

## 2 SAFETY PERFORMANCE

SPAS LV is published as a high-level document to facilitate communication with the public and other entities external to the CAA LV.

This section presents an outline for SPAS LV safety performance metrics reflecting the EPAS strategic priorities in the area of safety and the high-level safety objective set out in the Regulation No 2018/1139 (BR) to **‘establish and maintain a high uniform level of civil aviation safety in the Union’**. SPAS LV is subordinated to EPAS safety performance goals, indicators and targets, considering the 2021-2025 GASP goals and targets as relevant in the EASA system.

SPAS LV supports the EPAS proposed ‘aspirational goal’ overarching the different EPAS indicators, as an alternative to the GASP aspirational goal of ‘zero fatalities in commercial operations by 2030 and beyond’, as follows: **‘achieve constant safety improvement with a growing aviation industry’**.

In accordance with Article 6 of the Regulation No 2018/1139, EPAS shall specify the **level of safety performance** in the Union, which the MSs, EC and EASA shall jointly aim to achieve. The level of safety performance shall be determined on the basis of the EPAS SPIs and where relevant, associated safety performance targets, as well as considering the safety-related indicators and targets defined in the SES ATM Performance Scheme.

SPAS LV is defined having regard for higher level strategic guidance and, therefore, establishes the **acceptable level of safety performance (ALoSP)** to be achieved through implementation and maintenance of the SSP and implementation and maintenance of SPIs and SPTs, i.e. expresses the safety level Latvia expects of its aviation system, including the targets that each sector needs to achieve and maintain in relation to safety, as well as measures to determine the effectiveness of their own activities and functions that impact safety.

ALoSP is a reflection of what Latvia considers important, representing the agreement between all State aviation authorities of the expected level of safety performance that its aviation system should deliver and demonstrates to internal and external stakeholders how the State is managing aviation safety.

### 2.1 Safety performance indicators and safety performance targets

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

Safety performance targets are set for process-based indicators, to drive positive system behaviours.

For safety-outcome-related metrics, which are derived from occurrence data, instead of setting safety performance targets, ‘baseline performance’ is defined to monitor the system against this baseline performance.

Outcome-based indicators shall consider as main inputs:

- number of fatal accidents;

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

Outcome-based indicators related to key risk areas are identified through the European SRM process and as described in the EASA Safety Risk Portfolios, which are considered by SPAS LV.

Operational safety indicators are monitored at State operational-level taking into account continuing monitoring through the European SRM process.

SPAS LV uses data included in EPAS 2021-2025 and Annual Safety Review published by EASA.

The summaries listed below as Appendices comprise the SPIs and SPTs for Latvian aviation. Aviation organisations shall go through the summary applicable to their activities and assess the suitability of the indicators and targets from the perspective of their operations. The organisations shall integrate the SPIs and SPTs compatible with their activities in their safety management processes.

The organisations should also go through the national SPIs and SPTs monitored by CAA LV. CAA LV summary covers safety objectives that concern national-level safety work in the entire aviation sector. Both CAA LV and the organisations contribute to the success of this work and objective achievement.

### **2.1.1 Safety performance indicators and targets – CAA LV obligations**

Specifying State safety performance, the safety objectives set at the EU level are taken into consideration.

Safety performance indicators and targets monitored by CAA LV consist of system-level, operational-level and SSP implementation and maintenance (compliance) level.

CAA LV determines the continued appropriateness of the ALoSP. The periodic review of the ALoSP is focused on:

- identifying critical safety issues within aviation sectors, ensuring inclusion of SPIs that allow safety performance management in these areas;
- identifying SPTs that define the safety performance level to be maintained or the desired improvement to be achieved for relevant SPI in each sector, with a view to enhancing safety performance management throughout the entire aviation system of the State;
- identifying triggers when an SPI reaches a point that requires some action; and
- reviewing SPIs to determine whether modifications or additions to existing SPIs, SPTs and triggers are needed to achieve the agreed ALoSP.

A State's safety performance as indicated by its SPIs and SPTs demonstrate the ALoSP achieved.

### **2.1.2 Safety performance indicators and targets – organisations' obligations**

Each aviation organisation is responsible for the safety of their own activities. Organisations' safety management includes safety performance monitoring and measurement. During the development of SPIs and SPTs, organisation should consult with CAA LV or any related information that the State has published. National SPIs complement the safety level monitoring carried out by the organisations and are a link between national and organisation-level safety management. In addition to national indicators, each organisation shall specify any other indicators and targets required for their own safety management. CAA LV oversees the

organisations' safety management performance. Using national SPIs in their safety management is part of the organisations' safety management performance.

