Finnish Plan for Aviation Safety
2018 - 2022

Finnish Aviation Safety Programme Annex 1

Contents

Foreword

The Finnish Aviation Safety Programme describes the national aviation safety management system. The programme includes a safety policy and a high-level description of the legislative background, processes and work for aviation safety.

This document is the Finnish Plan for Aviation Safety, Annex 1 to the Finnish Aviation Safety Programme, which describes the actions to be completed under the Safety Plan in Finland, the parties responsible for them and schedules for 2018-2022. The document is updated annually based on needs for actions identified as part of Finnish aviation safety risk management work and the European Plan for Aviation Safety maintained by the EASA. The European Plan for Aviation Safety is similarly underpinned by global safety objectives of the ICAO.

Each aviation stakeholder is responsible for the safety of its own operations. The organisations have the duty to identify any threats to their operations, assess risks and take the required action to eliminate the risks or to reduce them to an acceptable level as part of their safety management. The organisations must also process the actions assigned to them in the Finnish Plan for Aviation Safety. The processing of the Safety Plan actions in the organisations is overseen by Trafi.

Pekka Henttu, Director General of Civil Aviation

Finnish Plan for Aviation Safety, document version history

Date issued	Date valid	Valid
19 February 2018	19 February 2018	until further notice

Underlying international standards, recommendations and other documents:

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) 2018 - 2022

COM(2011) 144 White Paper – Roadmap to a Single European Transport Area

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.

Reference number:	TRAFI/442129/07.00.05.00/2017	

Revision details:

Date	Version	Change
20/12/2013	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 FASP process
19 February 2018	4.0	Annual update based on EPAS 2018 – 2022 and Finnish Aviation Safety Risk Management

Acronyms

AloS	Acceptable level of Safety
AloSP	Acceptable level of Safety Performance
AMC	Acceptable Means of Compliance
DOC 9859	ICAO Safety Management Manual
EAFDM	European Authorities Coordination Group on Flight Data Monitoring
EASA	European Aviation Safety Agency
EASP	European Aviation Safety Programme
EPAS	European Plan for Aviation Safety
ECCAIRS	European Coordination Center for Accident and Incident Reporting Systems
EOFDM	European Operators Flight Data Monitoring forum
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
RPAS	Remotely Piloted Aircraft System
RSOO	Regional Safety Oversight Organization
SMICG	Safety Management International Collaboration Group
SMS	Safety Management System
SPI	Safety Performance Indicator
SPT	Safety Performance Target
SSP	State Safety Programme

1 European Plan for Aviation Safety EPAS

1.1 EPAS background

In 2011, the European Commission issued a White Paper on Transport[1] that set the objective of the European Union being the safest region in the world for aviation.

A long-term forecast published by Eurocontrol in 2010[2] indicates that the number of flight movements in Europe will double by 2030. Long-term forecast was updated in 2013[3], and the updated version approaches the growth in flight movements through four different scenarios, in which the growth from 2012 till 2035 varies from 20% to 80% depending on the scenario. 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 even as the number of flights increases and to keep the annual number of fatalities at its present low level. Advanced safety management will also be needed to respond to changes in air transport system structures, business models and technical solutions, which may at times be rapid, and to respond to the challenges brought about by new threats.

In 2011, the Commission also issued a Communication[4] 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 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.

The Commission issued the first version of the European Aviation Safety Programme[5] together with the Communication, 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[6].

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**, as well as addressing the global objectives defined in the *Global Aviation Safety Plan, GASP*, published by the ICAO.

The current revision of the EASA's Basic Regulation (to be published in 2018) contains the obligations of preparing a European Aviation Safety Programme and Plan

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[1] COM(2011) 144 WHITE PAPER – Roadmap to a Single European Transport Area – Towards a more competitive and resource efficient transport system.
[2] EUROCONTROL CND/STATFOR Doc415, 17.12.2010 - Long-Term Forecast - Flight Movements 2010 – 2030.
[3] Challenges of Growth 2013, Task 4: European Air Traffic in 2035
[4] COM(2011) 670 COMMUNICATION FROM THE COMMISSION TO THE COUNCIL AND THE EUROPEAN PARLIAMENT – Setting up an Aviation Management System for Europe
[5] The European Aviation Safety Programme, SEC/2011/1261 final.
[6] COM(2015) 599 final, REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND THE COUNCIL The European Aviation Safety Programme

as well as national aviation safety programmes and plans. These obligations already apply to states under ICAO Annex 19.

1.2 EPAS as part of safety management in European aviation

The strategic priorities of the EPAS are based on the Commission's Aviation Strategy[7] and the EASA strategic plan (EPAS, Annex D). The EPAS is produced as part of the EASA's Safety Risk Management process *(SRM)*. Within the framework of its SRM process, the 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 the result of this process are published annually in the EPAS and implemented in a coordinated manner both at the European and the national level.

The actions contained in the EPAS are divided into three categories by the type of issues they seek to influence: *systemic issues, operational issues and emerging issues*. The contents of these categories are described in detail in connection with the actions in Chapter 3. The EPAS actions, or the selection of means for improving safety, are divided into four types: *safety promotion*, *focused oversight task*, *regulation* and *research/study*. In addition to identifying key safety risks, the SRM process also pinpoints the most appropriate means of safety management for each issue.

