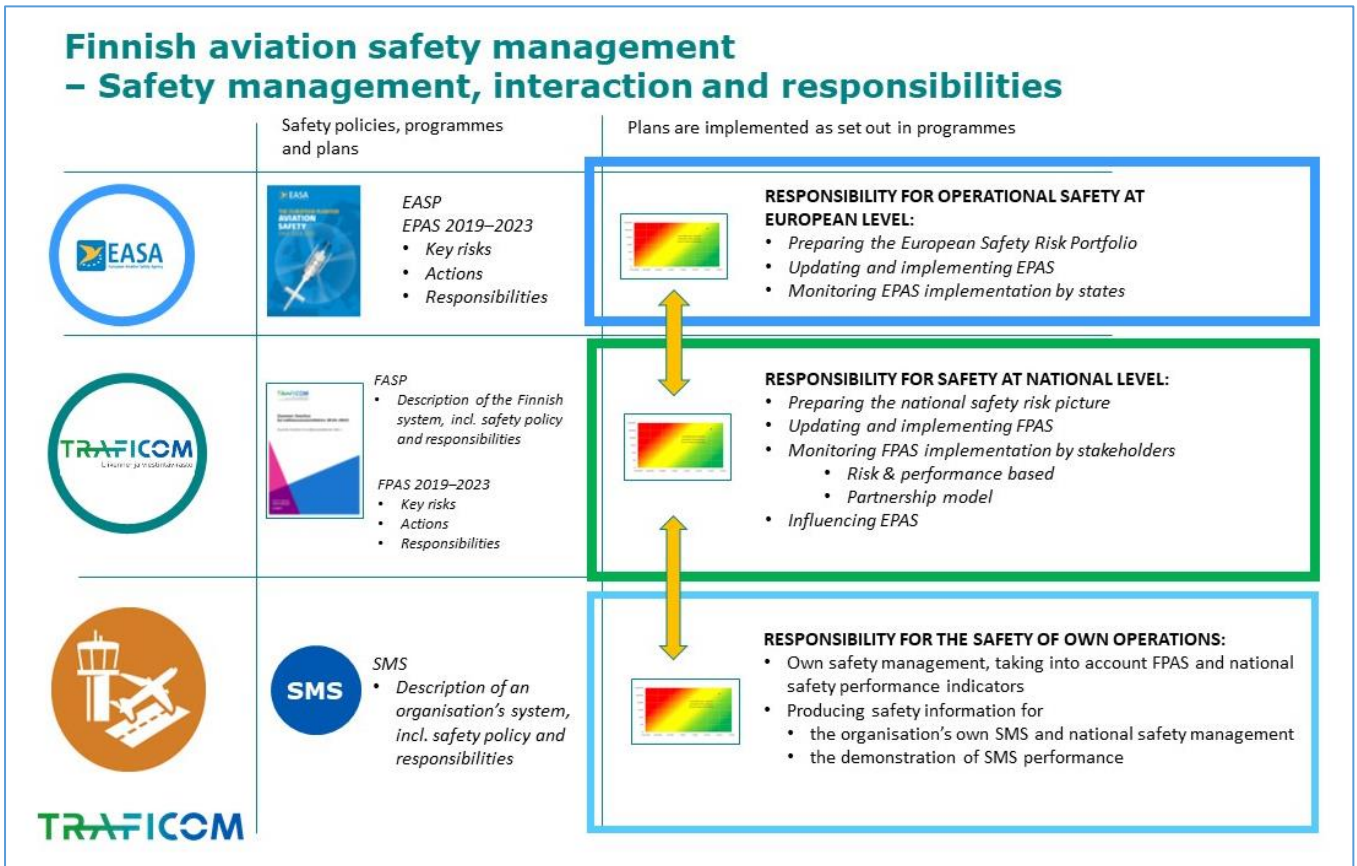


Figure 2. Roles and responsibilities in aviation safety management in Finland.

## 2 Finnish Plan for Aviation Safety

### 2.1 Role of the Safety Plan in Finnish aviation safety management

The **Finnish Aviation Safety Programme (FASP)** describes the national aviation safety management system. It contains an aviation safety policy and a general high-level description of the legislative background, processes and safety work.

The **Finnish Plan for Aviation Safety (FPAS)** is appended to the Safety Programme as Annex 1. It describes key safety risks for Finnish aviation identified through European and national safety risk management, the specified strategic safety objectives and the actions taken to achieve them (see FASP, section 2.6).

The FASP and its Annexes also comply with the ICAO requirement of establishing and maintaining a State Safety Programme (SSP).

Finland has phrased the obliging nature of the FASP and its Annexes in section 4 of the Aviation Act (864/2014) as follows:

*“The Finnish Transport Safety Agency shall prepare and validate the national aviation safety programme, taking into account the standards referred to in the Chicago Convention and the European Union Aviation Safety Programme.*

*Aviation operators shall take account of the national aviation safety programme, as well as related objectives and monitoring, in their operations.”*

Each aviation stakeholder is responsible for the safety of its own operations. The organisations must address in their Safety Management Systems the threats identified by them and those identified in the Finnish aviation safety risk management process in respect of their own operations, assess the associated risks and, if necessary, implement actions aiming to reduce the risks to an acceptable level. Traficom and aviation stakeholders must process, document and implement the actions of the FPAS where applicable. As part of its oversight activities, Traficom assesses how the organisations have addressed in their safety management the relevant actions and threats described in the FPAS.

The effectiveness of FPAS measures will be monitored as part of Finnish aviation safety risk management and safety assurance.

The FPAS is updated annually. For information on the responsibilities for maintaining the FPAS, see FASP section 1.3.3. The FPAS can be accessed on [Traficom's web page on aviation safety management](#).

## **2.2 Safety Plan structure**

The actions described in Chapter 3 are divided into systemic and operational actions. They may concern a number of domains in aviation or be addressed to a single domain. Each action includes a description of its objectives, parties responsible for its implementation, and the schedule and status of implementation. An EPAS reference is given if the action is based on an EPAS action assigned to the Member States. Some of the EPAS actions assigned to the Member States are straightforward, while others leave it to the Member State to define the action in detail. The EPAS actions are specified in detail and the nationally identified actions are defined in the Finnish aviation safety risk management process (FASP, section 2.6).

## 3 Safety Plan actions

### 3.1 Systemic issues – safety management

#### *Systemic issues, introduction*

Systemic themes are issues that concern an individual organisation, a system element or the entire aviation system. Systemic actions comprehensively improve the level of safety of aviation in Finland. They also maintain and reinforce the actions and competence that have helped us reach the current level of safety.



Systemic themes do not necessarily have a direct, short-term link with individual occurrences, incidents or accidents. Systemic threats are background factors, either easily identifiable or latent. For example, they may be associated with shortcomings in processes, methods or operating cultures. If systemic threats are not identified and if the risks caused by them are not managed, they may trigger or contribute to an occurrence, incident or accident.

Identifying systemic threats is particularly important in relation to changes in the aviation system, in the case of new, emerging issues. The safety data available on these issues is often limited or non-existent, highlighting the importance of proactive safety risk and impact assessments and related research.

The global safety management chain (GASP–EASP/EPAS–FASP/FPAS–SMS) was created to systematically develop the safety of the entire aviation system and its elements (FASP, section 1.1). Key system-level elements are the state safety programmes (SSPs, including the FASP in Finland) and the organisations' safety management systems (SMS).

#### **3.1.1 SYS.001. Finnish Aviation Safety Programme**

*EPAS reference: MST.001: Member States to give priority to the work on SSPs*

##### **SYS.001.1, Finnish Aviation Safety Programme**

###### Action:

Traficom has issued the Finnish Aviation Safety Programme (FASP). Traficom updates and further develops the programme. Traficom actively communicates about the programme contents and sees to the implementation of the programme and the continuous improvement of activities based on the programme.

###### Objective of the action:

Finnish aviation safety management is systematic, effective and continuously improving. Finland complies with ICAO and EASA requirements regarding the development and introduction of a safety programme.

###### Stakeholder responsible for implementation:

**Traficom:** FASP maintenance, development and implementation

**Aviation organisations:** Processing the FASP and its Annexes with reference to their operations.

###### Timetable

Continuous

Deliverable

An up-to-date national safety programme has been published and implemented.

Status

The FASP is updated annually, and the programme is in use. ICAO audited the FASP and its implementation in terms of the areas GEN, SDA, ANS, OPS and AIG in its SSP implementation assessment (SSPIA) in November 2018. Finland was the pilot country for SSP assessments. Traficom continuously improves the FASP and the related national aviation safety work drawing on the development proposals given in the audit.

