



HELLENIC CIVIL AVIATION AUTHORITY

SAFETY MANAGEMENT AND OCCURRENCE REPORTING SECTION

Hellenic Plan for Aviation Safety

2024-2025

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Responsible for Hellenic PAS		Dr. Christos Tsitouras Governor of HCAA
	NAME	POSITION
PREPARED BY		
Volume I General	George Kasimatis & Anthony Bakolis	Head of Safety Management and Occurrence Reporting Section Regulations Oversight and Certification of Aerodromes and Water Aerodromes
Volume I Safety Objectives & SPIs	George Kasimatis Konstantinos Ntouros	Head of Safety Management and Occurrence Reporting Section Safety Management and Occurrence Reporting Section
Volume II Safety Actions	George Kasimatis	Head of Safety Management and Occurrence Reporting Section
AGREED WITH	HCAA SAFETY COMMITTEE	
APPROVED BY	HCAA SAFETY BOARD	
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HELLENIC PLAN for AVIATION SAFETY

2024-2025



Volume I

Strategic Safety Priorities

SPI & Safety Objectives

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0. Introduction

This document includes the 1st edition of the Hellenic Plan for Aviation Safety (Hellenic PAS or HPAS) processed by the Safety Management and Occurrence Reporting Section (SMOR) in cooperation with the HCAA Safety Committee and key regulated organisations.

Hellenic PAS is issued by the Governor of Hellenic Civil Aviation Authority.

Hellenic PAS is published two years after the separation of Hellenic Civil Aviation Authority from Hellenic Aviation Service Provider (former Civil Aviation Authority), which is now the provider of Air Navigation Services and operator of 24 airports.

The purpose of the Hellenic PAS is to describe the actions that are implemented at National level to face the key safety issues regarding civil aviation in Greece.

HCAA has established safety management procedures at State level for identifying safety issues and continuously improving aviation safety in Greece. The main input for that is the reporting that has commenced through the ECCAIRS2 platform from the beginning of February 2022. The key safety issues are also described in the first [HCAA Annual Safety Review for 2022](#) (HCAA 2022 ASR) which was published in June 2022. For the first time, the [ERCS methodology](#) was applied in 20% of the reported incidents in 2022 and the aggregated results were first introduced in HCAA 2022 ASR.

This version of Hellenic PAS consists of two volumes.

1st Volume: includes the general strategy of the Hellenic Plan for Aviation Safety for the period 2024-2025 the safety objectives, and the relevant SPIs.

2nd Volume: includes the safety actions for the implementation of strategic priorities for aviation safety.

HCAA consults with Authorities [for this version Hellenic Air and Railway Safety Investigation Authority (HARSIA) and Hellenic Air Force (HAF)] and key regulated organisations through the HCAA safety committee in respect of setting the national strategic safety priorities and finalizing the proposed actions.

0.1 HCAA's Responsibilities

HCAA is responsible for the performance of certification, oversight, and enforcement duties in the fields of air transport, air navigation, and airports.

HCAA is additionally responsible for security certification, oversight, and enforcement duties as described in the National Program for Security in Civil Aviation.

HCAA is carrying out the above in the following ways:

- Implements regulations and procedures for safety oversight.
- Ensures the required resources for safety oversight are provided, commensurate with the size of the supervised domain.
- Implements safety management procedures to identify key risks to civil aviation and set mitigating actions to address these risks at National level.

- Conducts comprehensive audits, specific inspections, and tests on an ongoing basis to ensure that supervised entities meet regulatory requirements.
- Promotes safety awareness and information sharing with the aviation community for continuous improvement of aviation safety.
- Promotes the establishment of a safety occurrence reporting culture.

0.2 Responsibility for development, implementation, and oversight of HPAS

The responsibility for the development of Hellenic PAS belongs to SMOR of HCAA in cooperation with the HCAA Safety Committee.

The implementation belongs to relevant Sections of HCAA and regulated organisations and the yearly report on the implementation of HPAS belongs to SMOR.

The relevant Oversight Sections of HCAA have the responsibility to oversight the actions of Hellenic PAS by regulated organisations.

0.3 Definitions

Accident:

An occurrence associated with the operation of an aircraft which, in the case of a manned aircraft, takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, or in the case of an unmanned aircraft, takes place between the time the aircraft is ready to move with the purpose of flight until such time as it comes to rest at the end of the flight and the primary propulsion system is shut down, in which:

- a) a person is fatally or seriously injured as a result of:
 - being in the aircraft, or direct contact with any part of the aircraft, including parts which have become detached from the aircraft, or
 - direct exposure to jet blast, except when the injuries are from natural causes, self-inflicted or inflicted by other persons, or when the injuries are to stowaways hiding outside the areas normally available to the passengers and crew; or
- b) the aircraft sustains damage or structural failure which:
 - adversely affects the structural strength, performance or flight characteristics of the aircraft, and
 - would normally require major repair or replacement of the affected component, except for engine failure or damage, when the damage is limited to a single engine (including its cowlings or accessories), to propellers, wing tips, antennas, probes, vanes, tires, brakes, wheels, fairings, panels, landing gear doors, windscreens, the aircraft skin (such as small dents or puncture holes), or for minor damages to main rotor blades, tail rotor blades, landing gear, and those resulting from hail or bird strike (including holes in the radome); or
- c) the aircraft is missing or is completely inaccessible.

Serious incident:

An incident involving circumstances indicating that there was a high probability of an accident and associated with the operation of an aircraft which, in the case of a manned aircraft, takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, or in the case of an unmanned aircraft, takes place between the time the aircraft is ready

to move with the purpose of flight until such time as it comes to rest at the end of the flight and the primary propulsion system is shut down.

Incident:

An occurrence, other than an accident, associated with the operation of an aircraft which affects or could affect the safety of operation.

Occurrence

Any safety-related event which endangers or which, if not corrected or addressed, could endanger an aircraft, its occupants or any other person and includes in particular an accident or serious incident.

Hellenic aircraft:

An aircraft (fixed wing, rotorcraft, or unmanned aerial vehicle) registered in Greece, or its operator has an AOC issued in Greece.

1. General

1.1 Context

In ICAO Annex 19 (chapter 3), Doc 9859 Chapter 8 par. 8.3.6.20 and Regulation EC 2018/1139 (article 8) it is stated that States should implement a NASP in line with the goals and objectives of the Global Aviation Safety Plan ([GASP, Doc 10004](#) and [Global Aviation Safety Roadmap Doc 10161](#)) and [European Plan for Aviation Safety Volume \(2023-2025\)](#).

In **Volume II** the actions for EU Member States (MST Tasks) that are presented in EPAS 2023-2025 (included the new ones of EPAS 2024 as well as actions from older versions of EPAS) and where needed with specific cross-reference to GASR - Doc.10161, are included. In addition, when necessary, Hellenic PAS includes actions for resolving national safety issues that have been recognized in [HCAA 2022 ASR](#).

1.2 Safety Management at National Level

HCAA is responsible for the development of the Hellenic PAS by considering the requirements of Civil Aviation System in Greece and the safety risks and priorities. HCAA's safety management processes through SMOR and HCAA Safety Committee is trying to follow **five specific steps** as they are presented in [EPAS Volume III \(2023-2025\)](#) (figure 1):



Figure 1: The European SRM process

1. **Identification of safety issues:** The identification of safety issues is the first step in the SRM process, and it is performed through the analysis of occurrence data and other safety-related information like oversight activities and supporting information by SMOR, the domains, the regulated organisations, and the HCAA Safety Committee.

HCAA identifies which safety issues that are included in EPAS Volume III can be a root cause of an occurrence (this is done only when sufficient information by the reporter is included) together with

the implementation of ERCS. Furthermore, SMOR identifies National safety Issues (few of them might not be included in EPAS Volume III).

2. **Assessment of safety issues:** Since the assessment of safety issues that are included in EPAS Volume III has been carried out from EASA, HCAA needs to assess only the national safety issues. In the assessment procedure members of the HCAA Safety Committee participate and when is needed more collaboration with key regulated organisations is carried out. The National Safety Issues (NSI) are included in [Appendix II](#). In this 1st edition of HPAS, the assessment of National Safety Issues is a part of safety actions that are included in Volume II.
3. **Definition and programming of safety actions:** Most of the actions that are included in Hellenic PAS Volume II come from the relevant MST actions ([EPAS Vol II](#)) and SEIs ([GASR 10161](#)). If more actions for the relevant national safety issues, as mentioned before, are subject to safety assessment, new action is included in Hellenic PAS. [Appendix III](#) includes an aggregated table of the MST actions that are included in Hellenic PAS.
4. **Implementation and follow-up:** The next step in the process involves the implementation and follow-up of the actions that have been included within the Hellenic PAS. As it is the 1st edition of Hellenic PAS, implementation has not yet started. SMOR will incorporate IT tools for the follow-up of the implementation of the included actions.
5. **Safety performance measurement:** The final stage in the process is the measurement of safety performance.

This serves to monitor:

- (1) specific changes that have resulted from the implementation of safety actions; and
- (2) the systemic changes that may have occurred in the aviation system and may require additional actions.

The measurement of the performance is done via a safety performance framework that monitors:

- (1) transversally the various domains while looking at the key risk areas at domain level; and
- (2) the specific safety issues.

As it is the 1st edition of Hellenic PAS, implementation of actions has not yet started, and the performance measurement will commence in 2026 by evaluating reports and oversight results of 2024 and 2025.

1.3 Hellenic PAS safety objectives

The safety objectives connect HCAA requirements for safety management with the organisations and persons that are under HCAA oversight. In Volume I, for each specific domain and for each operational risk specific objectives are included.

The key safety issues that have been identified through HCAA's step 1 safety management and the actions planned to mitigate relevant risks, together with the safety objectives, are described in Volume II of SPAS.

The organisations under HCAA oversight should develop safety management systems in compliance with ICAO Annex 19 and EU Regulations. The organisations should identify the risks relevant to their operations and implement mitigation measures.

Organisations should identify and manage their safety objectives and in addition should consider the safety objectives set in this Plan, if relevant, in their Safety Management System.

1.4 Hellenic PAS Volume I and Volume II

The Hellenic PAS consists of two parts, Volume I and II:

Hellenic PAS Volume I

It establishes HCAA strategy for the next **three years** (the 1st edition for 2 years to be harmonized with EPAS 2023-2025) which will be the period of implementation of the Hellenic PAS, while it is updated after consultation every three years.

Hellenic PAS Volume II

It describes the intended actions and is updated at the end of each year of the implementation period, to record the current state of Hellenic PAS actions and to include new or modified actions to address safety issues arising within the HPAS implementation period.

2. Strategic Safety Priorities

The overall strategic priorities for Hellenic PAS 2024-2025 are to build a safe, secure, sustainable, and resilient aviation system in Greece, to enhance its capability to address disruptive events of any type.

With a fast-evolving aviation industry, showing a wide range of operating conditions and business models, but also in the face of disruptive events affecting the entire aviation ecosystem, it is increasingly important for aviation stakeholders (relevant authorities and regulated organisations) to adopt a systems' view on safety.

Managing safety, in a complex socio-technical system such as aviation, requires knowledge and understanding of how and where people work within that system and what may positively or negatively affect their performance. Focus on human factors and human performance, as an integral part of safety management, is therefore essential in building a safe, secure, sustainable, and resilient aviation system.

The Strategic safety priorities are classified in two sections, as depicted in **Figure 2**.

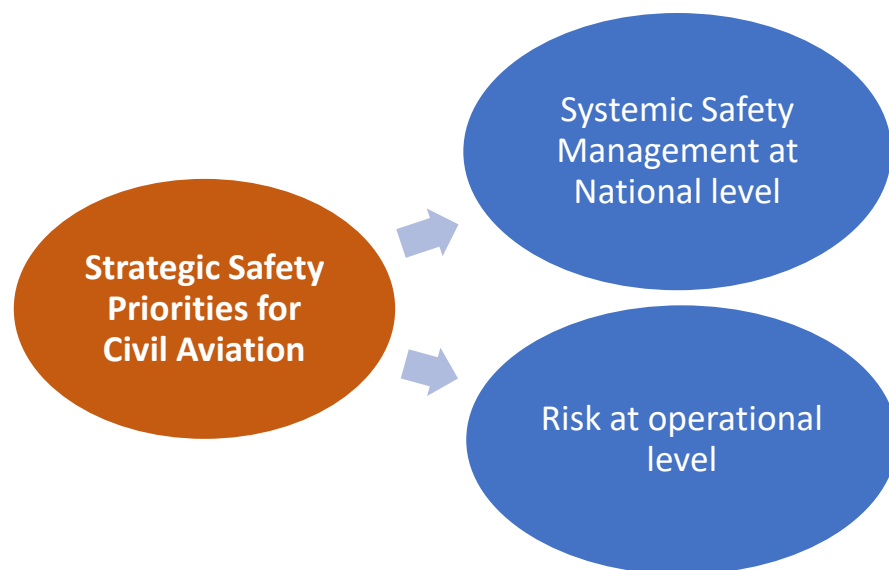


Figure 2: Strategic safety priorities

2.1 Systemic Safety Management at National level

2.1.1 Continues enhancement of Safety Management at State Level

The HPAS addresses the ongoing improvement of safety management at State level. The relevant actions contained in Volume II include:

- Actions to continuously improve safety management at State level, by the implementation and maintenance of State Safety Programme (SSP), continuous assessment of the effectiveness implementation of SMS by regulated organisations (**actions [EL.0101](#), [EL.102](#)**).

- Implementation of the new HPAS (**action EL.0101**).
- Support organisations in the implementation of SMS by providing promotion material prepared by EASA. Continuous training of HCAA inspectors on the use of the Management Tool of EASA (**action EL.0102**).
- Encourage organisations to incorporate Human Factors Principles (HFP) into their Safety Management Systems and ensure that HFP are fully understood by the inspectors (**action EL.0104**).
- Ongoing enhancement of risk management procedures at National level, safety performance, and safety promotion including the level of safety culture in organisations (**action EL.0105**).

2.1.2 Commencement of the operation of the new HCAA safety regulation and oversight functions ([action EL.0106](#)).

In accordance with the requirements of the European Regulations on the independence of competent authorities from the regulated organisations, the Hellenic Civil Aviation Authority has been separated, as of January 2022, from the Hellenic Aviation Service Provider, which is nowadays the provider of air navigation services and the operator of state airports.

The constitution, operation, and powers of the Hellenic Civil Aviation Authority are provided in Law 4757/FEK A/240/1-12-2020.

The regulatory staff in the HCAA are provided with currently renovated offices.

The vision of HCAA is full digitalization and a paperless office environment.

HCAA uses the platform of [ECCAIRS 2](#) for reporting which gives the ability to extract safety information and facilitates the exchange of safety information between Competent Authorities and regulated organisations.

The regulatory staff has been provided with a digital signature to simplify and speed up the oversight activities.

2.1.3 Integrated risk management

The integration of safety management, taking into account the interaction of aviation safety and security against unlawful actions is one of the priorities of HPAS, considering the possible consequences for Aviation Safety and the implementation of security measures against unlawful actions. Importance is given to a new emerging risk in all domains of civil aviation that relates to cybersecurity.

In HPAS Volume II are described actions addressing the need for the exchange of safety information of common interest among Sections responsible for Aviation Safety and for Security against Unlawful actions (e.g., laser strikes, breach of security measures, etc.) (**actions [EL.0107](#), [EL.0108](#)**).

Special attention is also given to conflict zones arising from the Ukraine and Israel Crisis (**action [EL.0109](#)**).

2.1.4 Risk-Based Oversight and Performance-Based Oversight

HCAA implements a regulating oversight program per domain to supervise the activities of organisations and persons operating in the civil aviation system of Greece. The regulating oversight program includes a

series of audits, inspections and tests conducted by trained personnel supported by regulations, policies, procedures, tools, and training to enable HCAA to carry out its oversight obligations.

Under ICAO Annex 19 the traditional compliance-based safety oversight has been replaced by a risk-based approach and performance-based oversight. Risk-based supervision relies on data-driven decision-making, and the actions contained in Volume II paragraph 6.4.5 focus on data collection development and analysis methods that support risk assessment and the need to ensure the necessary human resources (**action [EL.0110](#)**).

2.1.5 Competency of regulatory personnel

HCAA ensures continued availability of competent personnel, in compliance with competency requirements based on EU regulatory framework.

Additionally, HCAA ensures it offers competitive terms and conditions to retain staff and attract new staff when needed.

HPAS Volume II paragraph 6.5.5 identifies actions (**action [EL.0111](#)**) to address continued development of inspector competencies in performance based and risk-based oversight.

2.1.6 Civil – military coordination and cooperation

For an effective implementation of SSP, cooperation with the military authorities is more than necessary. There are interfacing safety issues arising from the common civil-military operations which need to be addressed and coordinated with a common understanding. The key areas of cooperation are exchange of safety information, aerodrome of common airports, air navigation services, certification of personnel e.g., ATC, UAS (**actions [EL.0101](#), [EL.0303](#), [EL.0501](#)**).

2.2 Competence of personnel

The availability of well-trained and competent aviation personnel is paramount to the safety and resilience of the aviation industry. Therefore, ‘competence of personnel’ is a strategic priority. Actions concerning language proficiency and learning objectives in the meteorological information (**actions [EL.0201](#), [EL.0202](#)**) are included.

2.3 Operational Safety

Operational activities across all domains of civil aviation system generate operational risks which are identified by HCAA, and actions are planned, based on EPAS 2023-2025 and Global Aviation Safety Roadmap (Doc 10161) and National Safety Issues that have been recognized for the following civil aviation domains:

- Flight Operations (CAT/NCC) - fixed wings
- Rotorcraft Operations
- Air Traffic Management/ Air Navigations Services (ATM/ANS)
- Aerodrome Operations and Ground Handling

- Airworthiness
- General Aviation
- Unmanned aircraft systems

Hellenic PAS identifies the actions taken at State level to support the regulated organisations in addressing these risks.

HCAA conduct oversight on the effective implementation of organisation's SMS and on the continued sharing of information of risk between organisations and the Authority. HCAA shares safety information with regulated organisations through safety promotion activities and Annual Safety Review.

2.3.1 Flight Operations (CAT/NCC) – fixed wings

Commercial fixed wings organisations in Greece are passenger and/or cargo operators granted an Air Operations Certificate according to EU Regulations.

In this domain are also included operators who use complex aircraft for business purposes, due to the complexity of the aircraft involved and consequently the similarity of their operational risks.

The key risk areas (KRA) identified in [HCAA 2022 ASR](#) are: **airborne collision, collision on runway and aircraft upset.**

The key actions that are included in the Hellenic PAS for CAT/NCC are the following:

- Aircraft upset in flight (LOC-I) ([action EL.0301](#))
- Terrain Collision (Controlled Flight into Terrain (CFIT)) ([action EL.0302](#))
- Airborne collision (mid-air collision – MAC) ([action EL.0303](#))
- Runway safety (includes Runway incursions/excursions, abnormal runway conduct) ([action EL.0304](#))
- Ground operations ([action EL.0305](#))
- Fire, smoke, pressurisation, and cabin air quality ([action EL.0306](#))
- National FDM forum ([action EL.0307](#))

During the reference period new actions may be decided, based on continued risk assessment of Hellenic Civil Aviation System.

2.3.2 Rotorcraft Operations

This domain includes a wide range of commercial air transport operations, specialised operations, such as medical emergencies, search and rescue, passenger transport, survey work and non-commercial operations (this section includes training flights). There are the following categories of operations:

Instead of lack of reporting in this domain, according to accidents the key risk area (KRA) is **aircraft upset** and the main point of concern is **lack of reporting.**

The key action that is included in the Hellenic PAS for Rotorcraft Operations domain:

- Rotorcraft safety ([action EL.0401](#))

HCAA addresses the need for safety promotion to improve the implementation of SMS of AOC holders with rotorcraft.

During the reference period new actions may be decided, based on continued risk assessment of Hellenic Civil Aviation System.

2.3.3 Air Traffic Management- Air Navigation services (ATM/ANS)

The HASP provides ATM and ANS services, namely:

- Air Traffic Services, including Air Traffic Control, Flight Information, Alerting.
- Communication, Navigation and Surveillance services.
- Aeronautical information Service.
- Meteorological Information Services
- Air Traffic Flow Management.
- Airspace Management.
- Flight Procedure Design.

The key risk areas (KRA) identified in [HCAA 2022 ASR](#) are: **airborne collision** and **collision on runway**.

The key actions that are included in the Hellenic PAS for ATM/ANS are the following:

- Airborne collision (Mid-Air Collisions MAC) ([action EL.0501](#))
- Runway Incursions (RI) ([action EL.0502](#))
- Runway excursions (RE) ([action EL.0503](#))
- Communication Navigation Systems (CNS) deficiencies ([action EL.0504](#))

Targeted oversight tasks from HCAA that will include oversight of the management of Hellenic PAS key risk areas by HASP, review of level implementation of actions planned by HASP for improving aviation safety, auditing effectiveness of runway safety teams and monitoring drone incident management at aerodromes.

2.3.4 Aerodrome Operations

Hellenic Aerodromes are of three types:

- Aerodromes open to the public certified per EU Regulation 139/2014.
- Aerodromes open to the public nationally licensed, as are not currently within the scope of EU Regulations.
- Aerodromes (airfields) not open to the public, privately owned, nationally licensed.

Details of certified and licensed aerodromes are published in AIP Greece, Part 3, AD 1-5.

The key risk areas (KRA) identified in [HCAA 2022 ASR](#) are: **ground damage, aircraft upset (from bird/wildlife strikes), excursion, collision on runway**.

The key actions that are included in the Hellenic PAS for ATM/ANS are the following:

- Runway Incursions (RI) ([action EL.0601](#))

- Runway Excursions (RE) ([action EL.0602](#))
- Safety of Ground Operations ([action EL.0603](#))
- Bird and Wildlife Strikes ([action EL.0604](#))
- Emerging National Issues for aerodromes ([action EL.0605](#))

The actions are focused on:

- The establishment and operation of the National Runway Safety Committee and National Bird/Wildlife committee.
- Assessing the functionality of local runway safety teams.
- Promotion of implementation of EAPRRI and GAPRRE recommendations to mitigate operational risks of RI and RE.
- Data analysis of safety occurrences to mitigate Bird/Wildlife hazards.
- Safety promotion to address hazards caused by the operations of ground handling.
- Addressing emerging National Safety Issues.

New actions may be added during the reference period in case domain's risk assessment is updated.

2.3.5 Airworthiness

The airworthiness domain is subject to requirements of the Safety Management System for Continued Airworthiness Management Organizations (CAMO) according to Regulation 2019/1383 and to Part 145.

The key action that is included in the Hellenic PAS for Airworthiness is the following:

- Implementation and effectiveness of SMS by CAMO, Part-145 and Part-21 organisations ([action EL.0701](#))

New actions may be added during the reference period in case domain's risk assessment is updated.

2.3.6 General Aviation

General Aviation is defined as any aircraft activity not included in Commercial Air Transport (CAT) or not addressed under Part NCC declaration. There are the following categories of operations:

- Non-commercial operations such as pilot training and private flying using certified non-complex aircraft that are included in Part NCO.
- Specialised operations such as surveys, parachute operations and aerial photography that are included in Part SPO.
- Leisure aviation activities involving non-certified aircraft.

HCAA supports the [Hellenic Aeronautical & Air Sports Federation \(ELA0\)](#) , [Aircraft Owners and Pilots Association Hellas \(AOPA\)](#) and [Training Organisations](#) in their commitment to identify flight safety risks and mitigate them through training and promotion of aviation safety culture.

The key risk areas (KRA) identified in [HCAA 2022 ASR](#) are: **navigation error, abnormal runway contact.**

The key actions that are included in the Hellenic PAS for General Aviation are the following:

- safety promotion activities for General Aviation ([action EL.0801](#)).

