

3 ACTIONS

SPAS LV is an outcome of the activities described in the State Safety Programme (SSP) and European Plan for Aviation Safety (EPAS), and the work undertaken by stakeholders in the development and implementation of their SMS.

3.1 Systemic Safety– Safety Management

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

3.1.1 SYS.001 State Safety Programme of Republic of Latvia (SSP LV)

EPAS action number and title: *MST.0001 Member States to give priority to the work on SSPs.*

Rationale:

According to Regulation No 2018/1139 Article 7 Member State shall, in consultation with relevant stakeholders, establish and maintain a State safety programme for the management of civil aviation safety in relation to the aviation activities under its responsibility (the ‘State Safety Programme’). That programme shall be commensurate with the size and the complexity of those activities and shall be consistent with the European Aviation Safety Programme.

The State Safety Programme shall include at least the elements related to State safety management responsibilities described in the international standards and recommended practices.

The State Safety Programme shall specify, taking into account the objectives set out in BR Article 1 and the level of safety performance referred to in Article 6(3), the level of safety performance to be achieved at national level in respect of the aviation activities under the responsibility of the Member State concerned.

Stakeholder responsible for the implementation and maintenance:

Civil Aviation Agency of the Republic of Latvia (CAA LV).

Aviation organisations are processing the SSP LV with reference to their operations.

Desired outcomes/Actions:

- Ensure effective implementation of the authority requirements and address deficiencies in oversight capabilities, as a prerequisite for effective SSP implementation.

Actions:

- SYS.001.1

Lay down Cabinet Regulation on the “State Safety Programme”, to describe SSP LV structure and associated programmes, how its various components work together, as well as the roles of the different State aviation authorities.

CAA LV has achieved improvements in the definition of the management processes, clearly specifying safety accountabilities and responsibilities as documented in CAA LV Management Manual – Processes Management).

- SYS.001.2
Conduct a gap analysis. The gap analysis aims to gain a detailed understanding of the gap between the existing State structures and processes, and those required for an effective SSP implementation in the State.
 - SYS.001.3
Develop an SSP implementation plan. The SSP implementation aims to progressively enhance the existing State safety oversight and safety management processes.
 - SYS.001.4
Establish Safety Performance Indicators (SPIs) and ‘baseline performance’ to monitor the system against this baseline performance to measure the effectiveness of achieved outcome, i.e. effective SSP and effective implementation of SMS in aviation organisations.
- Ensure effective coordination between State authorities having a role in safety management.

Actions:

- SYS.001.5
Establish a suitable coordination group with representation from the impacted aviation authorities with responsibilities related to the implementation and maintenance of the SSP, including Accident Investigation Authority as well as Military Aviation Authority (requirement established by Cabinet Regulation on the “State Safety Programme”).
 - SYS.001.6
To enhance safety within the State CAA LV carries out regular exchange of information on the implementation of the SSP LV, i.e. engages with its stakeholders via different channels and for different purposes, to be used as means for the performance of collective safety functions and capacity utilisation among multiple authorities, without altering the respective roles of the State’s aviation organisations or their normal interaction with one another.
 - SYS.001.7
CAA LV prioritises and designs the SPAS LV actions through a transparent process carrying out regular exchange of safety information.
- Ensure that inspectors have the right competencies to support the evolution towards risk- and performance-based oversight.

Actions:

- SYS.001.9
CAA LV identifies and addresses the competencies required for effective implementation of SSP, taking into account the roles and responsibilities under the SSP performed by its personnel. These competencies are in addition to those required for the conduct of compliance oversight and are addressed by training existing staff or by hiring additional staff.
 - SYS.001.10
To ensure that all relevant technical staff in the State are properly qualified, CAA LV determines the most appropriate training provisions for senior management, inspectors, personnel responsible for data analysis, safety objectives, SPIs and SPTs, aviation medical examiners and medical assessors, as well as for service provider safety investigators.
 - SYS.001.11
CAA LV develops internal training policies and procedures, and SSP and SMS training programme for relevant staff.
 - SYS.001.12
Usage of safety training programmes for personnel involved in SSP-related duties are to be coordinated among State organisations, as appropriate. The aim is to ensure that a person or team addresses each aspect of the SSP, and that they are trained to perform the allocated role. This will allow inspectors as well as staff from different State aviation authorities to better understand safety risks across various sectors.
- Ensure that policies and procedures are in place for risk- and performance-based oversight, including a description of how an SMS is accepted and regularly monitored.

Actions:

- SYS.001.13
Link the risk- and performance-based oversight (PBO) approach to the objectives of the SSP LV and of the management system of the competent authority.
- SYS.001.14
Establish a common understanding of a risk-based environment.
- SYS.001.15
Establish mechanisms to ensure the capture and storage of data on hazards and safety risks for each overseen organisation, as well as at aggregated State level. Mechanisms to develop information from the stored data, and to actively exchange safety information with service providers and/or other States as appropriate should also be considered.
- SYS.001.16
Perform a detailed training needs analysis in order to support the CAA LV oversight teams to deliver, further refine and standardise the PBO process across the aviation entities it is applied to.

- SYS.001.17
Provide a central planning function to create and maintain a sequence of actions related to the development of organisations PBO programmes.
 - SYS.001.18
Establish means to determine whether service providers' SMS is acceptable.
 - SYS.001.19
Review and ensure that the service provider's SMS remains effective.
- Establish policies and procedures for safety data collection, analysis, exchange and protection, in accordance with Regulation (EU) No 376/2014.