## **2.2 SPI/SPT summaries for CAA LV and aviation organisations**

Headings used in the summaries:

- Safety objective: the SPI in question, and the concrete SPT specified for it, have been determined to monitor the implementation of this objective.
  - Identifier: the identifier of the SPI in question.
  - Safety performance indicator (SPI): description/heading of the indicator and, if necessary, a more detailed definition.
  - Safety performance target (SPT) set for the indicator: the concrete target set for the indicator in question and, if necessary, a more detailed definition.
  - Source: source of information obtained.
- 1) Appendix A: national level aviation safety performance indicators and targets (SPIs/SPTs) monitored by CAA LV:
    - System-level;
    - Operational-level;
    - SSP compliance level.
  - 2) Appendix B: national aviation safety performance indicators and targets (SPIs/SPTs) monitored by CAT & NCC airplane operators (FW).
  - 3) Appendix C: national aviation safety performance indicators and targets (SPIs/SPTs) monitored by flight training organisations.
  - 4) Appendix D: national aviation safety performance indicators and targets (SPIs/SPTs) monitored by air navigation service providers (ANS) and, where applicable, meteorological service providers (MET).
  - 5) Appendix E: national aviation safety performance indicators and targets (SPIs/SPTs) monitored by airport operators (ADR).
  - 6) Appendix F: national aviation safety performance indicators and targets (SPIs/SPTs) monitored by ground handling service providers (GH).
  - 7) Appendix G: national aviation safety performance indicators and targets (SPIs/SPTs) monitored by rotary wing (RW) and SPO-FW operators.
  - 8) Appendix H: national aviation safety performance indicators and targets (SPIs/SPTs) monitored by General Aviation operators (GA).
  - 9) Appendix I: national aviation safety performance indicators and targets (SPIs/SPTs) monitored by aviation airworthiness and maintenance organisations (AIR).

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## Appendix A

<b>National level aviation safety performance indicators and targets (SPIs/SPTs) monitored by CAA LV – System-level</b>				
<b>Safety objective</b>	<b>Identifier</b>	<b>Safety performance indicator (SPI)</b>	<b>Safety performance target (SPT)</b>	<b>Source</b>
Effective implementation of the authority requirements and addressing of deficiencies in oversight capabilities.	SYS-SPI-1	Authority's SRM process identifies the risks that could impact CAA LV ability to perform its tasks.	Inspectors are operating within the scope of their authorisations.  Technical staff turnover is managed.	CAA LV management data
Actively react to any shortcomings noted and take corrective measures to make continuous improvements.	SYS-SPI-2	Findings detected during ICAO audits and EASA standardisation inspections are corrected within the agreed time period.	Produced performance outcome is above EASA MS average Standardisation Rating or ICAO State average Effective Implementation Indicator.	ICAO USOAP & EASA CMR
Improve internal and external training, communication, and dissemination of safety information.	SYS-SPI-3	Implemented 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.	Updated SMS Training material. Continuously maintained communication on effective implementation of SMS in organisations, resulting from the activities during the oversight cycle.	Oversight data
Ensure usage of competency-based training and assessment concept (i.e. that competencies are transferable across multiple and varied contexts) and methodology.	SYS-SPI-4	Ongoing inspector's competence is monitored through the identification and collection of assessment data.	Inspector achieves a level of performance that enables them to work independently and effectively or inspector's performance gaps are identified.	CAA LV management data (qualification)

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		Accurate analysis is performed related to inspectors' tasks, techniques and methods that are affected by changes.	More effective continuation training is developed.	
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.	SYS-SPI-5	Sharing of data on SAFA/SACA, EUROCONTROL warnings and alerts, occurrences data, service providers' information.	The data is assessed to determine the extent of the hazard whether it is a "one-of-a-kind", or it is a systemic issue with a negative trend.	Oversight data
	SYS-SPI-6	Direct communication between competent authorities of safety measures to prevent accidents, serious incidents, high-risk occurrences and incidents.	Safety communication is assessed to determine how it is being used and understood and to improve it where appropriate.	Oversight data
	SYS-SPI-7	Mutual information on findings and inspections or audits regardless who initiated the exchange of information.	Appropriate corrective action by the organisation is implemented in a timely manner.	Oversight data
	SYS-SPI-8	Joint organisations' audits shared between the competent authorities, where the activity takes place.	Adequate measures taken by the competent authority to address the safety problem.	Oversight data
	SYS-SPI-9	Performance of oversight tasks formally assigned to another MS, where the activity takes place, under the oversight agreement.	Areas of greater safety concern are prioritised.	Oversight data
Ensure that the "Change management" process is established, focussing at least on the changes affecting the capability to perform tasks and discharge responsibilities.	SYS-SPI-10	Improve management of CAA LV internal risks affecting its oversight capabilities through Safety Risk Management (SRM) process.	Changes with potential for significant impact to the safety risks of the State are addressed at appropriate level and actions are identified, assigned and followed to full implementation.	CAA LV management data

