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**БҰЙРЫҚ**

№ \_\_\_\_\_ / \_\_\_\_\_  
Қазақстан Республикасы  
Астана қаласы

**ПРИКАЗ**

№ 06/12341 21.12.2023  
город Астана  
Республика Казахстан

**ORDER**

№ \_\_\_\_\_ / \_\_\_\_\_  
Astana city  
Republic of Kazakhstan

**On approval of the Kazakhstan Aviation Safety Plan for 2024-2027**

In order to implement International Civil Aviation Organization (ICAO) Assembly Resolution A40-1 “ICAO global planning for safety and air navigation” and concept for the development of transport and logistics potential of the Republic of Kazakhstan until 2030, approved by decree of the Government of the Republic of Kazakhstan dated December 30, 2022 No. 1116, **I ORDER:**

1. Approve the attached “Kazakhstan Aviation Safety Plan for 2024-2027”.
2. Senior Director of the Department of Safety Management, Quality, Strategy and Compliance – Abdugalimov Z. submit an annual report on the implementation of the “Kazakhstan Aviation Safety Plan for 2024-2027”.
3. I reserve control over the execution of this order.
4. This order comes into force from the date of its signing.

**Director General**

**C. Radu**

**AVIATION ADMINISTRATION OF KAZAKHSTAN  
JOINT STOCK COMPANY**

Approved by order  
General Director of  
JSC “Aviation Administration of Kazakhstan”  
# 06/1234 from 21 December 2023

**KAZAKHSTAN  
AVIATION SAFETY PLAN (KASP)  
2024-2027**

**ASTANA 2023**

**LIST OF REVISIONS**

<b>Revision</b>	<b>Date</b>	<b>Change Summary</b>
1.0	December 2023	Initial version of KASP 2024-2027

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## GLOSSARY

### Definitions

**Audit.** A systematic, independent and documented process for obtaining evidence and evaluating it objectively to determine the extent to which requirements and audit criteria are fulfilled.

**Audit area.** One of eight audit areas pertaining to the Universal Safety Oversight Audit Programme (USOAP), i.e. primary aviation legislation and civil aviation regulations (LEG), civil aviation organization (ORG); personnel licensing and training (PEL); aircraft operations (OPS); airworthiness of aircraft (AIR); aircraft accident and incident investigation (AIG); air navigation services (ANS); and aerodromes and ground aids (AGA).

**Critical elements (CEs).** The critical elements of a safety oversight system encompass the whole spectrum of civil aviation activities. They are the building blocks upon which an effective safety oversight system is based. The level of effective implementation of the CEs is an indication of a State's capability for safety oversight.

**Effective implementation (EI).** A measure of the State's safety oversight capability, calculated for each critical element, each audit area or as an overall measure. The EI is expressed as a percentage.

**Hazard.** A condition or an object with the potential to cause or contribute to an aircraft incident or accident.

**Operator.** The person, organization or enterprise engaged in or offering to engage in an aircraft operation.

**Risk mitigation.** The process of incorporating defences, preventive controls or recovery measures to lower the severity and/or likelihood of a hazard's projected consequence.

**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.

**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.

**Safety.** The state in which risks associated with aviation activities, related to, or in direct support of the operation of aircraft, are reduced and controlled to an acceptable level. Safety data. A defined set of facts or set of safety values collected from various aviation-related sources, which is used to maintain or improve safety.

*Note.— Such safety data is collected from proactive or reactive safety-related activities, including but not limited to: a) accident or incident investigations; b) safety reporting; c) continuing airworthiness reporting; d) operational performance monitoring; e) inspections, audits, surveys; or f) safety studies and reviews.*

**Safety enhancement initiative (SEI).** One or more actions to eliminate or mitigate operational safety risks or to address an identified safety issue. Safety information. Safety data processed, organized or analysed in a given context so as to make it useful for safety management purposes.

**Safety management system (SMS).** A systematic approach to managing safety, including the necessary organizational structures, accountability, responsibilities, policies and procedures.

**Safety oversight.** A function performed by a State to ensure that individuals and organizations performing an aviation activity comply with safety-related national laws and regulations.

**Safety performance.** A State or a service provider's safety achievement as defined by its safety performance targets and safety performance indicators. Safety performance indicator. A data-based parameter used for monitoring and assessing safety performance.

**Safety performance target.** The State or service provider's planned or intended target for a safety performance indicator over a given period that aligns with the safety objectives.