Action:

- SYS.001.20
SPIs and 'baseline performance' are to be established to monitor applied Just Culture policy in a fair and consistent manner. There is evidence that the line between acceptable and unacceptable behaviour has been determined in consultation with staff and staff representatives.
- Establish a process to determine SPIs at State level addressing outcomes and processes.

Action:

- SYS.001.21
Establish, maintain and continuously improve the process on the selection and definition of SPIs and SPTs at State level.
"Outcome-based SPIs" measure events that have already occurred. Type 1 "Low probability/high severity": outcomes such as accidents or serious incidents. Type 2 "High probability/low severity": outcomes that did not necessarily manifest themselves in a serious accident or incident, these are sometimes also referred to as precursor indicators.
"Activity or process SPIs" measure processes and inputs being implemented to improve or maintain safety.
- Ensure that an approved SSP document is made available and shared with other Member States and EASA.

Action:

- SYS.001.22
Upload SSP LV, SPAS LV and any other relevant material using EASA online platform for MSs.
Provide an up-to-date SPAS LV at least annually or, where the SPAS LV is not updated annually, a report on the implementation of EPAS actions.
- Ensure that the SSP is regularly reviewed and that the SSP effectiveness is regularly assessed.

Action:

- **SYS.001.23**

Conduct an SSP maturity assessment that can be carried out at various stages, looking initially for the presence and suitability of key elements. At a later stage, the SSP will be assessed to understand how well it is operating and how effective it is at achieving its objectives.

Timetable:

- Updated SSP LV document is planned to be available in 2022.
- Effective SSP LV is planned to be implemented in 2025.

Deliverable:

SSP LV version 4 issued in 2022.

3.1.2 SYS.002 Promotion of SMS

EPAS action number and title: *MST.0002 Promotion of SMS*

Rationale:

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

Stakeholder responsible for the implementation:

CAA LV

Desired outcome/Actions:

Common understanding of safety management and SMS/SSP principles and requirements, facilitating their implementation across the international aviation community.

Action:

- **SYS.002.1**

Improve internal and external training, communication, and dissemination of safety information.

Timetable:

Continuous

Deliverable:

- Updated SMS Training material.
- Continuously maintained communication on effective implementation of SMS in organisations, resulting from the activities during the oversight cycle.
- Usage of CAA LV homepage and public relations to disseminate safety information

3.1.3 SYS.003 Flight data monitoring

EPAS action number and title: *MST.0003 Member States should maintain a regular dialogue with their national aircraft operators on flight data monitoring (FDM) programmes.*

Rationale:

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

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

Stakeholder responsible for the implementation:

CAA LV as organiser of the information event.

Operators using practical guidance on integrating an FDM programme with the operator's SMS, and in particular on linking FDM with other data sources.

Desired outcome/Actions:

Effective performance of FDM programme, i.e. FDM programme is performing at an optimal level depending on the size and structure of the organisation, the human resource invested, the degree of participations from unions and, most importantly, the level of maturity of the organisation's safety culture.

Actions:

- **SYS.003.1**
Publish on CAA LV website, as part of SMS-related information, general information on EOFDM activities.
- **SYS.003.2** Update the FDM programme assessment process, taking into account information on the principal issues, as well as industry best practices and advice on how to best prepare a Memorandum of Understanding (MoU). Key performance indicators (KPI), designed to monitor the performance of an operator's FDM programme, are to be considered.
- **SYS.003.3** Organise an information event to present EOFDM good-practice documents to their CAT operators. Safety managers and FDM programme managers of all the operators concerned should be invited.

Timetable:

Continuous

Deliverable:

Correct integration of an FDM programme with other safety data collection processes and into the SMS, i.e. proactively used FDM data for monitoring of operational trends and behaviors, and FDM programme performance is monitored by KPI.

3.1.4 SYS.004 SMS performance assessment

EPAS action number and title: *MST.0026 SMS assessment.*

Rationale:

Without prejudice to any obligations stemming from the SES ATM Performance Scheme, MSs should make use of the EASA management system assessment tool to support risk- and

performance-based oversight. MSs should provide feedback to EASA on how the tool is used, for the purpose of standardisation and continual improvement of the assessment tool.

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

Stakeholder responsible for the implementation:

CAA LV as oversight authority.

Desired outcome/Actions:

Maintained and continuously improved risk- and performance-based oversight and use of harmonised SMS evaluation criteria between Member States.

Actions:

- **SYS.004.1**
Maintain, continuously review and improve technical guidance on the implementation of SMS. It is important to have useful guidance material to help both organizations and authority understand the intent and application of the regulation.
- **SYS.004.2**
Facilitate the identification by the operator a number of key risk areas for which an in-depth analysis should be carried out to determine the completeness of safety issues that have contributed to those risk areas and to assess the level of control of over the most relevant safety issues. This assessment would consider the increase/decrease of exposure to the relevant hazard, the effectiveness of existing controls and the expected risk reduction by committed safety actions.
- **SYS.004.3**
Develop and review the relevance of SPIs consulting with industry. Determine appropriate metrics at a State level.

Timetable:

Continuous

Deliverable:

- Maintained and continuously improved technical guidance on the implementation of SMS.
- Improved Management System assessment tool, based on EASA Management System Assessment Tool.
- Maintained and continuously improved risk-based oversight programme, including oversight schedule development tool, that utilizes the organisation's risk profile and overall safety performance to determine an appropriate oversight planning cycle.