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<b>National level aviation safety performance indicators and targets (SPIs/SPTs) monitored by CAA LV – Operational-level</b>				
<b>Safety objective</b>	<b>Identifier</b>	<b>Safety performance indicator (SPI)</b>	<b>Safety performance target (SPT)</b>	<b>Source</b>
No accidents occur in CAT/NCC and GA areas due to systemic safety issues.	OPER-SPI-1	EASA-MS accident rate (accidents per 100 000 flight hours) - 6.09 (2019).	Latvian CAT & NCC operators: no accidents.	Safety analysis data
		Latvian GA operators: accident rate (accidents per 2000 flight hours) – 0.00 (2020).	Downward trend of accident rate must be achieved in GA.	
No fatal accidents occur in CAT/NCC and GA areas due to systemic safety issues.	OPER-SPI-2	EASA-MS fatal accident rate (fatal accidents per 100 000 flights) - 5.41 (2019).	Latvian CAT & NCC operators: no fatal accidents.	Safety analysis data
	OPER-SPI-3	Latvian GA operators: fatal accident rate (fatal accidents per 3000 flightss) – 0.00 (2020).	Downward trend of five-year average fatal accident rate must be achieved in GA.	
Ensure that the safety issue in key risk area is identified, captured, and formally assessed.	OPER-SPI-4	EASA-MS serious incident rate (serious incidents per 10 000 flight hours) - 0.067.	Downward trend of five-year average serious incident rate must be achieved in CAT/NCC and GA.	Safety analysis data
	OPER-SPI-5	Latvian CAT & NCC operators: serious incident rate (serious incidents per 10 000 flight hours) – 11.55 (2020).		
	OPER-SPI-6	Latvian GA operators: serious incident rate (serious incidents per 2000 flight hours) – 2.31 (2020).	The result of the assessment is documented to identify weak controls for which potential	Oversight data
		Key risk areas: <ul style="list-style-type: none"> <li>Aircraft upset in flight (LOC-I);</li> </ul>		

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areas as specified in EPAS for which an in-depth analysis should be carried out to determine the completeness of safety issues.		<ul style="list-style-type: none"> <li>• Runway safety (runway excursions, runway incursions and collisions);</li> <li>• Airborne conflict (Mid-air collisions);</li> <li>• Ground safety (aircraft loading, de-icing, refuelling, ground damage, etc.);</li> <li>• Terrain collision;</li> <li>• Aircraft environment;</li> <li>• Rotorcraft operations (helicopter upset in flight and terrain and obstacle conflict);</li> <li>• General Aviation (systemic enablers, staying in control, coping with weather, preventing mid-air collisions, managing the flight).</li> </ul>	actions are identified. Actions are measured to monitor their effectiveness.	
Ensure that the risk assessment method employed by the operator for its FRM/FRMS is consistent with the operator's methodology used in its SMS, but adapted for fatigue risk assessment.	OPER-SPI-7	<ul style="list-style-type: none"> <li>• Number of fatigue reports in relation to other voluntary hazard reports.</li> <li>• Frequencies of fatigue reports associated with a specific duty or pattern of duty.</li> </ul>	<p>There is effective means to measure and monitor trends and take appropriate action when necessary.</p> <p>Downward trend of "FTL exceedance more than 1 hour per 10 000 flights" shall be achieved (1.45 in 2020).</p>	Oversight data
Ensure that the inspectors possess the required competence to approve and oversee the operators' flight time specifications schemes, in particular those including fatigue risk management.	OPER-SPI-8	Competence of inspecting staff related to the use of scientific principles of fatigue management.	Senior management takes the lead in implementing HF practices.	CAA LV management data
<b>National level aviation safety performance indicators and targets (SPIs/SPTs) monitored by CAA LV – SSP compliance level</b>				