The European Plan for Aviation Safety is drawn up by the EASA for a four-year period at a time, and it is updated annually. The actions defined in the plan are assigned to the EASA, the European Commission, the Member States and various networks and teams that participate in the 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. Trafi oversees the processing and implementation of the actions and reports to the EASA annually on their progress.

The European Aviation Safety Programme and Safety Plan can be accessed at the EASA's safety management website and Trafi's aviation safety management website. English pages are also available.

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[7] https://ec.europa.eu/transport/modes/air/aviation-strategy_en

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 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 level safety risk management, the specified strategic safety objectives and the actions taken to achieve them (see FASP 2018, 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 consider 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. The organisations must process the actions assigned to them in the FPAS. As part of its oversight activities, Trafi assesses how the organisations have addressed the threats relevant to them described in the FPAS in their safety management.

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

The Finnish Plan for Aviation Safety is updated annually. For information on the responsibilities for maintaining the FPAS, see FASP 2018 section 1.3.3. The Safety Plan can be accessed on [Trafi's aviation safety management website](#).

2.2   Safety Plan structure

The actions described in Chapter 3 are divided into systemic and operational level actions addressed to a number of domains in aviation and those addressed to individual aviation domains and emerging issues. The objectives, parties responsible for implementation, the schedule and the status of implementation of each action are described, and 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 2018, section 2.6).

3 Safety Plan actions

3.1 Systemic issues- safety management

Systemic issues, introduction
Systemic level themes are issues that concern an individual organisation, a system element or the entire aviation system. Systemic actions impact on an identified development need or threat.

Systemic themes often do not have a direct, short-term link with individual incidents or accidents. These themes, such as safety or fatigue management, have an extensive and usually delayed impact on the safe operation of an organisation or a system. Systemic issues are often background factors, either easily identifiable or latent. For example, they may be associated with shortcomings in processes, methods or operating cultures. If systemic issues are not identified and if the risks caused by them are not managed, they may trigger or contribute to an incident or an accident. Identifying systemic level threats is particularly essential in the case of new, emerging issues. There often is little or no safety data on them, and the role of proactive safety risk and impact assessments and research is highlighted.

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 2018, section 1.1). Key systemic level elements are the state safety programmes (SSPs, including the FASP in Finland) as well as the organisations' safety management systems (SMS).

3.1.1 SYS.001. Finnish Aviation Safety Programme
reference: EPAS action number and title
MST.001: Member States to give priority to the work on SSPs

National action SYS.001.1, FASP maintenance
Trafi has published a national aviation Safety Programme, which it keeps up to date and develops. Trafi communicates actively about the programme contents and sees to the implementation of the programme and continuous improvement of the activities on its basis.

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:
Trafi: 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 Finnish Aviation Safety Programme has been updated regularly, version 6.0 published on 10 January 2018, the programme is implemented

National action SYS.001.2, Finnish aviation safety risk management
The Finnish aviation safety risk management process (FASP 2018, section 2.6) is implemented by Trafi and the stakeholders. For the division of responsibilities, see FASP 2018 section 1.3.1.

The Finnish aviation safety risk management picture consists of domain-specific safety risk pictures, an acceptable safety risk level and actions aiming to maintain the safety risks at an acceptable level. The stakeholders are informed about the safety risk management picture (FASP 2018, section 2.6.6.). The results of the Finnish aviation safety risk management process are incorporated in Trafi's operating system and annual planning (FASP 2018, 2.6.5).

Each aviation stakeholder is responsible for the safety of its own operations. Within the framework of their SMSs, the aviation organisations have the duty to identify threats relevant to their operations, assess the safety risks, define an acceptable safety risk level for their operations and take the required actions to eliminate the risks or to reduce them to an acceptable level.

The organisations must also process the Finnish Plan for Aviation Safety and the safety risks in respect of their own operations identified at the national level and, if necessary, implement actions aiming to eliminate these risks or to reduce them to an acceptable level.

The organisations have the duty to demonstrate the performance of their SMS (or other compliance management system) to the supervising authority, on the basis of which Trafi will target actions at the organisation. For a description of acceptable levels of safety and safety performance, see FASP 2018 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:
Trafi: Implementing Finnish aviation safety risk management as described in FASP 2018 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
FASP process introduced in Q3/2016, formulation of safety risk pictures version 1.0 completed in three domains of aviation, partly completed or under way in seven domains, and about to begin stepwise in the remaining domains in 2018 as the on-going domains are completed.

National action SYS.001.3, Performance and risk-based operations management

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

In 2017:
- Trafi will pilot performance-based individual approvals.
- Trafi will assess the effectiveness of updated oversight plans, launch a safety risk management campaign intended for external customers and assess the impacts of these measures after 2018.

In 2018:
- Trafi will introduce a new IT solution for managing organisation profiles.

Objective of the action:
Safety risk management in Finnish aviation is systematic, effective and continuously improving. Finland complies with ICAO and EASA requirements regarding safety risk management in Finnish aviation.