**3.1.2 SYS.002. Finnish Plan for Aviation Safety**

*EPAS reference: MST.028: Member States to establish and maintain a State Plan for Aviation Safety*

**SYS.002.1, Finnish Plan for Aviation Safety**

Action:

Traficom maintains the national Finnish Plan for Aviation Safety (FPAS). Traficom actively communicates about the plan content, sees to the implementation of actions assigned to it, and promotes and oversees the implementation of actions assigned to other stakeholders.

Objective of the action:

Finland implements the actions assigned to EPAS Member States in the European Plan for Aviation Safety and those identified through the national aviation safety risk management process (FASP, section 2.6).

Stakeholder responsible for implementation:

**Traficom:** FPAS maintenance, development and implementation

**Aviation organisations:** FPAS implementation in their operations

Timetable

Continuous, annual updates

Deliverable

FPAS updated and published, actions implemented in practice

Status

First version was published on 20 December 2013, this document is the latest update. Traficom implements the FPAS as described in FASP section 2.6 and oversees the implementation of the actions assigned to stakeholders.

**3.1.3 SYS.003. Finnish aviation safety performance targets and indicators**

*EPAS reference: MST.001: Member States to give priority to the work on SSPs*

**SYS.003.1, Finnish aviation safety performance targets and indicators**

Action:

Traficom assesses the national aviation safety performance targets (SPT) and indicators (SPI) in Annex 2 to the Finnish Aviation Safety Programme as well as any need to update them, and updates Annex 2 where necessary. Traficom communicates about the targets and indicators, and applies them to safety management in Finnish aviation.

The stakeholders take the national safety performance targets and indicators into account, and assess and process them in relation to their own operations as part of their safety management.

Objective of the action:

Effective and useful targets and indicators for monitoring and assessing the safety levels and performance of Finnish aviation have been specified and introduced. Finland fulfils ICAO requirements.

Stakeholder responsible for implementation:

**Traficom**  
**Aviation organisations**

Timetable

Continuous

Deliverable

FASP Annex 2, Finnish aviation safety performance targets and indicators, has been assessed, updated, published and implemented

Status

The latest update, version 5.0, was published on 17 October 2018 and became applicable on 1 January 2019. Traficom has been developing BI-based SPI monitoring and will integrate the revised performance indicators in its official duties.

### **3.1.4 SYS.004. Finnish aviation safety risk management**

*EPAS reference: MST.028: Member States to establish and maintain a State Plan for Aviation Safety*

#### **SYS.004.1, Finnish aviation safety risk management**

Action:

The Finnish aviation safety risk management process (FASP, section 2.6) is implemented by Traficom and the stakeholders. For the division of responsibilities, see FASP section 1.3.1.

The risk management picture for Finnish aviation consists of the risk pictures of aviation domains, the acceptable risk level and measures taken to maintain the risks at an acceptable level. The stakeholders are informed about the safety risk management picture (FASP, section 2.6.6.). The results of the Finnish aviation safety risk management process are incorporated into Traficom's operating system and annual planning (FASP, section 2.6.5).

Each stakeholder is responsible for the safety of its own operations. Each aviation organisation must, within the scope of its SMS, identify hazards/threats and assess risks in its own operations, determine the acceptable risk level in its operations and take any necessary actions to eliminate risks or to reduce them to an acceptable level.

The organisations must also process the Finnish Plan for Aviation Safety and the nationally identified safety risks in respect of their own operations and, if necessary, implement actions to eliminate these risks or to reduce them to an acceptable level. The organisations have the duty to demonstrate the performance of their SMS to the supervising authority. On the basis of this information, Traficom will target actions at

the organisation. For a description of acceptable levels of safety and safety performance, see FASP sections 3.2 and 3.3.

Objective of the action:

Risk management in Finnish aviation is systematic, effective and continuously improving. Finland complies with ICAO and EASA requirements regarding risk management in Finnish aviation.

Stakeholder responsible for implementation:

**Traficom:** Implementing Finnish aviation safety risk management as described in FASP section 2.6

**Aviation organisations:** Implementing safety risk management relevant to their operations, including the action described above

Timetable

Continuous

Deliverable

Finnish aviation safety risk management process is implemented.

Status

The FASP process was introduced in Q3/2016 and has been phased in since then. The formulation of version 1.0 of safety risk pictures has been fully or nearly completed in most domains of aviation. The work continues by forming or regularly updating the picture. In 2018, Traficom introduced joint risk workshops with aviation stakeholders. These workshops are organised at least once a year. The aim is to launch workshops with stakeholders in all domains during 2019.

### **3.1.5 SYS.005. Safety promotion**

#### **SYS.005.1, Safety promotion with respect to safety management systems (SMS)**

*EPAS reference: MST.002: Promotion of SMS*

Action:

Traficom raises safety awareness as part of its official duties by visiting customers, organising internal events or external events for its stakeholders and taking the matter into account in different phases of approval and certification management as described in FASP section 4.2, *External training and sharing of safety information*. Examples of sharing and developing safety management information include the risk workshops with stakeholders, as described in action SYS.004.1, and FASP-SMS seminars.

Traficom ensures that materials produced by the [SM ICG](#) group and other guidance materials relevant to SMS use are available to aviation stakeholders. Traficom publishes guidance materials on its website where they are easily accessible and encourages stakeholders to use them.

Objective of the action:

Supporting stakeholders in SMS introduction and development by making guidance material available to them

Stakeholder responsible for implementation:

**Traficom**

Timetable

Continuous: In terms of the activities described in FASP section 4.2, *External training and sharing of safety information*

2019: Gathering and publishing guidance material on the new Traficom website

Deliverable

Sharing and using best practices

Status

Continuous implementation in line with the principles of FASP section 4.2, *External training and sharing of safety information*

### **3.1.6 SYS.006. Just culture**

#### **SYS.006.1, Just culture**

*MST.027: Develop Just Culture in GA (in FPAS extended to cover all aviation)*

In general, we can say that positive development has taken place for several years in the reporting culture of all domains of Finnish aviation. There is an atmosphere of trust and confidence, an integral element of just culture, between the aviation community and the authority.

Finnish Aviation Safety Programme (FASP) section 2.5.3, *Confidentiality of occurrence information and Just Culture*, describes the observance of a good reporting culture and the principles of just culture in Finnish aviation. In Finland, the [reporting obligation under the Occurrence Regulation \(EU\) No 376/2014](#) also applies to aircraft listed in Annex I to the EASA Basic Regulation (EU) 2018/1139.

Action:

All aviation:

Traficom publishes guidance material on themes concerning safety culture and just culture, and organises a related event for aviation stakeholders.

General and recreational aviation:

The [recreational aviation safety project in 2015](#) built cooperation between Traficom, SIL and SMLL on the analysis of data occurrence reports. This cooperation has been further developed and is one way to maintain and strengthen a good reporting culture. The cooperation developed in the context of safety work in recreational aviation also plays an important role in maintaining an atmosphere of trust. These cooperation forms will be continued and developed. Particular areas of development include the quality and immediacy of feedback on reporting.

Objective of the action:

Maintaining and reinforcing just culture in Finnish aviation and encouraging stakeholders to maintain and develop a good reporting and safety culture

Stakeholder responsible for implementation:

General action: **Traficom**

Action on general and recreational aviation: **Stakeholders committed to the operating model of Finnish recreational aviation safety work: Traficom, Finavia, ANS Finland, the Finnish Meteorological Institute, the Finnish Aeronautical Association (SIL) and AOPA Finland (SMLL)**

Timetable

Continuous

2019: guidance material on just culture and safety culture

2020: event/seminar on just culture and safety culture

Deliverable

Cooperation promoting a good reporting and safety culture

Status

Progressing as planned

### **3.1.7 SYS.007. Flight data monitoring (FDM)**

#### **SYS.007.1, National FDM forum**

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

Action:

Traficom organises regular meetings with operators producing FDM data (*national FDM forum*).

Objective of the action:

Supporting the stakeholders in using FDM systems as part of their safety management, raising awareness of best practices and safety benefits, enabling confidential dialogue and sharing of safety information between industry stakeholders and Traficom, and encouraging FDM operators to use the guidance material produced by European cooperation forums or other existing useful material.

[Guidance material is available on the EASA website.](#)

Stakeholder responsible for implementation:

**Traficom:** organisation of the national FDM forum

**Operators producing FDM data:** participating in the FDM forum and promoting best practices in aviation safety work regarding FDM systems and their use

Timetable

Continuous

Deliverable

Efficient use of FDM systems in safety work

Status

The national FDM forum is organised twice a year.

#### **SYS.007.2, FDM use in performance monitoring**

*No EPAS reference: The action listed below was defined on the basis of nationally identified needs for action.*

Action:

As part of their safety management, operators producing FDM data assess issues indicated by the nationally specified safety performance indicators (SPIs) that can be monitored through the FDM system. Traficom ensures the implementation of this action as part of its oversight activities. National SPIs monitored using the FDM system also form an FDM status report (template) discussed in the national FDM forum.