- Managing the risks of MAC within GA ([action EL.0802](#))
- Managing the risks of LOC-I, ARC and RE within GA ([action EL.0803](#))
- Managing the risks of NAV, CFIT, FUEL etc. within GA ([action EL.0804](#))

2.3.7 Unmanned Aircraft Systems (UAS)

HCAA encourages the development of the UAS Domain and oversees the integration of UAS operations in Hellenic airspace, considering the safety issues arising during the process.

The key operational risk areas identified in the UAS domain are:

- Airborne collision between a drone and a large commercial aircraft
- Airborne collision between a drone and a light aircraft
- Loss of control of drone leading to serious or fatal injury to persons
- Infringement of drone into controlled or protected airspace leading to disruption of normal operations
- Carriage of Dangerous Goods by UAS
- Unlawful acts, privacy breach, nuisance

The European regulatory framework takes a risk-based approach to regulation of UAS, dividing operations in three categories:

- Open:** Low risk operations, safety ensured by the operator complying with the existing regulations.
- Specific:** Middle risk operations, safety ensured by the operator obtaining an operational authorization from the Competent Aviation Authority.
- Certified:** High-risk operations, safety ensured by certification of operator and the drone along with licensing of the remote pilot.

The key action that is included in the Hellenic PAS for UAS is the following:

- Safe integration of drone operations ([action EL.0901](#))

3. Safety Performance Monitoring

3.1 Performance monitoring in HCAA

Performance monitoring is a basic component of the safety management system.

Performance monitoring of the civil aviation system is practiced by HCAA across all civil aviation domains.

The development of safety performance indicators (SPI) and safety performance targets (SPT) across all domains in Hellenic civil aviation is an ongoing action in the HPAS Volume II.

3.2 Assurance of Safety Objectives

The primary function of safety performance monitoring as stated in ICAO Annex 19 is to provide assurance that the safety objectives are being met. To this end safety performance indicators are developed, associated with safety performance targets. The safety objectives of the Hellenic PAS are monitored by HCAA at domain level. Organisations are responsible for developing their own safety objectives and monitoring their own safety performance indicators (SPIs), at least according to the ones that are included in the Hellenic PAS. Organisations should consider the State level safety objectives and SPIs outlined in the Hellenic PAS as part of their SMS processes, in so far as these safety objectives are appropriate to their own operations. Nevertheless, organisations can use more safety objectives and SPIs to further monitor their operations.

3.3 Safety Objectives, SPIs and SPTs

The Hellenic PAS identifies the safety objectives for the State and the associated safety performance indicators and targets. These are detailed in Chapter 4 of Volume I.

3.4 Safety Performance Reporting

HCAA publishes each year the Annual Safety Review which provides overall safety information on the main safety performance indicators of the Hellenic Civil Aviation System.

Moreover, domain performance reports are developed to be disseminated in safety meetings with regulated organisations and State level bodies.

4. Hellenic PAS Safety Objectives, SPIs and SPTs

This chapter provides an overview of the Safety Objective’s SPI and SPT at both National and Operator’s level.

4.1 Safety management and compliance performance indicators monitored by HCAA.

This section includes two tables.

In the first table are presented the Safety Objectives and the SPIs concerning the safety performance at National level, the ability of HCAA to conduct its oversight responsibilities and the status on the implementation of SSP and HPAS.

In the second table the safety objectives and SPIs in operational performance at e National level are presented.

All the following SPIs are going to be monitored by HCAA.

Table 1: Systemic Level

SPI number	Safety Objective	SPI	Safety Performance Target
EL.SSP.01	To continuously improve implementation of aviation safety management at State level in Greece.	Improvement of safety performance in all aviation domains and particularly in the evaluation areas of safety management defined for each domain. (SMS score for organisations).	Continuous improvement of the performance in the implementation of SMS by aviation organisations.
		Use of EASA MS Assessment Tool.	EASA MS Assessment Tool used in SMS oversight of regulated organisations in all domains by Q2 2024.
		Occurrence reporting rates of regulated organisations.	Positive trends in occurrence reporting rate.
		Safety culture (metrics).	<ul style="list-style-type: none"> - Implement oversight activities for scoring safety culture of organisations by using HCAA tool for assessing safety culture. - Continuously improving safety culture scores.
EL.SSP.02	To ensure that operation of HCAA is according to ICAO SARPs and EU regulations.	ICAO USOAP EI Score.	Maintain EI score according to aspirational safety goals of ICAO (Doc 10161).
		ICAO USOAP CC/ EFOD Completion	Maintain Average CC/EFOD completion score > 90%

		Findings raised during EASA or ICAO visits are addressed and corrected in the agreed timeframe.	Excluding issues beyond HCAA’s control, HCAA will try to complete a minimum of 90% of the findings according to CAPs.
		Findings classified as being of an Immediate Safety Concern during EASA standardisation visits / Significant Safety Concern for ICAO audits.	No Immediate Safety Concerns (raised by EASA during standardisation visits), and No Significant Safety Concerns (raised by ICAO during audits).
		The safety standards and procedures comply with ICAO Standards and EU Requirements	Continuous monitoring of SARPs and EU regulations by HCAA and adaptation as soon as practicable.
EL.SSP.03	To ensure that HCAA has the necessary human resources and processes to conduct its oversight responsibilities.	Man-hour plan calculation is conducted taking into consideration the operational environment.	Each HCAA domain will have a man-hour plan relevant to its duties including its oversight capability function. This plan is to be prepared annually on a Risk-Based and Performance-Based oversight and shall be kept relevant to reflect available resources and workload.
		An oversight plan is created, ensuring that all organisations follow a pre-defined audit cycle.	Achieve at least a 80% completion rate of the annual planned audits. The audits shall be carried out within the established timeframe.
		Implementation of training plan for HCAA personnel.	Achieve completion rate at least 80% of the approved annual training plan.
EL.SSP.04	To maintain a safe aviation operating environment when exceptional circumstance(s) disrupt aviation operations including HCAA oversight functions.	Applicable processes are to be followed. Ad-hoc procedures may be introduced to ensure that there is an immediate reaction to the circumstance.	HCAA will monitor the aviation environment and react to any extraordinary circumstances that may arise. This process shall be documented through a Safety Risk Assessment and identify appropriate mitigation measures. A review period for the identified mitigation measures shall be established to ensure their effectiveness.
EL.SSP.05	To publish and maintain the Hellenic SSP and HPAS as key elements in identifying aviation threats and risks within a safety structure.	High risk categories are assessed by all aviation stakeholders and considered based on their operation.	The Hellenic PAS will be reviewed on an annual basis to ensure that Actions and Safety Objectives at National and Operational levels are kept relevant.
		ICAO SSPIA PQ Self-Assessment completion.	HCAA to complete SSPIA PQ self-assessment on ICAO OLF by Q2 2024.

		EPAS MST tasks completion.	MST actions must be completed via Hellenic PAS, as appropriate.
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Table 2: Operational Level

SPI number	Safety Objective	SPI	Safety Performance Target
EL.OPS.1.01	To keep the safety level of Hellenic aviation system high.	Number of aviation accidents (absolute number and in proportion to traffic volume as applicable) A) Of Hellenic aircraft that occurred in Greece and worldwide and of aircraft with foreign registration that occurred in Greece. B) Of Hellenic aircraft ¹ .	<ul style="list-style-type: none"> - No accidents in Hellenic CAT and NCC aircraft - Reducing trends of accidents in Hellenic NCO aircrafts
EL.OPS.1.02	To keep the safety level of Hellenic aviation system high.	Number of fatal aviation accidents (absolute number and in proportion to traffic volume as applicable) A) Of Hellenic aircraft that occurred in Greece and worldwide and of aircraft with foreign registration that occurred in Greece. B) Of Hellenic aircraft.	<ul style="list-style-type: none"> - No fatal accidents in Hellenic CAT and NCC aircrafts - Reducing trends of fatal accidents in Hellenic NCO aircrafts
EL.OPS.1.03	To keep the safety level of the Hellenic aviation system high.	Number of fatalities in aviation accidents (absolute number and in proportion to traffic volume as applicable) A) Of Hellenic aircraft that occurred in Greece and worldwide and of aircraft with foreign registration that occurred in Greece. B) Of Hellenic aircraft.	<ul style="list-style-type: none"> - No fatalities in Hellenic CAT and NCC aircrafts - Reducing trends of fatalities in Hellenic NCO aircrafts
EL.OPS.1.04	To keep the safety level of the Hellenic aviation system high.	Number of aviation serious incidents (absolute number and in proportion to traffic volume as applicable)	<ul style="list-style-type: none"> - Reducing trends of serious incidents in both CAT/NCC and NCO aircrafts

¹ **Hellenic aircraft:**

An aircraft (fixed wing, rotorcraft, or unmanned aerial vehicle) registered in Greece, or its operator has an AOC issued in Greece.

		<p>A) Of Hellenic aircraft that occurred in Greece and worldwide and of aircraft with foreign registration that occurred in Greece.</p> <p>B) Of Hellenic aircraft.</p>	
EL.OPS.2.01	To maintain a high level of runway safety.	Runway Excursions (RE)	<p>No accidents categorised as RE in regulated organisations.</p> <p>HCAA</p> <ul style="list-style-type: none"> - Continuous monitoring the implementation of RE-related Hellenic PAS actions and EAPPRE recommendations. - Acceptance of the organisation's Safety Objectives and related SPI/SPTs. - Effective operation of the National Runway Safety Committee. <p>Regulated organisations</p> <ul style="list-style-type: none"> - Process RE threats in relation to their operation and their own safety management processes. - Continuously reducing trends in RE occurrences and precursor events through safety management processes.
EL.OPS.2.02	To maintain a high level of runway safety	Runway Incursions (RI) (This includes incursions by other aircraft, vehicles, or persons that are present on the runway without clearance or incorrectly)	<p>No accidents categorised as RI in regulated organisations.</p> <p>HCAA</p> <ul style="list-style-type: none"> - Continuously monitoring the implementation of related Hellenic PAS actions and EAPPRI recommendations. - Acceptance of the organisation's Safety Objectives and related SPI/SPTs. - Effective operation of National Runway Safety Committee. <p>Regulated organisations</p> <ul style="list-style-type: none"> - Process RI threats in relation to their operation and their own safety management processes. - Continuously reducing trends in RI occurrences and precursor events through safety management processes.

EL.OPS.2.03	To maintain a high level of airspace safety	Mid-air collisions (MAC)	<p>No accidents categorised as MAC in regulated organisations.</p> <p>HCAA</p> <ul style="list-style-type: none"> - Continuously monitoring the implementation of Hellenic PAS actions and EU EAPAIRR recommendations. - Acceptance of the organisation’s Safety Objectives and related SPI/SPTs. <p>Regulated organisations</p> <ul style="list-style-type: none"> - Process MAC threats in relation to their operation and their own safety management processes. - Continuously reducing trends in MAC occurrences and precursor events through safety management processes.
EL.OPS.2.04	To maintain a high level of flight operations safety	Controlled Flight Into or towards Terrain (CFIT)	<p>No accidents categorised as CFIT in regulated organisations.</p> <p>HCAA</p> <ul style="list-style-type: none"> - Continuously monitoring the implementation of relevant Hellenic PAS actions. - Acceptance of the organisation’s Safety Objectives and related SPI/SPTs. <p>Regulated organisations</p> <ul style="list-style-type: none"> - Process CFIT threats in relation to their operation and their own safety management processes. - Continuously reducing trends in CFIT occurrences and precursor events on an organisation and domain basis through safety management processes.
EL.OPS.2.05	To maintain a high level of flight operations safety	Loss of Control in flight (LOC-I)	<p>No accidents categorised as LOC-I in regulated organisations.</p> <p>HCAA</p> <ul style="list-style-type: none"> - Monitoring implementation of relevant Hellenic PAS actions. - Acceptance of organisation’s Safety Objectives and related SPIT/SPTs. <p>Regulated organisations</p>

			<ul style="list-style-type: none"> - Process LOC-I threats in relation to their operation and their own safety management processes. - Continuously reducing trends in LOC-I occurrences and precursor events on organisation and domain basis through safety management processes.
EL.OPS.2.06	To maintain a high level of aerodrome and flight operations safety	Ground Damage	<p>No accidents during or result of ground operations in regulated organisations.</p> <p>HCAA</p> <ul style="list-style-type: none"> - Acceptance of the organisation’s Safety Objectives and related SPIT/SPTs. <p>Regulated organisations</p> <ul style="list-style-type: none"> - Process threats in relation to their operation and their own safety management processes. - Continuously reducing trends in ground operations related accidents, serious incidents and occurrences on an organisation and domain basis.

4.2 Safety objectives and SPIs for aviation organisations per domain.

The following tables present a list of Safety objectives that each aviation organisation will analyse and risk-assess based on its operations. These objectives shall not replace any other specific threats identified by the organisation.

The tables apply to the following areas of operation:

- Commercial Air Transport
- Rotorcraft
ATM/ANS
- Aerodrome
- Ground Handling
- Airworthiness and Maintenance Organisations
- General Aviation
- Unmanned Aircraft Systems (UAS)

In the SPI column, **certain numbered precursors** might appear which represent the **sub SPIs** for each SPI that operators are required to monitor. Each organisation can monitor more SPIs according to its operation and its safety management.

Every organisation within its area of operation shall take into consideration the additional risks brought about by the COVID-19 pandemic. Apart from adapting their hazard logs, aviation stakeholders shall also refer to any relevant [SIB issued by EASA](#) and/or [HCAA Safety Information Advisory Notices \(SIANs\)](#). Due evaluation and implementation of any actions shall be addressed appropriately.

Table 3: Operational Level in Commercial Air Transport & Non-Commercial Complex Fixed Wing aircrafts (CAT/NCC)

SPI number	Safety Objective	SPI	Safety Performance Target (CAT/NCC)
EL.CAT.01	Continuous development of safety performance including the implementation of an SMS.	Performance of the organisation's SMS	Review of the organisation's SMS for effective implementation, including correct identification of threats and risks, and implementation of required actions.
EL.CAT.02	To continuously improve safety by assessing and mitigating the risks relating to Loss Of Control In-Flight events.	Loss of Control In-Flight (LOC-I) Precursors to consider: <ol style="list-style-type: none"> 1. Stall warnings (Stick shaker) 2. Flight parameter exceedances (deviations from intended airspeed, pitch, bank/roll). 3. Powerplant/system/component failures or malfunctions affecting aircraft controllability and performance. 4. Load sheet and load mass errors. 	<ul style="list-style-type: none"> - Continuous identification of threats followed by relevant risk assessment as part of their operation. - Develop and monitor their own SPIs' in respect of LOC-I, and consider the inclusion of the HCAA SPIs as appropriate to their operation. - Use of FDM data (air operators, as applicable) to support monitoring and analysis of LOC-I occurrences. - Ensuring all flight crews are trained in upset recognition and recovery (UPRT) procedures and CRM (as applicable).
EL.CAT.03	To continuously improve safety by assessing and mitigating the risks relating to Controlled Flight Into Terrain events.	Controlled Flight Into Terrain (CFIT) Precursors to consider: <ol style="list-style-type: none"> 1. (E)GPWS alerts. 2. Incorrect Altimeter settings. 	<ul style="list-style-type: none"> -- Continuous identification of threats followed by relevant risk assessment as part of their operation. - Develop and monitor their own SPIs' in respect of CFIT and consider the inclusion of the HCAA SPIs as appropriate to their operation. - Use of FDM data (air operators, as applicable) to support monitoring and analysis of CFIT occurrences.
EL.CAT.04	To continuously improve safety by assessing and	Airprox/ Mid-Air collisions (MAC)	<ul style="list-style-type: none"> - Continuous identification of threats followed by relevant

	mitigating the risks relating to Mid-Air collisions and near misses events.	<p>Precursors to consider:</p> <ol style="list-style-type: none"> 1. TCAS RA 2. Level Busts 3. Near airborne collision with UAS. 	<p>risk assessment as part of their operation.</p> <ul style="list-style-type: none"> - Develop and monitor their own SPIs' in respect of MAC and consider the inclusion of the HCAA SPIs as appropriate to their operation. - Use of FDM data (air operators, as applicable) to support monitoring and analysis of MAC occurrences. - Implementation of EU EAPAIRR recommendations as appropriately feasible.
EL.CAT.05	To continuously improve safety of the runway by assessing and mitigating the risks relating to Runway Incursion events.	<p>Runway Incursion (by aircraft, vehicle, or person)</p>	<ul style="list-style-type: none"> - Continuous identification of threats followed by relevant risk assessment as part of their operation. - Develop and monitor their own SPIs' in respect of RI and consider the inclusion of the HCAA SPIs as appropriate to their operation. - Implementation of EU EAPPRI recommendations as appropriate.
EL.CAT.06	To continuously improve safety of the runway by assessing and mitigating the risks relating to Runway Excursion events.	<p>Runway Excursion</p> <p>Precursors to consider:</p> <ol style="list-style-type: none"> 1. Unstabilised approach that continue to land. 2. Abnormal Runway Contact. 3. High-speed rejected take-off. 4. System/component/powerplant failures or malfunctions that lead to a runway excursion. 	<ul style="list-style-type: none"> - Continuous identification of threats followed by relevant risk assessment as part of their operation. - Develop and monitor their own SPIs' in respect of RE and consider the inclusion of the HCAA SPIs as appropriate to their operation. - Use of FDM data (air operators, as applicable) to support monitoring and analysis of RE occurrences. - Implementation of EU EAPPRE recommendations as appropriate.
EL.CAT.07	To continuously improve safety of ground	<p>Ground damage</p>	<ul style="list-style-type: none"> - Continuous identification of threats followed by relevant

	movements other than the runway.	<p>Precursors to consider:</p> <ol style="list-style-type: none"> 1. near collisions. 2. taxiway incursions. 	<p>risk assessment as part of their operation.</p> <ul style="list-style-type: none"> - Develop and monitor their own SPIs' in respect of GCOL and consider the inclusion of the HCAA SPIs as appropriate to their operation.
EL.CAT.08	To continuously improve safety by assessing and mitigating the risks relating to Fire or Smoke on aircraft events.	<p>Fire, smoke and pressurisation</p>	<ul style="list-style-type: none"> - Continuous identification of threats followed by relevant risk assessment as part of their operation. - Develop and monitor their own SPIs' in respect of FIRE and consider the inclusion of the HCAA SPIs as appropriate to their operation.
EL.CAT.13	To continuously improve safety by assessing and mitigating the risks relating to Fatigue-related events.	<p>Fatigue occurrences in flight operations</p> <p>Precursor to consider: Exceedances to FTL (cockpit flight crew).</p>	<ul style="list-style-type: none"> - Continuous identification of threats followed by relevant risk assessment as part of their operation. - Develop and monitor their own SPIs' in respect of FTL and consider the inclusion of the HCAA SPIs as appropriate to their operation.

Table 4: Operational Level in Rotorcraft

SPI number	Safety Objective	SPI	Safety Performance Target (CAT/ROTORCRAFT))
EL.ROT.01	Continuous development of safety performance including the implementation of an SMS.	Performance of the organisation’s SMS - (For CAT operators only)	Review of the organisation’s SMS for effective implementation, including correct identification of threats and risks, and implementation of required actions.
EL.ROT.02	To continuously improve safety by assessing and mitigating the risks relating to Loss Of Control In-Flight events.	Loss of Control In-Flight (LOC-I) Precursors to consider: <ol style="list-style-type: none"> 1. Loss of tail rotor effectiveness. 2. Vortex Ring. 3. External load resulted to LOC-I. 4. Powerplant/system/component failures or malfunctions affecting helicopter controllability and performance. 5. Weather encounters (Turbulence, Windshear / Microburst) events. 	<ul style="list-style-type: none"> - Continuous identification of threats followed by relevant risk assessment as part of their operation. - Develop and monitor their own SPIs’ in respect of LOC-I, and consider the inclusion of the HCAA SPIs as appropriate to their operation. - Ensure the implementation of the following exercises: <ul style="list-style-type: none"> • settling with power and vortex ring • loss of tail rotor effectiveness
EL.ROT.03	To continuously improve safety by assessing and mitigating the risks relating to Controlled Flight Into Terrain events.	Controlled Flight Into Terrain (CFIT), including obstacle collision in flight Precursors to consider: <ol style="list-style-type: none"> 1. Incorrect Altimeter settings. 2. Descent below Minimum Sector (or Safety as applicable) Altitude. 3. Poor visibility, brown out. 4. Near collision with obstacles, object, terrain during low-altitude operation, take-off and landing. 	<ul style="list-style-type: none"> -- Continuous identification of threats followed by relevant risk assessment as part of their operation. - Develop and monitor their own SPIs’ in respect of CFIT and consider the inclusion of the HCAA SPIs as appropriate to their operation.
EL.ROT.04	To continuously improve safety by assessing and mitigating the risks relating to Mid-Air collisions and near misses events.	Airprox/ Mid-Air collisions (MAC) Precursors to consider: <ol style="list-style-type: none"> 1. Near airborne collision with aircraft. 2. Airspace infringement. 	<ul style="list-style-type: none"> - Continuous identification of threats followed by relevant risk assessment as part of their operation. - Develop and monitor their own SPIs’ in respect of MAC and consider the inclusion of

		3. Near airborne collision with UAS.	the HCAA SPIs as appropriate to their operation.
EL.ROT.05	To continuously improve safety of the runway by assessing and mitigating the risks relating to Runway Incursion events.	Runway Incursion (by aircraft, vehicle, or person)	<ul style="list-style-type: none"> - Continuous identification of threats followed by relevant risk assessment as part of their operation. - Develop and monitor their own SPIs' in respect of RI and consider the inclusion of the HCAA SPIs as appropriate to their operation.
EL.ROT.06	To continuously improve safety of the runway by assessing and mitigating the risks relating to Runway Excursion events.	Runway/FATO (TLOF) Excursion Precursors to consider: 1. Abnormal Runway Contact (Hard/heavy landings, rotor strikes, tail rotor strikes). 2. Dynamic/static roll over.	<ul style="list-style-type: none"> - Continuous identification of threats followed by relevant risk assessment as part of their operation. - Develop and monitor their own SPIs' in respect of RE and consider the inclusion of the HCAA SPIs as appropriate to their operation.
EL.ROT.07	To continuously improve safety of ground movements other than the runway.	Ground damage Precursors to consider: 1. Near collision with aircraft, vehicle, person, building structure, etc.	<ul style="list-style-type: none"> - Continuous identification of threats followed by relevant risk assessment as part of their operation. - Develop and monitor their own SPIs' in respect of RE and consider the inclusion of the HCAA SPIs as appropriate to their operation.
EL.ROT.08	To continuously improve safety by assessing and mitigating the risks relating to Fire or Smoke on aircraft events.	Fire or smoke on helicopter	<ul style="list-style-type: none"> - Continuous identification of threats followed by relevant risk assessment as part of their operation. - Develop and monitor their own SPIs' in respect of FIRE and consider the inclusion of the HCAA SPIs as appropriate to their operation.
EL.ROT.10	To continuously improve safety by assessing security-safety related events.	Security Precursors to consider: 1. Laser interference 2. Unruly or disruptive passenger	<ul style="list-style-type: none"> - Continuous identification of threats followed by relevant risk assessment as part of their operation. - Develop and monitor their own SPIs' in respect of SECURITY and consider the inclusion of the HCAA SPIs as appropriate to their operation.