3.1.5 SYS.005 SPAS LV

EPAS action number and title: *MST.0028 Member States to establish and maintain a State Plan for Aviation Safety (SPAS).*

Rationale:

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

Stakeholder responsible for the implementation:

CAA LV: SPAS LV development and implementation.

Aviation organisations: SPAS LV implementation in their operations.

Actions:

- **SYS.005.1**
Reflect the EPAS actions on the issues that concern an individual organisation, a system element or the entire aviation system (systemic issues). In most scenarios, these problems are related to human factors, human performance limitations, competence of personnel, socioeconomic factors or to deficiencies in organisational processes and procedures, whether at authority or industry level. This area also includes the impact of security on safety.
- **SYS.005.2**
Reflect the EPAS actions to reduce the probability of events that result in incidents and accidents and mitigate the seriousness of their consequences (operational issues), i.e. grouping of all actions in the area of CAT by aeroplane, NCC (Business Aviation), SPO aeroplanes, rotorcraft operations and General Aviation (operational issues).
- **SYS.005.3**
Define actions to address safety issues related to key risk areas in individual domains of aviation.
- **SYS.005.4**
Reflect the EPAS actions to improve safety emerged drones, security risks that affect aviation safety, new business models as well as new products, systems, technologies and operations (emerging issues).
- **SYS.005.5**
Reflect the EPAS safety actions addressing issues emerging from standardisation activities, with focus on the safety oversight responsibilities of the MSs.

Timetable:

Continuous, annual update.

Deliverable:

Developed, endorsed and published SPAS LV, including safety objectives, goals, indicators and targets. SPAS LV reflects the EPAS actions as applicable to the State and identifies the main safety risks at national level in addition to the ones identified in EPAS.

3.1.6 SYS.006 Oversight and Standardisation

EPAS action number and title:

- *MST.0032 Oversight capabilities/focus area*
- *MST.0033 Language proficiency requirements - To share best practices, to identify areas for improvement for the uniform and harmonised LPR implementation.*
- *MST.0034 Oversight capabilities/focus area: flight time specifications schemes*
- *MST.0035 Oversight capabilities/focus area: Fraud cases in Part-147*
- *MST.0037 Foster a common understanding and oversight of Human Factors*

Rationale:

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

The safety actions in this area are aimed at addressing issues emerging from standardisation activities, with focus on the safety oversight responsibilities of the MSs. The conclusions of the EASA 2019 SAR are also taken into account.

The identified areas of concern are considered enablers of a robust safety oversight system, as expected to be in place according to the requirements in force:

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

Stakeholder responsible for the implementation:

CAA LV

Desired outcomes/Actions:

- Availability of adequate personnel in CAA LV

Actions:

- **SYS.006.1**
Take necessary measures to ensure that qualified personnel, performing safety oversight functions, are recruited and retained.

- **SYS.006.2**
Ensure usage of competency-based training and assessment concept (i.e. that competencies are transferable across multiple and varied contexts) and methodology.
- Cooperative oversight in all sectors.
MSs to ensure that the applicable authority requirements are adhered to in all sectors. The objective is to ensure that each organisation's activities are duly assessed, known to the relevant authorities and that those activities are adequately overseen, either with or without an agreed transfer of oversight tasks.

Action:

- **SYS.006.3**
Ensure that the oversight scope is supplemented by those activities performed by persons or organisations established or residing in another MS on the basis of the safety priorities, as well as of past oversight activities. Activities are carried out in accordance with principles of cooperative oversight.
- Organisations' management system in all sectors.
MSs to foster the ability of CAs to assess and oversee the organisations' management system in all sectors. This will focus in particular on safety culture, the governance structure of the organisation, the interaction between the risk identification/assessment process and the organisation's monitoring process, the use of inspection findings and safety information such as occurrences, incidents, and accidents. This should lead CAs to adapt and improve their oversight system.

Actions:

- **SYS.006.4**
Ensure that CAA LV management system, according to the established policy and the area of competence, identifies changes that affect CAA LV capability to perform its tasks and discharge its responsibilities as defined in BR and the delegated acts and implementing acts adopted on the basis thereof. This system shall enable it to take action as appropriate to ensure that its management system remains adequate and effective.
- **SYS.006.5**
Establish and maintain Safety Risk Management (SRM) process for managing CAA LV internal risks affecting its oversight capabilities. Ensure that changes affecting oversight capabilities are addressed through the same SRM process.
- **SYS.006.6**
Assess CAA LV internal organisation's safety culture and how it affects CAA LV oversight capabilities, in order to know if and where improvements are required. Based on outcome results, consider need of changes to integrate and harmonize organisations' SMS oversight across own oversight divisions.
- English Language Proficiency.

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

Action:

- **SYS.006.7**
Provide feedback to EASA on how the LPRI is implemented, including the uptake by ATOs to deliver training in English, for the purpose of harmonisation and uniform implementation.

- Flight time specifications schemes.
MSs to ensure that the CAs possess the required competence to approve and oversee the operators' flight time specifications schemes, in particular those including fatigue risk management. CAs should focus on the verification of effective implementation of processes established to meet operators' responsibilities requirements and to ensure an adequate management of fatigue risks. CAs should consider the latter when performing audits of the operator's management system.

Action:

- **SYS.006.8**
Carry out ongoing monitoring of operators' safety assurance outcomes, considering that these outcomes are to be an indicator of the effective implementation of the SMS/FRMS processes.