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<b>Safety objective</b>	<b>Identifier</b>	<b>Safety performance indicator (SPI)</b>	<b>Safety performance target (SPT)</b>	<b>Source</b>
Effective coordination between State authorities having a role in safety management.	SSP-SPI-1	Coordination group is appointed to facilitate good communication, avoid duplication of effort and conflicting policies and ensure effective and efficient SSP implementation.	Q4 2021	CAA LV management data
	SSP-SPI-2	State authorities are sharing safety information and take actions when needed.	Interface risk management illuminates the risk, clarifies the mutual expectations and mitigates unwanted consequences through mutually agreed boundary checks.	CAA LV management data
Establish a common understanding of a risk-based environment.	SSP-SPI-3	Policies and procedures are in place for risk- and performance-based oversight, including a description of how an SMS is accepted and regularly monitored.	Planning of oversight activities as well as determination of the oversight cycles in each oversight area are carried out yearly to allow for the adjustment of the audits and inspections schedule, if applicable.	CAA LV management data
Ensure that relevant staff have the right competencies to support the evolution towards risk- and performance-based oversight.	SSP-SPI-4	There is a process that evaluates the individual's competence and takes appropriate remedial action when necessary.	Inspectors' competencies are up to date.	CAA LV management data
Improve identification and assessment of safety issues in key risk areas through analysis of occurrence data and supporting information	SSP-SPI-5	Availability of Policies and procedures for safety data collection, analysis, exchange and protection in accordance with Regulation (EU) No 376/2014, is ensured.	Full list of identified safety issues is established and continually monitored for the definition and programming of safety actions.	CAA LV management data



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from the oversight programme.				
Continuously monitor applied Just Culture policy in a fair and consistent manner.	SSP-SPI-6	SPIs and 'baseline performance' are established.	There is evidence that the line between acceptable and unacceptable behaviour has been determined in consultation with staff and staff representatives.	CAA LV management data
Improve definition and programming of safety actions.	SSP-SPI-7	Identification of weak controls, for which potential safety actions can be proposed, is ensured.	Assessment of possible implications and benefits of the proposed actions are discussed and agreed with stakeholders.	CAA LV management data
Gain detailed understanding of the gap between the existing State structures and processes, and those required for an effective SSP implementation in the State.	SSP-SPI-8	Gap analysis is conducted. SSP implementation plan is developed.	SSP implementation plan and SSP document itself are made readily accessible to all relevant personnel to ensure everyone involved is aware of the SSP and its plans for implementation.	CAA LV management data
Ensure that the SSP is regularly reviewed and that the SSP effectiveness is regularly assessed.	SSP-SPI-9	SSP maturity assessment is 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.	Approved SSP document is made available and shared with other Member States and EASA.	CAA LV management data

## Appendix B

## National aviation safety performance indicators and targets (SPIs/SPTs) monitored by CAT & NCC airplane operators (FW)

The main Key Risk Areas are defined by their accident outcome that needs to be prevented:

- **Aircraft upset.** It includes uncontrolled collisions with terrain following an aircraft upset, but also occurrences where the aircraft deviated from the intended flight path or intended 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.
- **Runway excursion (RE).** It 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 (RI)** refers to the incorrect presence of an aircraft, vehicle or person on an active runway or in its areas of protection.
- **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.  
Airspace infringement, also known as “unauthorised penetration of airspace” is a major operational hazard that can result from the division of airspace into different classes and structures, with their associated procedures and services, and its joint use by different categories of users, often with competing objectives and different operational requirements and capabilities.
- **Terrain Collision.** 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.
- **Ground safety.** 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.

The safety issues identified as the main contributors are defined as follows:

- **Monitoring of flight parameters and automation modes.** It is the inadequate monitoring of the main flight parameters and automation modes, potentially leading to the upset of the aircraft, runway excursion or controlled collision with terrain. It covers the relevant SOPs and trainings of the flight crew. It also includes the considerations related to human factors, especially to the human-machine interface (HMI) of aircraft systems and indications.