EL.ROT.13	To continuously improve safety by assessing and mitigating the risks relating to Fatigue-related events.	Fatigue occurrences in flight operations Precursors to consider: Exceedances to FTL.	<ul style="list-style-type: none"> - Continuous identification of threats followed by relevant risk assessment as part of their operation. - Develop and monitor their own SPIs' in respect of FTL and consider the inclusion of the HCAA SPIs as appropriate to their operation.
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Table 5: Operational Level in Air Traffic Management/Air navigation Services (ATM/ANS)

SPI number	Safety Objective	SPI	Safety Performance Target (HASP)
EL.ATM.01	Continuous development of safety performance including the implementation of an SMS.	Performance of the organisation's SMS.	Review of the organisation's SMS for effective implementation, including correct identification of threats and risks, and implementation of required actions.
EL.ATM.02	To continuously improve safety by assessing and mitigating the risks relating to Mid-Air collisions and near misses' events.	Airprox/ Mid-Air collisions (MAC) Precursors to consider: <ol style="list-style-type: none"> 1. TCAS RA 2. Separation Minima Infringements 3. Airspace Infringements 4. Level Busts 5. Near airborne collisions with RPAS with direct or indirect contribution of ATM in MAC risk category.	<ul style="list-style-type: none"> - Continuous identification of threats followed by relevant risk assessment as part of their operation. - Develop and monitor their own SPIs' in respect of MAC and consider the inclusion of the HCAA SPIs as appropriate to their operation. - Use of operational data (e.g: radar data) to support monitoring and analysis of MAC occurrences. - Implementation of EU EAPAIRR recommendations as appropriately feasible.
EL.ATM.05	To continuously improve safety of runway by assessing and mitigating the risks relating to Runway Incursion events.	Runway Incursion (vehicle, aircraft, or person) with a direct or indirect contribution of ATM in RI risk category.	<ul style="list-style-type: none"> - Continuous identification of threats followed by relevant risk assessment as part of their operation. - Develop and monitor their own SPIs' in respect of RI and consider the inclusion of the HCAA SPIs as appropriate to their operation.

			<ul style="list-style-type: none"> - Implementation of EU EAPPRI recommendations as appropriate.
EL.ATM.06	To continuously improve safety of the runway by assessing and mitigating the risks relating to Runway Excursion events.	Runway Excursion with a direct or indirect contribution of ATM in RE risk category	<ul style="list-style-type: none"> - Continuous identification of threats followed by relevant risk assessment as part of their operation. - Develop and monitor their own SPIs' in respect of RE and consider the inclusion of the HCAA SPIs as appropriate to their operation. - Implementation of EU EAPPRE recommendations as appropriate.
EL.ATM.14	To maintain a high level of ATM/ANS technical systems and relevant functions with minimal disruptions and effects on safety.	CNS failures <i>(Communication – Navigation – Surveillance)</i>	<ul style="list-style-type: none"> - Continuous identification of threats followed by relevant risk assessment as part of their operation. - Failures are to be monitored for trends.

Table 6: Operational Level in Aerodromes and Ground Handling

SPI number	Safety Objective	SPI	Safety Performance Target
EL.ADR.01	Continuous development of safety performance including the implementation of an SMS.	Performance of the aerodrome and ground handling operator's SMS	Review of the organisation's SMS for effective implementation, including correct identification of threats and risks, and implementation of required actions.
EL.ADR.02	To maintain a high level of safety in relation to LOC-I events wildlife control in the aerodrome including potential bird strikes and wildlife collisions.	LOC-I Precursors to consider: <ol style="list-style-type: none"> 1. Bird/wildlife strikes 2. Load sheet and load mass errors 	<ul style="list-style-type: none"> - Continuous identification of threats followed by relevant risk assessment as part of their operation. - Maintain a bird/wildlife hazard control programme and adequate control/procedures for baggage and cargo loading. - Introduce/Evaluate mitigation measures and review their effectiveness as appropriate.
EL.ADR.05	To continuously improve safety of the runway by assessing and mitigating the risks relating to Runway Incursion events.	Runway Incursion (vehicle, aircraft, or person)	<ul style="list-style-type: none"> - Continuous identification of threats followed by relevant risk assessment as part of their operation (<i>apart EAPPRI recommendations consider RI related to Marking deficiencies, lighting failure, and signs incorrect</i>). - Develop and monitor their own SPIs' in respect of RI and consider the inclusion of the HCAA SPIs as appropriate to their operation - Implementation of EU EAPPRI recommendations as appropriate.
EL.ADR.06	To continuously improve safety of the runway by assessing and mitigating the risks relating to Runway Excursion events.	Runway Excursion Precursors to consider: <ol style="list-style-type: none"> 1. Aerodrome infrastructure and serviceability issues. 	<ul style="list-style-type: none"> - Continuous identification of threats followed by relevant risk assessment as part of their operation (<i>consider RE related to Deficiencies in runway condition and related equipment, marking deficiencies and lighting</i>

			<p><i>failure, papi lights failure-corruption-position).</i></p> <ul style="list-style-type: none"> - Develop and monitor their own SPIs' in respect of RE and consider the inclusion of the HCAA SPIs as appropriate to their operation. - Implementation of EU EAPPRE recommendations as appropriate. - preventive maintenance programme.
EL.ADR.07	To maintain a high level of safety on aerodrome operations excluding runway.	<p>Ground damage</p> <p>Precursors to consider:</p> <ol style="list-style-type: none"> 1. near collisions with vehicle, person, equipment, infrastructure, or another aircraft 2. taxiway incursions by aircraft, vehicle, person 3. aerodrome infrastructure serviceability 	<ul style="list-style-type: none"> - Continuous identification of threats followed by relevant risk assessment as part of their operation (<i>consider G-COL related to markings with deficiencies, incorrect parking of aircraft or procedures not followed, malfunctions of APIS systems, vehicle operation, low visibility conditions, ground handling servicing).</i> - Failures are to be monitored for trends. - Introduce/Evaluate mitigation measures and review their effectiveness as appropriate.
EL.ADR.08	To continuously improve safety by assessing and mitigating the risks relating to Fire.	<p>Fire, smoke.</p> <p>Precursors to consider:</p> <ol style="list-style-type: none"> 1. Refueling operation events 2. Condition of ground servicing vehicle and equipment. 	<ul style="list-style-type: none"> - Continuous identification of threats followed by relevant risk assessment as part of their operation. - Maintain safe fueling operations according to JIG. - Maintain ground servicing vehicles and equipment in well-functioning condition. - Introduce/Evaluate mitigation measures and review their effectiveness as appropriate.
EL.ADR.12	To maintain a high level of safety in relation to FOD in aerodrome areas.	FOD in runway	<ul style="list-style-type: none"> - Continuous identification of threats followed by relevant risk assessment as part of their operation. - Develop and monitor their own SPIs' in respect of FOD

			<p>and consider the inclusion of the HCAA SPIs as appropriate to their operation.</p> <ul style="list-style-type: none"> - Introduce/Evaluate mitigation measures and review their effectiveness as appropriate.
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Table 7: Airworthiness

SPI number	Safety Objective	SPI	Safety Performance Target
EL.AIR.01	Continuous development of safety performance including the implementation of an SMS.	Performance of CAMO organisation's SMS	Review of the organisation's SMS for effective implementation, including correct identification of threats and risks, and implementation of required actions.

**Table 8: Air Training Organisations and General Aviation (NCO) -
Aeroplane**

SPI number	Safety Objective	SPI	Safety Performance Target
EL.GA.01	Continuous development of safety performance including the implementation of an SMS.	Performance of the Air Training Organisation’s SMS and Safety and reporting culture in General Aviation	For ATO - Review of the organisation’s SMS for effective implementation, including correct identification of threats and risks, and implementation of required actions. Reporting trends from ATO and GA.
EL.GA.02	To continuously improve safety by assessing and mitigating the risks relating to Loss Of Control In-Flight events.	Loss of Control In-Flight (LOC-I) Precursors to consider: 1. Stall warnings (Stick shaker). 2. Flight parameter exceedances (deviations from intended airspeed, pitch, bank/roll). 3. Powerplant/system/component failures or malfunctions affecting aircraft controllability and performance. 4. Fuel-related events (fuel exhaustion, fuel starvation/mismanagement, fuel contamination/wrong fuel). 5. Weather encounters events (Turbulence, Windshear / Microburst).	For ATO: - Continuous identification of threats followed by relevant risk assessment as part of their operation. - Develop and monitor their own SPIs’ in respect of LOC-I and consider the inclusion of the HCAA SPIs as appropriate to their operation. - Ensuring all flight crews are trained at a proper level for upset recognition and recovery (UPRT) procedures as appropriate. For GA associations: Encourage all relevant occurrences to be reported.
EL.GA.03	To continuously improve safety by assessing and mitigating the risks relating to Controlled Flight Into Terrain events.	Controlled Flight Into Terrain (CFIT) Precursors to consider: 1. Incorrect Altimeter settings. 2. Descent below Minimum Sector (or Safety as applicable) Altitude. 3. Poor visibility.	For ATO: - Continuous identification of threats followed by relevant risk assessment as part of their operation. - Develop and monitor their own SPIs’ in respect of CFIT and consider the inclusion of the HCAA SPIs as appropriate to their operation. - Ensuring all flight crews are trained at a proper level for upset recognition and

			<p>recovery (UPRT) procedures as appropriate.</p> <p>For GA associations:</p> <ul style="list-style-type: none"> - Encourage all relevant occurrences to be reported.
EL.GA.04	To continuously improve safety by assessing and mitigating the risks relating to Mid-Air collisions and near-miss events.	<p>Airprox/ Mid-Air collisions (MAC)</p> <p>Precursors to consider:</p> <ol style="list-style-type: none"> 1. Near airborne collisions with aircraft. 2. Level Busts. 3. Airspace infringements. 	<p>Cooperation with HASP for the recognition of hot spots for MAC and AI</p> <p>For ATO</p> <ul style="list-style-type: none"> - Continuous identification of threats followed by relevant risk assessment as part of their operation. - Develop and monitor their own SPIs' in respect of MAC and consider the inclusion of the HCAA SPIs as appropriate to their operation. <p>For GA associations</p> <p>Communicate relevant information to members and organise workshops and safety events.</p>
EL.GA.05	To continuously improve safety of the runway by assessing and mitigating the risks relating to Runway Incursion events.	Runway Incursion (vehicle, aircraft, or person)	<p>For ATO:</p> <ul style="list-style-type: none"> - Continuous identification of threats followed by relevant risk assessment as part of their operation. - Develop and monitor their own SPIs' in respect of RI and consider the inclusion of the HCAA SPIs as appropriate to their operation. - Ensuring all flight crews are trained at a proper level for upset recognition and recovery (UPRT) procedures as appropriate. <p>For GA associations:</p> <ul style="list-style-type: none"> - Encourage all relevant occurrences to be reported.
EL.GA.06	To continuously improve safety of the runway by assessing and mitigating the risks relating to Runway Excursion events.	<p>Runway Excursion</p> <p>Precursors to consider:</p> <ol style="list-style-type: none"> 1. Unstabilised approach that continue to landing. 2. Abnormal Runway Contact. 	<p>For ATO:</p> <ul style="list-style-type: none"> - Continuous identification of threats followed by relevant risk assessment as part of their operation.

		<p>3. Rejected take-off.</p> <p>4. System/component/powerplant failures or malfunctions that leads to a runway excursion.</p>	<ul style="list-style-type: none"> - Develop and monitor their own SPIs' in respect of CFIT and consider the inclusion of the HCAA SPIs as appropriate to their operation. - Ensuring all flight crews are trained at a proper level for upset recognition and recovery (UPRT) procedures as appropriate. <p>For GA associations:</p> <ul style="list-style-type: none"> - Encourage all relevant occurrences to be reported.
EL.GA.07	To continuously improve safety of ground movements other than the runway.	<p>Ground damage</p> <p>Precursors to consider:</p> <ol style="list-style-type: none"> 1. near collisions. 2. taxiway incursions. 	<p>For ATO:</p> <ul style="list-style-type: none"> - Continuous identification of threats followed by relevant risk assessment as part of their operation. - Develop and monitor their own SPIs' in respect of GCOL and consider the inclusion of the HCAA SPIs as appropriate to their operation. <p>For GA associations:</p> <ul style="list-style-type: none"> - Encourage all relevant occurrences to be reported.

Table 9: Unmanned Aircraft Systems (UAS)

SPI number	Safety Objective	SPI	Safety Performance Target
EL.UAS.01	To continuously improve safety by assessing and mitigating the risks in relation to UAS activities.	Risk assessment depending on the type of operation	<ul style="list-style-type: none"> - Continuous identification of threats followed by relevant risk assessment as part of their operation. - Development of UAS users Safety Objectives, SPI's, SPT's with a reduction in trends. - Positive trends in UAS related incidents

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HELLENIC PLAN for AVIATION SAFETY

2024-2025

Volume II

HPAS Actions

5. Introduction of Hellenic PAS Volume II

5.1 Reference Period 2023-2025

Hellenic PAS 2023 - 2025 Volume I outlines the strategic priorities identified for the reference period 2023 – 2025. Volume II of Hellenic PAS provides the actions at the State level that are planned for the reference period to address the strategic priorities and associated key risk areas, across all domains of the civil aviation system in Greece.

Hellenic PAS Volume II will be updated in the last quarter of 2024 to include any new actions identified during the reference period and to provide a status update on the existing actions. Hellenic PAS Volume I and Volume II will be issued in the last quarter of 2025 to address the next HPAS reference period 2026-2028.

5.2 Structure of HPAS Volume II

This volume of the HPAS provides the details of the safety actions that are currently in place to implement the strategic priorities discussed in HPAS volume I. This version of the HPAS includes the following chapters:

- **Chapter 6** Safety Management
- **Chapter 7** Competence of personnel
- **Chapter 8** Flight Operations (CAT/NCC) – Fixed wing
- **Chapter 9** Rotorcraft Operations
- **Chapter 10** Air Traffic Management/Air Navigation Services (ATM/ANS)
- **Chapter 11** Aerodromes and Ground Handling
- **Chapter 12** Airworthiness
- **Chapter 13** General Aviation
- **Chapter 14** Unmanned aircraft systems

As the HPAS addresses several different risk areas, a consistent template is provided in each sub-chapter as follows:

- **Header** Safety risk area headline.
- **Safety Issue** a brief statement about the safety issue.
- **Safety Objective** a statement of the objectives of the actions in this safety area
- **Safety Performance Indicators** what is monitored to establish progress toward achieving safety objectives.
- **Organisations** a brief outline of the organisations involved and their roles.
- **Actions** action statement with target dates (including ongoing).

Each safety issue identified in this Volume has an associated safety objective and each safety objective has associated safety performance indicators and safety targets.

HPAS Volume I Chapter 4 provides the detailed list of safety objectives, safety performance indicators and safety performance targets in use by HCAA and overseeing operators in Hellenic territory.

5.3 Overview of HPAS Volume II

5.3.1 Chapter 6 Safety Management

Chapter 6 includes the actions to address risk management and regulatory oversight at the State level which falls largely under the responsibility of HCAA. The actions address all components of the State Safety Program including, safety policy implementation, HCAA resources, risk management, safety assurance (oversight and performance monitoring) and safety promotion.

The main objective of this chapter is to build an effective oversight environment that takes into account areas of greatest safety concern through risk-based oversight planning and performance-based oversight (RBO/PBO). The new HCAA during the next two years will manage to fulfil the resources and competent staff needed to enable the RBO/PBO oversight environment.

The RBO/PBO environment requires continuous improvement in the safety management system developed by HCAA to ensure that key decision-making in RBO/ PBO is supported to the greatest extent possible **by data-based safety intelligence**. HCAA system development projects (ECCAIRS 2, digital operation management system) will have a key supporting role to play in this regard. The Chapter also focuses on improving the ability to share safety information in all domains in the civil aviation system to support risk management and safety promotion.

Chapter 6 also addresses the need for an integrated approach to manage risks that are not entirely contained within the aviation domain. Examples include Cybersecurity, the war in Ukraine, etc.

5.3.2 Chapters 7 to 14 Operational Risks

Operational risks include the safety issues of negative safety outcomes arising from aviation operational activities across all domains of the civil aviation system, including flight operations, air navigation services, aerodrome operations, maintenance, training, general aviation, etc. These safety issues are identified through reporting ([HCAA ASR 2022](#)), oversight, collaboration with organisations and Volume III of the EASA EPAS. The actions that are included in these chapters are based on [ICAO GASR \(Doc 10161\)](#), EASA [EPAS Volume II](#) and collaboration of the members of HCAA Safety Committee. As it is the first edition of HPAS an effort has been carried out from Safety Management and Occurrence Reporting Section (SMOR) to agree with the proposed actions with the regulated organisations in the highest level that could be achieved.

Safety issues have been developed on an aviation domain basis following the EASA EPAS Volume II logic:

- Competence of personnel
- Flight Operations Fixed Wing (CAT/NCC)
- Rotorcraft operations
- Air Traffic Management / Air Navigation Services (ATM/ANS)

- Aerodrome Operations and Ground Handling
- Airworthiness
- General Aviation
- Unmanned Aircraft Systems

The management of operational risks is the responsibility of the regulated organisations (e.g., via SMS) and persons, however, the HPAS identifies the actions taken at State level to support civil aviation in addressing these operational risks.

5.3.3 Appendices to Volume II

Appendices are included to address:

- Glossary of terminology used ([APPENDIX I](#)).
- National Safety Issue log ([APPENDIX II](#)).
- Link between EPAS and Hellenic PAS ([APPENDIX III](#)).

5.3.4 Actions in the HPAS

The actions in the HPAS are addressed to HCAA and to regulated organisations and they are designed using the tools available in the States safety oversight system. This means that the actions in the Plan include:

Safety Policy	Actions to implement new or amended policy and regulations in the State.
Human Resources	Actions that relate to the provision and maintenance of sufficient and competent regulatory staff.
Safety Oversight	Actions that require specific areas of concern to be audited/inspected, and that are planned and performed as part of the scheduled oversight plan or special activities.
Safety Analysis	Actions that require detailed analysis, risk assessment into areas of safety concern.
Performance Monitoring	Actions that relate to monitoring of safety performance to ensure that safety objectives are being achieved.
Safety Promotion	Actions that target the delivery of the latest safety information using specific content and delivery methods to suit the target audience.

6. Safety Management

6.1 Continuously improve safety management at State level

6.1.1 Safety Issue

ICAO Standards and Recommended Practices (SARPs) in Annex 19 requires the implementation of State Safety Programme (SSP) and HCAA has been assigned responsibility for this under law 4757/2020. The State Safety Programme and associated National Plan for Aviation Safety (HPAS) is subject to continuous improvement and evolution to address emerging risks.

6.1.2 Safety Objective

To continuously improve the implementation of aviation safety management at State level in Greece.

6.1.3 Safety Performance Indicators (Ref HPAS Volume I, Chapter 4 for details)

System level SPI: EL.SSP.01, EL.SSP.05, EL.SSP.03, EL.SSP.04 at State-level.

6.1.4 Organisations and Roles

HCAA:

- continuously review and check the implementation of aviation safety policy,
- implementation of SSP/HPAS and identification of State safety objectives.

Industry (regulated organisations):

- awareness, consultation, and consideration of State safety objectives.

6.1.5 Actions

ACTIONS	TARGET DATE
EL.0101: Implementation and maintenance of SSP	
RESPONSIBLE ENTITY: HCAA	
HCAA will continuously improve safety management at State level by	
a) Issuing of a new State Safety Programme according to requirements of Annex 19 substituting the existing one from 2016.	Q3 2024
b) Implementing new MOUs with the relevant Authorities (Hellenic SIA & Military Authorities).	Q4 2024
c) Implementing and improving the safety management processes in HCAA by re-evaluating the existing HCAA manuals and procedures.	CONTINUOUS
d) Conducting initial SSP gap analysis according to SSP Protocol Questions and making self-assessment State Safety Programme through ICAO SSPIA and ensuring ongoing updates of ICAO USOAP CMA online platforms.	Q3 2024

e) Enhancing the oversight capabilities of HCAA by recruiting new inspectors and conducting the necessary training programme.	Q4 2025
f) Continuously evaluating the SPIs in State level.	CONTINUOUS
<p>EPAS Reference MST.0001 (Member States to give priority to the work on SSPs) GASR Reference: STATE SEI-13 - Start of SSP implementation at the national level STATE SEI-14 - Strategic allocation of resources to start SSP implementation STATE SEI-15 - Strategic collaboration with key aviation stakeholders to start SSP implementation STATE SEI-16 - Strategic collaboration with key aviation stakeholders to complete SSP implementation</p>	
g) Providing assurance that the safety objectives of the HPAS are being met.	CONTINUOUS
h) Continuously including SMS promotional material developed by European Safety Promotion Network, EASA and SMICG in SMS training and effective implementation delivered by HCAA for regulators and industry (<i>relevant references are included in the EPAS MST.0002</i>).	CONTINUOUS
i) Creating special section for safety promotion at the site of HCAA	Q2 2024
<p>EPAS Reference: MST.002 (promotion of SMS) GASR Reference: INDUSTRY SEI-5- Improvement of industry compliance with the applicable SMS requirements</p>	
EL.0102: SMS assessment	
RESPONSIBLE ENTITY: HCAA	
HCAA will continuously assessing safety management performance of regulated organisations in Greece by:	–
a) Updating the manual of Oversight of Safety Management Systems and Occurrence Reporting by using the new edition of MS Assessment tool of EASA.	Q2 2024
b) Establishing metrics for the effectiveness of SMS by organisations in Greece to support the risk and performance-based oversight programme of HCAA to better support the safety review and safety oversight processes at State, domain, and organisation levels.	Q4 2024
c) Providing specialised training to HCAA inspectors on the effective implementation of SMS by organisations (including training programmes from ICAO as applicable).	Q2 2025
d) Integrated SMS oversight <i>Many organisations that hold multiple certificates find it most effective to develop an integrated SMS to capture cross domain risks and develop cross domain mitigating actions. The HCAA is supportive of this approach and will in these cases develop processes to provide for a cross-domain oversight approach (e.g. one SMS one audit approach) where this is</i>	Q4 2024

<i>feasible on a case by case basis).</i>		
e) Accepting proportionate SMS for small organisations <i>As SMS regulatory requirement's role out in different domains (e.g. Airworthiness), HCAA would like to provide better support to organisations, particularly small organisations, with their SMS implementation proportionate to the size of the organisation and the complexity of its operations. HCAA will use best available international guidance in this regard (e.g. SMICG Doc "SMS for Small Organisations", and SMICG Doc "SMS small organisations – considerations for regulators").</i>		Q4 2024
GASR Reference: Industry SEI-5C - Utilize available guidance material (e.g. from States or non-governmental organizations) to assist with SMS implementation		
f) HCAA will provide feedback on the use of the tool to EASA via the SM TeB and the status of the compliance of SMS requirements by the regulated organisations.		Q2 2025
EPAS Reference: MST.0026 GASR Reference: STATES SEI 19C - Ensure that the Civil Aviation Safety Inspector workforce is trained to perform safety oversight of service providers that have implemented SMS		
EL.0103: HCAA to establish and maintain a National Plan for Aviation Safety (NASP)		
RESPONSIBLE ENTITY: HCAA		
a) HCAA will establish a NASP		Q1 2024
b) HCAA continuously monitors and reviews the actions of the HPAS.		CONTINUOUS
c) HCAA representatives will actively participate in ICAO/EASA panels and advisory bodies to ensure HPAS aligns with GASP and EPAS.		CONTINUOUS
d) HCAA continuously monitors the Key Risk Areas per domain determined through the EU SRM and through the Hellenic ASR.		CONTINUOUS
e) HCAA continuously will identify key safety issues as part of safety management (occurrence reporting, risk assessment by using ERCS, establishment of national safety risk log, meetings with HCAA Safety Committee, meetings with key regulated organisations) and safety oversight activities.		CONTINUOUS
f) HCAA continuously will collaborate with key aviation regulated organisations through HCAA Safety Committee for the resolution of safety issues.		CONTINUOUS
g) HCAA continuously will evaluate the reported data by regulated organisations in ECCAIRS2 platform and will inform them through the annually safety review, the oversight activities, the National Safety Committee, and safety promotion tasks.		CONTINUOUS