- Focused oversight on cases of fraud in Part-147 organisations.
MSs to focus on the risk of fraud in examinations, including by adding specific items in audit checklists and collecting data on the actual cases of fraud.

Action:

- **SYS.006.9**
Add specific items in audit checklists to focus on the risk of fraud in examinations. Collect data on the actual cases of fraud.

- Implementation of the competency framework, and plan and conduct the training for the respective regulatory staff in the area of Human Factors.

Action:

- **SYS.006.10**
The task includes some preparatory activities which will be performed by EASA with the support of the Human Factor Collaborative Analysis Group (HF CAG) in terms of:
 - development of guidance and tools for the competency assessment of regulatory staff before and after training;
 - guidance for the appropriate level of Human Factors competency for Human Factors trainers;
 - development of promotion material to be provided as guidance to Member States and encourage implementation.These guidance and tools will be provided to the MS competent authorities to organise the implementation of the competency framework, and plan and conduct the training for the respective

regulatory staff.

Timetable:

Continuous, annual update.

Deliverable:

Oversight and standardisation action points are included in SPAS LV Chapter 2 Appendix A (SPIs/SPTs), Chapter 4 Plan of actions, and stakeholders' safety management.

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 CAA LV but also stakeholders in several domains of aviation. The parties responsible for implementation are described after each action.

3.2.1 OPER.001 Aircraft upset in flight (LOC-I)

EPAS action number and title: *MST.0028 Include LOC-I in State Plan for Aviation Safety (SPAS).*

Rationale:

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

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

Stakeholder responsible for implementation:

CAA LV: Safety risk management at state level.

Aviation organisations: Processing of LOC-I threat in their operations.

Desired outcome/Actions:

Increase safety by continuously assessing and improving risk controls to mitigate the risk of LOC-I.

Action:

- OPER.001.1
Ensure that the risk area is continuously assessed and risk controls improved to mitigate the risk of LOC-I. Agreed set of actions related to identified, captured, and

formally assessed safety issues, such as: monitoring of flight parameters and automation modes, approach path management, convective weather, in-flight icing, and handling of technical failures, established and measured to monitor their effectiveness.

Timetable:

Continuous

Deliverable:

LOC-I risk area is included in SPAS LV Chapter 2 Appendices A & B (SPIs/SPTs), Chapter 4 Plan of actions, and stakeholders' safety management.

3.2.2 OPER.002 Runway safety (runway excursions, runway incursions and collisions)

EPAS action number and title: *MST.0028 Include Runway Safety in State Plan for Aviation Safety (SPAS)*.

Rationale:

Runway excursion covers materialised runway excursions, both at high and low speed, and occurrences where the flight crew had difficulties maintaining the directional control of the aircraft or of the braking action during landing, where the landing occurred long, fast, off-centred or hard, or where the aircraft had technical problems with the landing gear (not locked, not extended or collapsed) during landing.

Runway incursion refers to the incorrect presence of an aircraft, vehicle or person on an active runway or in its areas of protection.

Stakeholder responsible for implementation:

CAA LV: Safety risk management at state level.

Aviation organisations: Processing of runway safety threat in their operations.

Desired outcome/Actions:

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

Actions:

- OPER.002.1
Ensure that the risk area is continuously assessed and risk controls improved to mitigate the risk of REs and RIs. Agreed set of actions related to identified, captured, and formally assessed safety issues, such as: monitoring of flight parameters and automation modes, approach path management, and handling of technical failures, established and measured to monitor their effectiveness. Ensure that the implementation of actions suggested by the European Action Plan for the Prevention of Runway Excursions (EAPPRE) and European Action Plan for the Prevention of Runway Incursions (EAPPRI) are considered.
- OPER.002.2
Ensure implementation of the New Global Reporting Format (GRF) for Runway Surface Conditions – ICAO EUR Region.

Timetable:

Continuous

Deliverable:

Runway safety risk area is included in SPAS LV Chapter 2 Appendices A & B (SPIs/SPTs), Chapter 4 Plan of actions, and stakeholders' safety management.

3.2.3 OPER.003 Airborne conflict (Mid-air collisions)

EPAS action number and title:

- *MST.0028 Include Airborne conflict in State Plan for Aviation Safety (SPAS).*
- *MST.0024 Loss of separation between civil and military aircraft.*
- *MST.0030 Implementation of SESAR solutions aiming to reduce the risk of mid-air collision en-route and TMA.*
- *MST.0038 Airspace complexity and traffic congestion*

Rationale:

Airborne conflict refers to both actual collisions as well as near-misses in the air. It includes direct precursors such as separation minima infringements, genuine traffic collision avoidance system (TCAS) resolution advisories or airspace infringements.

The term 'airspace infringement' refers to the unauthorised entry into controlled, prohibited or restricted airspace, or an active Danger Area (where clearance to enter is required), by an aircraft. It occurs when aircraft fly into notified airspace without previously requesting and obtaining approval from the controlling authority of that airspace.

Related to the loss of separation between civil and military aircraft EASA issued a number of recommendations for the MS (ref. to Chapter 4).

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

Stakeholder responsible for implementation:

CAA LV: Safety risk management at state level.

Aviation organisations: Processing of airborne conflict threat in their operations.

Desired outcome/Actions:

Increase safety by continuously assessing and improving risk controls to mitigate the risk of airborne conflict (Mid-air collisions).