Objective of the action:

Stakeholders have assessed the suitability of the national SPIs for their operations and included them in their FDM programmes where applicable.



Stakeholder responsible for implementation:

**Traficom**  
**Operators producing FDM data**

Timetable

Continuous

Deliverable

The SPI data relevant for an operator has been taken into account in the FDM system to the extent that this data can be derived from the FDM data.

Status

Traficom ensures the implementation of this action as part of its oversight activities.

### **3.1.8 SYS.008. Safety management systems (SMS)**

#### **SYS.008.1, Assessment of safety management system (SMS) performance**

*EPAS reference: MST.026: SMS assessment*

Action:

To assess organisations' compliance management systems (CMS) and safety management systems (SMS), Traficom uses methods that produce evidence of the compliance and efficiency of the organisations' management systems. As one element of the development work, the management system assessment tool developed by EASA has been taken into account, either as such or for its contents.

Target levels will be set for the performance of the entire safety management systems used by organisations or for different elements of these systems. Based on the results, Traficom will decide on the need for action (e.g. oversight, safety promotion).

National safety performance indicators (FASP, Annex 2) will also be used to monitor the development of SMS performance in organisations.

Objective of the action:

Using the results of and developing performance-based oversight in Traficom and harmonising the evaluation criteria for SMS audit practices between Member States

Stakeholder responsible for implementation:

**Traficom**

Timetable

Continuous

Deliverable

Traficom has assessment methods and tools for assessing overall performance, and it uses these in its risk- and performance-based activities. Traficom is able to provide EASA with the required information on the SMS performance of Finnish organisations and to give feedback on areas where EASA's SMS assessment tool needs to be further developed.

Status

Traficom has developed the first version of its assessment tool which has been taken in use in OPS and ATO organisations.

Traficom provides EASA with information on the compliance and performance of organisations' SMS in the manner specified by EASE either separately or in connection with standardisation.

### **SYS.008.2, Management of change as part of safety management**

*No EPAS reference: The action listed below was defined on the basis of nationally identified needs for action.*

#### Action:

Aviation organisations constantly develop and improve their operations. As Traficom evaluated the impact and effectiveness of the organisations' SMS procedures for management of change (MoC), it was observed that the procedures do not yet efficiently support all aspects of the identification of safety threats caused by a change and the associated safety risk management. The organisations must ensure that:

- the organisation has an appropriate MoC procedure, including the required personnel training
- the organisation identifies changes that need to be processed; the management informs the organisation of the changes in advance, ensuring that they can be processed and that the necessary actions can be implemented before the change takes place
- the performance of the MoC procedure is subject to an internal audit as part of the SMS system
- the performance of the MoC procedure can be verified.

As part of its oversight activities, Traficom evaluates the performance of the organisations' SMS MoC functions and internal audits.

#### Objective of the action:

Ensuring that aviation organisations implement timely and comprehensive MoC procedures and identify the changes in their operations that require the activation of the MoC procedure

#### Stakeholder responsible for implementation:

**Aviation organisations**

**Traficom**

#### Timetable

2019

#### Deliverable

The organisations have MoC procedures with a high impact, and the effectiveness of their procedures can be verified.

#### Status

Ongoing

### **3.1.9 SYS.009. Cybersecurity in aviation**

#### **SYS.009.1, Cybersecurity in aviation**

*EPAS reference: SPT.071: Strategy for cybersecurity in aviation*

#### Background:

International cyber regulation in aviation is developed risk and performance based. The management of cyber risks, or the management of operational information security risks to be more precise, will become increasingly central in flight safety activities. To this end, the management of information security must become a more

integral part of the operational activities carried out by the authority and organisations in the aviation system.

Action:

Cybersecurity has been included in the Finnish Aviation Safety Programme (FASP) and the Finnish Aviation Security Programme. Cybersecurity is discussed in connection with Finnish aviation safety risk management (FASP, section 2.6).

Stakeholders must be prepared to identify cybersecurity threats and to manage the related risks.

Objective of the action:

Efficiently identifying cybersecurity threats and managing the risks caused by them

Stakeholder responsible for implementation:

**Traficom**

**Aviation organisations**

Timetable

2017–2019:

Traficom: Integrating cybersecurity in the FASP and the Finnish Aviation Security Programme. Finnish aviation cybersecurity risk picture 1.0.

Continuous:

Traficom: Maintaining the FASP, Security Programme and risk picture in terms of cybersecurity

Continuous:

Stakeholders: Identifying cybersecurity threats and managing the risks caused by them

2019:

- Preparing a national strategy for cybersecurity in line with the European strategy for cybersecurity in aviation and Finland's national Cyber Security Strategy
- Organising four risk workshops with aviation organisations
- Discussion / information sharing event on European cyber regulation (NPA publication in the beginning of June)

Deliverable

- Cybersecurity included in the FASP and its Annexes as well as the Finnish Aviation Security Programme
- Finnish aviation cybersecurity risk picture 1.0
- The stakeholders have methods for identifying threats to cybersecurity and managing the ensuing risks.

Status

Actions completed in 2017 include an extensive study on the management of cybersecurity in aviation as well as cooperation with other agencies (National Cyber Security Centre) and stakeholders. This cooperation has included voluntary sharing of information and experiences based on mutual trust. Cybersecurity has been integrated in the FASP and the Finnish Plan for Aviation Safety. Work on the cybersecurity risk picture has been initiated with the stakeholders.

In 2018, actions focused on risk picture work (four risk workshops with aviation organisations) and on preparing the European strategy for cybersecurity in aviation and cyber regulation. Trafi also continued sharing information with aviation organisations on developments in cyber regulation and the operating environment at the European level.

### **3.1.10 SYS.010. Focused attention topics**

#### **SYS.FOT.010.1, Resources and competence**

*EPAS reference: FOT.003: Unavailability of adequate personnel in competent authorities*

Action:

Traficom is committed to ensuring that the aviation authority has the resources and expertise required for its official duties. This will be supported by continuous training and international cooperation.

Resource needs will be regularly assessed.

Objective of the action:

The level of safety in Finnish aviation remains high.

Stakeholder responsible for implementation:

**Traficom**

Timetable

Continuous

Deliverable

Official duties in the field of aviation are performed with sufficient resources and expertise.

Status

Ongoing

#### **SYS.FOT.010.2, Cooperative oversight**

*EPAS reference: FOT.007: Cooperative oversight in all sectors*

Action:

Traficom engages in active cooperation with other states concerning the management and oversight of approvals and certificates issued to Finnish companies that also operate outside Finland. Traficom also seeks to make cooperation agreements with the aviation authorities in its key partner countries.

Objective of the action:

The level of safety in commercial air transport remains high. State aviation authorities in different countries have access to the means and cooperation mechanisms they need for oversight in situations where several countries share responsibility for overseeing an organisation.

Stakeholder responsible for implementation:

**Traficom**

Timetable

Continuous

Deliverable

Sufficient and efficient oversight in cooperation with aviation authorities in other countries.

Status

Ongoing

### **SYS.FOT.010.3, Performance- and risk-based operations management**

*EPAS reference: FOT.008: Organisations management system in all sectors*

Action:

Traficom is further developing performance- and risk-based operations management.

In 2019–2020:

Traficom will define the objectives, areas and contents of its partnership activities.

After this, Traficom will implement the partnership model in its official duties.

Traficom will provide aviation stakeholders with information on the partnership model and will develop it further in cooperation with stakeholders.

Traficom will commission a monitoring survey on safety culture (TUKU II). The aim of the survey is to contribute to ensuring that the risk- and performance-based model is efficient and effective. The action concerns all aviation domains that use the RISTO model (OPS, ADR, ANS and ATO).

Objective of the action:

Risk management in Finnish aviation is systematic, effective and continuously improving. Finland complies with ICAO and EASA requirements regarding risk management in Finnish aviation.

Stakeholder responsible for implementation:

**Traficom**

Timetable

2019–2020

Deliverable

Performance- and risk-based operations management

Status

The 2018 actions have been completed and their outcomes are being implemented. The 2019–2020 actions are under way.

### **SYS.FOT.010.4, Using air traffic control services in general aviation**

*EPAS reference: FOT.010: Service provision to GA flights*

Action:

Traficom participates in developing best practices for preventing mid-air collisions (MAC) and airspace infringements (AI) through EASA's GA TeB (General Aviation Technical Advisory Body).

In a co-operation group of the Operating model for Finnish recreational aviation safety work, Traficom seeks to identify ways to reduce MAC and AI risks, including best practices for encouraging operators in general and recreational aviation to use the air traffic control service in the event of occurrences and incidents and, in particular, to prevent occurrences and incidents.