Stakeholder responsible for implementation:
Trafi

Timetable
2017:
- approvals have been piloted: assessment (implemented/not implemented)
- safety risk management campaign for customers has been planned, implementation launched
- a project on developing instructions for assessing organisation performance has been completed

2018:
- IT tool in use: assessment (implemented/not implemented)
- project on developing instructions for assessing organisation performance: training provided, instructions in use
- safety risk management campaign for customers has been fully implemented and its impact assessment in RISTO has begun.

Deliverable
Performance and risk-based operations management

Status
Actions scheduled for 2017 have been completed, the results of additional guidelines developed in a project (organisation performance assessment) are now being tested, implementation of actions for 2018 under way

3.1.2   SYS.002. Finnish   Plan for Aviation Safety

reference: EPAS action number and title
MST.001: Member States to give priority to the work on SSPs

National action SYS.002.1, Finnish Plan for Aviation Safety

Trafi maintains the national Finnish Plan for Aviation Safety (FPAS).
Trafi communicates actively about the plan content, sees to the implementation of actions assigned to it, 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 2018, section 2.6).

Stakeholder responsible for implementation:
Trafi: 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 published on 20 December 2013, this document is the latest update. Trafi implements the FPAS as described in FASP 2018 section 2.6 and oversees the implementation of the actions assigned to stakeholders.

3.1.3 SYS.003. National aviation safety indicators and targets

reference: EPAS action number and title
MST.001: Member States to give priority to the work on SSPs

National action SYS.003.1, Safety indicators and targets and their use
Trafi assesses the national aviation safety performance indicators (SPI) and targets (SPT) attached as Annex 2 to the Finnish Aviation Safety Programme as well as any need to update them, and updates Annex 2 where necessary. Trafi communicates about the indicators and targets and applies them to safety management in Finnish aviation. The stakeholders take the national safety performance indicators and targets 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 indicators and targets 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:
Trafi
Aviation organisations

Timetable
continuous

Deliverable
FASP Annex 2 Safety performance indicators and targets have been assessed, updated, published and implemented

Status
The latest update, version 4.1, published on 29 September 2015. Annex 2 to be updated in 2018, published in autumn 2018 and introduced on 01/01/2019. The stakeholders' views are taken into consideration through the SPI workshop to be organised on 13 March 2018 and the possibility of commenting on the draft.

3.1.4 *SYS.004. Safety promotion*
reference: EPAS action number and title
MST.002: Promotion of SMS

National action SYS.004.1, Safety promotion related to SMS
Trafi sees to the accessibility of materials produced by the SM ICG
group and other guidance materials relevant to SMS use to aviation
stakeholders. Trafi adds links to these materials onto its website and en-
courages the 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:
Trafi

Timetable
Continuous

Deliverable
Sharing and using best practices

Status
Continuous implementation in line with the principles of FASP 2018 section 4.2 *Ex-
ternal training and sharing of safety information*.

3.1.5 *SYS.005. Flight data monitoring (FDM)*
reference: EPAS action number and title
*MST.003: Member States should set up a regular dialogue with their
national aircraft operators on flight data monitoring (FDM) pro-
grammes*

National action SYS.005.1, National FDM forum
Trafi organises regular meetings with operators producing FDM data (national FDM
forum).

Objective of the action:
Supporting the stakeholders in FDM system use as part of their safety management,
raising awareness of best practices and safety benefits, enabling confidential dia-
logue and sharing of safety information between industry stakeholders and Trafi,
and encouraging FDM operators to use the guidance material produced by the
EOFDM and EAFDM or other existing useful material

Stakeholder responsible for implementation:
Trafi: organisation of the national FDM forum
Operators producing FDM data: participating in the FDM forum work and pro-
moting 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

National action SYS.005.2, FDM use in SPI monitoring
As part of their safety management, operators producing FDM data assess the issues indicated by the nationally specified SPIs that can be monitored through the FDM system. Trafi 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:
The 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:
Trafi
Operators producing FDM data

Timetable
Continuous

Deliverable
SPI data essential for an operator have been taken into account in the FDM system to the extent that this data can be derived from the FDM data.

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

3.1.6   SYS.006. Management of change as part of the SMS
No EPAS reference: The action listed below was specified on the basis of nationally identified needs for actions.
National action SYS.006.1, Management of change as part of the SMS
The operations of aviation organisations are undergoing constant development. As Trafi evaluated the impact and effectiveness of the organisations' SMS management of change procedures (MoC), it was observed that the procedures do not yet in all parts efficiently support 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 subjected 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, Trafi 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
Trafi

Timetable
2018 and 2019

Deliverable
The organisations have a MoC procedure with a high impact in place and effectiveness of the procedure can be verified.

3.1.7 SYS.007. SMS performance assessment

reference: EPAS action number and title
MST.026: SMS Assessment

National action SYS.006.1, Using an SMS assessment tool in oversight
Trafi develops methods for assessing organisations' compliance management systems (CMS) and safety management systems (SMS) 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 the EASA is taken into consideration and tested, either as such or for its contents.