Actions:

- **OPER.003.1**
Ensure that the risk area is continuously assessed and risk controls improved to mitigate the risk of airborne conflict. Agreed set of actions related to identified, captured, and formally assessed safety issues, such as: perception and situational awareness, monitoring of flight parameters and automation modes, established and measured to monitor their effectiveness. Ensure that the implementation of actions suggested by the European Action Plan for Airspace Infringement Risk Reduction, are considered.
- **OPER.003.2**

Ensure implementation of EASA recommendations related to the loss of separation between civil and military aircraft

- OPER.003.3
Ensure implementation of SESAR solutions.
- OPER.003.4
Consider 'airspace complexity' and 'traffic congestion' as safety-relevant factors in airspace changes affecting uncontrolled traffic, including the changes along international borders.

Timetable:

Continuous

Deliverable:

Airborne conflict (Mid-air collisions) risk area is included in SPAS LV Chapter 2 Appendices A & B (SPIs/SPTs), Chapter 4 Plan of actions, and stakeholders' safety management.

3.2.4 OPER.004 Ground safety (aircraft loading, de-icing, refuelling, ground damage, etc.)

EPAS action number and title: *MST.0028 Include Ground safety in State Plan for Aviation Safety (SPAS).*

Rationale:

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. It does not include collisions on the runway.

Stakeholder responsible for implementation:

CAA LV: Safety risk management at state level.

Aviation organisations: Processing of threats to ground safety in their operations.

Desired outcome/Actions:

Increase safety by continuously assessing and improving risk controls to mitigate the risk in ground safety area.

Action:

- OPER.004.1
Ensure that the risk area is continuously assessed and risk controls improved to mitigate the risk of ground safety. Agreed set of actions related to identified, captured, and formally assessed safety issues, are established and measured to monitor their effectiveness.

Timetable:

Continuous

Deliverable:

Ground safety risk area is included in SPAS LV Chapter 2 Appendices A, B & G (SPIs/SPTs), Chapter 4 Safety action plan, and stakeholders' safety management.

3.2.5 OPER.005 Terrain collision

EPAS action number and title: *MST.0028 Include terrain collision in State Plan for Aviation Safety (SPAS)*.

Rationale:

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

Stakeholder responsible for implementation:

CAA LV: Safety risk management at state level.

Aviation organisations: Processing of threats to terrain collision in their operations.

Desired outcome/Actions:

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

Action:

- OPER.005.1 Ensure that the risk area is continuously assessed and risk controls improved to mitigate the risk of terrain collision. Agreed set of actions related to identified, captured, and formally assessed safety issues, are established and measured to monitor their effectiveness.

Timetable:

Continuous

Deliverable:

Terrain collision risk area is included in SPAS LV Chapter 2 Appendices A & B (SPIs/SPTs), Chapter 4 Plan of actions, and stakeholders' safety management.

3.2.6 OPER.006 Aircraft environment

EPAS action number and title: *MST.0028 Include aircraft environment in State Plan for Aviation Safety (SPAS)*.

Rationale:

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

In-flight fire can ultimately lead to loss of control, either as a result of structural or control system failure, or again as a result of crew incapacitation.

Fire on the ground can take hold rapidly and lead to significant casualties if evacuation and emergency response is not swift enough.

Smoke or fumes, whether they are associated with fire or not, can lead to passenger and crew incapacitation and will certainly raise concern and invite a response. Even when they do not give rise to a safety impact, they can give rise to concerns and need to be addressed.

Stakeholder responsible for implementation:

CAA LV: Safety risk management at state level.

Aviation organisations: Processing of threats to the risk of fire, smoke and fumes in their operations.

Desired outcome/Actions:

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

Action:

- OPER.006.1 Ensure that the risk area is continuously assessed and risk controls improved to mitigate the risk of fire, smoke and fumes. Agreed set of actions related to identified, captured, and formally assessed safety issues, are established and measured to monitor their effectiveness.

Timetable:

Continuous

Deliverable:

Fire, smoke and fumes risk area is included in SPAS LV Chapter 2 Appendices A & B (SPIs/SPTs), Chapter 4 Plan of actions, and stakeholders' safety management.

3.2.7 OPER.007 Rotorcraft operations:

- **helicopter upset in flight (Loss of Control)**
- **terrain and obstacle conflict**

EPAS action number and title:

- *MST.0028 Include rotorcraft operations in State Plan for Aviation Safety (SPAS).*
- *MST.0015 Helicopter safety events. CAs, in partnership with industry representatives, to organise helicopter safety events annually or every two years. The EHEST, IHST, CA, Heli Offshore or other sources of safety promotion materials could be freely used and promoted.*
- *MST.0031 Implementation of SESAR solutions aiming to facilitate safe IFR operations. MSs together with their ANSPs and their flight procedures designers (if different from ANSPs) should evaluate the possibility to establish a network of low level IFR routes in their airspace to facilitate safe helicopter operations. These SESAR solutions designed to improve safety should be implemented as far as it is feasible.*

Rationale:

Rotorcraft operations are a vital part of the European aviation system. Helicopters perform a wide range of important tasks that involve the carriage of passengers including offshore commercial air transport, Helicopter Emergency Medical Services (HEMS), air taxi or sightseeing). They are also involved in many specialised operations such as agricultural work, sling/load operations or photography. Additionally, helicopters also fly in non-commercial roles such as General Aviation and for training/instructional purposes.