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- **Approach path management.** Ineffective or incorrect management of the approach path (i.e. not stable and/or compliant) that may lead to go-arounds, hard landings or runway excursion.
- **Convective weather.** It is the situation where the aeroplane flies within atmospheric convective phenomena, potentially leading to aircraft upset (uncontrolled collision with terrain) and injuries to passengers or crews. The safety issue covers the main convective phenomena affecting the safe flight, such as convective turbulence, up/down-drafts, wind shear, hail precipitation, lightning and icing.  
The main threat posed by this safety issue is the loss of control of the aircraft after being forced out of its flight envelope by a severe atmospheric phenomenon or after a system failure not adequately handled by the flight crew.  
This safety issue may also lead to injuries mainly due to the sudden encounter with turbulences. The safety issue covers the detection, avoidance and flying-in convective weather during the flight, and all the support to flight crews to deal with it before (e.g. flight planning, meteorological information) and during the flight (e.g. on-board detection systems, ATS vectoring). It especially covers the SOPs and training of the flight crew to maintain or recovering the safe flight. The safety issue also considers the robustness of the aeroplane to conduct a flight in convective atmospheric conditions, as per its initial certification and its in-service experience (i.e. continuous airworthiness process).
- **In flight icing.** It is the situation where the aeroplane flies within icing conditions, potentially leading to aircraft upset (uncontrolled collision with terrain) due to ice accretion on the aeroplane. The main threat posed by this safety issue is the contamination of aircraft surfaces or systems that may severely impact the performance or controllability of the aircraft. It covers the detection, avoidance and flying-in icing conditions during the flight, and all the support to flight crews to deal with it before (e.g. flight planning, meteorological information) and during the flight (e.g. on-board detection systems, de/anti-icing systems). It especially covers the SOPs and training of the flight crew to maintain or recovering the safe flight. The safety issue also considers the robustness of the aeroplane to conduct a flight in icing conditions, as per its initial certification and its in-service experience (i.e. continuous airworthiness process). This safety issue partially overlaps with the Convective Weather.
- **Handling of technical failures.** It is the ineffective handling of a non-catastrophic technical failure by the flight crew. Technical failures are those not rendering the aircraft uncontrollable and for which the flight crew are trained to manage them. It includes the human factors playing a role in the realisation and processing of the failure information and the later reaction of the crew to handle the issue. It covers the related SOPs and trainings of the flight crew.

Safety objective	Identifier	Safety performance indicator (SPI)	Safety performance target (SPT)	Source
Ensure that the <b>Aircraft Upset in Flight (LOC-I)</b> risk area is continuously assessed and risk controls improved to	FW-SPI-1	<ul style="list-style-type: none"> <li>• Monitoring of flight parameters and automation modes.</li> <li>• Approach path management.</li> <li>• Convective weather.</li> </ul>	Desired outcome of implemented actions is specified and achieved. Organisation's Risk Register or database contain all the	Organisation's Risk Register or database

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mitigate the risk of loss of control. The process is appropriately documented.		<ul style="list-style-type: none"> <li>• In flight icing.</li> <li>• Handling of technical failures.</li> </ul>	information concerning safety issues, assessed risk levels, as well as monitoring the efficiency of these actions.	
<p>Ensure that the <b>Runway Safety (runway excursions, runway incursions and collisions)</b> risk area is continuously assessed and risk controls improved to mitigate the risk of runway safety.</p> <p>Reduce the number of runway excursion incidents where a contaminated runway was a contributing factor.</p>	FW-SPI-2	<b>Implementation of GRF</b> according to Local GRF implementation plan.	Global Reporting Format (GRF) for Runway Surface Conditions - ICAO EUR Region, shall be implemented by 4 November 2021.	
	FW-SPI-3	<ul style="list-style-type: none"> <li>• Approach path management.</li> <li>• Monitoring of flight parameters and automation modes.</li> <li>• Handling of technical failures.</li> </ul>	Agreed set of actions, including 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 to be effectively implemented and continuously monitored (through Organisation's Risk Register or database).	
	FW-SPI-4	Problems with flight controls rate (incidents per 10 000 movements) – 1.45 (2020).	Downward trend shall be achieved.	
	FW-SPI-5	Problems with landing gear rate (incidents per 10 000 movements) – 2.17 (2020).	Downward trend shall be achieved.	

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	FW-SPI-6	Aborted TO rate (incidents per 10 000 movements) – 1.45 (2020).	Downward trend shall be achieved.
	FW-SPI-7	Un-stabilised approach rate (incidents per 10 000 movements) – 5.07 (2020)	Downward trend shall be achieved.
	FW-SPI-8	RI rate (incidents per 10 000 movements) – 0 (2020).	Downward trend shall be achieved.
Ensure that the <b>Airborne Conflict (Mid-air collisions)</b> risk area is continuously assessed and risk controls improved to mitigate the risk of airborne conflict.	FW-SPI-9	<ul style="list-style-type: none"> <li>• Perception and Situational Awareness.</li> <li>• Monitoring of Flight Parameters and Automation Modes.</li> </ul>	<p>Actions of the European Action Plan for Airspace Infringement Risk Reduction are implemented.</p> <p>Actions that have been taken to address the issues as well as the measures that are in place are monitored for their effectiveness.</p>
	FW-SPI-10	Separation minima infringements rate (incidents per 10 000 movements) – 0.36 (2020).	Downward trend shall be achieved.
	FW-SPI-11	ACAS RA rate (incidents per 10 000 movements) – 0 (2020).	Downward trend shall be achieved.
Ensure that the <b>Terrain Collision</b> risk area is continuously assessed and risk controls improved to mitigate the risk of terrain collision.	FW-SPI-12	<ul style="list-style-type: none"> <li>• Approach path management.</li> <li>• Monitoring of flight parameters and automation modes.</li> <li>• Perception and Situational Awareness.</li> </ul>	Actions that have been taken to address the issues as well as the measures that are in place are monitored for their effectiveness.
Ensure that the <b>Ground Safety (aircraft loading, de-icing, refuelling, ground damage, etc.)</b> risk area is continuously assessed and risk	FW-SPI-13	Approval effectively covers the contracted activities and it is valid.	All contracted activities are subject to safety risk management and to compliance monitoring.