Objective of the action:
Developing performance-based oversight in Trafi and harmonising the evaluation criteria for SMS audit practices between Member States

Stakeholder responsible for implementation:
Trafi

Timetable
Continuous

Deliverable
Trafi uses an assessment tool of overall performance, feedback to EASA on needs to develop EASA's SMS assessment tool

Status
First version of the assessment tool developed by Trafi is being tested

3.2 Operational issues, actions addressing several domains of aviation

Compared to systemic issues, operational level themes have more direct links with the actions of an individual person, organisation or operational area or environmental factors, including weather phenomena. Operational level threats may have direct links with a situation developing into an incident or an accident.

Operational level threats, risks and safety factors are often identified by analysing data from occurrence reports as well as carrying out risk assessments. Under each action described in section 3.2, responsibilities are assigned not only to Trafi but also stakeholders in several domains of aviation. The parties responsible for implementation are described after each action.

The actions seek to reduce the probability of events that result in incidents and accidents and mitigate the seriousness of their consequences.

3.2.1 OPER.001. Loss of control in flight (LOC-I)
reference: EPAS action number and title
MST.004: Include loss of control in flight in national SSPs

National action OPER.LOC.001.1, Loss of control in flight
Loss of control in flight (LOC-I) 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.

Trafi 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 the stakeholders have addressed and processed the LOC-I threats.

Objective of the action:
Reducing LOC-I risks

Stakeholder responsible for implementation:
Trafi: As regards Finnish aviation safety risk management (FASP 2.6) and oversight (FASP 3.0)
Aviation organisations (AOC, SPO, ATO, ANS): Processing of 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
Trafi's part has been implement, Trafi ensures implementation by stakeholders as part of its oversight.

3.2.2 OPER.002. Runway excursions (RE)

reference: EPAS action number and title
MST.007: Include runway excursions in national SSPs

National action OPER.RE.002.1, Runway excursions

Runway excursions (RE) 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 RE threats in their safety management and take action to reduce the risk.

Trafi 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 the RE threats.

Objective of the action:
Reducing RE risks

Stakeholder responsible for implementation:
Trafi: As regards Finnish aviation safety risk management (FASP 2.6) and oversight (FASP 3.0)
Aviation organisations (AOC (aeroplanes), SPO (aeroplanes), ATO (aeroplanes), ANS, AGA): Processing of 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
Trafi's part has been implement, Trafi ensures implementation by stakeholders as part of its oversight.

National action OPER.RE.002.2, Runway excursions

Trafi processes EAPPRE (*European Action Plan for Prevention of Runway Excursions*) recommendations and implements them in cooperation with aviation industry organisations and service providers.

Objective of the action:
Ensuring that EAPPRE recommendations are implemented in Finland as far as possible

Stakeholder responsible for implementation:
Trafi
Aviation organisations (AOC (aeroplanes), ATO (aeroplanes), ANS, AGA)
Timetable
Continuous

Deliverable
EAPPRE recommendations have been implemented as far as possible

Status
Completed. In order to chart the situation, a survey on the status of implementing the recommendations was sent to AOC, ATO, AGA and ANS organisations in October 2014. The need for further actions was assessed in 2015. The final results where col-

lated in a report published on 8 September 2015 titled "*Selvitys Suomen ilmailun tur-vallisuussuunnitelman toimenpiteiden toteuttamistilanteesta EAPPRE-, EAPPRI- ja EAPAIRR - kokonaisuuksien osalta*" (Report on EAPPRE, EAPPRI and EAPAIRR action implementation status in the Finnish Plan for Aviation Safety). The report was forwarded to the AOC, ATO, AGA and ANS organisations. There is currently no need for further actions.

3.2.3   OPER.003. Local runway safety teams (LRST)

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

National action OPER.LRST.003.1

A Local Runway Safety Team has been set up at Helsinki-Vantaa Airport. Its activities are oversight by Trafi. The airport operator assesses the need for LRST activities at other airports.

Objective of the action:
The objective of the action is improving runway safety in Finland.

Stakeholder responsible for implementation:
Trafi
Aviation organisations (AGA, ANS)

Timetable
Continuous

Deliverable
Efficient LRST activities, need for activities at other airports have been assessed

Status
An LRST is operating at EFHK

3.2.4   OPER.004. Runway incursions (RI)

reference: EPAS action number and title
MST.014: Include runway incursions in national SSPs

National action OPER.RI.004.1, Runway incursions

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 process RI threats in their safety management and take action to reduce the risk. Trafi 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 the RI threats.

Objective of the action:
Reducing RI risks

Stakeholder responsible for implementation:
Trafi: As regards Finnish aviation safety risk management (FASP 2.6) and oversight (FASP 3.0)
Aviation organisations (AOC (aeroplanes), SPO (aeroplanes), ATO (aeroplanes), ANS, AGA): Processing of 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
Trafi's part has been implement, Trafi ensures implementation by stakeholders as part of its oversight.

National action OPER.RI.004.2, Runway incursions

Trafi 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 EAPPRI recommendations are implemented in Finland as far as possible

Stakeholder responsible for implementation:
Trafi
Aviation organisations (AOC, ATO, ANS, AGA)

Timetable
2018

Deliverable
EAPPRI recommendations have been implemented as far as possible.

Status
Actions in previous EAPPRI versions have been processed and implemented where applicable. Processing of version 3.0 has been initiated, and it has also been brought up in EFHK's LRST.