<p>h) HCAA will make use of IT tools to support safety analysis, make collaborations with experts of regulated organisations to support risk modelling accompanied with relevant safety actions.</p>	<p>CONTINUOUS</p>
<p>EPAS Reference: MST.0028 GASR Reference: STATES SEI-11 - Strategic collaboration with key aviation stakeholders to enhance safety in a coordinated manner. STATES SEI-17 - Establishment of safety risk management at the national level STATES SEI-18 - Establishment of safety risk management at the national level STATES SEI-19 - Acquisition of resources to increase the proactive use of risk modelling capabilities. STATES SEI-20 - Strategic collaboration with key aviation stakeholders to support the proactive use of risk modelling capabilities. STATES SEI-21 - Advancement of safety risk management at the national level</p>	
<p>i) HCAA will promote the benefits of good data quality in occurrence reports by creating relevant helping material, webinars or workshops with regulated organisations and general aviation representatives about the information that is required by HCAA for the analysis of occurrence reports and the follow up of relevant SPIs.</p>	<p>Q2 2024</p>
<p>EPAS Reference: MST.0043</p>	
<p>EL.0104: Foster a common understanding and oversight of human factors</p>	
<p>RESPONSIBLE ENTITY: HCAA</p>	
<p>a) Ensuring Human Factors principles are fully understood by the inspectors and are fully considered in Safety Management processes.</p>	<p>Q1 2025</p>
<p>b) Training of the inspectors on ICAO Human Performance Manual (Doc 10151)</p>	<p>Q1 2025</p>
<p>c) Follow the EASA promotion material as guidance on the implementation of the training of regulatory personnel of HCAA (EASA SPT.0115).</p>	<p>CONTINUOUS</p>
<p>EPAS Reference: MST.0037</p>	
<p>EL.0105: Promotion and assessment of safety culture at regulated organisations</p>	
<p>RESPONSIBLE ENTITY: HCAA</p>	
<p>Improving safety culture</p>	
<p>a) HCAA will commence to provide safety promotion material to regulated organisations including Helicopter operators and GA (see also EL.0801)</p>	<p>Q2 2024</p>
<p>b) HCAA will continuously monitor of occurrence reporting rates of all domains</p>	<p>CONTINUOUS</p>
<p>c) HCAA will reissue of the SMS and EU 376/2014 HCAA oversight manual and will incorporate metrics (indicators) on the safety culture (use of SMICG Industry Safety Culture Evaluation Tool and Guidance) and relevant guidance from EASA.</p>	<p>Q2 2024</p>
<p>d) HCAA with cooperation with organisations will plan workshops and</p>	<p>CONTINUOUS</p>

specialised meetings to analyse identified safety issues.	
<p>EPAS Reference: MST.0042 and MST.0027 GASR Reference: REGIONS SEI15 - Regional collaboration with key aviation stakeholders to support the proactive use of risk modelling. STATES SEI 20 - Strategic collaboration with key aviation stakeholders to support the proactive use of risk modelling capabilities.</p>	
EL.0106a: State Emergency Plan on victims and their families of aircraft accidents	
RESPONSIBLE ENTITY: HCAA	
a) HCAA will publish the National Policy on Assistance to Aircraft Accident victims and their families.	Q3-2024
b) HCAA will commence oversight activities on the implementation of Air Operators' Family Assistance Plans.	Q4 2024

6.2 Commencement of the operation of the new HCAA safety regulation and oversight functions

6.2.1 Safety Issue

In accordance with LAW 4757/2020 the new HCAA commenced its operation in January 2022, by separating from the old HCAA which now is renamed to Hellenic Aviation Service Provider (HASP) and is responsible for the operation of 24 Airports and the provision of Air Navigation Services in Greece. This major organisational change impacts the State Safety Programme and robust change management procedures must be applied to ensure there is no disruption to regulatory and oversight functions, after the change.

6.2.2 Safety Objective

To ensure there is no disruption to regulatory and oversight functions during the “first steps” of the new authority.

6.2.3 Safety Performance Indicators (Ref HPAS Volume I, Chapter 4 for details)

Regulatory compliance and safety performance indicators at HCAA regulatory and organisational levels e.g. EL.SSP.03.

6.2.4 Organisations/Roles

Hellenic Civil Aviation Authority:

- Maintain aviation policy
- project implementation at regulatory and organisational level

6.2.5 Actions

ACTIONS	TARGET DATE
EL.0106: Implementation of a robust regulatory and oversight Authority	
RESPONSIBLE ENTITY: HCAA	
a) Continuous assessment of the necessary resources (building facilities, IT tools, personnel, economic earnings)	CONTINUOUS
b) Issuing of all the necessary regulatory and manual documentation	CONTINUOUS
c) Implementation of all the necessary training programmes for inspectors	Q4 2025
d) New SSP document drafted to reflect new regulatory organisation and will be issued post-separation	Q3 2024
e) Full Implementation of the HCAA Compliance Monitoring Programme (selection and training of CMS Auditors for all HCAA domains, establishment of Management Evaluation Meetings)	Q2 2025

6.3 Integrated Risk Management (Safety and Security)

6.3.1 Safety Issue

The Basic Regulation addresses some of the interdependencies between safety and security in civil aviation and requires the EC, the Agency and the Member States to cooperate on security matters where interdependencies between civil aviation safety and security exist.

The implementation of aviation security measures can have a direct impact on the safety aspects of aerodrome or aircraft operations. Airport, aircraft, or in-flight security are the areas where the interdependencies are highly visible and where any security requirements should also consider possible potential impacts on aviation safety.

Moreover, Information Security risks have the potential to generate events that can have direct consequences on the safety of flight. Therefore, the interactions between information security management systems (ISMS) and safety management systems (SMS) are relevant for addressing information security risks, events, and incidents.

Subsequent the adoption of the new Part-IS regulation framework for the management of information security risks with a potential impact on aviation safety for organisations and competent authorities and the publication of related AMC and GM, the implementation of a number of activities to support the implementation of the new regulatory framework, are paramount.

6.3.2 Safety Objectives

To continuously improve aviation safety through an integrated approach to risk management in the domains of safety and security.

6.3.3 Safety Performance Indicators (Ref HPAS Volume I, Chapter 4 for details)

Safety and security performance indicators at HCAA regulatory and organisational levels.

Additionally, HCAA shall assess, using adequate performance indicators, the effectiveness and maturity of the ISMS.

6.3.4 Organisations/Roles

HCAA:

- Establish coordination appropriate mechanisms between safety, information security and security reporting systems when there is a potential impact to safety and collaborating mechanisms between safety, information security and security domains of HCAA.

Aviation Industry (regulated organisations):

- responsible for establishing and maintaining safety and security management systems including reporting of safety and security related occurrences to HCAA.
- According with the new regulatory framework (Part-IS) the relevant organisations have to implement ISMS.

6.3.5 Actions

ACTIONS	TARGET DATE
EL.0107: Safety, information security and Security reporting coordination mechanism	
RESPONSIBLE ENTITY: HCAA	
a) Develop integrated risk management approach in safety, information security and security including associated mechanisms, policies and procedures.	Q1 2024
b) Establish mechanism for sharing information on safety, information security and security through ECCAIRS2 platform between safety, information security and security domains in HCAA to address implementation of integrated risk management approach.	Q1 2024
<i>EPAS Reference: MST.0040</i>	
EL.0108: Cybersecurity requirements	
RESPONSIBLE ENTITY: HCAA	
a) Implementing Authority Requirements in forthcoming EU aviation regulations on cybersecurity (Part-IS) and assist affected organisations with implementing the associated Organisation Requirements.	Q4 2025
b) Reviewing synergies between national cybersecurity requirements (e.g., NIS 2 Directive) and those proposed requirements in the safety domain (Part-IS) to ensure efficient implementation.	Q4 2024
c) Developing efficient working methods to support new EU cybersecurity regulations addressing information systems.	Q4 2024
d) Establishing competency/skills requirements for cybersecurity ISMS staff and oversight inspectors.	Q3 2024
e) Launching pilot projects with volunteer organisations to implement Part-IS ahead of the applicability date.	Q2 2024
f) Promoting the reporting of information security events, collecting, and analysing them following the methodology established pursuant to Regulation (EU) 376/2014.	CONTINUOUS
g) Maintaining a high level of awareness through information sharing.	CONTINUOUS
h) Nominating cybersecurity experts for EASA Network of Security Analysts	CONTINUOUS
i) Nominating cybersecurity expert for EASA PART-IS IMPLEMENTATION TASK FORCE.	CONTINUOUS
EL.0109: Conflict zones safety and security issues	
RESPONSIBLE ENTITY: HCAA	
a) Ensuring that the associated conflict zones risks have been considered in the organisations' risk management processes, as appropriate to their operations.	CONTINUOUS

- **Ukraine Crisis**

The Russian Federation’s invasion of Ukraine has resulted in specific hazards for European aviation. EASA published in April 2022 of the “Review of Aviation Safety Issues Arising from the war in Ukraine”, which identifies 20 specific safety issues that need to be considered by organisations that may be impacted by the war in Ukraine.

- **Israel Crisis**

Air operators should closely monitor airspace developments in the region and follow all available aeronautical publications issued by Israeli State authorities, including information shared through the European Information Sharing and Cooperation Platform on Conflict Zones.

They should ensure that a robust risk assessment is in place together with a high level of contingency planning for their operations and be ready for short notice instructions from the Israeli authorities.

RESPONSIBLE ENTITY: Airplane and rotorcraft operators

- a) Ensure that a robust risk assessment is in place together with a high level of contingency planning for their operations and be ready for short notice instructions

CONTINUOUS

6.4 Implementation of Risk-based and Performance-based (RBO/ PBO) Oversight

6.4.1 Safety Issue

HCAA as a new authority has started to implement an oversight programme which is approved every year by the Governor and the Executive Board (G.G FEK/5103 17-9-2023, par. 3.12). Each domain has issued its own manual for risk-based programme and for the domains AIR, OPS, and PEL there has been established an IT tool for following up the implementation of the oversight programme. Since the implementation of the risk-based programmes of various domains is quite new, it needed more effort from domains to reach the “effective” implementation.

6.4.2 Safety Objective

To implement effective risk-based and performance-based oversight methodologies across relevant domains of the Hellenic civil aviation system.

6.4.3 Safety Performance Indicators (Ref HPAS Volume I, Chapter 4 for details)

Availability and use of risk and performance assessment tools in all aviation domains. Use of EASA MS Assessment tool in relevant aviation domains (through the HCAA manual on oversight of EU 376/2014 and SMS of regulated organisations) (EL.SSP.01, EL.SSP.03).

6.4.4 Organisations/Roles

HCAA:

- use of RBO/PBO methodologies in all critical elements of safety oversight.

Aviation Industry (regulated organisations):

- awareness of key safety issues targeted by regulatory oversight for inclusion in their own SMS.

6.4.5 Actions

ACTIONS	TARGET DATE
EL.0110: Risk-based and performance-based oversight	
RESPONSIBLE ENTITY: HCAA	
a) HCAA will ensure adequate human resources are available to support data-based decision making and safety promotion.	Q4 2024
b) HCAA will develop processes to measure the effectiveness of risk-based and performance-based methodologies across relevant domains of the civil aviation system.	Q2 2025
c) HCAA will identify resources needed to support safety intelligence collection and processing, advanced data analysis, risk modelling and information sharing capabilities.	CONTINUOUS
d) Train qualified technical personnel to specialise in risk modelling.	Q4 2024

GASR Reference:

STATES SEI-19 - Acquisition of resources to increase the proactive use of risk modelling capabilities (actions a & b)

6.5 Competency of regulatory personnel

6.5.1 Safety Issue

HCAA must ensure it has sufficient and competent staff to fulfil its obligations under ICAO Annexes and EU and national regulations and must continuously update the competency requirements to address the evolving civil aviation system, new regulatory functions, and emerging risks.

6.5.2 Safety Objective

To ensure that HCAA recruits and retains sufficient and competent staff to oversee the continuously evolving civil aviation system.

6.5.3 Safety Performance Indicators (Ref HPAS Volume I, Chapter 4 for details)

Human resource capacity and training completion rates per HCAA regulatory functional areas (EL.SSP.03).

6.5.4 Organisations/Roles

EASA

- Implementing rules to support competency requirements.

HCAA

- Procurement and training of staff.

6.5.5 Actions

ACTIONS	TARGET DATE
EL.0111: HCAA oversight capabilities	
RESPONSIBLE ENTITY: HCAA	
a) HCAA will ensure that it has sufficient competent inspectorate staff to properly discharge its safety oversight responsibilities through the implementation of task resource analysis per domain.	CONTINUOUS
b) HCAA will establish an effective system to identify and track qualifications and training of existing technical personnel.	Q2 2024
c) HCAA will identify the gaps in qualified technical personnel and training requirements necessary to implement the oversight mandate.	Q3 2024
d) HCAA will make use of RSOOs , RAIOs , or equivalent means, to secure qualified technical personnel to perform those functions which cannot be performed by the State acting on its own.	CONTINUOUS
EPAS Ref MST.0032 a) GASR Reference: STATES - SEI 4 Strategic allocation of resources to enable effective safety oversight STATES - SEI-5 - Qualified technical personnel to support effective safety oversight	
e) HCAA will ensure that inspectorate staff are fully trained to perform	CONTINUOUS

oversight activities in a risk based and performance-based environment in all domains.	
f) HCAA will ensure that relevant inspectorate staff in all domains are fully trained in oversight of organisation management systems, including oversight of safety culture, governance structures, interaction between risk management and performance monitoring, and the use of inspection findings and safety information such as accidents and incidents and where applicable, flight data monitoring (FDM).	Q4 2024
EPAS reference MST.032 c)	
g) Training of inspectors on strengthening SMS oversight capabilities of HCAA <ul style="list-style-type: none"> • SMS Basic Training course delivered to HCAA inspectors and industry to address fundamentals of SMS. • SMS Advanced training course being delivered to HCAA inspectors to address the oversight of SMS, including guidance on the depth of inspection needed to both establish compliance and assess effectiveness of the SMS. 	Q4 2024
GPSR Reference: STATES - SEI 19c (Ensure that the Civil Aviation Safety Inspector workforce is trained to perform safety oversight of service providers that have implemented SMS)	

6.6 Oversight of complex operational models and novelwork practices

6.6.1 Safety Issue

Due to the increased complexity of the aviation industry, the number of interfaces between organisations, their contracted services and regulators has increased, as has the geographic spread of the associated operational and management processes and the introduction of novel work practices. Failure to adequately address the safety risks arising from the growth of organisations with complex business models, and/or novel work practices, could have a detrimental effect on safety.

6.6.2 Safety Objectives

To ensure appropriate processes are in place to oversee complex organisations and new business models or novel work practices.

6.6.3 Safety Performance Indicators (Ref HPAS Volume I, Chapter 4 for details)

Effective SMS processes confirmed for all complex organisations (EL.SSP.01).

Specific guidance for inspectorate on oversight of governance structure of complex organisations (EL.SSP.03).

6.6.4 Organisations/Roles

HCAA:

- implementation of effective processes to oversee the SMS of complex organisations.

Industry – complex organisation:

- ensure SMS addresses risks associated with complex business and operating models and novel work practices.

6.6.5 Actions

ACTIONS	TARGET DATE
EL.0112: Better understanding of the operators' governance structure	
RESPONSIBLE ENTITY: HCAA	
a) HCAA will ensure it has a thorough understanding of operators' governance structure, in particular, extent of outsourcing, influence of financial organisations and of the controlling management personnel, where such personnel are located outside the scope of approval.	CONTINUOUS
b) HCAA will also assist in the development of, and implement, best EU practices in this regard (" Guidance for the oversight of group operations ").	Q4 2024
EPAS Reference: MST.0019, MST.0032(b)	
c) The HCAA will ensure that management system of the operator identifies new hazards by "change management procedure" that are	Q4 2024

introduced by different employment models within an individual operator, increased mobility of pilots, safety-critical services provided by non-certified service providers and (long-term) leasing as part of SMS oversight. Aspects to be considered include:

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

EPAS Reference MST.0019

7. Competence of personnel

The availability of well-trained and competent aviation personnel is paramount to the safety and resilience of the aviation industry. Therefore, ‘competence of personnel’ is a strategic priority.

As new technologies and concepts of operation emerge on the market and the complexity of the aviation system is continuously increasing, it is of key importance to have the right competencies and adapt training methods to cope with new challenges. It is equally important for aviation personnel to take advantage of the opportunities presented by new technologies to enhance safety.

7.1 Language proficiency

7.1.1 Safety Issue

EASA considers language proficiency as an important aviation safety element and joins efforts with ICAO to streamline and harmonise **language proficiency requirements (LPR)**-related activities, as well as to optimise the support provided to Member States and the industry. LPRs are important not just for pilots and ATCOs but also for certain aerodrome personnel such as ground vehicle drivers, and this requirement has recently been reflected in the amendment of the aerodrome regulation with Regulation (EU) 2020/2148 on runway safety.

7.1.2 Safety Objective

Increase safety by continuously assessing and mitigating the risk of ineffective communication or even miscommunication when pilots and/or air traffic controllers are faced with an unexpected situation and need to use plain language.

7.1.3 Safety Performance Indicators (Ref HPAS Volume I, Chapter 4 for details)

Accident, Serious Incident and Incident rates and trends related to ineffective or mis - communication related occurrences involving Hellenic CAT, NCC, SPO and GA aeroplanes and rotorcrafts.

7.1.4 Organisations/Roles

HCAA

- analysis of ineffective or mis - communication occurrence rates and trends and identification of domain-highest safety issues

Industry (Air Operators, Aerodrome Operators, HASP, GA):

- managing ineffective or mis--communication related safety risks and reporting precursor events that could result in an ineffective or mis-communication occurrence.

7.1.5 Actions

ACTIONS	TARGET DATE
EL.0201: Language proficiency requirements (LPR) and implementation (I)	
RESPONSIBLE ENTITY: HCAA	
a) HCAA will focus on the management of the risk of ineffective or mis - communication occurrences with the relevant stakeholders, as appropriate to their operations, as part of safety oversight and performance monitoring activities. (Consideration of occurrences with the root cause of poor language proficiency - EASA SI-0054: Poor language proficiency causing communication breakdown)	CONTINUOUS
EPAS References MST.0028	
b) HCAA will raise the awareness of pilots (both commercial, ATO, and GA), ATCOs and certain aerodrome personnel on LPR implementation (LPRI), establish good practices and facilitate proportionate LPRI, based on operational needs.	CONTINUOUS
c) Follow promotional material of EASA to encourage ATOs to conduct pilot training for CPL, ATPL and IR mainly in English and/or English-language training delivered in parallel with CPL, ATPL and IR training courses.	Q1 2025
d) Develop promotion material on LPR Implementation for personnel conducting activities on manoeuvring areas of aerodromes.	Q4 2024
e) Promote the use of the English language during pilot training for IR, CPL and ATPL.	Q1 2025
f) HCAA should provide feedback to EASA on how the LPRI takes place, including ATOs that deliver training in English.	Q4 2024
EPAS References MST.0033 and SPT.0105	
RESPONSIBLE ENTITY: Regulated organisations	
g) All relevant stakeholders and HCAA to work together on the maintenance, monitoring, and revision of LPRI	Q1 2025
h) to promote the common understanding of LPRI as a safety issue, linked to human factors principles	Q1 2025
i) share lessons learned	Q1 2025
j) encourage progress and harmonisation and develop good practices document to cope with operational, safety and standardisation needs.	Q1 2025
EPAS References MST.0033	

7.2 Learning objectives in the ‘Meteorological Information’ part of the PPL/LAPL

7.2.1 Safety Issue

This issue refers to environmental conditions encountered during the flight and contributing to aircraft upset situations. It includes icing conditions, lightning strikes, high winds, convective weather phenomena such as windshear, up and down drafts or microburst, and obstacle induced turbulence. The safety issue addresses the identification, avoidance, and recovery of such conditions.

7.2.2 Safety Objective

To reduce incidents by encountering adverse weather conditions.

7.2.3 Safety Performance Indicators (Ref HPAS Volume I, Chapter 4 for details) Accident

Serious Incident and Incident rates and trends related to adverse weather conditions.

7.2.4 Organisations/Roles

HCAA

- implement a training syllabus and question bank for PPL/LAPL which includes key learning objectives in relation to meteorological conditions

Industry (ATO):

- cooperate with HCAA in creating training syllabus for PPL/LAPL which includes key learning objectives in relation to meteorological conditions.

7.2.5 Actions

ACTIONS	TARGET DATE
EL.0202: ‘Meteorological Information’ part of the PPL/LAPL	
RESPONSIBLE ENTITY: HCAA	
a) HCAA in direct cooperation with the ATOs will publish training syllabus which will contain basic, non-academic, learning objectives addressing key learning objectives in relation to: <ul style="list-style-type: none"> - <i>the practical interpretation of ground-based weather radar, and strengths and weaknesses</i> - <i>the practical interpretation of meteorological satellite imagery, and strengths and weaknesses</i> - <i>forecasts from numerical weather prediction models, and strengths and weaknesses.</i> 	Q4 2024
EPAS References MST.0036	

RESPONSIBLE ENTITY: ATO	
b) Cooperate with HCAA to establish training syllabus in Meteorological Information according to the objectives of EASA MST.0036 .	Q4 2024

7.3 Oversight capabilities/focus area cases in Part-147

Ensuring the robustness of the certification of aviation maintenance personnel.

7.3.1 Safety Objective

To reduce the risk of fraud in examinations of aviation maintenance personnel.

7.3.2 Organisations/Roles Actions

HCAA:

- Implement focused assessments on fraud cases and collect data on actual fraud cases.

Industry (Part-147 organisations):

- Report actual fraud cases in HCAA.

7.3.3 Actions

ACTIONS	TARGET DATE
EL.0203: Oversight capabilities / focus area: fraud cases in Part-147	
RESPONSIBLE ENTITY: HCAA	
a) HCAA will focus on the risk of fraud in maintenance Part-147 examinations, by adding specific items in audit checklists and collecting data on the actual cases of fraud.	CONTINUOUS
EPAS Reference MST.0035	

8. Flight Operations (CAT/NCC) – Fixed Wing

This chapter groups all the actions in the area of airline, air taxi passenger and cargo operations of Hellenic AOC holders, under EASA regulations with aeroplanes (fixed wing) of a maximum take-off mass above 5700 kg as well as Hellenic registered complex aeroplanes conducting non-commercial operations (NCC) and specialised operations (SPO) involving aeroplanes of all mass categories.

The following paragraphs address the **key risk areas** identified for this aviation domain.

Note: CAT operators are referred also in:

7.1.4 (Language proficiency)

11.4.4 (Bird and Wildlife strikes) (*action EL.0604 d & f*).

14.2.5 (Unmanned aircraft systems) (*action EL.0901 b*)

8.1 Aircraft upset in flight (LOC-I)

8.1.1 Safety Issue

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

Aircraft upset or loss of control is the key risk area ranking highest regarding its cumulative risk score related to fatal accidents in CAT and NCC operations with aeroplanes, and it belongs to the ICAO G-HRC (Global high-risk category of occurrence) but it was also the most frequent occurrence category in the [HCAA ASR 2022](#).

8.1.2 Safety Objective

Increase safety by continuously assessing and improving risk controls to mitigate the risk of loss of control.

8.1.3 Safety Performance Indicators (Ref HPAS Volume I, Chapter 4 for details) Accident,

Serious Incident and Incident rates and trends related to LOC-I category occurrences involving Hellenic CAT, NCC and SPO aeroplanes.

8.1.4 Organisations/Roles

HCAA:

- analysis of LOC-I occurrence rates and trends and identification of domain-highest safety issues

Industry (Air Operators):

- managing LOC-I related safety risks and reporting precursor events that could result in a LOC-I occurrence and informing HCAA Safety Committee.