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controls improved to mitigate the risk of ground safety.			
Ensure that the <b>Aircraft Environment</b> risk area is continuously assessed and risk controls improved to mitigate the risk of fire, smoke and fumes.	FW-SPI-13	Number of events which could involve or involved Fire, Smoke & Fumes	Downward trend shall be achieved.

## Appendix C

National aviation safety performance indicators and targets (SPIs/SPTs) monitored by flight training organisations.				
Safety objective	Identifier	Safety performance indicator (SPI)	Safety performance target (SPT)	Source
Ensure that pilots could communicate in English at least at operational level of language proficiency both in the use of phraseologies and plain language.	ATO-SPI-1	1) SAFA reports of pilots unable to communicate in English. 2) Failed English language operational level proficiency examinations.	Downward trend shall be achieved.	SAFA reports; English LP examination results.
Reduce incidents during training flights.	ATO-SPI-2	Incidents during training flights.	1 incident on 1000 flights. Downward trend shall be achieved.	Safety reports.
Reduce number of ATC clearance violation during training flights.	ATO-SPI-3	ATC clearance violation.	1 ATC clearance violation on 1000 flights. Downward trend shall be achieved.	Safety reports.

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Reduce number of Airspace restrictions violation and entering into military zones during training flights.	ATO-SPI-4	1) Number of airspace restriction violations. 2) Number of entering into military zones.	1 case on 1000 flights. Downward trend shall be achieved.	Safety reports.
Reduce number of close to mid-air collisions due to lack of radio communication.	ATO-SPI-5	Number of reported safety reports.	1 case on 1000 flights. Downward trend shall be achieved.	Safety reports.

## Appendix D

**National aviation safety performance indicators and targets (SPIs/SPTs) monitored by air navigation service providers (ANS) and, where applicable, meteorological service providers (MET).**

Safety objective	Identifier	Safety performance indicator (SPI)	Safety performance target (SPT)	Source
By 31 December 2021 at the latest, air navigation service providers shall achieve at least Level D for the management objectives 'safety policy and objectives', 'safety risk management', 'safety assurance', and 'safety promotion' and at least Level C for the management objective 'safety culture'.	ANS-SPI-1	Level of Effectiveness of Safety Management	Level D by the end of 2021	NEFAB Performance Plan adopted by EC for 2nd reference period from 2015 to 2019

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By 31 December 2017 and 2019 at the latest, air navigation service providers shall report to national supervisory authorities the <b>‘ATM Ground’ severity</b> using the Risk Analysis Tool <b>(RAT)</b> methodology for the classification of at minimum 80 % and <b>100 %</b> respectively of the annually reported <b>separation minima infringements and runway incursions with categories A (serious incidents), B (major incidents) and C (significant incidents)</b>	ANS-SPI-2	Safety KPI #2: Application of the severity classification based on the Risk Analysis Tool (RAT) methodology	100% RAT application by the end of 2021 for category A, B and C SMI, RI occurrences	NEFAB Performance Plan adopted by EC for 2nd reference period from 2015 to 2019
By 31 December 2021 and 2021 at the latest, air navigation service providers shall report to national supervisory authorities the <b>‘ATM Ground’ severity</b> using the Risk Analysis Tool (RAT) methodology for the classification of at least 80 % and 100 % respectively of the annually reported ATM-	ANS-SPI-3	Safety KPI #2: Application of the severity classification based on the Risk Analysis Tool (RAT) methodology	100% RAT application by the end of 2019 for category AA, A, B and C ATM specific occurrences	NEFAB Performance Plan adopted by EC for 2nd reference period from 2015 to 2019



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specific occurrences with the categories AA (total inability to provide safe ATM services), A (serious inability to provide safe ATM services), B (partial inability to provide safe ATM services) and C ( <b>ability to provide safe but degraded ATM services</b> ).				
Ensure that a high level of performance of meteorological service in terms of accuracy of <b>aerodrome forecasts and warnings</b> is maintained	ANS-SPI-4	Serious problems, errors or shortcomings of meteorological service related to aerodrome forecasts and warnings.	Service provider has processed threats related to service technical systems and functions -downward trend shall be achieved.	Organisation's Risk Register or database
Ensure that a high level of performance of meteorological service in terms of accuracy of <b>aerodrome observations</b> is maintained	ANS-SPI-5	Serious problems, errors or shortcomings of meteorological service related to aerodrome observations	Service provider has processed threats related to service technical systems and functions -downward trend shall be achieved.	