3.2.5   OPER.005. Mid-air collisions (MAC)
reference: EPAS action number and title
MST.010: Include MACs in national SSPs

National action OPER.MAC.005.1, Mid-air collisions

Mid-air collisions (MAC) 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.

Trafi 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.

Objective of the action:
Reducing MAC risks

Stakeholder responsible for implementation:
Trafi: As regards Finnish aviation safety risk management (FASP 2.6) and oversight (FASP 3.0)
Aviation organisations (AOC, SPO, ATO, ANS, RPAS): Processing of 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
Trafi's part has been implement, Trafi ensures implementation by stakeholders as part of its oversight.

National action OPER.MAC.005.2, Airspace infringements
Trafi processes EAPAIRR (*European Action Plan for Prevention of Airspace Infringement Risk Reduction*) recommendations and implements them in cooperation with aviation industry organisations and service providers.

Objective of the action:
Ensuring that EAPAIRR recommendations are implemented in Finland as far as possible

Stakeholder responsible for implementation:
Trafi
Aviation organisations (AOC, ATO, ANS)

Timetable
Continuous

Deliverable
EAPAIRR recommendations have been implemented as far as possible.

Status
Implemented. In order to chart the situation, a survey on the status of implementing the recommendations was sent to AOC, ATO and ANS organisations in October 2014. The need for further actions was assessed in 2015. The final results where collated in a report published on 8 September 2015 titled "*Selvitys Suomen ilmailun turvallisuussuunnitelman toimenpiteiden toteuttamistilanteesta EAPPRE-, EAPPRI- ja EAPAIRR - kokonaisuuksien osalta*" (Report on EAPPRE, EAPPRI and EAPAIRR action implementation status in the Finnish Plan for Aviation Safety). The report was forwarded to the AOC, ATO and ANS organisations. There is currently no need for further actions.

3.2.6   OPER.006. Loss of separation between civil and military aircraft (MAC)
reference: EPAS action number and title
MST.024: Loss of separation between civil and military aircraft

National action OPER.MAC.006.1, Loss of separation between civil and military aircraft (MAC)
In collaboration with the ICAO, Finland has convened a working group (*Ad-hoc civil military expert group on flight safety over Baltic sea*), in which all Baltic region states excluding Lithuania as well as EASA, NATO and Eurocontrol participate. "*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*" were prepared for the ICAO EUR OPS Bulletin by this group (EUR OPS Bulletin

2017_001). The group also established a strategic level cooperation network which may, if necessary, address issues related to the coordination of civil and military aviation in the Baltic region. Finland has announced its preparedness to also organise a meeting on this theme in 2018, 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.

Timetable
2018

Deliverable
Several actions aiming for improvements

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 recommendations on operations over the high seas. Together with the other Baltic Sea states, Finland has published waypoints for government 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 announced its preparedness to facilitate further work, should the parties see this necessary. Finland actively monitors the coordination of civil and military aviation, implementation of the agreed actions and safety level in the Baltic region.

3.2.7   OPER.007. Ground safety

reference: EPAS action number and title
MST.018: Include ground safety in national SSPs
(EPAS, section 5.3.5: "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…")

National action OPER.CAT.007.1, Ground safety
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.

Trafi 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 these threats.

Objective of the action:
Reducing risks related to ground safety

Stakeholder responsible for implementation:
Trafi: As regards Finnish aviation safety risk management (FASP 2.6) and oversight (FASP 3.0)
Aviation organisations (AOC, GH, ANS, AGA): processing of threats to ground safety in their operations

Timetable
Continuous

Deliverable
Ground safety and causal factors related to it are included in the FASP Annex 2 and addressed in the Finnish aviation safety risk management and the stakeholders' safety management

Status
Implemented for Trafi's part. Trafi ensures implementation by stakeholders as part of its oversight.

3.2.8   OPER.008. Controlled flight into terrain (CFIT)

reference: EPAS action number and title
MST.006: Include CFIT in national SSPs

National action OPER.CFIT.008.1, Controlled flight into terrain
Controlled flight into terrain (CFIT) 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.

Trafi 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 the CFIT threats.

Objective of the action:
Reducing CFIT risks

Stakeholder responsible for implementation:
Trafi: As regards Finnish aviation safety risk management (FASP 2.6) and oversight (FASP 3.0)
Aviation organisations (AOC, SPO, ATO, ANS): Processing of CFIT threat in their operations.

Timetable
Continuous

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

Status
Implemented for Trafi's part. Trafi ensures implementation by stakeholders as part of its oversight.

3.2.9   OPER.009. Fire, smoke and fumes

reference: EPAS action number and title
MST.005: Include fire, smoke and fumes in national SSPs

National action OPER.FIRE.009.1, Fire, smoke and fumes
Threats of fire as well as observations of smoke and other fumes and their identified causal factors have been included in the Finn-

ish aviation safety performance indicators and targets (FASP Annex 2). The stake-holders must address these threats in their safety management and take action to re-duce the risk.

Trafi 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.