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Stakeholder responsible for implementation:

CAA LV: Safety risk management at state level.

Aviation organisations: Processing of threats to the risk of the helicopter upset in flight (Loss of Control) and terrain and obstacle conflict in their operations.

Desired outcome/Actions:

Continuously assess and improve risk controls in the helicopter upset in flight (Loss of Control) and terrain and obstacle conflict areas.

Actions:

- OPER.007.1
Ensure that the risk areas are continuously assessed and risk controls improved to mitigate the risk of rotorcraft operations. Agreed set of actions related to identified, captured, and formally assessed safety issues, are established and measured to monitor their effectiveness.
- OPER.007.2
Organise helicopter safety events annually or every two years.
- OPER.007.3
Ensure implementation of SESAR solutions aiming to facilitate safe IFR operations.

Timetable:

Continuous

Deliverable:

Helicopter upset in flight (Loss of Control) and terrain and obstacle conflict risk areas are included in SPAS LV Chapter 2 Appendices A & H (SPIs/SPTs), Chapter 4 Plan of actions, and stakeholders' safety management.

3.2.8 OPER.008 General Aviation - Systemic enablers

EPAS action number and title:

- *MST.0025 Improve the dissemination of safety messages.*
- *MST.0027 Promote safety culture in GA*

Rationale:

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

Stakeholder responsible for implementation:

CAA LV: Safety risk management at state level.

Aviation organisations (training organisations, federations, clubs, associations, aviation colleges and institutes) - committed to safety performance in GA.

Desired outcome/Actions:

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

Actions:

- OPER.008.1
Improve the dissemination of safety promotion and training material by authorities, associations, flying clubs, insurance companies targeting flight instructors and/or pilots through means such as safety workshops and safety days/evenings.
- OPER.008.2
Include provisions to facilitate and promote safety culture (including just culture) in GA as part of State safety management activities in order to foster positive safety behaviours and encourage occurrence reporting.

Timetable:

Continuous

Deliverable:

GA risk areas are included in SPAS LV Chapter 2 Appendices A & I (SPIs/SPTs), Chapter 4 Plan of actions, and stakeholders' safety management.

Provisions for safety culture (including just culture) in GA included in SSP LV.

3.2.9 OPER.009 General Aviation - Staying in control

EPAS action number and title: *MST.00MST.0028 Include General Aviation - Staying in control in State Plan for Aviation Safety (SPAS).*

Rationale:

This section addresses subjects such as flying skills, pilot awareness and the management of upset or stall at take-off, in flight, or during approach and landing, flight preparation, aborting take-off and going around. Staying in control prevents loss of control accidents. Loss of control usually occurs because the aeroplane enters a flight regime outside its normal envelope, thereby introducing an element of surprise for the flight crew involved. Loss of control accidents are both frequent and severe.

Stakeholder responsible for implementation:

CAA LV: Safety risk management at state level.

Aviation organisations (training organisations, federations, clubs, associations, aviation colleges and institutes) - committed to safety performance in GA.

Desired outcome/Actions:

Reduce the risk of Loss of Control accidents.

Action:

- OPER.009.1
Carry out focused oversight of instructors and examiners performance during the pilots' training and proficiency checking to ensure that staying in control risk mitigation actions cover topics such as aircraft performance, flight preparation and management, role of angle of attack, threat and error management (TEM), upset and stall avoidance and recovery, and startle and surprise management.

Timetable:

Continuous

Deliverable:

GA risk areas are included in SPAS LV Chapter 2 Appendices A & I (SPIs/SPTs), Chapter 4 Plan of actions, and stakeholders' safety management.

3.2.10 OPER.010 General aviation - Coping with weather

EPAS action number and title: *MST.00MST.0028 Include General Aviation – Coping with weather in State Plan for Aviation Safety (SPAS).*

Rationale:

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

Stakeholder responsible for implementation:

CAA LV: Safety risk management at state level.

Aviation organisations (training organisations, federations, clubs, associations, aviation colleges and institutes) - committed to safety performance in GA.

Desired outcome/Actions:

Increase safety by reducing the number of weather-related accidents.

Actions:

- OPER.010.1
For the weather awareness of pilots ensure access to produced safety promotion material (video) addressing subjects such as weather awareness, flight preparation, management and debrief, the use of flight information services (FIS), the benefits of using modern technology including cockpit weather information systems (including GPS integrated, mobile/4G connected apps, etc.), communication with ATC, inadvertent entry into IMC, TEM, and Human Factors (HF).
- OPER.010.2
To engage in a campaign promoting instrument flying for GA pilots in Europe.

Timetable:

Continuous

Deliverable:

GA risk areas are included in SPAS LV Chapter 2 Appendices A & I (SPIs/SPTs), Chapter 4 Plan of actions, and stakeholders' safety management.

3.2.11 OPER.011 General aviation - Preventing mid-air collisions

EPAS action number and title:

- *MST.00MST.0028 Include General Aviation – Preventing mid-air collisions in State Plan for Aviation Safety (SPAS).*

SPAS action number and title:

- *MAC/GA Airspace infringement risk in General Aviation. National authorities should play the leading role in establishing and promoting local implementation priorities and actions.*

Rationale:

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

Stakeholder responsible for implementation:

CAA LV: Safety risk management at state level.

Aviation organisations (training organisations, federations, clubs, associations, aviation colleges and institutes) committed to safety performance in GA.

Desired outcome/Actions:

Increase safety by reducing the risk of MACs and airspace infringements in GA.