8.1.5 Actions

ACTIONS	TARGET DATE
EL.0301: Managing the risks of LOC-I in CAT/NCC aeroplanes	
RESPONSIBLE ENTITY: HCAA	
a) HCAA will focus on the management of the risk of LOC-I occurrences with Hellenic AOC holder organisations, as appropriate to their operations, as part of safety oversight and performance monitoring activities.	CONTINUOUS
b) HCAA will follow the Safety promotion of EASA in key risks of this area, such as entry of incorrect performance data and all the relevant SIBs of EASA (e.g. De-icing procedures, risk posed by icing in-flight and potential mitigations - EUR.SPT.0031).	CONTINUOUS
c) HCAA will review of organisational safety objectives and SPIs to ensure they are appropriate and that they consider State level safety objectives (ref HPAS Volume I, Chapter 4) and will focus on contributing factors such as:	CONTINUOUS
<i>i. Distraction</i>	-
<i>ii. Adverse weather</i>	-
<i>iii. Complacency</i>	-
<i>iv. Inadequate standard operating procedures (SOPs) for effective flight management</i>	-
<i>v. Insufficient height above terrain for recovery</i>	-
<i>vi. Lack of awareness of or competence in procedures for recovery from unusual aircraft attitudes</i>	-
<i>vii. Inappropriate flight control inputs in response to a sudden awareness of an abnormal bank angle</i>	-
d) HCAA with cooperation with main AOC holders will provide Bowtie barrier model to address LOC-I from the industry perspective.	Q3 2024
e) HCAA with cooperation OF AOC holders analyse the strength of the identified barriers by considering the occurrences of years 2024-2025.	Q4 2025
EPAS References MST.0028	
GASR Reference:	
Doc 10161 Appendix B OPERATIONAL SAFETY RISKS (OPS) ROADMAP	
f) HCAA will follow the Safety promotion of EASA concerning the new European provisions on pilot training.	CONTINUOUS
EPAS References SPT.0012	

g) HCAA will follow the Safety promotion of EASA on Flight data monitoring (FDM) precursors of operational safety risks	CONTINUOUS
EPAS Reference SPT.0112	
RESPONSIBLE ENTITY: AOC holders	
h) Implement the following GASR LOC-I safety actions:	CONTINUOUS
<i>i. Aircraft upset prevention recovery training in all full flight simulator</i>	-
<i>ii. Type conversion and recurrent training programmes.</i>	-
<i>iii. More time devoted to training multi-crew pilots for the monitoring role.</i>	-
<i>iv. Promote bank angle alerting systems into all multi-engine aircraft.</i>	-
<i>v. Training on manual aircraft handling of approach to stall and stall recovery (including at high altitude).</i>	-
<i>vi. Recurrent training on flight mechanics.</i>	-
<i>vii. Simulator fidelity.</i>	-
i) Validate the effectiveness of the actions through the analysis of FDM and pilot reports (apply safety management methodologies).	CONTINUOUS
j) AOC holders with cooperation with HCAA will provide Bowtie barrier model to address LOC-I from the industry perspective	Q3 2024
k) HCAA with cooperation with AOC holders will analyse the strength of the identified barriers by considering the occurrences of years 2024-2025.	Q4 2025
GASR Reference: Doc 10161 Appendix B OPERATIONAL SAFETY RISKS (OPS) ROADMAP	
l) Pilots, instructors, flight examiners, ATOs, air operators will follow the promotion material concerning the new European provisions on pilot training.	Q4 2023
EPAS References SPT.0012	
m) Identify additional contributing factors, for example:	CONTINUOUS
<i>i. Distraction</i>	-
<i>ii. Adverse weather</i>	-
<i>iii. Complacency</i>	-
<i>iv. Inadequate SOPs for effective flight management</i>	-
<i>v. Insufficient height above terrain for recovery</i>	-
<i>vi. Lack of awareness of or competence in procedures for recovery from unusual aircraft attitudes</i>	-
<i>vii. Inappropriate flight control inputs in response to a sudden awareness of</i>	-

<i>an abnormal bank angle</i>	
n) Develop and implement further actions to mitigate the risk of the identified contributing factors for LOC-I.	CONTINUOUS
<i>GASR Reference:</i> <i>Doc 10161 Appendix B OPERATIONAL SAFETY RISKS (OPS) ROADMAP</i>	

8.2 Terrain Collision (Controlled Flight into Terrain (CFIT))

8.2.1 Safety Issue

This risk area includes occurrences where an airborne aircraft collides with terrain, without indication that the flight crews were unable to control the aircraft. It includes instances where the flight crews are affected by visual illusions or degraded visual environment. It includes collision with water, flat as well as elevated terrain.

8.2.2 Safety Objective

To continuously improve safety by assessing and mitigating the risks of controlled flight into terrain (CFIT) involving aeroplane operators with Hellenic AOC or operators flying in Hellenic controlled airspace.

8.2.3 Safety Performance Indicators (Ref HPAS Part I, Chapter 5 for details)

Accident, Serious Incident and Incident rates and trends related to CFIT category occurrences involving Hellenic commercial aeroplane operators.

8.2.4 Organisations/Roles

HCAA:

- analysis of CFIT occurrences rates and trends and identification of domain-based safety issues, safeguarding.

Industry(AirOperators):

- manage CFIT related safety risks and reporting precursor events that could result in a CFIT occurrence.

Industry (ANSP's, airports):

- develop approach procedures to minimise the risk of CFIT, publish up to date obstacle charts and implement safeguarding.

8.2.5 Actions

ACTIONS	TARGET DATE
EL.0302: Managing the risks of CFIT in CAT/NCC aeroplanes	
RESPONSIBLE ENTITY: HCAA	
a) HCAA will focus on the management of the risk of CFIT occurrences with Hellenic regulated organisations, as appropriate to their operations, as part of safety oversight and performance monitoring activities. Continuous monitoring of CFIT related events and precursors.	CONTINUOUS
EPAS References MST.0028 & MST.006.	
b) Implement the following GASR CFIT safety actions:	Q4 2024

<i>i. Ensure aircraft are equipped with terrain awareness and warning system (TAWS) in accordance with Annex 6 – Operation of Aircraft</i>	-
<i>ii. Promote the wider use of TAWS beyond the requirements of Annex 6</i>	-
<i>iii. Issue a Safety Advisory to increase adherence to TAWS warning procedures</i>	-
<i>iv. Promote greater awareness of approach risks</i>	-
<i>v. Consider the implementation of continuous descent final approaches (CDFA)</i>	-
<i>vi. Consider the implementation of minimum safe altitude warning (MSAW) systems</i>	-
<i>vii. Ensure the timeliness of updates and accuracy of Electronic Terrain and Obstacle Data (eTOD)</i>	-
<i>viii. Promote the use of GPS-derived position data to feed TAWS</i>	-
c) Identify additional contributing factors, for example:	Q4 2024
<i>i. Flight in adverse environmental conditions</i>	-
<i>ii. Approach design and documentation (e.g., approaches with vertical guidance (APV) or localizer performance with vertical guidance (LPV) approaches)</i>	-
<i>iii. Phraseology used (standard vs. non-standard)</i>	-
<i>iv. Pilot fatigue and disorientation</i>	-
GASR Reference: Doc 10161 Appendix B OPERATIONAL SAFETY RISKS (OPS) ROADMAP	
d) Resolution of additional national contributing factors:	Q1 2025
<i>i. Accuracy and condition of PAPI lights</i>	-
<i>ii. Condition of mountainous obstacle lights</i>	-
<i>iii. VFR flights by jet aircrafts</i>	-
<i>iv. Accuracy of obstacle charts</i>	-
<i>v. Lack of electronic terrain charts</i>	-
Reference: Hellenic safety issue log	
RESPONSIBLE ENTITY: AOC holders	
e) Implement the following GASP CFIT safety actions:	Q4 2024
<i>i. Equip aircraft with TAWS</i>	-
<i>ii. Increase adherence to TAWS warning procedures</i>	-
<i>iii. Develop greater awareness of approach risks</i>	-
<i>iv. Promote CDFA</i>	-

v. Utilize MSAW systems	-
vi. Utilize up to date eTOD (terrain and Obstacle Data)	-
vii. Utilize GPS-derived position data to feed TAWS	-
f) Validate the effectiveness of the previous safety actions through the analysis of flight data monitoring (FDM)* and pilot reports** (apply safety management methodologies, like Bowtie barrier to address CFIT) *TAWS cautions and warnings, and pilot responses to TAWS warnings. **Flight planning - failure to comply with minimum safe altitude (MSA) or military operations area (MOA) restrictions.	Q4 2024
g) Identify additional GASP contributing factors, for example:	Q4 2024
i. Flight in adverse environmental conditions	-
ii. Approach design and documentation	-
iii. Phraseology used (standard vs non-standard)	-
iv. Pilot fatigue and disorientation	-
h) Develop and implement further actions to mitigate the risk of the identified contributing factors, if any, for CFIT	CONTINUOUS
i) Conduct continuous evaluation of the performance of the actions	CONTINUOUS
GASR Reference: Doc 10161 Appendix B OPERATIONAL SAFETY RISKS (OPS) ROADMAP	

8.3 Airborne collision (mid-air collision - MAC)

8.3.1 Safety Issue

Airborne collision includes all occurrences that involve the actual or potential collision between aircraft, while both aircraft are airborne, and between aircraft and other airborne objects (excluding birds and wildlife). This also includes all separation-related occurrences caused by either air traffic control (ATC) or cockpit crew, AIRPROX reports, and genuine ACAS alerts.

8.3.2 Safety Objective

To continuously improve safety by assessing and mitigating the risks of mid-air collision (MAC) involving Hellenic CAT/NCC aeroplane operators.

8.3.3 Safety Performance Indicators (Ref HPAS Volume I, Chapter 4 for details)

Accident, Serious Incident and Incident rates and trends related to MAC category occurrences involving Hellenic CAT/NCC aeroplane operators.

8.3.4 Organisations/Roles

HCAA:

- analysis of MAC occurrences rates and trends and identification of domain-based safety issues

Industry (CAT/NCC aeroplane):

- managing MAC related safety risks and reporting precursor events that could result in a MAC occurrence.

8.3.5 Actions

ACTIONS	TARGET DATE
EL.0303: Managing the risks of MAC in CAT/NCC aeroplanes	
RESPONSIBLE ENTITY: HCAA	
a) HCAA will focus on the management of the risk of MAC occurrences with Hellenic regulated organisations, as appropriate to their operations, as part of safety oversight and performance monitoring activities.	CONTINUOUS
b) HCAA will continue to focus on risks stemming from conflict zones and will focus on air operators who fly to or over conflict zones (see also EL.0109: Conflict zones safety and security issues).	CONTINUOUS
EPAS References MST.0028	
c) HCAA will cooperate with the relevant military authorities for:	Q2 2025
- the application of the ICAO Manual on Civil-Military Cooperation in Air Traffic Management (Doc 10088),	-

- To develop and publish operational requirements and instructions for State aircrafts to ensure that “due regard” for civil aircraft is always maintained.	-
EPAS References MST.0024	
d) Implement the following MAC safety actions (stemming from GASR)	CONTINUOUS
i. Ensure adherence to ACAS warning procedures	-
e) Identify additional contributing factors e.g.	CONTINUOUS
i. Flight crew training and corporate culture with workload, competence, teamwork, procedures, commitment, etc., and the influence of the aircraft operator’s safety management	-
ii. Aircraft equipment - autopilots, transponders and ACAS, but also aircraft performance (e.g. rate-of-climb) and their physical size.	-
GASR Reference: Doc 10161 Appendix B OPERATIONAL SAFETY RISKS (OPS) ROADMAP	
f) Review implementation of updated recommendations for airspace users arising from EAPAIRR Version 2 issued in March 2022 during next AOC oversight cycle. <i>The EAPAIRR was first issued in 2010 to help address the risk of airspace infringement. The EAPAIRR was updated in 2022 in response to the continuing presence of the risk and the evolution in aviation technology, airspace management, flight information services etc over the past decade. Action above will focus on the impact of the new recommendations on air operations regulators and airspace users.</i>	Q4 2025
g) HCAA with cooperation with HASP and key AOC Holders will provide Bowtie barrier model to address risks of MAC. (see also EL.0501)	Q4 2025
h) Safety promotion on new guidance affecting this risk area, such as EASA SIB 2013-11 on ACAS II “Manoeuvres based on visual acquisition of traffic” re-issued in January 2020.	Q2 2024
RESPONSIBLE ENTITY: AOC holders	
i) Implementation of updated recommendations for airspace users arising from EAPAIRR Version 2 issued in March 2022.	Q4 2025
j) Validate the effectiveness of safety actions through the analysis of FDM	Q4 2024
k) Key AOC holders with cooperation with HCAA and HASP provide Bowtie barrier model to address risks of MAC. (see also EL.0501)	Q4 2025
GASR Reference: Doc 10161 Appendix B OPERATIONAL SAFETY RISKS (OPS) ROADMAP	

8.4 Runway safety

8.4.1 Safety Issue

This section deals with runway excursions, runway incursions and runway collisions, and is a strategic priority.

Runway incursion covers any occurrence at an aerodrome involving the incorrect presence of an aircraft, vehicle, or person on the protected area of a surface designated for the landing and take-off of aircraft.

Aeroplane runway excursion includes all occurrences that involve actual or potential situations where an aircraft leaves the runway or the movement area of an aerodrome or landing surface of any other predesignated landing area without getting airborne (an aircraft veers off or overruns the runway surface during either take-off or landing). Runway excursion is the KRA ranking second highest regarding its cumulative European Risk Classification Score (ERCS - HCAA ASR 2022) in CAT and NCC operations with aeroplanes.

Runway collision covers collision between an aircraft and another object (other aircraft, vehicles, etc.) or person that occurs on a runway of an aerodrome or other predesignated landing area; it does not include collision with birds or wildlife. Collision on runway is the KRA ranking first regarding its cumulative ERCS score (ERCS - HCAA ASR 2022) in CAT and NCC operations with aeroplanes.

8.4.2 Safety Objective

To continuously improve safety by assessing and mitigating the risks of runway excursions, runway incursions and runway collisions, involving Hellenic CAT/NCC aeroplane operators.

8.4.3 Safety Performance Indicators (Ref HPAS Part I, Chapter 5 for details)

Accident, Serious Incident and Incident rates and trends related to **RI and RE** category occurrences involving Hellenic CAT/NCC aeroplane operators.

8.4.4 Organisations/Roles

HCAA:

- analysis of RI and RE occurrences rates and trends and identification of domain-based safety issues.

Industry (CAT/NCC aeroplane operators):

- managing RI, RE and Abnormal Runway Contact related safety risks and reporting precursor events that could result in an RI and RE occurrence.

8.4.5 Actions

ACTIONS	TARGET DATE
EL.0304: Managing Runway Safety of CAT/NCC aeroplanes (RI, RE)	
RESPONSIBLE ENTITY: HCAA	
a) HCAA will focus on the management of the risks of RI and RE occurrences with Hellenic regulated organisations, as appropriate to their operations, as part of safety oversight and performance monitoring activities.	CONTINUOUS
<i>EPAS References MST.0028</i>	
b) HCAA will review the level of implementation of recommendations for CAT/NCC aeroplane operators contained in the EAPRRI Version 3 Recommendations 1.4 and ANNEX D , as part of the oversight cycle.	Q4 2025
<i>EPAS (2017-2021) Reference MST.014</i>	
c) HCAA will review the level of implementation of GAPPRE/ EAPPRE recommendations for CAT/NCC aeroplane operators as part of safety oversight activities.	Q4 2025
<i>EPAS (2017-2021) References MST.007</i>	
d) For RI	
i. Ensure the establishment and implementation of a National Runway Safety Committee and Aerodrome Runway Safety Teams .	Q2 2024
ii. Promote the establishment of policy, procedures and training that supports situational awareness for pilots.	Q4 2024
iii. Promote and monitor for effectiveness, where suitable technologies to assist the improvement of situational awareness, such as improved resolution airport moving maps (AMM), electronic flight bags (EFBs), enhanced vision systems (EVS) and head-up displays (HUD) are used.	Q1 2025
iv. Ensure the use of standard phraseologies in accordance with applicable State regulations and ICAO provisions (e.g., Doc 9432 , Manual of Radiotelephony).	Q4 2024
e) For RE	
i. Promote the establishment of policy and training on rejected landings, go-arounds, crosswind, and tailwind landings (up to the maximum manufacturer-demonstrated winds).	Q4 2024
ii. Promote equipage of runway overrun awareness and alerting systems on aircraft.	Q4 2024
iii. Ensure that procedures to systematically reduce the rate of	Q4 2024

unstabilised approaches to runways are developed and used.	
iv. Failure to adhere to the appropriate SOPs.	Q2 2024
v. Long/floated/bounced/firm/off-centre/crabbed landing.	Q4 2024
GASR Reference: Doc 10161 Appendix B OPERATIONAL SAFETY RISKS (OPS) ROADMAP	
f) HCAA with cooperation with the National Runway Safety Committee will provide Bowtie barrier model to address risks of RI and RE (see also EL.0502, EL.0503, EL.0601, EL.0602)	Q4 2024
RESPONSIBLE ENTITY: AOC holders	
g) Implementation of updated recommendations for airspace users arising from EAPRRI Version 3 Recommendations 1.4 & ANNEX D.	Q2 2025
h) Implementation of GAPPRE/ EAPPRE recommendations for CAT/NCC aeroplane operators as part of safety oversight activities.	Q2 2025
i) Active participation in National Runway Safety Committee and Aerodrome Runway Safety Teams.	CONTINUOUS
j) Policy and training on rejected landings, go-arounds, crosswind, and tailwind landings (up to the maximum manufacturer-demonstrated winds).	CONTINUOUS
k) Considering the use of runway overrun awareness and alerting systems on aircraft.	CONTINUOUS
l) Procedures to systematically reduce the rate of unstabilised approaches to runways.	CONTINUOUS
m) Validate the effectiveness of the above actions through the analysis of FDM and pilot reports (apply safety management methodologies). <i>For example:</i>	CONTINUOUS
i. <i>long landings</i>	-
ii. <i>excessive height and speed at threshold</i>	-
iii. <i>aircraft configuration at 1000 ft above aerodrome level (AAL)</i>	-
iv. <i>tailwind</i>	-
v. <i>speed at 1000 ft AAL</i>	-
vi. <i>heading deviation during final approach</i>	-
vii. <i>use of retardation devices (spoilers, reverse thrust, autobrakes)</i>	-
viii. <i>Braking action</i>	-
ix. <i>adverse weather</i>	-
x. <i>navigational aid (navaid) malfunctions.</i>	-
n) Identify additional contributing factors, for example:	CONTINUOUS

i. <i>Ineffective SOPs.</i>	-
ii. <i>Failure to adhere to the appropriate SOP.s</i>	-
iii. <i>Long/floated/bounced/firm/off-center/crabbed landing.</i>	-
iv. <i>Inadequate approach procedures design.</i>	-
<p>GASR Reference: Doc 10161 Appendix B OPERATIONAL SAFETY RISKS (OPS) ROADMAP</p>	

8.5 Safety of Ground Operations

8.5.1 Safety Issue

Ground operations involve all aspects of aircraft handling at the airport as well as aircraft movement around the aerodrome, except when on active runways. During this phase of flight, aircraft are normally travelling at low speed so ground collision accidents that occur are rarely fatal, but they can result in costly repairs for airlines and lengthy delays for passengers.

Ground operations includes several different activities that fall under the remit of the Flight Operations section of HPAS, including ground handling of aircraft, aircraft loading, aircraft de-icing, aircraft fuelling and handling of dangerous goods.

8.5.2 Safety Objective

To continuously improve safety by assessing and mitigating the risks due to ground operations by Hellenic CAT/NCC aeroplane operators.

8.5.3 Safety Performance Indicators (Ref HPAS Volume I, Chapter 4 for details)

Accident, Serious Incident and Incident rates and trends related to Ground Operations (e.g. GCOL) category occurrences, involving Hellenic CAT/NCC aeroplane operators.

8.5.4 Organisations/Roles

HCAA:

- analysis of Ground Operations related occurrences rates and trends and identification of domain-based safety issues

Industry (CAT/NCC aeroplane operators):

- managing ground operations related safety risks and reporting ground operations related occurrences

8.5.5 Actions

ACTIONS	TARGET DATE
EL.0305: Establish SPIs for ground operations of CAT/NCC aeroplanes	
RESPONSIBLE ENTITY: HCAA	
a) HCAA will focus on the management of the risks during ground operations with Hellenic CAT/NCC aeroplane operators, as appropriate to their operations, as part of safety oversight and performance monitoring activities.	CONTINUOUS
b) Monitoring of ground operations related events and precursors	CONTINUOUS
c) Monitoring the implementation of recommendations of EASA SIB 2019-02 which addresses the risk of explosive door opening on parked aeroplanes	Q2 2024

<p>d) Review of organisational safety objectives and SPIs to ensure they are appropriate and that they consider State level safety objectives (ref HPAS Volume I, Chapter 4)</p>	<p>Q4 2024</p>
<p><i>EPAS References MST.0028.</i></p>	
<p>RESPONSIBLE ENTITY: AOC holders</p>	
<p>e) Establish organisational safety objectives and SPIs to ensure they are appropriate and that they consider State level safety objectives (ref HPAS Volume I, Chapter 4)</p>	<p>CONTINUOUS</p>

8.6 Fire, smoke, pressurisation, and cabin air quality

8.6.1 Safety Issue

This area includes cases of fire, smoke, fumes or pressurisation situations that may pose a risk to human life. It includes occurrences involving fire, smoke or fumes affecting any part of an aircraft, in flight or on the ground, which is not the result of an impact or malicious act and covers fire/explosion (load/pax), fire/explosion (technical), as well as pressurisation, conditioning and contamination occurrences.

Uncontrolled fire on board of an aircraft, especially when in flight, represents one of the most severe hazards in aviation. Aircraft depressurisation and post-crash fire are also addressed in this section, which examines situations where the internal environment of the aircraft may become hazardous or even un-survivable.

8.6.2 Safety Objective

To continuously improve safety by assessing and mitigating the risks relating to the aircraft environment involving Hellenic commercial aeroplane operators.

8.6.3 Safety Performance Indicators (Ref HPAS Volume I, Chapter 4 for details)

Accident, Serious Incident and Incident rates and trends related to aircraft environmental issues involving Hellenic commercial aeroplane operators.

8.6.4 Organisations/Roles

HCAA:

- analysis of aircraft environmental occurrences rates and trends and identification of domain-based safety issues

Industry (CAT/NCC aeroplane operators):

- managing aircraft environmental related safety risks and reporting pre-cursor events that could result in an aircraft environmental occurrence.

8.6.5 Actions

ACTIONS	TARGET DATE
EL.0306: Establish SPIs for fire, smoke, pressurisation and cabin air quality of CAT/NCC aeroplanes	
RESPONSIBLE ENTITY: HCAA	
a) HCAA will focus on the management of the risks related to environmental issues with Hellenic CAT/NCC aeroplane operators, as appropriate to their operations, as part of safety oversight and performance monitoring activities.	CONTINUOUS
b) Review of organisational safety objectives and SPIs to ensure they are appropriate and that they consider State level safety objectives (ref	Q4 2024

HPAS Volume I, Chapter 4)	
EPAS References MST.0028	
c) Special attention to:	Q4 2024
<i>i. Fire risks caused by portable electronic devices on board aircraft</i>	-
<i>ii. Cabin air quality - chronic exposure to contamination events</i>	-
<i>iii. PEDs - lithium battery fire/smoke risk in the aircraft cabin (SI-0027 Carriage and transport of lithium batteries)</i>	-
RESPONSIBLE ENTITY: AOC holders	
d) Establish organisational safety objectives and SPIs to ensure they are appropriate and that they consider State level safety objectives (ref HPAS Volume I, Chapter 4)	Q4 2024

8.7 National FDM forum

8.7.1 Safety Issue

A non-uniform approach across CAT airplane operators on Flight Data Monitoring and integration into SMS of operators for resolving various safety issues.