Objective of the action:
Reducing the risks of fire, smoke and fumes

Stakeholder responsible for implementation:
Trafi: As regards Finnish aviation safety risk management (FASP 2.6) and oversight (FASP 3.0)
Aviation organisations (AOC, AIR): processing threats related to fire, smoke and fumes in their operations

Timetable
Continuous

Deliverable
Fires, observations of smoke and other fumes and threat factors related to them are included in the Finnish Aviation Safety Programme Annex 2 and addressed in the Finnish aviation safety risk management and the stakeholders' safety management

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

3.3 Actions addressing individual domains of aviation and key scenarios for threats

Section 3.3 contains actions assigned separately to each domain of aviation.

These actions were specified on the basis of the EPAS and the results of the Finnish aviation safety risk management process. Topical scenarios for threats identified in the Finnish aviation safety risk management process relevant to the domain in question (FASP 2018, section 2.6) for which it has been considered necessary to include actions in the Safety Plan are described at the beginning of the section on each domain. 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.

For RPAS actions, see section 3.4 on emerging issues. In some domains, the safety risk picture work remains unfinished and the mid-term results have not been included in the FPAS. In some domains, it was found that the actions in sections 3.1 and 3.2 cover the key threats that have been identified.

3.3.1 Helicopter safety

SYS.HECO.001. Helicopter safety
reference: EPAS action number and title
MST.015: Helicopter safety events

National action SYS.HECO.001
Trafi has set up a national working group focusing on helicopter safety which meets regularly (FHST) and participates in the activities of the ESPN-R team that has taken over from the EHEST team. Trafi communicates about the material produced by the EHEST and the ESPN-R (*European Safety Promotion Network – Rotorcraft*) team to Finnish helicopter operators.

Objective of the action:
Improving helicopter safety

Stakeholder responsible for implementation:
Trafi

Timetable
Continuous

Deliverable
FHST is up and running and participates in the activities of the ESPN-R forum

Status
Implemented, the most recent FHST safety day was held on 18 January 2018.

3.3.2 *Airport safety*

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

- icy runways and maintenance at airports 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.

As systemic level key scenarios were identified:

- shortcomings in maintenance reporting

- shortcomings in the use of information produced within SMS for decision-making

- shortcomings in disseminating information about local conditions.

National action AGA.001

Airport operators must process 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.

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

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

Stakeholder responsible for implementation:
Airport operators
Trafi

Timetable
2018

Deliverable
The threat scenarios described above have been addressed in airport operators' safety management and the results have been processed in connection with Trafi's oversight

3.3.3 *Safety of flight training*

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

At the systemic level, the key scenario is consistency of teaching method implementation as instructors are replaced.

National action ATO.001

Flight training organisations must process 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.

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

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

Stakeholder responsible for implementation:
Flight training organisations
Trafi

Timetable
2018

Deliverable
The threat scenarios described above have been addressed in flight training organisations' safety management and the results have been processed in connection with Trafi's oversight

3.3.4 Safety of commercial air transport

As the key scenario of the national risk picture in the commercial air transport domain (AOC) at the operational level was identified the impacts of cabin baggage volumes on evacuation; obstructing/slowing down of evacuation.

At the systemic level, as 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 shift planning and the management of situations in which shifts are reorganised.

National action CAT.AOC.001
Commercial aviation organisations must process 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.

Trafi includes the identified key scenarios in its oversight plan as one of the priorities of oversight.
A systemic level action found in section 3.1.6., *SYS.006. Management on change as part of the SMS* obliging to all organisations subject to the aviation SMS requirement, is also relevant to shortcomings in change management.

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 scenarios described above are maintained at an acceptable level

Stakeholder responsible for implementation:
AOC operators (aeroplanes)
Trafi

Timetable
2018

Deliverable
The threat scenarios described above have been addressed in commercial air transport organisations' safety management and the results have been processed in connection with Trafi's oversight

3.3.5   Ground handling safety

Key scenarios of the national safety risk picture in the domain of ground handling (GH) at the operational level were:
- 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 handling vehicle 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

National action GH.001
The stakeholders must process the aforementioned threats related to ground handling identified at the national level in respect of their own operations and take action to reduce the risks.

Trafi 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
Trafi

Timetable
2018

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

Status:
Initiated for Trafi's part.

3.3.6   General aviation safety

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

Trafi 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 Trafi, Finavia, ANS Finland, the Finnish Meteorological Institute, the Finnish Aeronautical Association (SIL) and AOPA Finland (SMLL) have committed to the operating model.

In the risk workshop efforts, which are part of the Finnish aviation safety risk management process, general aviation is one of the few domains in which the work has not yet been initiated, as the risks of general and recreational aviation were charted extensively in the Recreational aviation safety risk survey carried out in 2014. The recreational aviation safety project implemented in 2015 was based on this analysis. Within the framework of the operating model based on this project, Trafi discusses the safety situation annually with the stakeholders committed to this operating model and specifies the priorities of safety work and needs for action in the relevant year, which are also used as themes of the Lentoon! seminar.

3.3.7   OPER.GA.001. Airspace infringement (AI)

reference: EPAS action number and title
MST.016: Airspace infringement risk in General Aviation

National action OPER.GA.001.1, Airspace infringements
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 (Trafi, Finavia, ANS Finland, the Finnish Meteorological Institute, the Finnish Aeronautical Association and AOPA Finland).