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## Appendix E

<b>National aviation safety performance indicators and targets (SPIs/SPTs) monitored by airport operators (ADR).</b>				
<p>The key risk areas and underlying safety issues will continue to be monitored as part of the joint safety risk portfolio for ADR:</p> <ul style="list-style-type: none"> <li>Runway Safety (RE, RI)</li> </ul>				
<b>Safety objective</b>	<b>Identifier</b>	<b>Safety performance indicator (SPI)</b>	<b>Safety performance target (SPT)</b>	<b>Source</b>
<b>Reduce number of Runway Incursions</b>	ADR-SPI-1	RI rate (incidents per 10 000 movements in Latvia) – 0.40 (2018-2020).	Downward trend shall be achieved.	Database
<b>Reduce the number of runway excursion incidents where a contaminated runway was a contributing factor.</b>	ADR-SPI-2	RE rate (incidents per 10 000 movements in Latvia) – 0.17 (2018-2020).	Downward trend shall be achieved.	Database

## Appendix F

<b>National aviation safety performance indicators and targets (SPIs/SPTs) monitored by ground handling service providers (GH).</b>	
<p>The key risk areas and underlying safety issues will continue to be monitored as part of the joint safety risk portfolio for GH:</p>	

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• <b>Aircraft upset in flight (LOC-I)</b>				
<b>Safety objective</b>	<b>Identifier</b>	<b>Safety performance indicator (SPI)</b>	<b>Safety performance target (SPT)</b>	<b>Source</b>
<b>Verify that ground collision events are monitored and controlled by Aerodrome operators to prevent damaged aircraft departure</b>	GH-SPI-1	Aerodrome Vehicle/Equipment Operations incident rate (incidents per 10 000 movements in Latvia) – 0.34 (2018-2020).	Downward trend shall be achieved.	Database
<b>Verify that incorrect loading events are monitored and controlled by Aerodrome operators to prevent Aircraft upset in flight (LOC-I) risk</b>	GH-SPI-2	Baggage & Cargo Handling and Loading incident rate (incidents per 10 000 movements in Latvia) – 0.48 (2018-2020).	Downward trend shall be achieved.	Database

## Appendix G

<b>National aviation safety performance indicators and targets (SPIs/SPTs) monitored by rotary wing (RW) and SPO-FW operators.</b>
<p><b>“Rotorcraft Operations”</b></p> <p>The main Key Risk Areas by their accident outcome that needs to be prevented:</p> <ul style="list-style-type: none"> <li>• Offshore operations – n/a</li> <li>• Other CAT Helicopters - Other than Offshore Helicopters (Aircraft Upset; Obstacle Collision; Terrain Collision)</li> <li>• SPO Helicopters (Obstacle Collision in Flight; Aircraft Upset)</li> <li>• NCO Helicopters (Aircraft Upset; Obstacle Collision; Terrain Collision)</li> </ul> <p><b>“SPO Aeroplane”</b></p>

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**The type of operations with the highest number of accidents and serious incidents in Europe:**

- Parachute drop
- Towing
- Air-show/race
- Agricultural

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

**The main Key Risk Areas by their accident outcome that needs to be prevented:**

- Aircraft Upset
- Airborne Collision

Safety objective	Identifier	Safety performance indicator (SPI)	Safety performance target (SPT)	Source
Ensure that the <b>Rotorcraft Operations</b> risk area is continuously assessed and risk controls improved to mitigate the risk of helicopter upset in flight (Loss of Control) and terrain and obstacle conflict.	RW-SPI-1	<b>CAT:</b> <ul style="list-style-type: none"> <li>• Perception and Situational Awareness</li> <li>• Helicopter Obstacle See and Avoid</li> <li>• Operations in Degraded Visual Environments</li> <li>• Decision Making and Planning</li> <li>• Software and Configuration</li> <li>• Flight Path Management</li> <li>• Experience, Training and Competence of Individuals</li> </ul>	<p>Actions that have been taken to address the issues as well as the measures that are in place are monitored for their effectiveness.</p> <p>Improve overall Rotorcraft safety in Europe by 50% within the next 10 years.</p> <p>Make positive and visible changes to Rotorcraft Safety trends within the next 5 years.</p>	Organisation's database
	RW-SPI-2	<b>SPO:</b> <ul style="list-style-type: none"> <li>• Perception and Situational Awareness</li> <li>• Helicopter Obstacle See and Avoid</li> <li>• Flight Path Management</li> <li>• System Reliability</li> <li>• Development and Application of Rules and Procedures</li> </ul>		