Traficom's oversight programmes and plans ensure that air navigation service providers use appropriate guidance and operating methods in the provision of GA services.

Objective of the action:

Reducing MAC and AI risks

Stakeholder responsible for implementation:

**Traficom and GA.COM/ TeB**

**Co-operation group on the Operating model of Finnish recreational aviation safety work**

**Aviation organisations (ANS)**

Timetable

Continuous

Deliverable

The appropriate use of air traffic control services in general and recreational aviation

Status

The GA TeB group started operating in 2016. Traficom's representative is the vice-chair of the group.

Work on the theme has also been started in the co-operation group on the Operating model of Finnish recreational aviation safety work.

### **3.1.11 SYS.011. Safe integration of new technologies and concepts**

#### **SYS.NBM.011.1, New business models**

*EPAS reference: MST.019: Better understanding of operators' governance structure*

Action:

Traficom establishes how the stakeholders' key persons – including safety managers and accountable managers – actually implement and perceive the responsibilities related to their roles. In this, Traficom will also use the following guidance material prepared by EASA: "[Practical Guide: Management of hazards related to new business models of commercial air transport operators](#)".

The stakeholders' management has the duty to ensure that new business models and any threats associated with them are addressed in the company's SMS, including timely processing through change management procedures (MoC) where required.

Objective of the action:

Identifying issues related to new business models and assessing and reducing their risks.

Stakeholder responsible for implementation:

**Traficom**

**Aviation organisations (AOC, ATO)**

Timetable

2019–2023

Deliverable

Oversight action: discussion

Status

For Traficom's part, the action is implemented in connection with safety discussions.

#### **SYS.NBM.011.2, Safety culture**

*EPAS reference: MST.019: Better understanding of operators' governance structure*

Action:

Traficom will implement a survey that charts the safety culture of Finnish airlines. The survey will analyse the Finnish situation. Based on the results, the need for

further actions can be assessed and any actions required can be specified (including methods for managing crew fatigue and changes in health status, and the implementation of just culture). Preparations for the survey were made in a research project in 2017. The objective is to repeat the survey regularly to chart the situation.

Objective of the action:

Identifying threats and strengths associated with new business models and, at a more general level, with different elements of the stakeholders' safety culture, assessing and reducing risks related to these threats, and developing the strengths identified

Stakeholder responsible for implementation:

**Traficom:** survey implementation

**Aviation organisations:** piloting with pre-determined organisations

Timetable

2019–2023

Deliverable

Results of the safety culture survey, any actions to be taken based on the results

Status

Implementation is moving forward to the pilot phase.

**SYS.NPST.011.3, Radar systems**

*EPAS reference: MST.020: Loss of radar detection*

Action:

Traficom has ensured that the recommendations of EASA's technical report are evaluated together with the stakeholders and introduced in Finland where appropriate.

Objective of the action:

Controlling the introduction of new products, systems, technologies and operations

Stakeholder responsible for implementation:

**Traficom**

**(2016: Finavia)**

Timetable

2020 (initially 2017)

Deliverable

Discussion on the recommendations and their deployment where appropriate

Status

Implemented. The various areas of EASA's technical report have been discussed and communicated to Finavia. Finavia has announced that it has processed and addressed the report's proposals in its processes. Finland's status information was submitted to EASA in June 2016. No further actions are proposed.

## 3.2 Operational issues

### *Operational issues, introduction*

Operational themes are more directly linked with the actions of an individual person, organisation or operational area or with environmental factors, including for example weather events. At operational level, threats may directly cause a situation to develop into an occurrence, incident or accident.



Operational threats and safety factors are often identified by analysing data from occurrence reports and by carrying out risk assessments. Risk management measures seek to reduce the probability of events that result in occurrences, incidents and accidents and mitigate the seriousness of their consequences.

Among other aspects, EPAS requires national safety plans to include the threats identified at the international level. These include the following themes:

- Loss of control in flight (LOC-I)
- Runway excursions (RE)
- Runway incursions (RI)
- Mid-air collisions (MAC)
- Ground safety
- Controlled flight into terrain (CFIT)
- Fire, smoke and fumes
- Airspace infringement (AI)

### **3.2.1 OPER.001. Loss of control in flight (LOC-I)**

*EPAS reference: MST.028: Member States to establish and maintain a State Plan for Aviation Safety*

#### **OPER.LOC.001.1, Loss of control in flight (LOC-I)**

##### Action:

Loss of control in flight (LOC-I) threat and its identified causal factors have been included in the Finnish aviation safety performance indicators and targets (FASP Annex 2). The stakeholders must address and process LOC-I threats in their safety management and take action to reduce the risk. Examples of factors that may cause LOC-I threats include among other things bird strikes and incidents involving foreign object debris (FOD).



Traficom monitors the number and risk level of LOC-I events, defines the required actions as part of the Finnish aviation safety risk management and evaluates how stakeholders have addressed and processed LOC-I threats.

To process LOC-I threats as part of their safety management, operators must

- assess risks in their own operations
- define the acceptable level of safety and the necessary management and response levels
- define and implement the required actions
- monitor the effectiveness of their actions.



Objective of the action:

Reducing LOC-I risks

Stakeholder responsible for implementation:

**Traficom:** As regards Finnish aviation safety risk management (FASP 2.6) and oversight (FASP 3.0)

**Aviation organisations (AOC, SPO, ATO, ANS, ADR):** Processing the LOC-I threat in their operations

Timetable

Continuous

Deliverable

LOC-I events and their causal factors are included in the FASP Annex 2 and addressed in the Finnish aviation safety risk management and the stakeholders' safety management

Status

Traficom's part has been implemented, and Traficom ensures implementation by stakeholders as part of its oversight.

### 3.2.2 OPER.002. Runway excursions (RE)

*EPAS reference: MST.028: Member States to establish and maintain a State Plan for Aviation Safety*

#### **OPER.RE.002.1, Runway excursions (RE)**

Action:

Runway excursion (RE) threats and their identified causal factors, such as runway conditions (RWY CON), have been included in the Finnish aviation safety performance indicators and targets (FASP Annex 2). The stakeholders must address and process RE threats in their safety management and take action to reduce the risk.



Traficom monitors the number and risk level of RE events, defines the required actions as part of the Finnish aviation safety risk management and evaluates how the stakeholders have addressed and processed RE threats.

To process RE threats as part of their safety management, operators must

- assess risks in their own operations
- define the acceptable level of safety and the necessary management and response levels
- define and implement the required actions
- monitor the effectiveness of their actions.

Objective of the action:

Reducing RE risks

Stakeholder responsible for implementation:

**Traficom:** As regards Finnish aviation safety risk management (FASP 2.6) and oversight (FASP 3.0)

**Aviation organisations (AOC/aeroplanes, SPO/aeroplanes, ATO/aeroplanes, ANS, ADR):** Addressing the RE threat in their operations

Timetable

Continuous

Deliverable

Runway excursions and their causal factors are included in the FASP Annex 2 and addressed in the Finnish aviation safety risk management and the stakeholders' safety management

Status

Traficom's part has been implemented, and Traficom ensures implementation by stakeholders as part of its oversight.

### **3.2.3 OPER.003. Runway safety**

*EPAS reference: MST.028: Member States to establish and maintain a State Plan for Aviation Safety*

#### **OPER.RWY.003.1, Local runway safety teams (LRST)**

Action:

A Local Runway Safety Team has been set up at Helsinki-Vantaa Aerodrome. Traficom oversees its activities. The Aerodrome operator must also ensure the effectiveness of LRST activities at other Aerodromes.

Objective of the action:

The objective of the action is to improve runway safety in Finland.

Stakeholder responsible for implementation:

**Traficom**

**Aviation organisations (ADR, ANS)**

Timetable

Continuous

Deliverable

Efficient LRST activities, the effectiveness of LRST activities at other aerodromes has been assessed

Status

A LRST is operating at EFHK

#### **OPER.RWY.003.2, Solutions to improve runway safety**

*EPAS reference: MST.029: Implementation of SESAR runway safety solutions*

Action:

Traficom contacts operators and air navigation service providers to assess which runway safety solutions identified in the SESAR project have already been taken in use in Finland. It will also assess the feasibility of the solutions and the possibility of introducing those solutions that have not yet been implemented in Finland. The solutions are presented in the [2017 SESAR Solutions Catalogue, second edition](#).

Objective of the action:

The objective of the action is to improve runway safety in Finland and to ensure that the runway safety solutions of the SESAR project have been implemented to the extent possible.