**Safety risk.** The predicted probability and severity of the consequences or outcomes of a hazard.

**Significant safety concern (SSC).** Occurs when the State allows the holder of an authorization or approval to exercise the privileges attached to it, although the minimum requirements established by the State and by the Standards set forth in the Annexes to the Convention are not met, resulting in an immediate safety risk to international civil aviation.

**State safety programme (SSP).** An integrated set of regulations and activities aimed at improving safety.

## **Abbreviations and acronyms**

AAK	Aviation Administration of Kazakhstan
ANC	Air Navigation Commission
ASBU	Aviation system block upgrade
ATS	Air traffic service
BD	Board of Directors
CANSO	Civil Air Navigation Services Organisation
CAP	Corrective action plan
CAST	Commercial Aviation Safety Team
CE	Critical element
CFIT	Controlled flight into terrain
CMA	Continuous monitoring approach
COSCAP	Cooperative Development of Operational Safety and Continuing Airworthiness Programme
EASA	European Union Aviation Safety Agency
EI	Effective implementation
GASP	Global Aviation Safety Plan
GASP-SG	Global Aviation Safety Plan Study Group
G-HRC	Global high-risk category of occurrence
IATA	International Air Transport Association
IOSA IATA	Operational Safety Audit
ISAGO	IATA Safety Audit for Ground Operations
LOC-I	Loss of control in-flight
MAC	Mid-air collision
NASP	National aviation safety plan
N-HRC	National high-risk category of occurrences
NSG	National safety goal
NST	National safety target
OLF	Online framework
PQ	Protocol question
RASG	Regional aviation safety group
RASP	Regional aviation safety plan
RE	Runway excursion
RI	Runway incursion
SARPs	Standards and Recommended Practices
SDCPS	Safety data collection and processing systems
SEI	Safety enhancement initiative
SMS	Safety management system
SPI	Safety performance indicator
SSC	Significant safety concern
CASP (SSP)	Civil aviation safety program
USOAP	Universal Safety Oversight Audit Programme

## **1. INTRODUCTION**

### **1.1 Overview of the KASP**

Kazakhstan is committed to enhancing aviation safety and to the resourcing of supporting activities. The purpose of this Kazakhstan aviation safety plan (hereinafter - KASP) is to continually reduce fatalities, and the risk of fatalities, through the development and implementation of a national aviation safety strategy.

A safe, resilient and sustainable aviation system contributes to the economic development of its industries. The KASP promotes the effective implementation of the safety oversight system, a risk-based approach to managing safety, as well as a coordinated approach to collaboration between other States, regions and industry. All stakeholders are encouraged to support and implement the KASP as the strategy for the continuous improvement of aviation safety.

The KASP is developed in accordance with the International Civil Aviation Organization (ICAO) Global Aviation Safety Plan (GASP, Doc 10004), the EUR Regional Aviation Safety Plan 2023-2025 (EUR RASP), State Safety Program of Kazakhstan (Decree of the Government of the Republic of Kazakhstan dated March 11, 2016 No. 136) and Concepts for the development of transport and logistics potential of the Republic of Kazakhstan until 2030 (Decree of the Government of the Republic of Kazakhstan dated December 30, 2022 No. 1116).

### **1.2 Structure of the KASP**

It comprises six sections. In addition to the introduction, sections include: the purpose of the KASP, strategic direction for the management of aviation safety in Kazakhstan, the national operational safety risks identified for the KASP, organizational challenges addressed in the KASP, and a description of how the implementation of the safety enhancement initiatives (hereinafter - SEIs) listed in the KASP is going to be monitored.

### **1.3 Relationship between the KASP and the State Safety Program of Kazakhstan**

State Safety Program (hereinafter - SSP) of Kazakhstan includes the regulations, processes and activities for the national safety oversight and aviation safety management. The KASP is a supporting document of the SSP and outlines the implementation of the strategic direction of Kazakhstan for the management of aviation safety for a set period. This plan lists national safety issues with respective SPIs and SPTs to help address identified safety deficiencies and maintain/achieve an acceptable level of aviation safety.

Safety enhancement initiatives listed in this KASP address organizational challenges and aim to enhance organizational capabilities related to effective safety oversight.



## 1.4 Development, implementation and monitoring

The Aviation Administration of Kazakhstan (hereinafter - AAK) is responsible entity for leading the development of the KASP. Other stakeholders such as the Kazaeronavigatsiya, Air Astana, Scat, Qazaq Air, Euro-Asia Air, Almaty International Airport, Nursultan Nazarbayev International Airport have been identified as members of the KASP development team. The team, under the leadership and direction of the AAK, are responsible for the implementation and monitoring of the KASP. The KASP is approved by the AAK General Director.