8.7.2 Safety Objective

To continuously improve safety by assessing and mitigating the risks relating to the aircraft operation involving Hellenic commercial aeroplane operators.

8.7.3 Safety Performance Indicators (Ref HPAS Volume I, Chapter 4 for details)

Accident, Serious Incident and Incident rates and trends related to aircraft operation issues involving Hellenic commercial aeroplane operators.

8.7.4 Organisations/Roles

HCAA:

- analysis of aircraft occurrences rates and trends that are combined with FDM analysis.

Industry (CAT/NCC aeroplane operators):

- managing aircraft related safety risks with FDM analysis.

8.7.5 Actions

ACTIONS	TARGET DATE
EL.0307: Establish a national FDM forum with the participation of CAT operators	
RESPONSIBLE ENTITY: HCAA	
a) Establish a National FDM forum with the participation of CAT operators which follow FDM programmes.	Q2 2025
b) HCAA shall publish on its website, as part of the SMS-related information, general information on the EOFD activities.	Q2 2025
c) HCAA should organise a workshop (physical meeting or teleconference) dedicated to the EOFD good practice documents with the FDM specialists at these operators.	Q2 2025
<i>EPAS References MST.0003</i>	
RESPONSIBLE ENTITY: AOC holders	
d) Establish organisational safety objectives and SPIs stemming from FDM programme.	CONTINUOUS
e) Mitigate contributing factors to CFIT, LOC-I, MAC, RE, and RI accidents and incidents.	CONTINUOUS
GASP Reference: Doc 10161 Appendix B OPERATIONAL SAFETY RISKS (OPS) ROADMAP	

9. Rotorcraft Operations

This area includes three types of operations that involve certified helicopters:

- CAT operations, passenger and cargo flights conducted by Hellenic AOC holders.
- SPO (aerial work), such as advertisement, photography, survey work, medical, etc.
- Non-Commercial Operations with helicopters (this section includes training flights).

Although each rotorcraft operational type has its own specific risks, they all share many risks in common ([see also HCAA 2022 ASR](#)), including intentional low flying operations, rotorcraft upset, response to technical defects, collision with obstacles and/or terrain, airborne collision with other aircraft or drones, and are thus addressed in a common rotorcraft risk register.

9.1 Rotorcraft safety

9.1.1 Safety Issue

Rotorcraft operators perform a wide range of highly specialised operations to meet different demands within the State, including passenger transport, medical, search and rescue, survey work and others. Although rotorcraft operators are exposed to similar risks as large commercial transport operators, the nature of rotorcraft operations brings specific risks to this domain.

9.1.2 Safety Objective

To continuously improve safety by assessing and mitigating the risks in rotorcraft operations in Greece.

9.1.3 Safety Performance Indicators (Ref also HPAS Volume I, Chapter 4)

Accident, Serious Incident and Incident rates and trends related to rotorcraft operations.

9.1.4 Organisations/Roles

HCAA:

- analysis of domain occurrence rates and trends and identification of domain-based safety issues, aviation safety oversight of civil rotorcraft operations.

Industry (rotorcraft operators, private pilots):

- managing rotorcraft operational safety risks and reporting precursor events that could result in rotorcraft occurrences.

9.1.5 Actions

ACTIONS	TARGET DATE
EL.0401: Promotion on effective implementation of SMS in AOC holders with Rotorcraft	
RESPONSIBLE ENTITY: HCAA	
a) HCAA will promote safety messages addressing the key risks in rotorcraft operations, including rotorcraft safety workshops where relevant.	CONTINUOUS
b) HCAA will promote safety promotion material developed by the European Safety Promotion Network , the SMICG and other relevant sources of information as regards safety management.	CONTINUOUS
EPAS Reference MST.0002	
c) HCAA will use the deliverables of:	CONTINUOUS
i. EASA.SPT.0127 “Supporting small helicopter operators in implementing management systems effectively”	CONTINUOUS
1. <i>promote good practices and examples on how to organise the implementation of a safety management system,</i>	-
2. <i>including change management, risk assessments, examples of safety key performance indicators, etc.,</i>	-
3. <i>promote good practices and examples on how to organise the implementation of a compliance monitoring system,</i>	-
4. <i>including good practices in root-cause analysis, simpler internal audit checklist systems, etc.,</i>	-
5. <i>promote good practices and examples on how to organise digital record-keeping, etc.</i>	-
ii. EASA.SPT.0128 “Support helicopter operators in developing improved organisational processes and procedures”	CONTINUOUS
1. <i>promotion of typical standard operating procedures (SOPs) and checklists as a basis to the specific needs/risks of the operators. This will include the development of practical guidance material which will guide the operators through the identification of their risks (related to their envisaged operations). Subsequently, the guidance material will provide information on how to develop an adequate risk assessment on the basis of which suitable SOPs and checklists can be developed. Typical SOPs could include thematic hazard lists, possibly with some common controls/compensating measures.</i>	-
2. <i>promotion of guidance on how an operator verifies the validity of a certificate/approval for certified subcontractors and how to</i>	-

<p><i>appropriately ensure compliance with the applicable requirements and that relevant hazards are considered. Promotion of examples of contracts for subcontracting CAMO/Part-145 approvals.</i></p>	
<p>3. <i>promotion of guidance related to EFB operations and the related approval process.</i></p>	-
<p>EPAS Reference MST.0015</p>	

10. Air Traffic Management / Air Navigation Services (ATM/ANS)

ATM/ANS services provided in Hellenic airspace, are:

- Air Traffic Services, including Air Traffic Control, Flight Information, Alerting.
- Communication, Navigation and Surveillance services.
- Aeronautical information Service.
- Meteorological Information Services
- Air Traffic Flow Management.
- Airspace Management.
- Flight Procedure Design.

The key risk areas identified for this domain are **mid-air collision, collision on runway** ([see HCAA 2022 ASR](#)).

Note: HASP referred also in:

7.1.5 (Language proficiency) (**action EL.0201 b**)

11.4.5 (Bird and Wildlife strikes) (**action EL.0604 d & f**)

13.2.5 (General Aviation Preventing mid-air collisions) (**action EL.0802 a**)

14.2.5 (Unmanned aircraft systems) (**action EL.0901 b**)

10.1 Airborne collision (Mid-Air Collisions MAC)

10.1.1 Safety Issue

Airborne collision includes all occurrences that involve the actual or potential collision between aircraft, while both aircraft are airborne, and between aircraft and other airborne objects (excluding birds and wildlife). This also includes all separation-related occurrences caused by either air traffic control (ATC) or cockpit crew, AIRPROX reports, and genuine ACAS alerts.

10.1.2 Safety Objective

To continuously improve safety by assessing and mitigating the risks of MAC involving aircraft operators flying in Hellenic controlled airspace.

10.1.3 Safety Performance Indicators

Accident, Serious Incident and Incident rates and trends related to MAC category occurrences in Hellenic controlled airspace.

10.1.4 Organisations/Roles

HCAA:

- analysis of MAC occurrences rates and trends and identification of domain-based safety issues.

Industry (HASP):

- managing MAC related safety risks and reporting precursor events that could result in a MAC occurrence, developing enhanced safety nets to minimise the risk of MAC.

10.1.5 Actions

ACTIONS	TARGET DATE
EL.0501: Managing the risks of MAC in Hellenic airspace	
RESPONSIBLE ENTITY: HCAA	
a) HCAA will focus on the management of the risk of MAC occurrences with HASP, as appropriate to its operations, as part of safety oversight and performance monitoring activities.	CONTINUOUS
<i>EPAS References MST.0028</i>	
b) HCAA will cooperate with the relevant military authorities for:	Q4 2024
<i>i. Encouraging the application of the ICAO Manual on Civil-Military Cooperation in Air Traffic Management (Doc 10088),</i>	-
<i>ii. Supporting the revision of existing civil-military coordination procedures for ATM according to the MOU between HASP and military forces and if necessary, establish new ones.</i>	-
<i>iii. Encouraging the facilitation/make primary surveillance radar data available in military ATC centers to civil ATC units; the objective of this action is to ensure that Greece follows up on the recommendations and provides feedback on the implementation.</i>	NOT PLANNED
<i>EPAS References MST.0024</i>	
c) Implement the following MAC safety actions (stemming from ICAO)	Q4 2025
<i>i. Promote the improvement of air traffic control (ATC) systems, procedures, and tools to enhance conflict management.</i>	-
<i>ii. Promote the improvement of communications systems and procedures, such as controller-pilot datalink.</i>	INFRINGEMENT
d) Identify additional contributing factors, for example:	Q4 2025
<i>i. Traffic conditions - traffic density, complexity, mixture of aircraft types and capabilities, etc.</i>	-
<i>ii. ATC systems - flight data processing, communication, short term conflict alert (STCA), etc., as well as the interaction with the human operators and the aircraft systems, and the procurement policy of the ANSP.</i>	-
<i>iii. Navigation infrastructure - both coverage and quality.</i>	-
<i>iv. Surveillance - both coverage and quality.</i>	-

v. <i>Flight plan processing - efficiency and reliability of flight plan submission, approval and distribution.</i>	-
vi. <i>Airspace - complexity of airspace design, route layout, extent of controlled or uncontrolled airspace, proximity of military operational or training areas, etc.</i>	-
vii. <i>Develop and implement further actions to mitigate the risk of the identified contributing factors, if any, for MAC.</i>	-
GASR Reference: Doc 10161 Appendix B OPERATIONAL SAFETY RISKS (OPS) ROADMAP	
e) Review implementation of updated recommendations for ATM/ANS regulators and services providers arising from EAPAIRR Version 2 issued in March 2022. <i>The EAPAIRR was first issued in 2010 to help address the risk of airspace infringement. The EAPAIRR was updated in 2022 in response to the continuing presence of the risk and the evolution in aviation technology, airspace management, flight information services etc over the past decade. Action above will focus on the impact of the new recommendations on ATM/ANS regulators and services providers.</i>	Q4 2025
f) HCAA will establish an Airspace Infringement Strategic Working Group with the participation of HASP, HAF, UAS users, GA associations to review airspace infringement risk dimensions and establish national safety improvement priorities.	Q2 2024
g) HCAA with cooperation with HASP and Air Operators will provide Bowtie barrier model to address risks of MAC e.g. helicopter operations in the proximity of busy airports. (see also EL.0303)	Q4 2025
RESPONSIBLE ENTITY: HASP	
h) Implementation of updated recommendations for ATM/ANS regulators and services providers arising from EAPAIRR Version 2 issued in March 2022.	Q4 2025
i) Implement the following MAC safety actions (stemming from ICAO)	Q4 2025
<i>i. Improve reliability and consistency of safety nets to provide early and dependable warning, and to reduce nuisance alerts.</i>	-
<i>ii. Improve ATC systems, procedures, and tools to enhance conflict management - this can include predictability of aircraft trajectories, so that conflicts can be predicted and resolved at an earlier stage, using medium-term conflict detection (MTCD) and similar systems.</i>	-
<i>iii. Improve communications systems and procedures, such as controller-pilot datalink.</i>	-
j) Identify additional contributing factors, for example:	Q4 2025

<p><i>i. Traffic conditions – traffic density, complexity, mixture of aircraft types and capabilities, etc.</i></p>	<p>-</p>
<p><i>ii. ATC performance related to workload, competence, teamwork, procedures, commitment, etc., as well as the influence of ANSPs' safety management.</i></p>	<p>-</p>
<p><i>iii. ATC systems – flight data processing, communication, STCA, etc., as well as the interaction related to human operators and the aircraft systems, and the procurement policy of the ANSP.</i></p>	<p>-</p>
<p><i>iv. Navigation infrastructure – both coverage and quality.</i></p>	<p>-</p>
<p><i>v. Surveillance – both coverage and quality.</i></p>	<p>-</p>
<p><i>vi. Flight plan processing – efficiency and reliability of flight plan submission, approval and distribution.</i></p>	<p>-</p>
<p><i>vii. Airspace – complexity of airspace design, route layout, extent of controlled or uncontrolled airspace, proximity of military operational or training areas, etc.</i></p>	<p>-</p>
<p>GASR Reference: Doc 10161 Appendix B OPERATIONAL SAFETY RISKS (OPS) ROADMAP</p>	

10.2 Runway Incursions (RI)

10.2.1 Safety Issue

Runway incursion covers any occurrence at an aerodrome involving the incorrect presence of an aircraft, vehicle, or person on the protected area of a surface designated for the landing and take-off of aircraft.

10.2.2 Safety Objective

To continuously improve safety by assessing and mitigating the risks of runway incursion (RI) at Hellenic aerodromes servicing commercial air traffic.

10.2.3 Safety Performance Indicators (Ref HPAS Part I, Chapter 5 for details)

Accident, Serious Incident and Incident rates and trends related to RI category occurrences at Hellenic aerodromes.

10.2.4 Organisations/Roles

HCAA:

- analysis of RI occurrences rates and trends and identification of domain-based safety issues.

Industry (HASP):

- managing RI related safety risks and reporting precursor events that could result in an RI occurrence.

10.2.5 Actions

ACTIONS	TARGET DATE
EL.0502: Managing the risks of RI related to ATM/ANS	
RESPONSIBLE ENTITY: HCAA	
a) HCAA will focus on the management of the risk of RI occurrences with Hellenic regulated organisations, as appropriate to their operations, as part of safety oversight and performance monitoring activities.	CONTINUOUS
EPAS References MST.0028	
b) HCAA will audit the effectiveness of the local runway safety teams (including effectiveness of SMS in reducing RI precursor events).	Q4 2024
EPAS (2017-2021) Reference: MST.011	
c) HCAA will review the level of implementation of recommendations for ANSP's contained in the EAPRRI Version 3 . <i>EAPRRI recognises the emergence of EU provisions intended to improve runway safety in Europe.</i> <i>EAPRRI v3.0 contains modifications to some existing</i>	Q4 2025

<p><i>recommendations, challenging the aviation industry to review the effectiveness of systemic runway incursion risk reduction activities associated with Safety Management Systems (SMS) and aerodrome local Runway Safety Teams. The updated Plan also contains a number of new recommendations affecting all the stakeholders with a vested interest to further invigorate improvements in runway safety.</i></p>	
<p>EPAS (2017-2021) Reference MST.014</p>	
<p>d) HCAA with cooperation of the National Runway Safety Committee will provide Bowtie barrier model to address runway protection from ATM/ANS, Aerodrome operator and Aircraft Operator perspective.</p>	<p>Q1 2024</p>
<p>e) HCAA with cooperation of the National Runway Safety Committee will analyse the strength of the identified barriers by considering the occurrences of years 2024-2025.</p>	<p>Q4 2025</p>
<p>f) HCAA will conduct risk modelling, risk assessment and safety analysis of runway safety in the ATM/ANS and AERODROME domains, including low visibility operations.</p>	<p>Q2 2025</p>
<p>g) Implement the following RI safety actions (stemming from ICAO)</p>	<p>Q4 2025</p>
<p><i>i. Ensure the establishment and implementation of a National Runway Safety Committee and Aerodrome Runway Safety Teams.</i></p>	<p>-</p>
<p><i>ii. Promote the establishment of policy, procedures and training that supports situational awareness for controllers.</i></p>	<p>-</p>
<p><i>iii. Promote the use of suitable technologies to assist the improvement of situational awareness, such as advanced-surface movement guidance and control systems (A-SMGCS), stop bars and runway incursion warning systems (ARIWS)</i></p>	<p>-</p>
<p><i>iv. Ensure the use of standard phraseologies in accordance with applicable State regulations and ICAO provisions (e.g. Doc 9432, Manual of Radiotelephony).</i></p>	<p>-</p>
<p><i>v. Ensure the identification and publication in the aeronautical information publication (AIP) of hot spots at aerodromes.</i></p>	<p>-</p>
<p><i>vi. Ensure that suitable strategies to remove hazards or mitigate risks associated with identified hot spots are developed and executed.</i></p>	<p>-</p>
<p><i>vii. Promote the improvement of communications systems and procedures, such as controller-pilot datalink.</i></p>	<p>-</p>
<p>h) Identify additional contributing factors, for example:</p>	<p>Q4 2025</p>
<p><i>i. Operations in low visibility conditions.</i></p>	<p>-</p>
<p><i>ii. Complex or inadequate aerodrome design.</i></p>	<p>-</p>

iii. Complexity of traffic (multiple simultaneous line-ups).	-
iv. Conditional clearances.	-
v. Simultaneous use of intersecting runways.	-
vi. Late issue of or late changes to departure clearances.	-
vii. Phraseology use (e.g. non-standard vs. standard, call-sign confusion).	-
viii. Concurrent use of more than one language for ATC communications.	-
GASP Reference:	
Doc 10161 Appendix B OPERATIONAL SAFETY RISKS (OPS) ROADMAP	
RESPONSIBLE ENTITY: HASP	
i) implementation of updated recommendations for ATM/ANS regulators and services providers arising from EAPPRI Version 3 .	Q4 2025
j) Implement the following RI safety actions (stemming from ICAO)	Q4 2025
i. Active participation in the National Runway Safety Committee and runway safety teams	-
ii. Policy, procedures and training that support situational awareness for controllers, pilots and airside vehicle drivers	-
iii. Effective use of suitable technologies to assist the improvement of situation awareness, such as improved resolution AMM, EFB, EVS and HUD, A-SMGCS, stop bars and ARIWS	-
iv. Use of standard phraseologies in accordance with applicable State regulations and ICAO provisions (e.g., Doc 9432, Manual of Radiotelephony)	-
v. Identification and publication in the AIP of hot spots at aerodromes	-
vi. Suitable strategies to remove or mitigate hazards associated with identified hot spots	-
k) Identify additional contributing factors, for example:	Q4 2025
i. Operations in low visibility conditions.	-
ii. Complex or inadequate aerodrome design.	-
iii. Conditional clearances. Complexity of traffic (multiple simultaneous line-ups).	-
iv. Simultaneous use of intersecting runways.	-
v. Late Issue of or late changes to departure clearances.	-
vi. Phraseology use (e.g. non-standard vs. standard, call-sign confusion).	-

vii. <i>Concurrent use of more than one language for ATC communications.</i>	-
viii. <i>English language competence in aviation English.</i>	-
l) Develop and implement further actions to mitigate the risk of the identified contributing factors, if any, for RI.	CONTINUOUS
<p><i>GASR Reference:</i> <i>Doc 10161 Appendix B OPERATIONAL SAFETY RISKS (OPS) ROADMAP</i></p>	

10.3 Runway Excursions

10.3.1 Safety Issue

Aeroplane runway excursion includes all occurrences that involve actual or potential situations where an aircraft leaves the runway or landing surface of any other pre-designated landing area without getting airborne (an aircraft veers off or overruns the runway surface during either take-off or landing). Runway excursion is the KRA ranking second highest regarding its cumulative European Risk Classification Score ([ERCS - HCAA ASR 2022](#)) in CAT and NCC operations with aeroplanes.

10.3.2 Safety Objective

To continuously improve safety by assessing and mitigating the risks of runway excursion at Hellenic aerodromes servicing commercial air traffic.

10.3.3 Safety Performance Indicators (Ref HPAS Volume I, Chapter 4 for details)

Accident, Serious Incident and Incident rates and trends related to RE category occurrences at Hellenic airports.

10.3.4 Organisations/Roles

HCAA:

- analysis of RE occurrences rates and trends and identification of domain-based safety issues.

Industry (HASP):

- managing RE related safety risks and reporting precursor events that could result in an RE occurrence.

10.3.5 Actions

ACTIONS	TARGET DATE
EL.0503: Managing the risks of RE related to ATM/ANS	
RESPONSIBLE ENTITY: HCAA	
a) HCAA will focus on the management of the risk of RE occurrences with Hellenic regulated organisations, as appropriate to their operations, as part of safety oversight and performance monitoring activities.	CONTINUOUS
b) Monitoring of RE related events and precursors.	CONTINUOUS
<i>EPAS References MST.0028</i>	
c) HCAA with cooperation with the National Runway Safety Committee will provide Bowtie barrier model to address runway excursion from the industry perspective.	Q4 2024

<p>d) HCAA with cooperation with the National Runway Safety Committee will analyse the strength of the identified barriers by considering the occurrences of years 2024-2025.</p>	Q4 2025
<p>e) HCAA will review the level of implementation of GAPPRE/ EAPPRE recommendations for ANSP's as part of safety oversight activities (special attention for the implementation of REG6 and REG10).</p> <p><i>The Global Action Plan for the Prevention of Runway Excursions (GAPPRE) is a document that contains Part 1 and Part 2:</i></p> <p><i>Part 1 contains the agreed recommendations to the following civil aviation organisations: aerodrome operators, air navigation service providers (ANSPs), aircraft operators, aircraft manufacturers, regulators, the International Civil Aviation Organization (ICAO) and addressees of the research and development (R&D) recommendations (States, international organisations and the industry).</i></p> <p><i>Part 2 provides explanatory and guidance material, and related best practices for the recommendations listed in this document. The guidance and explanatory material (GEM) are provided as appendixes to this document.</i></p>	Q4 2024
<p>EPAS (20217-2021) Reference MST.007</p>	
<p>f) Implement the following RE safety actions (stemming from ICAO)</p>	Q4 2025
<p>i. <i>Ensure effective and timely reporting of meteorological and aerodrome conditions (e.g., runway surface condition in accordance to the ICAO global reporting format in Annex 14 — Aerodromes, Volume I — Aerodrome Design and Operations braking action and revised declared distances).</i></p>	<p>-</p>
<p>ii. <i>Ensure that procedures to systematically reduce the rate of un stabilised approaches to runways are developed and used.</i></p>	<p>-</p>
<p>iii. <i>Inadequate approach procedures design.</i></p>	<p>-</p>
<p>GASR Reference: Doc 10161 Appendix B OPERATIONAL SAFETY RISKS (OPS) ROADMAP</p>	
<p>RESPONSIBLE ENTITY: HASP</p>	
<p>g) Implementation of updated recommendations for ATM/ANS regulators and services providers arising from EAPPRE.</p>	Q4 2025
<p>h) Implement the following RE safety actions (stemming from ICAO)</p>	Q4 2025
<p>i. <i>Active participation in the National Runway Safety Committee and Aerodrome Runway Safety Teams.</i></p>	<p>-</p>
<p>ii. <i>Effective and timely reporting of meteorological and aerodrome conditions (e.g., runway surface condition in accordance with</i></p>	<p>-</p>

<i>the ICAO global reporting format in Annex 14 – Aerodromes, Volume I – Aerodrome Design and Operations braking action and revised declared distances).</i>	
<i>iii. Procedures to systematically reduce the rate of unstabilised approaches to runways.</i>	-
<i>iv. Inadequate approach procedures design.</i>	-
i) Develop and implement further actions to mitigate the risk of the identified contributing factors, if any, for RE.	CONTINUOUS
GASR Reference: Doc 10161 Appendix B OPERATIONAL SAFETY RISKS (OPS) ROADMAP	

10.4 Communication, Navigation and Surveillance systems

10.4.1 Safety Issue

Failure of air-ground communication service (EPAS Volume III SI-2018)

Failure of the air-ground communication system may degrade the performance of the communications service and increase safety risk to an unacceptable level. Air-ground communication refers to aeronautical fixed and mobile services to enable air-to-ground voice or data communication for air traffic control (ATC) purposes.

Common failures in voice communications include *radio equipment malfunction* (in the air and on the ground), *loss of communication*, *blocked frequency*, *radio interference*, and *sleeping VHF receiver problem*.

This safety issue explores how such failures can be prevented using preemptive measures and the best practices to manage such failures on a tactical basis when they occur. The impact of the failure of air-ground communication service includes the entire provision of air traffic service (ATS).