Stakeholder responsible for implementation:

**Traficom**

**Aviation organisations (ADR, ANS)**

Timetable

2019: First contacts with stakeholders and completing the EAPPRI action (see *OPER.RI.004.2, Runway incursions (RI) and EAPPRI*)

2020: Assessing the scope of implementation and the introduction of the solutions to be implemented

Deliverable

The runway safety solutions of the SESAR project have been implemented to the extent possible.

Status

Ongoing

### **3.2.4 OPER.004. Runway incursions (RI)**

*EPAS reference: MST.028: Member States to establish and maintain a State Plan for Aviation Safety*

#### **OPER.RI.004.1, Runway incursions (RI)**

Action:

Runway incursion (RI) threats and their identified causal factors have been included in the Finnish aviation safety performance indicators and targets (FASP Annex 2). The stakeholders must address and process RI threats in their safety management and take action to reduce the risk.



Traficom monitors the number and risk level of RI events, defines the required actions as part of the Finnish aviation safety risk management and evaluates how the stakeholders have addressed and processed RI threats.

To process RI threats as part of their safety management, operators must

- assess risks in their own operations
- define the acceptable level of safety and the necessary management and response levels
- define and implement the required actions
- monitor the effectiveness of their actions.

Objective of the action:

Reducing RI risks

Stakeholder responsible for implementation:

**Traficom:** As regards Finnish aviation safety risk management (FASP 2.6) and oversight (FASP 3.0)

**Aviation organisations (AOC/aeroplanes, SPO/aeroplanes, ATO/aeroplanes, ANS, ADR):** Addressing the RI threat in their operations

Timetable

Continuous

Deliverable

Runway incursions and their causal factors are included in the FASP Annex 2 and addressed in the Finnish aviation safety risk management and the stakeholders' safety management.

Status

Traficom's part has been implemented, and Traficom ensures implementation by stakeholders as part of its oversight.

**OPER.RI.004.2, Runway incursions (RI) and EAPPRI**

Action:

Traficom processes the recommendations of [EAPPRI version 3.0](#) (*European Action Plan for the Prevention of Runway Incursions*) published in November 2017 and implements them in cooperation with aviation industry organisations and service providers.

Objective of the action:

Ensuring that the recommendations of the updated EAPPRI are implemented in Finland as far as possible

Stakeholder responsible for implementation:

**Traficom**

**Aviation organisations (AOC/aeroplanes, ATO/aeroplanes, ANS, ADR)**

Timetable

2018–2019

Deliverable

EAPPRI recommendations have been implemented as far as possible.

Status

Actions in previous EAPPRI versions have been processed and implemented where applicable. The processing of version 3.0 has been started, and a survey was sent to stakeholders in early autumn 2018. The survey responses are being processed.

**3.2.5 OPER.005. Mid-air collisions (MAC)**

*EPAS reference: MST.028: Member States to establish and maintain a State Plan for Aviation Safety*

**OPER.MAC.005.1, Mid-air collisions (MAC)**

Action:

Mid-air collisions (MAC) threats and their identified causal factors have been included in the Finnish aviation safety performance indicators and targets (FASP Annex 2). The stakeholders must process MAC threats in their safety management and take action to reduce the risk.



Traficom monitors the number and risk level of MAC events, defines the required actions as part of the Finnish aviation safety risk management and evaluates how the stakeholders have addressed and processed the MAC threats.

To process MAC threats as part of their safety management, operators must

- assess risks in their own operations
- define the acceptable level of safety and the necessary management and response levels
- define and implement the required actions
- monitor the effectiveness of their actions.

Objective of the action:

Reducing MAC risks

Stakeholder responsible for implementation:

**Traficom:** As regards Finnish aviation safety risk management (FASP 2.6) and oversight (FASP 3.0)

**Aviation organisations (AOC, SPO, ATO, ANS, RPAS):** Addressing the MAC threat in their operations

Timetable

Continuous

Deliverable

Mid-air collisions and their causal factors are included in the FASP Annex 2 and addressed in the Finnish aviation safety risk management and the stakeholders' safety management.

Status

Traficom's part has been implemented, and Traficom ensures implementation by stakeholders as part of its oversight.

**OPER.MAC.005.2, Loss of separation between civil and military aircraft (MAC)**

*EPAS reference: MST.024: Loss of separation between civil and military aircraft*

Action:

In collaboration with ICAO, Finland has convened a working group (*Ad-hoc civil military expert group on flight safety over Baltic sea*). The group includes all states in the Baltic Sea region except Lithuania as well as EASA, NATO and Eurocontrol. The group prepared the document "*Principles and best practices in case of air encounters, especially in the High Seas airspace commonly shared by civil & military aviation over the Baltic Sea*" for the ICAO EUR OPS Bulletin (EUR OPS Bulletin 2017\_001). The group also established a strategic cooperation network which may, if necessary, address issues related to the coordination of civil and military aviation in the Baltic Sea region. Finland has announced its preparedness to continue organising meetings on this theme, should this be considered necessary.

Objective of the action:

Reducing the threat of loss of separation between civil and military aircraft and MAC over the high seas by harmonising methods and increasing cooperation between relevant stakeholders

Stakeholder responsible for implementation:

**Traficom**

Timetable

Continuous

Deliverable

Mid-air collisions and their causal factors are included in the FASP Annex 2 and addressed in the Finnish aviation safety risk management and the stakeholders' safety management.

Status

Finland has published its "*due regard*" procedures and appended them to ICAO EUR Doc 032. Finland has chaired the Baltic Sea Project Team, which has drafted numerous recommendations on operations over the high seas. Together with the

other Baltic Sea states, Finland has published waypoints for state aircraft that will improve flight planning and route predictability. Better use of military radar systems by civil air traffic control is also being investigated. Coordination between civil and military operations has been improved by establishing a network of contact persons between the air traffic control organisations of the Baltic Sea states. Finland has also participated in the drafting of the EUR OPS Bulletin (2015\_002).

Finland has actively promoted increased civil-military cooperation in several international forums, such as the ICAO GANIS-SANIS symposium in 2017, the ICAO Air Navigation conference in 2018 and the OSCE Security Days in 2018.

Finland has announced its preparedness to facilitate further work, should the parties consider this necessary. Finland actively monitors the coordination of civil and military aviation, the implementation of the agreed actions and the level of safety in the Baltic Sea region.

### **OPER.MAC.005.3, Mid-air collisions (MAC) and SESAR solutions**

*EPAS reference: MST.030: Implementation of SESAR solutions aiming to reduce the risk of mid-air collision en-route and TMA*

#### **Action:**

Traficom evaluates in cooperation with air navigation service providers to what extent the SESAR solutions for reducing the risk of mid-air collisions (MAC) have been implemented in Finland. It will also assess the feasibility of the solutions and the possibility of introducing those solutions that have not yet been implemented in Finland. The solutions are presented in the [2017 SESAR Solutions Catalogue, second edition](#).

#### **Objective of the action:**

The objective of the action is to reduce the risk of MACs in Finland and to ensure that the SESAR solutions for reducing the risk have been implemented to the extent possible.

#### **Stakeholder responsible for implementation:**

**Traficom  
Aviation organisations (ANS)**

#### **Timetable**

2019

#### **Deliverable**

The SESAR solutions for reducing the risk of MACs have been implemented to the extent possible.

#### **Status**

Ongoing

### **3.2.6 OPER.006. Ground safety**

*EPAS reference: MST.028: Member States to establish and maintain a State Plan for Aviation Safety MST.028 requires that the FPAS must include the action MST.018 of the previous EPAS 2018–2022. MST.018 defines the scope of the action: "This risk area includes all ground-handling 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..."*

### **OPER.006.1, Ground safety**

#### Action:

Threats to ground handling and apron management and their identified causal factors have been included in the Finnish aviation safety performance indicators and targets (FASP Annex 2). The stakeholders must address these threats in their safety management and take action to reduce the risk.



Traficom monitors the number and risk level of ground safety events, defines the required actions as part of the Finnish aviation safety risk management and monitors the way in which the stakeholders have addressed and processed ground handling and apron management threats.

To process the ground safety threats as part of their safety management, operators must

- assess risks in their own operations
- define the acceptable level of safety and the necessary management and response levels
- define and implement the required actions
- monitor the effectiveness of their actions.

#### Objective of the action:

Reducing the risks associated with ground safety

#### Stakeholder responsible for implementation:

**Traficom:** As regards Finnish aviation safety risk management (FASP 2.6) and oversight (FASP 3.0)

**Aviation organisations (AOC, GH, ANS, ADR):** Addressing threats to ground handling and apron management in their operations

#### Timetable

Continuous

#### Deliverable

Ground handling and apron management threats and the related causal factors are included in the FASP Annex 2 and addressed in the Finnish aviation safety risk management and the stakeholders' safety management.