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		<ul style="list-style-type: none"> <li>• Adverse Weather</li> <li>• Experience, Training and Competence of Individuals</li> <li>• Handling of Technical Failures</li> <li>• Operations in Degraded Visual Environments</li> <li>• Decision Making and Planning</li> </ul>		
	RW-SPI-3	<p>NCO:</p> <ul style="list-style-type: none"> <li>• Perception and Situational Awareness</li> <li>• Flight Path Management</li> <li>• System Reliability</li> <li>• Experience, Training and Competence of Individuals</li> <li>• Decision Making and Planning</li> <li>• Flight Planning and Preparation</li> <li>• Helicopter Obstacle See and Avoid</li> <li>• Operations in Degraded Visual Environments</li> <li>• Human Performance</li> </ul>		
Ensure that the “SPO Aeroplane” risk area is continuously assessed and risk controls improved to mitigate the risk of aeroplane upset in flight (Loss of Control) and Airborne Collision.	SPO-FW-SPI-1	<ul style="list-style-type: none"> <li>• Perception and Situational Awareness</li> <li>• Human Performance</li> <li>• Experience, Training and Competence of Individuals</li> </ul>	Actions that have been taken to address the issues as well as the measures that are in place are monitored for their effectiveness.	Organisation’s database

## Appendix H

**National aviation safety performance indicators and targets (SPIs/SPTs) monitored by General Aviation operators (GA).**

**“GA Fixed-Wing Aeroplanes”**

**The main Key Risk Areas by their accident outcome that needs to be prevented:**

- Aircraft Upset
- Terrain Collision
- Obstacle Collision in Flight
- Runway Excursion

**For sailplanes apparent immediate cause of the accident (i.e. safety issues or accident categories) are:**

- Collision with hill
- Winch launches
- Stall/Spin
- Mid-Air collision

**Key risk areas in balloon operations are as follows:**

- Balloon landings
- Obstacle Collision in Flight

Safety objective	Identifier	Safety performance indicator (SPI)	Safety performance target (SPT)	Source
Ensure that the <b>Airspace Infringement</b> risk area in General Aviation is continuously assessed and risk controls improved to mitigate the risks of mid-air collision,	GA-SPI-1	Aircraft flying outside controlled or restricted airspace, etc. enters the airspace without clearance or without awareness as a result of adverse weather avoidance or as a result of misunderstanding or misinterpretation of ATC instructions or clearance. (number of incidents per 3000 flights - 9.03 in 2020).	Downward trend shall be achieved.	Organisation's database

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loss of separation and disruption to flight operations.				
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## Appendix I

National aviation safety performance indicators and targets (SPIs/SPTs) monitored by aviation airworthiness and maintenance organisations (AIR).				
<ul style="list-style-type: none"> <li>- Misleading, incorrect or insufficient applicable maintenance data or procedures that could lead to significant maintenance errors, including language issue</li> <li>- Incorrect control or application of aircraft maintenance limitations or scheduled maintenance;</li> <li>- Releasing an aircraft to service from maintenance in case of any non-compliance which endangers the flight safety;</li> <li>- Serious damage caused to an aircraft during maintenance activities due to incorrect maintenance or use of inappropriate or unserviceable ground support equipment that requires additional maintenance actions;</li> <li>- Identified burning, melting, smoke, arcing, overheating or fire occurrences;</li> <li>- Any occurrence where the human performance, including fatigue of personnel, has directly contributed to or could have contributed to an accident or a serious incident</li> </ul>				
Safety objective	Identifier	Safety performance indicator (SPI)	Safety performance target (SPT)	Source
Reduce number of aircraft damage during maintenance	AIR-SPI-1	Serious damage caused to an aircraft during maintenance activities due to incorrect maintenance or use of inappropriate or unserviceable ground support equipment that requires additional maintenance actions	Reduce number of ground occurrences	Organisation's database
Reduce the number of maintenance errors during maintenance activities, including violation of procedures	AIR-SPI-2	Misleading, incorrect or insufficient applicable maintenance data or procedures that could lead to significant maintenance errors, including language issue	Reduce number of incorrect Maintenance	Organisation's database