Failure of navigation service (EPAS Volume III SI-2016)

Failure of the navigation service can lead to the loss of the facilities and services (VOR, DME, ILS, GNSS, NDB) that support aircraft with positioning and time, and thus increase safety risk to an unacceptable level.

This could potentially lead to the situation that the crew does not know the correct position of the aircraft, or the indicated position is not correct. This could lead to the **overload of the air traffic controllers** when they are required to provide the missing information verbally or via the system. For example, **a corrupted/interrupted ILS signal can lead to an unstabilised approach, go-around, and even CFIT**. This safety issue covers **appropriate maintenance, procedures to identify failures and their impact on ATS, procedures to operate in degraded modes of operation, and training of staff to deal with abnormal situations**.

Failure of surveillance service (SI-2017) (Amended) (CC effect)

Failure of the surveillance service may degrade the performance of ATS and increase safety risk to an unacceptable level. Surveillance systems are used by air traffic control to determine the respective positions of aircraft to allow safe separation. Such systems include PSR, SSR, GNSS and Automatic Dependent Surveillance – Broadcast (ADS-B), Wide Area Multilateration (WAM) and systems for processing and displaying surveillance data.

Effective management of these systems is essential in minimising the impact on ATS. This safety issue covers **appropriate maintenance, procedures to identify failures and their impact on ATS, procedures to operate in degraded modes of operation, and training of staff to deal with abnormal situations**.

10.4.2 Safety Objective

To continuously improve safety by assessing and mitigating the risks from CNS failure.

10.4.3 Safety Performance Indicators (Ref HPAS Volume I, Chapter 4 for details)

Accident, Serious Incident and Incident rates and trends related to CNS failure.

10.4.4 Organisations/Roles

HCAA:

- analysis of CNS failure occurrences rates and trends and focused oversight activities based on safety issues of CNS failures.

Industry (HASP):

- managing CNS failure related safety risks and apply safety management on safety risks of CNS failure.

10.4.5 Actions

ACTIONS	TARGET DATE
EL.0504: Managing the risks of CNS failures related to ATM/ANS	
RESPONSIBLE ENTITY: HCAA	
a) HCAA will focus on the management of the risk of CNS failure occurrences with HASP, as appropriate to its operations, as part of safety oversight and performance monitoring activities.	CONTINUOUS
b) Monitoring of CNS failure related events and precursors.	CONTINUOUS
<i>EPAS References MST.0028</i>	
c) HCAA with cooperation with HASP will provide Bowtie barrier model to address CNS failures and analyse the strength of the identified barriers by considering the occurrences of years 2024-2025.	Q4 2025
<i>EPAS (2017-2021) Reference MST.0014</i>	
d) HCAA will consider in the Risk based Oversight programme focused inspections on CNS appropriate maintenance, procedures to identify failures of CNS and their impact on ATS, procedures to operate in degraded modes of operation, and training of staff to deal with abnormal situations.	Q2 2024
RESPONSIBLE ENTITY: HASP	
e) HASP will cooperate with HCAA to provide Bowtie barrier model to address CNS failures.	Q4 2025
f) HASP will focus on procedures to operate in degraded modes of operation, and training of staff to deal with abnormal situations.	Q2 2024

11. Aerodromes and Ground Handling

The key operations risk areas identified in the Aerodromes and Ground Handling domain are runway incursions, runway excursions, ground operations, ground damage, and bird/wildlife management (HCAA 2022 ASR).

Note: Aerodrome operators referred also in:

14.2.5 (Unmanned aircraft systems) (*action EL.0901 b*)

11.1 Runway Incursions

11.1.1 Safety Issue

A runway incursion (RI) involves the incorrect presence of an aircraft, vehicle, or person on the protected area of a surface designated for the landing and take-off of an aircraft. Runway Incursions have been recognised for some time as a key risk in aviation safety and led to the publication of the European Action Plan for the Prevention of Runway Incursions, which was updated to Edition 3 in 2018.

11.1.2 Safety Objective

To continuously improve safety by assessing and mitigating the risks of runway incursion at Hellenic aerodromes servicing commercial air traffic.

11.1.3 Safety Performance Indicators (Ref HPAS Volume I, Chapter 4 for details)

Accident, Serious Incident and Incident rates and trends related to RI category occurrences at Hellenic aerodromes.

11.1.4 Organisations/Roles

HCAA:

- analysis of RI occurrences rates and trends and identification of domain-based safety issues.

Industry (Airport operators):

- managing RI related safety risks and reporting precursor events that could result in an RI occurrence.

11.1.5 Actions

ACTIONS	TARGET DATE
EL.0601: Managing risks of RI related to aerodrome operators	
RESPONSIBLE ENTITY: HCAA	
a) HCAA will focus on the management of the risk of RI occurrences with Hellenic aerodrome operators, as appropriate to their operations, as part of safety oversight and performance monitoring activities.	CONTINUOUS

EPAS References MST.0028	
b) HCAA will audit the effectiveness of the local runway safety teams (including effectiveness of SMS of aerodrome operators in reducing RI precursor events) and will focus on management of risks associated with RI during oversight of SMS.	Q4 2025
EPAS (2017-2021) Reference: MST.011	
c) HCAA will review the level of implementation of recommendations for AERODROME OPERATORS contained in the EAPRRI Version 3 , as part of the oversight cycle <i>This version of EAPPRI recognises the emergence of EU provisions intended to improve runway safety in Europe.</i> <i>EAPPRI v3.0 contains modifications to some existing recommendations, challenging the aviation industry to review the effectiveness of systemic runway incursion risk reduction activities associated with Safety Management Systems (SMS) and aerodrome local Runway Safety Teams. The updated Plan also contains a number of new recommendations affecting all the stakeholders with a vested interest to further invigorate improvements in runway safety.</i>	Q4 2025
EPAS (2017-2021) Reference MST.014	
d) HCAA with cooperation of the National Runway Safety Committee will provide Bowtie barrier model to address runway protection from ATM/ANS, Aerodrome operator and Aircraft Operator perspective.	Q3 2024
e) HCAA with cooperation AERODROME OPERATORS, AIR OPERATORS and HASP will analyse the strength of the identified barriers by considering the occurrences of years 2024-2025.	Q4 2025
f) HCAA will conduct risk modelling, risk assessment and safety analysis of runway safety in the ATM/ANS and AERODROME domains, including low visibility operations .	Q4 2025
g) HCAA will follow all the safety promotion on the risks in this area.	Q1 2025
h) Implement the following RI safety actions (stemming from ICAO)	Q3 2025
<i>i. Ensure the establishment and implementation of a National Runway Safety Committee and local runway safety teams.</i>	Q2 2024
<i>ii. Promote the establishment of policy, procedures and training that supports situational awareness for airside vehicle drivers.</i>	Q4 2024
<i>iii. Promote the use of suitable technologies to assist the improvement of situational awareness, such as improved resolution airport moving maps (AMM), advanced-surface movement guidance and control systems (A-SMGCS), stop bars and runway incursion warning systems (ARIWS).</i>	Q4 2025

iv.	<i>Certify aerodrome in accordance with ICAO Annex 14 – Aerodromes, Volume I – Aerodrome Design and Operations, as well as PANS-Aerodrome (Doc 9981).</i>	Q3 2024
v.	<i>Ensure the use of standard phraseologies by drivers in accordance with applicable State regulations and ICAO provisions (e.g. Doc 9432, Manual of Radiotelephony).</i>	Q3 2025
vi.	<i>Ensure the identification and publication in the aeronautical information publication (AIP) of hot spots at aerodromes.</i>	Q4 2024
vii.	<i>Ensure that suitable strategies to remove hazards or mitigate risks associated with identified hot spots are developed and executed.</i>	Q2 2025
i)	Identify additional contributing factors, for example:	Q4 2025
i.	<i>Operations in low visibility conditions.</i>	Q2 2025
ii.	<i>Complex or inadequate aerodrome design.</i>	Q4 2024
iii.	<i>Simultaneous use of intersecting runways.</i>	Q2 2025
iv.	<i>Phraseology use by drivers (e.g. non-standard vs. standard, call-sign confusion).</i>	Q3 2025
v.	<i>Concurrent use of more than one language and/or more than one frequency for ATC communications.</i>	Q4 2025
vi.	<i>Vehicle operations in FATO (TOF) areas.</i>	Q4 2024
GASR Reference:		
Doc 10161 Appendix B OPERATIONAL SAFETY RISKS (OPS) ROADMAP		
RESPONSIBLE ENTITY: AERODROME OPERATORS		
j)	Implementation of updated recommendations for AERODROME OPERATORS arising from EAPPRI Version 3 .	Q4 2025
k)	Implement the following RI safety actions (stemming from ICAO)	Q3 2025
i.	<i>Active participation in the National Runway safety Committee and runway safety teams.</i>	-
ii.	<i>Policy, procedures and training that support situational awareness for controllers, pilots and airside vehicle drivers.</i>	-
iii.	<i>Effective use of suitable technologies to assist the improvement of situation awareness, such as improved resolution AMM, EFB, EVS and HUD, A-SMGCS, stop bars and ARIWS.</i>	-
iv.	<i>Use of standard phraseologies by drivers in accordance with applicable State regulations and ICAO provisions (e.g. Doc 9432, Manual of Radiotelephony).</i>	-
v.	<i>Identification and publication in the AIP of hot spots at aerodromes.</i>	-

vi. <i>Suitable strategies to remove or mitigate hazards associated with identified hot spots</i>	-
l) Identify additional contributing factors, for example:	Q4 2025
i. <i>Operations in low visibility conditions.</i>	-
ii. <i>Complex or inadequate aerodrome design.</i>	-
iii. <i>Simultaneous use of intersecting runways.</i>	-
iv. <i>Late Issue of or late changes to departure clearances.</i>	-
v. <i>Phraseology use by drivers (e.g. non-standard vs. standard, call-sign confusion).</i>	-
vi. <i>Concurrent use of more than one language and/or more than one frequency for ATC communications.</i>	-
vii. <i>English language competence despite the introduction by ICAO of a system of validating competence in aviation English.</i>	-
viii. <i>Develop and implement further actions to mitigate the risk of the identified contributing factors, if any, for RI.</i>	-
GASR Reference: Doc 10161 Appendix B OPERATIONAL SAFETY RISKS (OPS) ROADMAP	

11.2 Runway Excursions

11.2.1 Safety Issue

Aeroplane runway excursion includes all occurrences that involve actual or potential situations where an aircraft leaves the runway or landing surface of any other predesignated landing area without getting airborne (an aircraft veers off or overruns the runway surfaceduringeither take-off or landing). Runway excursion is the KRA ranking second highest regarding its cumulative European Risk Classification Score (ERCS - HCAA ASR 2022) in CAT and NCC operations with aeroplanes.

11.2.2 Safety Objective

To continuously improve safety by assessing and mitigating the risks of runway excursion at Hellenic aerodromes servicing commercial air traffic.

11.2.3 Safety Performance Indicators (Ref HPAS Volume I, Chapter 4 for details)

Accident, Serious Incident and Incident rates and trends related to RE category occurrences at Hellenic airports.

11.2.4 Organisations/Roles

HCAA:

- analysis of RE occurrences rates and trends and identification of domain-based safety issues.

Industry (Aerodrome operators):

- managing RE related safety risks and reporting precursor events that could result in an RE occurrence.

11.2.5 Actions

ACTIONS	TARGET DATE
EL.0602: Managing risks of RE and ARC related to aerodrome operators	
RESPONSIBLE ENTITY: HCAA	
a) HCAA will focus on the management of the risk of RE occurrences with Hellenic regulated organisations, as appropriate to their operations, as part of safety oversight and performance monitoring activities.	CONTINUOUS
b) Monitoring of RE related events and precursors.	CONTINUOUS
EPAS References MST.0028	
c) HCAA will review the level of implementation of GAPPRE/EAPPRE recommendations for AERODROME OPERATORS as part of safety oversight activities (special attention for the implementation of REG6). <i>The Global Action Plan for the Prevention of Runway Excursions</i>	Q4 2024

<p><i>(GAPPRE) is a document that contains Part 1 and Part 2:</i></p> <p><i>Part 1 contains the agreed recommendations to the following civil aviation organisations: aerodrome operators, air navigation service providers (ANSPs), aircraft operators, aircraft manufacturers, regulators, the International Civil Aviation Organization (ICAO) and addressees of the research and development (R&D) recommendations (States, international organisations and the industry).</i></p> <p><i>Part 2 provides explanatory and guidance material, and related best practices for the recommendations listed in this document. The guidance and explanatory material (GEM) are provided as appendixes to this document.</i></p>	
<p>EPAS (2107-2021) Reference MST.007</p>	
<p>d) HCAA will focus during oversight activities on the implementation of the ICAO global runway condition reporting format, required under EU regulations since August 2021.</p>	<p>Q4 2024</p>
<p>e) HCAA in cooperation with AERODROME OPERATORS, AIR OPERATORS and HASP will provide Bowtie barrier model to address runway excursion from the industry perspective.</p>	<p>Q4 2024</p>
<p>f) HCAA in cooperation with AERODROME OPERATORS, AIR OPERATORS and HASP will analyse the strength of the identified barriers by considering the occurrences of years 2024-2025</p>	<p>Q4 2025</p>
<p>g) Implement the following RE safety actions (stemming from ICAO).</p>	<p>Q4 2024</p>
<p>i. <i>Ensure the establishment and implementation of a National Runway Safety Committee and aerodrome runway safety teams.</i></p>	<p>Q2 2024</p>
<p>ii. <i>Ensure effective and timely reporting of meteorological and aerodrome conditions (e.g. runway surface condition in accordance to the ICAO global reporting format in Annex 14 – Aerodromes, Volume I – Aerodrome Design and Operations braking action and revised declared distances).</i></p>	<p>Q4 2024</p>
<p>iii. <i>Certify aerodrome in accordance with ICAO Annex 14, Volume I, as well as PANS-Aerodrome (Doc 9981).</i></p> <p>Focus on anemometers, PAPI lights, markings, signs and runway surface condition</p>	<p>Q3 2024</p>
<p>GASR Reference: Doc 10161 Appendix B OPERATIONAL SAFETY RISKS (OPS) ROADMAP</p>	
<p>RESPONSIBLE ENTITY: AERODROME OPERATOR</p>	
<p>h) Implementation of updated recommendations for GAPPRE/EAPPRE recommendations for AERODROME OPERATORS.</p>	<p>Q4 2025</p>

i) Implement the following RE safety actions (stemming from ICAO).	Q4 2024
i. <i>Participate in National Runway Safety Committee and implement aerodrome runway safety teams.</i>	Q2 2024
ii. <i>Effective and timely reporting of meteorological and aerodrome conditions (e.g. runway surface condition in accordance with the ICAO global reporting format in Annex 14 – Aerodromes, Volume I – Aerodrome Design and Operations braking action and revised declared distances)</i>	Q4 2023
iii. <i>Comply with runway-related provisions in ICAO Annex 14, Volume I as well as PANS-Aerodrome (Doc 9981).</i>	Q3 2024
j) Develop and implement further actions to mitigate the risk of the identified contributing factors, if any, for RE.	CONTINUOUS
GASR Reference: Doc 10161 Appendix B OPERATIONAL SAFETY RISKS (OPS) ROADMAP	

11.3 Safety of Ground Operations

11.3.1 Safety Issue

Ground operations involve all aspects of ground vehicle operations and aircraft handling at the apron as well as movements on taxiways. During this phase of flight, aircraft are normally traveling at low speed so accidents that occur are rarely fatal (and when fatal with a low number of fatalities – low ERCS scoring) but they can result in costly repairs for airlines and lengthy delays for passengers.

11.3.2 Safety Objective

To continuously improve safety by assessing and mitigating the risks due to ground operations at Hellenic aerodromes.

11.3.3 Safety Performance Indicators (Ref HPAS Volume I, Chapter 4 for details)

Accident, Serious Incident and Incident rates and trends related to Ground Operations (e.g., RAMP, GCOL) category occurrences at Hellenic aerodromes.

11.3.4 Organisations/Roles

HCAA:

- analysis of Ground operations-related occurrences rates and trends and identification of domain-based safety issues.

Industry (Aerodromes & Ground Handling operators)

- managing Ground Operations-related safety risks and reporting Ground operations-related occurrences.

11.3.5 Actions

ACTIONS	TARGET DATE
EL.0603: Managing risks of Ground Operations in Aerodromes	
RESPONSIBLE ENTITY: HCAA	
a) HCAA will focus on the management of the risks during ground operations with Hellenic aerodrome and ground handling operators, as appropriate to their operations, as part of safety oversight and performance monitoring activities.	CONTINUOUS
EPAS Reference MST.0028	
b) HCAA will focus on the specific risks for ground operations during the return to normal operations post-COVID-19 (EASA_SIB_2022-06).	Q2 2024
c) HCAA will publish safety promotion material received from EASA and from aerodrome and ground handling operators.	Q4 2024

RESPONSIBLE ENTITY: AERODROME AND GROUND HANDLING OPERATORS	
<p>d) Follow the safety promotion material for high-profile safety issues for aerodrome and ground-handling operations. Such high-profile safety issues are to be determined from important risks identified through the SRM process, accidents/serious incidents, input from EASA stakeholders, and ground-handling safety topics that have been defined in the ground-handling road map, including ground-handling safety topics stemming from the Basic Regulation.</p>	<p>CONTINUOUS</p>
<p><i>EPAS Reference SPT.0102</i></p>	

11.4 Bird and Wildlife Strikes

11.4.1 Safety Issue

Bird and Wildlife strikes may cause significant damage to an aircraft structure or flight controls, and aircraft engines (especially jet-engines) which are vulnerable to the loss of thrust following the ingestion of birds into engine air intakes which may lead to an accident.

11.4.2 Safety Objective

To continuously improve safety by assessing and mitigating the risks due to bird and wildlife strikes at Hellenic aerodromes.

11.4.3 Safety Performance Indicators (Ref HPAS Volume I, Chapter 4 for details)

Accident, Serious Incident and Incident rates and trends related to bird and wildlife strikes.

11.4.4 Organisations/Roles

HCAA:

- analysis of bird and wildlife related occurrence rates and trends and identification of domain-based safety issues.

Industry (Aerodrome operators):

- control of birds and wildlife around aerodromes to minimise the risk of strike to aircraft.

Industry (Air Operators, Aerodrome operators)

- managing bird and wildlife related safety risks and reporting bird and wildlife related occurrences

11.4.5 Actions

ACTIONS	TARGET DATE
EL.0604: Managing risks of Bird/wildlife strikes	
RESPONSIBLE ENTITY: HCAA	
a) HCAA will work with all relevant organisations and authorities to ensure that the National Bird and Wildlife Hazard Committee is well established and enhances its capability in terms of analysis of data by identifying safety issues / best practices for bird/wildlife strike hazard reduction.	Q2 2024
b) HCAA will continuous provide annual statistical analysis of confirmed bird/wildlife strikes on aircraft.	CONTINUOUS
c) HCAA will annually notify to ICAO IBIS system on confirmed Bird/Wildlife strikes.	CONTINUOUS
RESPONSIBLE ENTITY: AERODROME OPERATORS, AIR OPERATORS AND HASP	

d) Aerodrome operators, air operators and HASP continuous to report bird/wildlife strikes containing the necessary level of information for the quality of bird/wildlife strike reports.	CONTINUOUS
e) Aerodrome operators perform relevant safety analysis and review the used actions taken for the reduction of bird/wildlife strikes.	CONTINUOUS
f) Aerodrome operators, air operators and HASP participate in the National Bird and Wildlife Hazard Committee.	CONTINUOUS

11.5 Emerging national issues for aerodromes

11.5.1 Safety Issue

In HCAA 2022 ASR are recognised the following safety issues for Hellenic aerodromes:

- Malfunction/missing/out of service of aerodrome anemometers.
- PAPI lights: not correct positioning/not precise angle of approach/ insufficient brightness.
- Numerous of mountainous obstacle lights are out of service.
- Poor quality of markings, missing/out of service signs and lights.

11.5.2 Safety Objective

To continuously improve safety by assessing and mitigating the risks that contribute to RI, RE, GCOL and CFIT at Hellenic aerodromes.

11.5.3 Safety Performance Indicators (Ref HPAS Volume I, Chapter 4 for details)

Accident, Serious Incident and Incident rates and trends related to RI, RE, GCOL and CFIT.

11.5.4 Organisations/Roles

HCAA:

- analysis of RI, RE, GCOL and CFIT related occurrences and oversight outcomes.

Industry (Aerodrome operators):

- control the hazards dew to anemometers, PAPI lights, mountainous obstacle lights and condition of markings, sings and lights.

Industry (Air Operators, Aerodrome operators)

- report related occurrences due to anemometers, PAPI lights, mountainous obstacle lights markings, signs, and lights.

11.5.5 Actions

ACTIONS	TARGET DATE
EL.0605: Managing the risks due to emerging issues of aerodromes	
RESPONSIBLE ENTITY: HCAA	
a) HCAA during oversight activities will focus on the management of aerodrome operators of the risks that created due to: <ul style="list-style-type: none"> - Malfunction/missing/out of service of aerodrome anemometers - PAPI lights: not correct positioning/not precise angle of approach/ insufficient brightness - Adequacy and operation of mountainous obstacle lights - Condition/adequacy of markings, signs, and lights. 	Q1 2025

b) HCAA with cooperation with military authorities will evaluate the operation of anemometers that are installed from military authorities in Hellenic airports.	Q2 2025
c) HCAA will continuously evaluate relevant occurrence reports.	CONTINUOUS
<i>Reference: Hellenic safety issue log</i>	
RESPONSIBLE ENTITY: AERODROME OPERATORS, AIR OPERATORS AND HASP	
d) Aerodrome operators, air operators and HASP continuous to report occurrences related to anemometers, PAPI lights, mountainous obstacle lights and markings, signs, and lights.	CONTINUOUS

12. Airworthiness

Airworthiness activities in Greece includes the management of continued airworthiness, the execution of maintenance production activities (aircraft parts). The EU regulatory framework introduced the requirements for SMS for CAMO's in 2019 and the requirements for SMS in Part 145 and Part 21 in March 2023.

12.1 SMS in CAMO, Part 145, and Part 21 Production

12.1.1 Safety Issue

The EU regulatory framework introduced the requirements for SMS for CAMO in 2019 and the requirements for SMS in Part 145 and Part 21 in 2023. HCAA is responsible for the oversight of the compliance and effectiveness of an SMS and to support airworthiness organisations with the implementation of SMS organisational requirements.

12.1.2 Safety Objective

To oversee and support the implementation of compliant and effectiveness of SMS in Greece approved CAMO's, Part 145 and Part 21 Production organisations.

12.1.3 Safety Performance Indicators (Ref HPAS Volume I, Chapter 4 for details)

Maturity indicators based on EASA Management System Assessment Tool.

12.1.4 Organisations/Roles

HCAA:

- initial acceptance and continued regulatory oversight of SMS.

Industry (CAMO, Part 145 and Part 21 Production)

- implementation of compliant and effective SMS with continuous improvement in safety performance.

12.1.5 Actions

ACTIONS	TARGET DATE
EL.0701:Implementation and effectiveness of SMS by CAMO, Part 145 and Part-21 organisations	
RESPONSIBLE ENTITY: HCAA	
a) HCAA will develop the necessary procedures to implement the authority requirements pertaining to oversight of the compliance and effectiveness of an SMS in CAMO, Part 145 and Part 21 Production, and support organisations with the implementation of SMS organisational requirements. A new version of the existing manual for the oversight of EU376 and SMS which will include the requirements of the EU1321/2014 published from EASA (HCAA will incorporate EASA	Q4 2023

Management Assessment Tool).	
<i>EPAS Reference: MST.0026</i>	
b) Promote the proper implementation of Part145.A48 “Performance maintenance” Requirements	Q4 2024

13. General Aviation

For the needs of this chapter, General Aviation covers non-commercial operations (NCO) such as private flying and pilot training with aeroplanes that have a MTOM below 5 700 kg, as well as all operations with sailplanes and balloons and specialised operations (Part SPO/Aerial Works) including aerial photography, surveys, and parachute support operations.