#### Status

Traficom's part has been implemented, and Traficom ensures implementation by stakeholders as part of its oversight.

### **3.2.7 OPER.007. Controlled flight into terrain (CFIT)**

*EPAS reference: MST.028: Member States to establish and maintain a State Plan for Aviation Safety*

### **OPER.CFIT.007.1, Controlled flight into terrain (CFIT)**

#### Action:

Controlled flight into terrain (CFIT) threat and its identified causal factors have been included in the Finnish aviation safety performance indicators and targets (FASP Annex 2). The stakeholders must address and process CFIT threats in their safety management and take action to reduce the risk.



Traficom monitors the number and risk level of CFIT events, defines the required actions as part of the Finnish aviation safety risk management and evaluates how the stakeholders have addressed and processed CFIT threats.

To process CFIT threats as part of their safety management, operators must

- assess risks in their own operations
- define the acceptable level of safety and the necessary management and response levels
- define and implement the required actions
- monitor the effectiveness of their actions.

Objective of the action:

Reducing CFIT risks

Stakeholder responsible for implementation:

**Traficom:** As regards Finnish aviation safety risk management (FASP 2.6) and oversight (FASP 3.0)

**Aviation organisations (AOC, SPO, ATO, ANS):** Addressing the CFIT threat in their operations

Timetable

Continuous

Deliverable

Controlled flight into terrain and the related threat factors are included in the FASP Annex 2 and addressed in the Finnish aviation safety risk management and the stakeholders' safety management.

Status

Traficom's part has been implemented, and Traficom ensures implementation by stakeholders as part of its oversight.

### **3.2.8 OPER.008. Fire, smoke and fumes**

*EPAS reference: MST.028: Member States to establish and maintain a State Plan for Aviation Safety*

#### **OPER.FIRE.008.1, Fire, smoke and fumes**

Action:

Threats of fire as well as observations of smoke and other fumes and their identified causal factors have been included in the Finnish aviation safety performance indicators and targets (FASP Annex 2). The stakeholders must address these threats in their safety management and take action to reduce the risk.



Traficom monitors the number and risk level of fires and observations of smoke and other fumes, defines the required actions as part of the Finnish aviation safety risk management and evaluates how the stakeholders have addressed and processed these threats.

To process the threats associated with fire, smoke and fumes as part of their safety management, operators must

- assess risks in their own operations
- define the acceptable level of safety and the necessary management and response levels
- define and implement the required actions



- monitor the effectiveness of their actions.

Objective of the action:

Reducing the risks of fire, smoke and fumes

Stakeholder responsible for implementation:

**Traficom:** As regards Finnish aviation safety risk management (FASP 2.6) and oversight (FASP 3.0)

**Aviation organisations (AOC, AIR):** Addressing threats related to fire, smoke and fumes in their operations

Timetable

Continuous

Deliverable

Threats of fires, smoke and fumes and their causal factors are included in the FASP Annex 2 and addressed in the Finnish aviation safety risk management and the stakeholders' safety management,

Status

Traficom's part has been implement, and Traficom ensures implementation by stakeholders as part of its oversight.

### 3.3 Actions concerning individual domains of aviation



Section 3.3 contains actions assigned separately to each domain of aviation. These actions were specified on the basis of the EPAS (EPAS reference given) and the results of the Finnish aviation safety risk management process. The discussion on each domain begins with the topical threat scenarios for the domain in question (*FASP section 2.6*) for which it has been considered necessary to include actions in the Safety Plan. These threat scenarios are defined on the basis of national safety risk pictures, which are based on an assessment of the safety risk level in the relevant domain of the Finnish aviation industry. The results of this assessment do not comment on the performance of individual stakeholders regarding the threat in question.

In some domains, it was found that the actions in sections 3.1 and 3.2 cover the key threats that have been identified. For these domains, actions have not been separately included in section 3.3.

#### 3.3.1 Helicopter safety

*EPAS reference: MST.015: Helicopter safety events*

##### **SYS.HECO.001, Forums for cooperation on helicopter safety**

##### Action:

Traficom has established a [national working group on helicopter safety \(FHST\)](#). The group convenes regularly. Traficom also organises an FHST Safety Day each year as part of its safety promotion activities (*FASP section 4.2*).



At the European level, Traficom promotes helicopter safety by participating in the activities of the [EASA group ESPN-R \(European Safety Promotion Network – Rotorcraft\)](#). Traficom also participates in the annual EASA Rotorcraft Symposium and is an observer on EASA's R.COM committee.

Traficom communicates the safety information produced at the European level to Finnish helicopter operators.

##### Objective of the action:

Improving helicopter safety

##### Stakeholder responsible for implementation:

**Traficom**

##### Timetable

Continuous

##### Deliverable

FHST has been established and it is operational, Traficom participates in European activities to promote helicopter safety.

##### Status

Implementation under way

### **SYS.HECO.002, Helicopter safety**

The system-level theme of **developing standard operating procedures and supporting their introduction** was identified as a key scenario in the national risk picture for the domain of helicopter operations in commercial air transport (CAT RW) and aerial work (SPO RW). The theme is also one of the national safety performance indicators that helicopter operators are obliged to monitor (*FASP Annex 2, Finnish Aviation Safety Objectives and Safety Performance Indicators and Targets, helicopter operation indicator RW-SPI-SOP*).

#### Action:

Helicopter operators ensure that they have standard operating procedures (SOP) which describe in sufficient detail and scope all helicopter operations relevant to their activities. The SOPs are taken into account in all training and practical rotary wing operations of the organisation, they are reviewed regularly, and they are updated based on the needs identified in risk management.

Traficom includes SOPs and the oversight of their implementation in its priorities of oversight.

#### Objective of the action:

Implementing the Finnish aviation safety risk management in the domain of helicopter operations by strengthening one of the key safeguards reducing risks, the use of standard operating procedures, and thereby ensuring that the risk level of helicopter operations remains acceptable

#### Stakeholder responsible for implementation:

**Organisations involved in helicopter operations in commercial air transport (CAT RW) and aerial work (SPO RW)**

**Traficom**

#### Timetable

2019–2023

#### Deliverable

The action described above has been addressed in the organisations' safety management and the results have been processed in connection with Traficom's oversight.

#### Status

Implementation under way

### **3.3.2 Aerodrome safety**

#### **SYS.ADR.001, Aerodrome safety**

In terms of aerodrome safety, the following emerged as key scenarios at the operational level in the national safety risk picture:

- runway conditions and maintenance at aerodromes in Northern Finland, especially with foreign flight operators not accustomed to winter conditions
- unauthorised vehicles on runways (runway incursion, RI) in summer and especially in winter conditions
- operational compliance and usability of the manoeuvring area.

At the systemic level, the following key scenarios were identified:



- shortcomings in maintenance reporting
- the use of information produced within SMS for decision-making (see also action *SYS.008.2, Management of change as part of safety management*)
- shortcomings in disseminating information about local conditions.

Action:

Aerodrome operators must address the above key scenarios identified at the national level in respect of their own operations, define an acceptable level of safety and, if necessary, take action to reduce the risks to an acceptable level.

Traficom includes the identified key scenarios in its oversight plan as one of the audit priorities.

Objective of the action:

Implementing Finnish aviation safety risk management in the ADR domain by ensuring that the risks related to the threat scenarios described above are maintained at an acceptable level

Stakeholder responsible for implementation:

**Aerodrome operators**

**Traficom**

Timetable

2019

Deliverable

The action described above has been addressed in the organisations' safety management and the results have been processed in connection with Traficom's oversight.

Status

Implementation under way

### **3.3.3 Safety of flight training**

#### **SYS.ATO.001, Safety of flight training**

At the operational level, shortcomings in airspace observation were identified as the key scenario of the national safety risk picture in the flight training domain (ATO). These shortcomings may lead to a risk of collision (MAC), especially during solo flights to/from uncontrolled aerodromes.



Action:

Flight training organisations must address the aforementioned key scenario identified at the national level in respect of their own operations, define an acceptable level of safety and, if necessary, take action to reduce the risks to an acceptable level.

Traficom includes the identified key scenario in its oversight plan as one of the audit priorities.

Objective of the action:

Implementing Finnish aviation safety risk management in the ATO domain by ensuring that the risks associated with the threat scenario described above are maintained at an acceptable level

Stakeholder responsible for implementation:

**Flight training organisations**

**Traficom**

Timetable

2019

Deliverable

The action described above has been addressed in the organisations' safety management and the results have been processed in connection with Traficom's oversight.

Status

Implementation under way

### **3.3.4 Safety of commercial air transport**

#### **SYS.CAT.001, Safety of commercial air transport**

At the operational level of the commercial air transport domain (AOC), the key scenario identified in the national risk picture was the impacts of cabin baggage volumes on evacuation, obstructing/slowing down evacuation. The reason for this was that actions to highlight the issue at the national and European level are still under way.