Timetable
continuous

Deliverable
Controlling AI and MAC risks

Status
Progressing as planned

reference: EPAS action number and title
SPT.089: European Safety Promotion on Mid-air collisions and airspace infringement

National action OPER.GA.001.2, Implementation of a European safety campaign

Trafi participates in the planning and implementation of the MAC/AI prevention safety promotion campaign carried out as an action of the EASA's SPN (*Safety Promotion Network*) team. Finland has participated in the production of a national safety promotion video that is part of the campaign. Trafi will communicate about the material produced as the outcome of this campaign to Finnish general and recreational aviators.

Objective of the action:
Reducing the AI risk and the risk of mid-air collisions (MAC) caused by to AI events

Stakeholder responsible for implementation:
GA Roadmap and SPN (Trafi participated in creating the campaign in the SPN group)

Timetable
2017–2018

Deliverable
European safety campaign

Status
Finishing touches are being put on the campaign. The targeted schedule for launching the campaign is spring 2018.

3.3.8   OPER.GA.002. Mid-air collisions (MAC)

reference: EPAS action number and title
FOT.010: Service provision to GA flights

National action OPS.GA.002.1

Trafi participates in developing best practices for preventing mid-air collisions (MAC) through the EASA's GA TeB (*General Aviation Technical Advisory Body*).

Objective of the action:
Reducing MAC risk

Stakeholder responsible for implementation:
Trafi and GA.COM/ TeB

Timetable
Continuous

Deliverable
Best practices

Status
The GA- TeB team started operating in 2016. Trafi has a member and a substitute member in the team.

3.3.9 SYS.GA.004. Dissemination of safety messages

reference: EPAS action number and title
MST.025: Improve the dissemination of safety messages

National action SYS.GA.004.1, Dissemination of safety messages
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. The stakeholders relevant to the operating model meet annually before the beginning of the flying season to discuss and make decisions on central and topical themes for the safety messages.
As the key theme for 2018 was selected flight preparation. The participating stakeholders found that flight preparation is central to almost all safety threats that emerged in general aviation from airspace infringement to accounting for metrological conditions.

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 (Trafi, Finavia, ANS Finland, the Finnish Meteorological Institute, the Finnish Aeronautical Association and AOPA Finland).
(EPAS: Safety Promotion Network (SPN))

Timetable
Continuous

Deliverable
Effective, risk-based safety promotion

Status
Progressing as planned

3.3.10 SYS.GA.004. Just culture

reference: EPAS action number and title
MST.027: Develop Just Culture in GA

In general, we can say that positive development has taken place for several years in the reporting culture of the Finnish general aviation, and a trustful atmosphere essentially associated with the Just Culture is evident between the general/recreational aviation community and the authorities.

Finnish Aviation Safety Programme (FASP 2018) section 2.5.3 *Confidentiality of occurrence information and just culture* describes observance of a good reporting culture and the Just Culture principles in Finnish aviation. In Finland, the reporting duty under the EU regulation on occurrences in civil aviation (EU 376/2014) also applies to aircraft referred to in Annex II to the EASA Regulation (Annex I to the amended EASA Regulation) (FASP 2018, section 2.5).

National action SYS.GA.004.1, Just Culture
The cooperation related to analysing data occurrence reports between Trafi, SIL and SMLL was developed in the recreational aviation safety project in 2015 and has continued since that year. The cooperation is one of the means for maintaining and

strengthening good reporting culture and also plays an important role in maintaining a trustful atmosphere. These cooperation forms will be continued and developed.

Objective of the action:
Reinforcing the Just Culture operating model in general and recreational aviation and encouraging the maintenance and development of a good reporting and safety culture

Stakeholder responsible for implementation:
Stakeholders committed to the operating model of Finnish recreational aviation safety work (Trafi, Finavia, ANS Finland, the Finnish Meteorological Institute, the Finnish Aeronautical Association (SIL) and AOPA Finland (SMLL)).

Timetable
Continuous

Deliverable
Cooperation promoting a good reporting and safety culture

Status
Progressing as planned

3.4   Emerging issues

Emerging issues, introduction
Emerging issues are about attempting to anticipate issues that may pose a threat to different areas of aviation in the immediate or near future. They often concern changes in the operating environment. The change may be associated with the advancement of technology, new operating methods, societal changes or such phenomena as climate change. Increasing attention must be paid to environmental issues in aviation and their reconciliation with safety issues in the future.

At European level, as key target areas for actions to improve safety emerged drones, security risks that affect aviation safety, new business models (NMB) as well as new products, systems, technologies and operations.

3.4.1   EME.001. Cybersecurity
reference: EPAS action number and title
SPT.071: Strategy for Cybersecurity in Aviation (a Strategy for Cybersecurity in Aviation will be developed jointly by the European Commission and EASA in close cooperation with EU Member States and industry…)

National action EME.CYB.001.1
Cybersecurity has been included in the Finnish Aviation Safety Programme (FASP) and the Finnish Aviation Security Programme. Cybersecurity is processed as part of Finnish aviation safety risk management (FASP 2018, section 2.6).

The stakeholders must be prepared for identifying threats to cybersecurity and managing the risks.