Actions:

- **OPER.011.1**
Develop and implement suitable risk mitigation actions for preventing airspace infringement and reducing the risk of MAC by raising the quality of support provided to GA flights by air navigation service providers (ANSPs) through focused oversight.
- **OPER.011.2**
Establish clear and open communication at state and stakeholder level on roles, responsibilities, and management of reducing the airspace infringement risks considering three potential major consequences, such as mid-air collision, loss of separation and disruption to flight operations.

Timetable:

Continuous

Deliverable:

GA risk areas are included in SPAS LV Chapter 2 Appendices A & I (SPIs/SPTs), Chapter 4 Plan of actions, and stakeholders' safety management.

3.2.12 OPER.012 General aviation – Managing the flight

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EPAS action number and title: *MST.00MST.0028 Include General Aviation – Managing the flight in State Plan for Aviation Safety (SPAS).*

Rationale:

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

Stakeholder responsible for implementation:

CAA LV: Safety risk management at state level.

Aviation organisations (training organisations, federations, clubs, associations, aviation colleges and institutes) - committed to safety performance in GA.

Desired outcome/Actions:

Reduce the number of fatalities and serious injuries in GA.

Action:

- **OPER.012.1**

Improve the dissemination of produced safety promotion material and ensure access to it addressing subjects such as navigation, fuel management, terrain and obstacle awareness, and forced landings by means of safety workshops, instructors/examiners seminars.

Timetable:

Continuous

Deliverable:

GA risk areas are included in SPAS LV Chapter 2 Appendices A & I (SPIs/SPTs), Chapter 4 Plan of actions, and stakeholders' safety management.

3.2.13 OPER.013 PPL/LAPL learning objectives in the Meteorological Information part of the PPL/LAPL syllabus

EPAS action number and title: *MST.0036 Include PPL/LAPL learning objectives in the Meteorological Information part of the PPL/LAPL syllabus in State Plan for Aviation Safety (SPAS).*

Rationale:

Address key learning objectives

Stakeholder responsible for implementation:

CAA LV: Safety risk management at state level,

Aviation organisations (PPL/LAPL pilots, training organisations) - committed to safety performance in GA.

Desired outcome/Actions:

Reduce the number of fatalities and serious injuries in GA.

Action:

- OPER.013.1

Develop proportionate learning objectives in the 'Meteorological Information' part of the PPL/LAPL syllabus.

Such learning objectives to be of a basic, non-academic nature and address key learning objectives in relation to:

- practical interpretation of ground based weather radar, strengths and weaknesses;
- practical interpretation of meteorological satellite imagery, strengths and weaknesses;
- forecasts from numerical weather prediction models, strengths and weaknesses.

Timetable:

Continuous

Deliverable:

Learning objectives, with related question bank.

3.3 Actions on safety issues related to key risk areas in individual domains of aviation

These actions are specified considering EPAS safety issues related to key risk areas in EASA Annual Safety Review (ASR) and the results of the CAA LV aviation safety risk management process.

3.3.1 Aerodromes

EPAS action number and title: *MST.00MST.0029 Implementation of SESAR runway safety solutions*

Rationale:

Actions in this Chapter address safety, as well as efficiency/proportionality in terms of developing and maintaining of a legal framework commensurate with the complexity of ADR activities and management of potential risks. This Chapter also includes actions to ensure a level playing field on the basis of the regulatory requirements stemming from the Basic Regulation.

MSs should evaluate together with the ADR operators and ANSPs the needs for implementing the related SESAR solutions such as those related to ground situational awareness, airport safety net vehicles and enhanced airport safety nets.

Stakeholder responsible for implementation: air navigation service provider, airports

Desired outcome/Actions:

Actions:

- ADR.001.1

Propose evaluate in RWY Safety Team the SESAR solutions (solutions #01, #02, #04, #26, #47, #48, #70) designed to improve runway safety should be considered as far as it is feasible.

See SESAR Solutions Catalogue 2019 third edition:

https://www.sesarju.eu/sites/default/files/documents/reports/SESAR_Solutions_Catalogue_2019_web.pdf

Timetable:

Ongoing

Deliverable:

SESAR solutions designed to improve runway safety are implemented as far as it is feasible.

3.3.2 Ground handling

EPAS action number and title: *RMT.0728 Development of requirements for groundhandling*

Rationale:

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. It does not include collisions on the runway.

Stakeholder responsible for implementation:

Aerodrome Standards and Safety Division

Desired outcome/Actions:

Actions:

- ADR.001.2

Follow the IR/AMC & GM developments and prepare for their application to ensure compliance with the essential requirements contained in Annex VII to Regulation (EU) 2018/1139.

This will consider operational requirements, organisational requirements and authority requirements, as deemed necessary. Detailed objectives and actions are defined by a Ground handling Roadmap which was subject to a focused consultation in Q1/2019.

Timetable:

Ongoing

Deliverable:

Ensure oversight capabilities

3.4 Emerging issues

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 as well as new products, systems, technologies and operations.

3.4.1 EME.001 New business models

EPAS action number and title: *MST.00MST.0019 Better understanding of operators' governance structure.*

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

Aspects to be considered include:

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

Note: EASA will support this MST by providing guidance on how to effectively oversee group operations based on an overall concept for the oversight of such operations. This will consider work ongoing at ICAO level (cross-border operations) and include continuing airworthiness management aspects.