At the systemic level, the following key scenarios were identified:

- shortcomings in organisations' management of change (MoC)
- a scenario in which fatigue management methods have not been implemented in the organisation's crew roster planning and the management of changes to the rosters after they have been published.

Action:

Commercial air transport organisations must address the aforementioned scenarios identified at the national level in respect of their own operations, define an acceptable level of safety and, if necessary, take action to reduce the risks to an acceptable level. Once they have introduced fatigue risk management systems (FRMS), organisations assess how efficient and effective they are.

Traficom includes the scenarios in its oversight plan as one of the priorities of oversight. Traficom develops methods to assess the performance of fatigue risk management systems (FRMS).

Shortcomings in the management of change are also connected to the system-level action SYS.008.2, *Management of change as part of safety management*, which is obligatory to all aviation organisation that are required to implement an SMS.

Objective of the action:

Implementing Finnish aviation safety risk management in the commercial air transport domain by ensuring that the risks related to the threat scenario described above are maintained at an acceptable level

Stakeholder responsible for implementation:

**AOC operators (aeroplanes)**

**Traficom**

Timetable

2019–2020

Deliverable

The action described above has been addressed in commercial air transport organisations' safety management and the results have been processed in connection with Traficom's oversight.

Status

Implementation under way

### **3.3.5 Ground handling safety**

#### **SYS.GH.001, Ground handling safety**

The following were identified as key scenarios in the national safety risk picture in the ground handling (GH) domain:



- correct procedure is not followed while fuelling when passengers are on board/boarding/disembarking
- incorrect or deficient loading of the aircraft
- shortcomings in immediate information provision when a ground support equipment collides with an aircraft (including immediately informing the crew and technical staff and occurrence reporting)
- scenarios where the mass/centre of gravity of the aircraft has been incorrectly calculated
- shortcomings in guiding and supervising passengers on apron.

At the systemic level, the following key scenarios were identified:

- a subcontractor operates incorrectly but the organisation acquiring the service does not have sufficient possibilities of verifying the safety of operation in direct subcontracting and especially in subcontracting chains
- due to shortcomings in the SMS system, the system does not identify safety threats and/or is incapable of managing safety risks
- large turnover of GH personnel hampers the development/maintenance of professional competence
- due to tight schedules, a ground handling function is performed incorrectly or neglected during aircraft turnaround.

Action:

Organisations must process the aforementioned key ground handling scenarios identified at the national level in respect of their own operations, define an acceptable level of safety and, if necessary, take action to reduce the risks to an acceptable level.

Traficom specifies a concept for the authorities' work in ground handling, allocates resources and ensures the competence of the resources.

Objective of the action:

Implementing Finnish aviation safety risk management in the GH domain by ensuring that the risks related to the threat scenarios described above are maintained at an acceptable level

Stakeholder responsible for implementation:

**GH organisations**  
**AOC organisations**  
**Traficom**

Timetable  
2018–2019

Deliverable

The action described above has been addressed in the safety management of ground handling and organisations using ground handling services. Traficom's oversight concept has been developed and introduced.

Status

A study on ground handling with respect to the authority's obligations laid down in the new Basic Regulation was completed in December 2018. Traficom continues the organisation of GH activities based on the study.

### **3.3.6 Airworthiness and maintenance safety**

#### **SYS.AIR.001, Airworthiness and maintenance safety**



Two scenarios at the systemic level were identified as key scenarios in the national safety risk picture in the airworthiness and maintenance (AIR) domain:

- a mistake is made in airworthiness management, causing a maintenance task or AD to be neglected
- maintenance staff carry out their work incorrectly, leading to the aircraft being released to service even though it is not airworthy.

Action:

Continuing airworthiness management organisations (CAMO) and maintenance organisations (AMO) must address the aforementioned key scenarios identified at the national level in respect of their own operations, define an acceptable level of safety and, if necessary, take action to reduce the risks to an acceptable level. This requirement only concerns the organisations responsible for the maintenance or management of aircraft used in commercial operations (AOC).

Traficom includes the scenarios in its oversight plan.

Objective of the action:

Implementing Finnish aviation safety risk management in the AIR domain by ensuring that the risks related to the threat scenarios described above are maintained at an acceptable level

Stakeholder responsible for implementation:

**CAMO and AMO organisations responsible for the maintenance or management of aircraft used in commercial operations**  
**Traficom**

Timetable  
2019–2021

Deliverable

The threat scenarios described above have been addressed in CAMO and AMO organisations' safety management and the results have been processed in connection with Traficom's oversight.

Status

Implementation under way

### 3.3.7 General aviation safety

General aviation refers to all other manned aviation apart from commercial air transport and aerial work. At the European level, **preventing mid-air collisions (MAC), coping with weather, control of aircraft** (preventing loss of control, or LOC-I events) **and managing the flight** remained key areas for actions to improve safety.



Traficom works on the safety of general and recreational aviation as set out in the **operating model for recreational aviation safety work** developed in a [recreational aviation safety project in 2015](#). In addition to Traficom, Finavia, ANS Finland, the Finnish Meteorological Institute, the Finnish Aeronautical Association (SIL) and AOPA Finland (SMLL) are committed to the operating model.

In the operating model, the stakeholders committed to complying with the model discuss the safety situation annually and specify the priorities of safety work and needs for action during the year. These needs and priorities are also used as themes of the **Lentoon! seminar** that the stakeholders organise together each year.

#### **OPER.GA.001, Airspace infringements**

*EPAS reference: MST.028: Member States to establish and maintain a State Plan for Aviation Safety*

Action:

Airspace infringements (AI) do not currently emerge as a key threat in general and recreational aviation in Finland, but several actions have been implemented over a number of years to reduce the risks associated with them. AI events and their risk levels are monitored as part of Finnish aviation safety risk management. Should any needs for additional actions be identified, the operating model of Finnish recreational aviation safety work will be used.

Objective of the action:

Reducing AI and MAC risks

Stakeholder responsible for implementation:

**Stakeholders committed to the operating model of Finnish recreational aviation safety work: Traficom, Finavia, ANS Finland, the Finnish Meteorological Institute, the Finnish Aeronautical Association (SIL) and AOPA Finland (SMLL)**

Timetable

Continuous

Deliverable

Controlling AI and MAC risks

Status

Progressing as planned. In 2018, Finland as a member of the SPN network participated in a [safety campaign on preventing MAC/AI events in general and recreational aviation](#) (EPAS 2018–2022, action SPT.089).



### **SYS.GA.002, Dissemination of safety messages**

*EPAS reference: MST.025: Improve the dissemination of safety messages*

Action:

Key elements of safety promotion associated with the Finnish operating model for recreational aviation safety work include the **annual Lentoon! seminar** and **efficient safety promotion and sharing of best practices** using different communication channels. The cooperation described above continues within the framework of the operating model. Stakeholders meet annually before the beginning of the flying season to discuss and make decisions on central and topical themes for safety messages.

**In 2019, key themes include operations at uncontrolled aerodromes and reporting.** Stakeholders involved in the operating model considered that, as the focus in general aviation is shifting towards increasingly diverse uncontrolled aerodromes, it is important to highlight these operations as one of the key themes of the year. In terms of reporting, it was considered necessary to lower the reporting threshold and improve the feedback system. For more information on the matter, please see action *SYS.006.1, Just culture*, which is a response to the EPAS action *MST.027, Develop just culture in GA*. In the FPAS, the scope of the action has been extended to cover all aviation.

Objective of the action:

Improving the dissemination of safety messages as an essential systemic safety factor, thus improving the safety of general aviation

Stakeholder responsible for implementation:

**Stakeholders committed to the operating model of Finnish recreational aviation safety work: Traficom, Finavia, ANS Finland, the Finnish Meteorological Institute, the Finnish Aeronautical Association (SIL) and AOPA Finland (SMLL)**

Timetable

Continuous

Deliverable

Effective, risk-based dissemination of safety messages

Status

Progressing as planned

### **3.3.8 Safety of unmanned aviation**

*No EPAS reference: EPAS has no actions directly assigned to the Member States. The actions listed below were defined on the basis of nationally identified needs for actions.*

#### **SYS.DRONE.001, Risk management**

At the operative level, the following emerged as key scenarios of the national safety risk picture in the domain of unmanned aviation (UAS/RPAS/Drones):

- operation close to aerodromes and heliports, and in this context, collisions between unmanned and manned aircraft (collisions between an unmanned aircraft and a helicopter were identified as a highly critical area)



- loss of control of an unmanned aircraft, especially above a crowd
- loss of control link of an unmanned aircraft.