Objective of the action:
Efficiently identifying cybersecurity threats and managing the risks caused by them

Stakeholder responsible for implementation:
Trafi
Aviation organisations:

Timetable
2017–2018: (Trafi) inclusion of cybersecurity in the FASP and the Finnish Aviation Security Programme. Finnish aviation cybersecurity risk picture 1.0

2018– a continuous process: (Trafi) Maintaining the FASP, Security Programme and risk picture for the part of cybersecurity

2018– a continuous process: (Stakeholders) identifying threats to cybersecurity and managing the risks

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 ensuring 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 Aviation Security Plan. Cybersecurity risk picture work initiated together with the stakeholders.

3.4.2 EME.002 New business models
reference: EPAS action number and title
MST.019: Better understanding of operators' governance structure

National action EME.NBM.002.1
Trafi establishes how the stakeholders' key persons – including safety managers and accountable managers – actually implement and perceive the responsibilities related to their roles. In this, guidance material prepared by the EASA "*Practical Guide: Management of hazards related to new business models of commercial air transport operators*" will also be used.

The stakeholders' management has the duty to ensure that new business models and any threats associated with them are processed in the company's SMS, including timely processing in 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:
Trafi
Aviation organisations (AOC, ATO)

Timetable
2018

Deliverable
Oversight action: discussion

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

National action EME.NBM.002.4, Safety culture
Trafi will implement a survey that charts the safety culture of Finnish airlines. The survey will analyse the Finnish situation, on the basis of which 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, Just Culture implementation). A research project was carried out to prepare for this survey in 2017. The survey will be implemented in 2018. 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, areas of the stakeholders' safety culture, and assessing and reducing risks related to the threats and developing the strengths

Stakeholder responsible for implementation:
Trafi: survey implementation
Aviation organisation (AOC): piloting with pre-arranged organisations, in the future a survey addressed to AOC holders

Timetable
2018

Deliverable
Results of the safety culture survey, any actions to be taken on their basis

Status
To be implemented in 2017 and 2018

3.4.3   EME.003. New products, systems, technologies and operations
reference: EPAS action number and title
MST.020: Loss of radar detection

National action EME.NPST.003.1
Trafi has ensured that the recommendations of the 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:
Trafi
(2016: Finavia)

Timetable
2017

Deliverable
Discussion on the recommendations and their deployment where appropriate

Status
Implemented. The various areas of the 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 the EASA in June 2016. No further actions are proposed.

3.4.4   EME.004. Drones
No EPAS reference: EPAS has no actions directly assigned to the Member States. The actions listed below were specified on the basis of nationally identified needs for actions.
As key scenarios of the national safety risk picture in unmanned aviation domain (UAS / RPAS / Drones) at the operative level emerged:

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

- 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, as key scenarios were identified:
- lack of knowledge of regulation

- the incoherent operating culture of a new domain

- incorrect attitudes.

An example of the need to provide more information is the prohibition of operating a hobby drone over a crowd outdoors 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 level actions for improving knowledge and skills also reduce the risks related to the operative scenarios described above.

National action EME.DRONE.004.1, Risk management
Under Regulation OPS M1-32 (*Operating remotely piloted aircraft and model aircraft*), stakeholders using a remotely piloted aircraft for aerial work have an obligation to produce a safety assessment. In this assessment, stakeholders must address issues identified by them as well as the nationally identified key scenarios listed above.

Trafi monitors the implementation of actions assigned to the stakeholders as part of its oversight. Trafi promotes the safety of drone activities and improves the stakeholders' knowledge of regulation and safe operation by the means described in action *EME.DRONE.004.2, 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
Trafi

Timetable
2018

Deliverable
The threat scenarios described above in safety assessments prepared by operators operating remotely piloted aircraft in commercial / aerial work

Status
The actions are progressing on the planned schedule.

National action EME.DRONE.004.2, safety promotion
Trafi uses a number of channels to communicate information about safe operation to professionals and hobbyists. Trafi also keeps the website droneinfo.fi and a mobile application for drone operators up to date to support the dissemination of safety messages and safe operation of drones. Trafi disseminates information about obligations

under Regulation OPS M1-32, produces guidance material and organises safety themed information events for drone operators.

Objective of the action:
Reducing the risks of unmanned aviation

Stakeholder responsible for implementation:
Trafi

Timetable
Targeted information through newsletters and events 2018
Droneinfo: update of the application and website content in 2018

Deliverable
- Information events: 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.

Status
The actions are progressing on the planned schedule. A Drone newsletter was published in January. Trafi will organise a safety risk management workshop for stakeholders on 13 March. A workshop will also be provided for drone operators engaged in aerial work.

National action EME.DRONE.004.3, influencing in international aviation
Trafi will exert influence on all key international forums that seek to develop the regulation on and safe operation of drones in the ICAO, EASA, JARUS and European Commission task forces.

Objective of the action:
Reducing the risks of unmanned aviation

Stakeholder responsible for implementation:
Trafi

Timetable
2018

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

Status
Trafi has a representative in the ICAO's RPAS panel, the EASA's RMT.0230 team, JARUS plenary as well as in European Commission task forces, including U- Space.