General Aviation (GA) in Greece does not include aviation activities categorised as Commercial Air Transport (CAT) or addressed under Part NCC declaration.

13.1 Safety Promotion for General Aviation

13.1.1 Safety Issue

Good safety management depends on sharing of safety information within GA pilots and instructors, including lessons learned from accidents or incidents. Safety promotion enhances awareness of hazards, and provides best practices, for mitigating these hazards to help reduce accidents in the general aviation domain.

13.1.2 Safety Objective

To share safety information within the general aviation community in order to reduce the number of accidents and serious incidents involving general aviation operations in Greece.

13.1.3 Safety Performance Indicators (Ref HPAS Part I, Chapter 4 for details)

Accident, Serious Incident and Incident rates and trends related to general aviation.

13.1.4 Organisations/Roles

HCAA:

- analysis of accidents, serious incidents and occurrences in general aviation and development of domain risk profile. Sharing safety information with general aviation operators.

Industry (General aviation clubs and associations):

- analysis of risks within their own domain and sharing safety information with members

GA Pilots and engineers:

- reporting of safety occurrences to improve safety awareness.

13.1.5 Actions

ACTIONS	TARGET DATE
EL.0801: Safety promotion activities for General Aviation	
RESPONSIBLE ENTITY: HCAA	
a) HCAA will work with flying associations and clubs to develop and promote Safety Information to general aviation community in Greece (associations, flying clubs, flight instructors, pilots).	CONTINUOUS
b) HCAA will follow the safety promotion material delivered by EASA (https://www.easa.europa.eu/community/ga) and will with cooperation with associations and clubs organise relevant workshops .	CONTINUOUS
c) HCAA will publish relevant safety information at site of HCAA.	CONTINUOUS
<i>EPAS Reference: MST.0025</i>	
d) HCAA will include provisions to facilitate and promote safety culture (including just culture) in GA to foster positive safety behaviours and encourage occurrence reporting (see also HCAA 2022 ASR).	CONTINUOUS
<i>EPAS Reference: MST.0027</i>	

13.2 Preventing mid-air collisions

13.2.1 Safety Issue

This section addresses subjects such as airspace complexity, airspace infringement and use of technology. Statistics show that mid-air collision (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 MAC 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.

13.2.2 Safety Objective

To continuously improve safety by assessing and mitigating the risks of MAC involving general aviation in Greece.

13.2.3 Safety Performance Indicators (Ref HPAS Volume I, Chapter 4 for details)

Accident, Serious Incident and Incident rates and trends related to MAC.

13.2.4 Organisations/Roles

HCAA:

- analysis of MAC and NAV related accidents, serious incidents, and occurrences. Sharing safety information with general aviation operators.

Industry (General aviation training organisations, clubs, and associations):

- assessment and management of the risk of MAC and NAV within their own domain and sharing safety information with members.

GA Pilots and engineers:

- reporting of MAC and NAV safety occurrences

13.2.5 Actions

ACTIONS	TARGET DATE
EL.0802: Managing the risk of MAC within GA	
RESPONSIBLE ENTITY: HCAA	
a) HCAA recognises 'airspace complexity' and 'traffic congestion' as safety-relevant factors in airspace and with cooperation with HASP and associations of GA will consider the "good practices" that are included in the European Action Plan for Airspace Infringement Risk Reduction (EAPAIRR) (BIS 'Airborne collision risk').	Q4 2025
EPAS Reference: MST.0038	

RESPONSIBLE ENTITY: HASP & GA ASSOCIATIONS	
b) Cooperation between HASP and GA associations for the recognition of Hot Spots for MAC and AI (airspace infringement).	Q4 2025
c) Re-evaluation of the complexity of Class C and Class G airspace, especially around main airports.	Q4 2025
d) Participate with representatives in Airspace Infringement Strategic Working Group	Q2 2024

13.3 Staying in control

13.3.1 Safety Issue

This section addresses subjects such as flying skills, pilot awareness, and management of upset or stall at takeoff, in flight, or during approach and landing, flight preparation, aborting take-off, runway contact and going around.

Staying in control prevents loss-of-control (LOC-I) 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 crews involved.

EASA (EPAS Volume III) has identified the following safety issues:

- SI-4004 Training, experience, and competence of individuals
- SI-4001 Handling of technical failures
- SI-4003 Inflight decision making
- SI-4017 Knowledge of aircraft systems and procedures
- SI-4007 Poor pre-flight planning and preparation
- SI-4012 Engine system reliability
- SI-4028 Other aircraft system reliability

13.3.2 Safety Objective

To continuously improve safety by assessing and mitigating the risks of (LOC, RE) involving general aviation in Greece.

13.3.3 Safety Performance Indicators (Ref HPAS Volume I, Chapter 4 for details)

Accident, Serious Incident and Incident rates and trends related to (LOC-I, RE).

13.3.4 Organisations/Roles

HCAA:

- analysis of LOC, RE related accidents, serious incidents, and occurrences. Sharing safety information with general aviation operators.

Industry (General aviation training organisations, clubs, and associations):

- assessment and management of the risk of LOC, RE, within their own domain and sharing safety information with members.

GA Pilots and engineers:

- reporting of LOC, RE safety occurrences.

13.3.5 Actions

ACTIONS	TARGET DATE
EL.0803: Managing the risks of LOC-I, ARC and RE within GA	
RESPONSIBLE ENTITY: HCAA	
a) HCAA will focus on the management of the Safety Issues of GA operations in Greece, as part of safety oversight and performance monitoring activities.	CONTINUOUS
EPAS Reference MST.0028	
b) HCAA will follow the Safety promotion of EASA concerning the new European provisions on pilot training.	CONTINUOUS
EPAS References SPT.0012	
c) HCAA will consider the promotion of the following topics:	CONTINUOUS
<i>i. Recognition and recovery from aircraft upset</i>	-
<i>ii. Awareness of flight attitude</i>	-
<i>iii. Control of aircraft, following engine failure</i>	-
<i>iv. Recognition of, and response to carburetor icing</i>	-
<i>v. Use of the correct and quality fuel</i>	-
<i>vi. Operations of light aircraft within recommended mass and balance limits</i>	-
<i>vii. Execution of forced landings</i>	-
<i>viii. Awareness of performance differences between different GA aircraft types</i>	-
<i>ix. Staying in control (EASA material) (EUR SPT 0063)</i>	-
RESPONSIBLE ENTITY: GA ASSOCIATIONS	
d) Cooperation with HCAA for the recognition of more safety issues and promotion of the relevant subjects to the members of their associations.	CONTINUOUS
e) Pilots, instructors, flight examiners, ATOs, air operators will follow the promotion material concerning the new European provisions on pilot training.	CONTINUOUS
EPAS References SPT.0012	

13.4 Managing the flight

13.4.1 Safety Issue

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

EASA (EPAS Volume III) has identified the following safety issues:

- SI-4005 Approach path management on GA aeroplanes
- SI-4004 Training, experience, and competence of individuals
- SI-4011 Fuel management in flight
- SI-4001 Handling of technical failures
- SI-4003 Inflight decision making
- SI-4021 Operational communication
- SI-4022 Icing in flight
- SI-4008 Inadvertent flight into IMC/scud running.

13.4.2 Safety Objective

To continuously improve safety by assessing and mitigating the risks of (NAV, FUEL, CFIT, etc) involving general aviation in Greece.

13.4.3 Safety Performance Indicators (Ref HPAS Volume I, Chapter 4 for details)

Accident, Serious Incident and Incident rates and trends related to (NAV, FUEL, CFIT, etc).

13.4.4 Organisations/Roles

HCAA:

- analysis of NAV, FUEL, CFIT, etc related accidents, serious incidents, and occurrences. Sharing safety information with general aviation operators.

Industry (General aviation training organisations, clubs, and associations):

- assessment and management of the risk of NAV, FUEL, CFIT, etc, within their own domain and sharing safety information with members.

GA Pilots and engineers:

- reporting of NAV, FUEL, CFIT, etc, safety occurrences.

13.4.5 Actions

ACTIONS	TARGET DATE
EL.0804: Managing the risks of NAV, CFIT, FUEL etc within GA	
RESPONSIBLE ENTITY: HCAA	
a) HCAA will focus on the management of the Safety Issues of GA operations in Greece, as part of safety oversight and performance monitoring activities.	CONTINUOUS
EPAS Reference MST.0028	
b) HCAA will consider the promotion of the following topics:	CONTINUOUS
<i>i. Inadvertent flight into degraded visual environments</i>	-
<i>ii. Flight below minimum safe altitude (e.g. for weather avoidance)</i>	-
<i>iii. Pre-flight planning</i>	-
<i>iv. Situational awareness during flight</i>	-
<i>v. Use of advanced technologies</i>	-
<i>vi. Use of aeronautical charts and terrain and obstacle databases</i>	-
<i>vii. Collision with obstacles (e.g. trees, buildings, electrical wires) during take-off and landing</i>	-
<i>viii. Take-off and landing from hard/soft airstrips</i>	-
<i>ix. Fuel quality and refueling procedures</i>	-
<i>x. Crosswind Landings</i>	-
<i>xi. Human factors (decision making, startle effect)</i>	-
<i>xii. Threat and Error Management (TEM) related to meteorological conditions</i>	-
<i>xiii. Weather awareness for pilots (EASA SPT.0087)</i>	-
<i>xiv. Promote instrument flying for GA pilots (EASA SPT.0088)</i>	-
<i>xv. Promote the availability of enhanced meteorological information and uplink connectivity (EASA SPT.0114)</i>	-
<i>xvi. Promote the use of flight information services (FIS)</i>	-
RESPONSIBLE ENTITY: GA ASSOCIATIONS	
c) Cooperation with HCAA for the recognition of more safety issues and promotion of the relevant subjects to the members of their associations	

14. Unmanned aircraft systems (Drone)

14.1 Categories and types of operation of UAS

EU Regulations 2019/947 and 2019/945 set out the framework for the safe operation of civil drones in the European skies. They adopt a risk-based approach, and as such, do not distinguish between leisure or commercial civil drone activities. **What they consider is the weight and the specifications of the civil drone and the operation it is intended to conduct.**

Regulation (EU) 2019/947, which is applicable since 31 December 2020 in all EU Member States, caters for most types of civil drone operations and their levels of risk. It defines three categories of civil drone operations: the ‘open’, the ‘specific’ and the ‘certified’ category.

The ‘open’ category addresses the lower-risk civil drone operations in, where safety is ensured provided the civil drone operator complies with the relevant requirements for its intended operation. This category is subdivided into three subcategories, namely A1, A2 and A3. Operational risks in the ‘open’ category are considered low and, therefore, **no operational authorisation is required before starting a flight.**

The ‘specific’ category covers riskier civil drone operations, where safety is ensured by the drone operator by obtaining an operational authorisation from the national competent authority before starting the operation. To obtain the operational authorisation, **the drone operator is required to conduct a risk assessment**, with the requirements necessary for the safe operation of the civil drone(s). HCAA approves the operational Authorisation after evaluating the submitted Specific Operation Risk Assessment (SORA).

In the ‘certified’ category, the safety risk is considerably high; therefore, **the certification of the drone operator and its drone, as well as the licensing of the remote pilot(s), is always required to ensure safety.**

The management of drone traffic will be ensured through the **U-space**: a set of services that will be deployed in airspace where heavier traffic is expected, such as in urban areas. The **U-space Regulation** establishes and harmonises the necessary requirements for manned and unmanned aircraft to operate safely in the U-space airspace, to **prevent collisions between aircraft and to mitigate air and ground risks.** The U-space regulatory framework will provide for safe aircraft operations in all areas and for all types of unmanned aircraft operations. The U-space Regulation was adopted in April 2021.

As far as the operation of UAS, EASA distinguishes between three types of operations as follows:

Operations type #1: Instrument flight rules (IFR) operations of UAS **for the carriage of cargo** in **airspace classes A–C** (ICAO airspace classification) and taking off from and/or landing at aerodromes falling under the Basic Regulation.

Operations type #2: Operations of UAS **taking off and/or landing in a congested** (e.g., urban) environment using predefined routes in the U-space airspace (part of the operation could be in a non-congested, e.g., rural environment). These include operations of unmanned VTOL-capable aircraft **carrying passengers** (e.g., air taxis) or **cargo** (e.g., goods delivery services).

Operations type #3: Same as for type #2 operations with **VTOL-capable aircraft with a pilot on board**, including operations out of the U-space airspace.

The safe integration on the basis of granting fair access to airspace of all new entrants into the airspace network will be one of the main challenges in relation to the integration of UAS technologies and related

concepts of operation.

The occurrences for drone operations identified in Greece include **airborne collision** between a drone and a manned aircraft, **airspace infringement** by drone leading to disruption to air transport operations, and **malicious use of drones** (e.g., flights at high altitudes).

14.2 Safe integration of Drone operations

14.2.1 Safety Issue

The widespread growth in the use of Drones, represents an emerging risk of harm to persons on-board manned aircraft and/or persons on the ground. The safe integration of Drone operations means providing as a minimum an equivalent level of safety for the public as manned aviation. This is being addressed through a developing EU regulatory framework drones and safety promotion activities highlighting the risks.

14.2.2 Safety Objective

To safely integrate Drone operations into the civil aviation system in Greece to ensure that there are no fatal accidents involving drone operations and the risk of accidents and serious incidents are minimised.

14.2.3 Safety Performance Indicators (Ref HPAS Volume I, Chapter 4 for details)

Accident, Serious Incident and Incident rates and trends related to drone operations.

14.2.4 Organisations/Roles

HCAA:

- regulatory oversight of drone operations, including safety assurance, safety risk management and safety promotion.

Industry (Drone operators):

- assessment of risks within their own area of operations and sharing safety information.

Drone pilots:

- reporting of safety occurrences to help improve safety management.

14.2.5 Actions

ACTIONS	TARGET DATE
EL.0901: Safe integration of drone operations	
RESPONSIBLE ENTITY: HCAA	
a) HCAA will cooperate with drone operators to facilitate the safe integration of drones into the Hellenic civil aviation system.	CONTINUOUS
b) HCAA will cooperate with aircraft operators, airport operators, HASP, and military authorities to address the risks of drone infringements at	Q2 2025

aerodromes in accordance with EASA guidance “Drone Incident Management at Aerodromes” .	
c) HCAA will ensure that all drone operators willing to operate inside an airport environment will use a drone equipped with a Remote Identification System	Q3 2024
d) HCAA will promote the reporting culture to drone users through the ECCAIRS2 platform.	Q4 2024
e) Establishment of National UAS Regulation according to EASA requirements (e.g., UAS pilot age, insurance, enforcement power)	Q3 2025
f) HCAA participation in the National Working Group for the establishment of the Hellenic UAS National Strategy.	CONTINUOUS
g) Implementation of U-Space according to EU Regulation requirements.	CONTINUOUS
h) HCAA continuously oversees the drone market as Market Surveillance Authority under EU 2019/945.	CONTINUOUS
i) HCAA will update the UAS registration system in accordance with EU 2019/947.	Q4 2025
j) HCAA will develop a risk-based oversight programme for UAS recognised entities and operators	CONTINUOUS
k) HCAA will continuously implement safety promotion actions on UAS operations.	CONTINUOUS

I. APPENDIX I – List of abbreviations

A		HARSIA	Hellenic Air & Railway Safety Investigation Authority
AOC	Air Operators Certificate	I	
ANS	Air Navigation Service	ICAO	International Civil Aviation Organisation
ARMS	Aviation Risk Management Solutions	L	
ATM	Air Traffic Management	LOC-I	Loss of control in flight
C		LRST	Local Runway Safety Team
CFIT	Controlled Flight Into Terrain	M	
E		MAC	Mid-air collision
EASA	European Aviation Safety Agency	MOR	Mandatory Occurrence Report
EASA MS	MS EASA Member States (28 EU Member States plus Iceland, Liechtenstein, Norway and Switzerland)	MTOM	Maximum Take-Off Mass
EPAS	European Plan for Aviation Safety	N	
EC	European Commission	NBWSPC	National Bird/Wildlife Strike Prevention Committee
ECR	European Central Repository	NRSC	National Runway Safety Committee
EGAST	European General Aviation Safety Team	NoA	Network of Analysts
EHEST	European Helicopter Safety Team	R	
ERCS	European Risk Classification Scheme	RI	Runway Incursion
EU	European Union	RE	Runway Excursion
EOFDM	European Operators Flight Data Monitoring	RPAS	Remotely Piloted Aircraft System
F		S	
FAB	Functional Airspace Block	SI	Safety Issue
FDM	Flight Data Monitoring	SMS	Safety Management system
FTL	Flight Time Limitation	SM TeB	Safety Management Technical Board
G		SO	Safety Objective
GA	General Aviation	SPI	Safety Performance Indicator
GASP	Global Aviation Safety Plan	SPT	Safety Performance Target
GASR	Global Aviation Safety Roadmap	SSP	State Safety Programme
H		U	
HCAA	Hellenic Civil Aviation Authority	UAS	Unmanned Aircraft Systems
HASP	Hellenic Aviation Service Provider		

II. APPENDIX II – National Safety Issues

This Appendix includes the safety issues that have been identified through HCAA SRM process as **elevated**. The relevant safety issues are described in the HCAA 2022 ASR. In the following table safety issues, Key Risk Areas and safety actions that are included in the Hellenic PAS are combined with.

Index	National Safety Issue	Related EPAS III Safety Issue	EPAS KRA	HPAS SPIs	Related Actions in Hellenic PAS
NSI 001	Mid Air Collision	SI-2003 Inefficient conflict detection with the closest aircraft SI-2019 Airborne domain overload SI – 2004 Level bust	AIRBORN COLLISION	MAC	EL.0303 (CAT) EL.0501 (ATM/ANS)
NSI 002	Air navigation services surveillance system (SUR)/navigation systems (NAV)/communication systems malfunctions or disruptions (COM)	SI – 2017 Failure of surveillance service SI - 2016 Failure of navigation service SI - 2018 Failure of air-ground communication service	AIRBORN COLLISION and ALL	MAC	EL.0504 (ATM/ANS)
NSI 003	Runway incursions by vehicle, aircraft	SI – 2005 High-energy runway conflict SI – 2007 Landing/take-off/crossing without clearance SI - 2006 Undetected occupied runway SI-1029 Runway/taxiway design and layout SI – 1008 Control of airside works	COLLISION ON RUNWAY	RI	EL.0201 (PEL) EL.0304 (CAT/FW) EL.0502 (ATM/ANS) EL.0601 (ADR) EL.0801 (GA)
NSI-004	Runway excursions	SI-0007 Approach path management	EXCURSION	RE	EL.0304 (CAT/FW) EL.0503 (ATM/ANS)
NSI 005	Anemometers: malfunctioning/ out of service in few airports/ inadequate number	SI-2009 Inaccurate provision of weather information (wind at low height)	EXCURSION, AIRCRAFT UPSET	RE	EL.0304 (CAT/FW) EL.0503 (ATM/ANS) EL.0602 (ADR) EL.0605 (ADR)

NSI 006	PAPI lights: not correct positioning/ accuracy - angle of approach/ insufficient brightness	SI - 1032 Serviceability of runways/taxiways	EXCURSION, AIRCRAFT UPSET, TERRAIN COLLISION	RE, CFIT	EL.0302 (CAT/FW) EL.0602 (ADR) EL.0605 (ADR)
NSI 007	Numerous of mountainous obstacle lights out of service	–	TERRAIN COLLISION	CFIT	EL.0302 (CAT/FW) EL.0605 (ADR)
NSI 008	Poor quality of markings, missing/out of service signs-lights	SI - 1032 Serviceability of runways/taxiways	COLLISION ON RUNWAY, GROUND DAMAGE	RI, GCOL	EL.0605 (ADR)
NSI 009	Taxiway incursions by vehicle, aircraft	SI – 1025 Operation of vehicles (and other motorised GSE)	GROUND DAMAGE	GCOL	EL.0603 (ADR)
NSI 010	Lack of reporting on AOC Rotorcraft and General Aviation	SI – 8044 Ineffective safety management systems SI - 8045 Insufficient safety culture of organisation	ALL	ALL	EL.0105 (SYS) EL.0401 (CAT/ROT) EL.0801 (GA)

III. APPENDIX III – EPAS Actions link with the Hellenic PAS

The following table provides a cross reference between the EPAS Volume II (2023-2025) and older versions of EPAS Actions for Member States with the relevant actions in Hellenic PAS.

MST ACTIONS EPAS Volume II 2024-2025 REFERENCE	HPAS VOLUME 2 – ACTION REFERENCE
MST.0001 Member States to give priority to the work on SSPs	EL.0101 (a-f)
MST.0002 Promotion of Safety Material	EL.0101 (g-i) EL.0401 (a-b)
MST.0003 Member States should maintain a regular dialogue with their national aircraft operators on flight data monitoring (FDM) programmes	EL.0307 (a-c)
MST.0015 Rotorcraft safety events	EL.0401 (c)
MST.0019 Better understanding of operators’ governance structure	EL.0112 (a-c)
MST.0024 Loss of separation between civil and military aircraft	EL.0303 (c)
MST.0025 Improve the dissemination of safety messages in GA	EL.0801 (a-c)
MST.0026 SMS Assessment	EL.0102 (a-g) EL.0701 (a)
MST.0027 Develop just culture in GA	EL.0105 (a-c) EL.0801 (d)
MST.0028 Member States to establish and maintain a State Plan for Aviation Safety	EL.0201 (a) EL.0301 (a-e) EL.0302 (a) EL.0303 (a) EL.0304 (a) EL.0305 (a-d) EL.0306 (a-b) EL.501 (a) EL.502 (a) EL.0503 (a) EL.0504 (a) EL.0601 (a) EL.0602 (a-b) EL.0603 (a) EL.0803 (a) EL.0804 (a)
MST.0032 Oversight capabilities focus areas	EL.0111 (a-e) EL.0112 (a-b)

MST.0033 Feedback on implementation of language proficiency requirements	EL.0210 (b-i)
MST.0035 Oversight focus on fraud in Part-147	EL.0203 (a)
MST.0036 PPL/LAPL learning objectives in the Meteorological Information part of the PPL/LAPL syllabus	EL.0202 (a-b)
MST.0037 Foster a common understanding and oversight of Human Factors	EL.0104 (a-c)
MST.0038 Airspace complexity and traffic congestion	EL.0802 (a)
MST.0040 Safety and Security reporting mechanism	EL.0107 (a-b)
MST.0042 Assessment of safety culture at air operators	EL.0105 (a-d)
MST.0043 Improvement of data quality in occurrence reporting	EL.0103 (i)
MST ACTIONS FROM OLDER EPAS Volumes	HPAS VOLUME 2 – ACTION REFERENCE
MST.006 Include CFIT in national SSPs	EL.0302 (a)
MST.007 Include runway excursions in national SSPs	EL.0304 (c) EL.0503 (e) EL.0602 (c)
MST. 011 Runway safety teams	EL.0502 (b) EL.0601 (b)
MST.014 Include runway incursions in national SSPs	EL.0304 (b) EL.0502 (c) EL.0504 (c)
DELETED INITIALLY PROPOSED MST ACTIONS / ACTIONS ARE REMOVED FROM EPAS II 2024	
MST.0029 Implementation of the SESAR runway safety solutions	
MST.0030 Implementation of the SESAR solutions aiming to reduce the risk of mid-air collisions en-route and in terminal manoeuvring areas	

HELLENIC CIVIL AVIATION AUTHORITY

Web: hcaa.gov.gr/en

Email info@hcaa.gov.gr

END OF THE HELLENIC PAS