Rationale:

This section addresses risks related to new and emerging business models arising from the increased complexity of the aviation industry, the number of interfaces between organisations, their contracted services and regulators. Some new business models are emerging: the increased demand for flying in the cities, urban air mobility; the increased digitalisation in aviation systems, the introduction of more autonomous vehicles, platforms starting for single pilot operations and completely autonomous cargo aircraft. These will challenge the way authorities regulate and oversee the aviation system. CAs should work better together and EASA should evaluate whether the existing safety regulatory system adequately addresses current and future safety risks arising from new and emerging business models.

Managing current and future safety risks arising from new and emerging business models is a strategic priority.

Stakeholder responsible for implementation:

CAA LV: Safety risk management at state level.

Operators: Identification of safety issues and safety risk management by operator's SMS, including timely processing the management of change.

Desired outcome/Actions:

Increase safety by continuously assessing and mitigating risks posed by new and emerging business models.

Actions:

- EME.001.1 Make sure that operator's management system is focused on identification of safety issues and safety risk management as regards contracting of safety-critical services and wet lease-in agreements.

- EME.001.2
Make sure that operator's management system is focused on identification of safety issues and safety risk management as regards impact of interoperability arrangements on safety, i.e. interoperability refers to those cases where a holding or parent company wants to streamline its operations across several different AOCs of several Member States belonging to the same holding or parent company and to exchange aircraft and possibly crews freely.
- EME.001.3
Make sure that operator's management system is focused on identification of safety issues and safety risk management as regards different contractual arrangements amongst crews, i.e. an operator's management system systematically captures the correlation between the operator's various employment types (e.g. temporary employment models, employment via employment agencies, pay-to-fly employment schemes, self-employed) and the number of reports of occurrences obtained by the operator.
- EME.001.4
Make sure that operator's management system is focused on identification of safety issues and safety risk management to address increased mobility of flight crew and to assess the safety impact of a higher turnover rate. Increased mobility of flight crew could result in a reduction in experience levels and adversely affect the efficiency of recurrent training, particularly the training of all major failures over a 3-year period. Where pilots are more likely to leave the operator after less than 3 years, flight crew training and in particular the operator's conversion course of the subsequent operator should be adapted.

Timetable:

Continuous

Deliverable:

Emerging issue is included in SPAS LV Chapter 2 Appendix A (SPIs/SPTs), Chapter 4 Plan of actions, and the stakeholders' safety management.

3.4.2 EME.002 Cybersecurity

Rationale:

This risk area includes all Cyber security related issues and provision of continuity and protection of information systems operation (airports, air carriers, air navigation service providers, etc.).

Stakeholder responsible for implementation:

CAA LV Security Division, airports, air carriers, air navigation service providers.

Desired outcome/Actions:

Actions:

- EME.002.1
In accordance with International and National legislation ensure compliance with the requirements contained in Chapter 18 of Cabinet of ministers of

Latvia Regulation No 397/2010, Regulation (EU) 1998/2015 and ICAO Annex 17. That means oversight activities such as inspections and audits in accordance with Cabinet of ministers Regulation No 415/2010 and approved oversight action plan.

Timetable:

Ongoing

Deliverable:

Ensure oversight capabilities

3.4.3 EME.003 Unmanned Aircraft Systems

Rationale:

The current situation in the sector points the fact that the industry and the use of Unmanned Aircraft Systems (UAS) are developing more rapidly than regulations. Based on identifiable targets UAS are used for various types of inspection, search and rescue, surveying, low-altitude specialised works, filming etc. in the future, human and cargo transport in view of the above UAS may pose risks to the public and to manned aviation.

Stakeholder responsible for implementation:

CAA LV Unmanned aircraft flight safety section.

Desired outcome/Actions:

Actions:

- EME.003.1

Ensure compliance with IR/AMC/DA (Commission Implementing Regulation (EU) 2019/947 of 24 May 2019 and Commission Delegated Regulation (EU) 2019/945 of 12 March 2019 on unmanned aircraft systems and on third-country operators of unmanned aircraft systems on the rules and procedures for the operation of unmanned aircraft, follow regulatory changes and developments.

EME.003.2

Ensure the exchange of information with the public, UAS operators, pilots and industry. Promote public awareness on existing and upcoming UAS legal provisions and rules.

Timetable:

Ongoing

Deliverable:

Ensure oversight capabilities, information for public, UAS operators and pilots.

3.4.4 EME.004 Lasers

Rationale:

The CAA LV co-ordinates industry/CAA group to identify risks, agree and deliver actions to prevent laser attacks and mitigate their consequences.

Stakeholder responsible for implementation:

CAA LV: Safety risk management at state level.

Aviation organisations: Safety risk management at organisation's level.

Desired outcomes:

- Identification of and engagement with national and international key stakeholders with the aim to capture best practice for implementation in Latvia and sharing lessons learned.
- Introduction of tighter measures against laser attacks into legislation.
- Increase the public's awareness of the risk associated with laser attacks.

Actions:

- EME.004.1
Coordinate the working group with the view to develop consistent and effective prevention and mitigation plans which address the risk of laser attacks in the aviation environment.
- EME.004.2
Engage with organisations outside the aviation environment, such as the Police and Department of Health, in order to find effective measures for the protection of aviation.

Timetable:

Continuous.

Deliverable:

Emerging issue is included in SPAS LV Chapter 2 Appendix A (SPIs/SPTs), Chapter 4 Plan of actions, and the stakeholders' safety management.