For these scenarios, improving the knowledge and skills of the pilots/operators of unmanned aircraft was considered an effective action.

At the systemic level, the following key scenarios were identified:

- lack of knowledge of regulation
- the incoherent operating culture of the new domain
- incorrect attitudes.

An example of the need to provide more information is the prohibition of operating a drone for recreational purposes over a crowd outdoors, as laid down in regulation OPS M1-32. Regulation OPS M1-32 on remotely controlled aircraft in commercial / aerial work imposes certain obligations related to such situations, including preparing a safety assessment. Systemic actions for improving knowledge and skills also reduce the risks related to the operational scenarios described above.

Action:

Under regulation OPS M1-32 on the use of remotely controlled aircraft in aviation, those who use a remotely controlled aircraft for aerial work have an obligation to conduct a safety assessment, for example, when they operate near crowds, beyond visual line-of-sight or in densely populated urban areas. In the safety assessment, operators are required to address the threat factors they have identified.

Traficom monitors the implementation of actions assigned to the stakeholders as part of its oversight. Traficom promotes the safety of drone activities and improves the stakeholders' knowledge of regulation and safe operation by the means described in action *SYS.DRONE.002, Safety promotion*.

Objective of the action:

Reducing the risks of unmanned aviation

Stakeholder responsible for implementation:

**Operators using remotely piloted aircraft in commercial / aerial work  
Traficom**

Timetable

2019–2020

Deliverable

Threat scenarios have been addressed to a sufficient degree in the safety assessments of operators using remotely piloted aircraft.

Status

Actions are progressing as planned

**SYS.DRONE.002, Safety promotion**

Action:

Traficom uses a number of channels to communicate information about safe operation to professionals and hobbyists. Traficom also keeps the website [droneinfo.fi](http://droneinfo.fi) and a mobile application for drone operators up to date to support the dissemination of safety messages and the safe operation of drones. Traficom disseminates information on the obligations laid down in the regulation OPS M1-32, produces guidance material and actively participates in different stakeholder events. In its own role, Traficom also promotes U-space development in Finland and

influences its international regulation in accordance with action *SYS.DRONE.003, Influencing in international aviation.*

Objective of the action:

Reducing the risks of unmanned aviation

Stakeholder responsible for implementation:

**Traficom**

Timetable

Targeted information through newsletters and events in 2019-2020

Droneinfo: updating the application and website content in 2019-2020

U-Space: Traficom promotes U-Space development in Finland by supporting the GOF

U-Space project in 2019

Deliverable

Information provision: Increasing awareness of statutes, regulations and safe operation.

Droneinfo.fi: A channel where stakeholders can access information.

Mobile application: aviators can check air space restrictions on the basis of their GPS location.

U-Space: The GOF U-Space project gives valuable experience to support the development of the system, promote the digital transformation in aviation and serve as a basis for international regulation.

Status

Actions are progressing as planned

**SYS.DRONE.003, Influencing in international aviation**

Action:

Traficom will exert influence on all key international forums that seek to develop the regulation on and safe operation of drones, including ICAO, EASA, JARUS, European Commission task forces and the World Economic Forum.

Objective of the action:

Reducing the risks of unmanned aviation and streamlining international regulation

Stakeholder responsible for implementation:

**Traficom**

Timetable

2019

Deliverable

Traficom will continue and maintain its position as an important and active influential participant on all the aforementioned forums.

Status

Traficom has a representative on the ICAO RPAS panel and in the EASA RMT.0230 group, the JARUS plenary and European Commission task forces, such as U-Space.

Traficom is also an invited member of the World Economic Forum's Drone Innovators Network.

## Annex: List of actions by stakeholder groups

### Actions assigned to all stakeholders:

- SYS.001.1, Finnish Aviation Safety Programme
- SYS.002.1, Finnish Plan for Aviation Safety
- SYS.003.1, Finnish aviation safety performance targets and indicators
- SYS.004.1, Finnish aviation safety risk management
- SYS.008.2, Management of change as part of safety management
- SYS.009.1, Cyber security in aviation

### Actions assigned to individual groups of aviation organisation:

#### AIR organisations

- OPER.FIRE.008.1, Fire, smoke and fumes
- SYS.AIR.001, Airworthiness and maintenance safety

#### ATO organisations

- SYS.FOT.010.3, Performance- and risk-based operations management
- SYS.NBM.011.1, New business models
- OPER.LOC.001.1, Loss of control in flight (LOC-I)
- OPER.RE.002.1, Runway excursions (RE) (aeroplanes)
- OPER.RI.004.1, Runway incursions (RI) (aeroplanes)
- OPER.RI.004.2, Runway incursions (RI) and EAPPRI
- OPER.MAC.005.1, Mid-air collisions (MAC)
- OPER.CFIT.007.1, Controlled flight into terrain (CFIT)
- SYS.ATO.001, Safety of flight training

#### ANS organisations

- SYS.FOT.010.4, Using air traffic control services in general aviation
- OPER.LOC.001.1, Loss of control in flight (LOC-I)
- OPER.RE.002.1, Runway excursions (RE)
- OPER.RWY.003.1, Local runway safety teams (LRST)
- OPER.RI.004.1, Runway incursions (RI)
- OPER.RI.004.2, Runway incursions (RI) and EAPPRI
- OPER.RWY.003.2, Solutions to improve runway safety
- OPER.MAC.005.1, Mid-air collisions (MAC)
- OPER.MAC.005.3, Mid-air collisions (MAC) and SESAR solutions
- OPER.006.1, Ground safety
- OPER.CFIT.007.1, Controlled flight into terrain (CFIT)

#### ADR organisations

- OPER.LOC.001.1, Loss of control in flight (LOC-I)
- OPER.RE.002.1, Runway excursions (RE)
- OPER.RWY.003.1, Local runway safety teams (LRST)
- OPER.RI.004.1, Runway incursions (RI)
- OPER.RI.004.2, Runway incursions (RI) and EAPPRI
- OPER.RWY.003.2, Solutions to improve runway safety
- OPER.006.1, Ground safety
- SYS.ADR.001, Aerodrome safety

#### AOC operators (aeroplanes)

- SYS.007.1, National FDM forum
- SYS.007.2, FDM use in performance monitoring
- SYS.NBM.011.1, New business models
- OPER.LOC.001.1, Loss of control in flight (LOC-I)
- OPER.RE.002.1, Runway excursions (RE)
- OPER.RI.004.1, Runway incursions (RI)
- OPER.RI.004.2, Runway incursions (RI) and EAPPRI
- OPER.MAC.005.1, Mid-air collisions (MAC)
- OPER.006.1, Ground safety

- OPER.CFIT.007.1, Controlled flight into terrain (CFIT)
- OPER.FIRE.008.1, Fire, smoke and fumes
- SYS.CAT.001, Safety of commercial air transport
- SYS.GH.001, Ground handling safety

AOC operators (helicopters)

- SYS.007.1, National FDM forum
- SYS.007.2, FDM use in performance monitoring
- SYS.NBM.011.1, New business models
- OPER.LOC.001.1, Loss of control in flight (LOC-I)
- OPER.MAC.005.1, Mid-air collisions (MAC)
- OPER.006.1, Ground safety
- OPER.CFIT.007.1, Controlled flight into terrain (CFIT)
- OPER.FIRE.008.1, Fire, smoke and fumes
- SYS.HECO.002, Helicopter safety
- SYS.GH.001, Ground handling safety

SPO operators (aeroplanes)

- OPER.LOC.001.1, Loss of control in flight (LOC-I)
- OPER.RE.002.1, Runway excursions (RE)
- OPER.RI.004.1, Runway incursions (RI)
- OPER.MAC.005.1, Mid-air collisions (MAC)
- OPER.CFIT.007.1, Controlled flight into terrain (CFIT)

SPO operators (helicopters)

- OPER.LOC.001.1, Loss of control in flight (LOC-I)
- OPER.MAC.005.1, Mid-air collisions (MAC)
- OPER.CFIT.007.1, Controlled flight into terrain (CFIT)
- SYS.HECO.002, Helicopter safety

GH organisations

- OPER.006.1, Ground safety
- SYS.GH.001, Ground handling safety

RPAS organisations

- OPER.MAC.005.1, Mid-air collisions (MAC)
- SYS.DRONE.001, Risk management

Actions to be implemented collaboratively in the framework of the operating model of Finnish recreational aviation safety work by the stakeholders committed to the model: Traficom, Finavia, ANS Finland, the Finnish Meteorological Institute, the Finnish Aeronautical Association (SIL) and AOPA Finland (SMLL)

- SYS.006.1, Just culture
- SYS.FOT.010.4, Using air traffic control services in general aviation
- OPER.GA.001, Airspace infringements
- SYS.GA.002, Dissemination of safety messages