The AAK initiates and manages the review of the KASP at least once every four (4) years, or more frequently as required, to ensure the continued relevance of the KASP. In collaboration with the Kazakhstan aviation industry, the AAK leads the identification and assessment of new or emerging risks as well as the review of existing risks.

## 1.5 National safety goals

Kazakhstan’s safety goals, which align with the GASP global safety goals are outlined in Table 1.

	1	2	3	4	5	6
GASP Goals	Achieve a continuous reduction of operational safety risks	Strengthen their safety oversight capabilities	Implement effective State safety programs (SSPs)	Increase collaboration at the regional level	Expand the use of industry programs and safety information sharing networks by service providers	Ensure the appropriate infrastructure is available to support safe operations
KASP Goals	Improve the safety of Kazakhstan aviation operations across all sectors and reduce the operational risks	Strengthen Kazakhstan’s safety oversight capabilities	Implement an effective SSP	Expand the collaboration at regional level	Expand the use of industry safety programs and safety information sharing networks by service providers	Ensure Kazakhstan has the appropriate aviation infrastructure to support safe operations

Table 1. KASP goals

The KASP addresses organizational challenges and operational safety risks. The main goal is maintaining a zero rate of national fatal accidents.

The first edition of the KASP will be focused on commercial air transport, however it is planned to be expanded to the aerial works and general aviation in further revision.

## 1.6 Operational context

Detailed information on the industry stakeholders and breakdown by components is presented below:



### Aircraft

- ✓ Registered aircraft
  - Aircraft with MTOM less than 5700 kg - 565
  - Aircraft with MTOM greater than 5700 kg - 257



### Air Operators

- ✓ Air Operators Certificates
  - CAT - 19
  - Aerial work - 35



### General Aviation

- ✓ Helicopters - 165
- ✓ Baloons - 113



### Remote Piloted Aircraft Systems

- ✓ UAS remote pilot certificate holders (138)
- ✓ Organizations holding an active UAS aerial works permit (23)



### Aerodromes

- ✓ Active Aerodromes
  - Certified – 24 (national - 6, international - 18)
  - Non-certified - 5
- ✓ Aircraft movements – 166 228



### Air Navigation Service Provider

- ✓ Air Navigation Service Providers – 3 active and certified ANSP providers:
  - ❖ “Kazaeronavigatsia” RSE (international and national) with services: Air Traffic Service (ATS), Emergency alert service (AL), Communication, Navigation and Surveillance Service (CNS), Aeronautical Information Service (AIS), Aeronautical Meteorological Service (MET);
  - 2 of them are national:
    - ❖ “Caspian Radio Services” JSC with services: ATS, AL, CNS, MET, Preflight Information Bulletin (PIB);
    - ❖ Aviation training center “Balapan”: Aerodrome Flight Information Service (AFIS), AL.
- ✓ Airspace classified as C, D, G



### Training Organisations

- ✓ Approved Training Organisations - 21
- ✓ Declared Training Organisations - 2
- ✓ Testing Organisations – 7



### Maintenance Organisations

- ✓ AMO - 33
- ✓ Operators with airworthiness maintenance – 53



### Aviation Medicine

- ✓ Aeromedical examiners - 7
- ✓ Aeromedical centers - 2



### Licence Holders

- ✓ Private Pilots - 332 (A), 12 (H)
- ✓ Air Transport Pilots - 595 (A), 115 (H)
- ✓ Commercial Pilots - 524 (A), 130 (H)
- ✓ Light Aircraft Pilots - 335
- ✓ Free Balloon Pilots - 6
- ✓ Flight navigator - 36
- ✓ Flight radiotelephone operator - 4
- ✓ Flight engineer – 32 (A), 56 (H)
- ✓ Flight dispatcher - 79
- ✓ Maintenance Engineers - 1445
- ✓ Air Traffic Controllers – 772
- ✓ Aeronautical Station Operator - 22

## 2. PURPOSE OF KAZAKHSTAN AVIATION SAFETY PLAN

The KASP is the master planning document containing the strategic direction of for the management of aviation safety for a period of 4 years (2024 to 2027). This plan lists national safety issues, sets national safety goals and targets, and presents a series of SEIs to achieve those goals.

The KASP has been developed using the safety goals and targets and high-risk categories of occurrences (hereinafter - HRCs) from both the GASP ([www.icao.int/gasp](http://www.icao.int/gasp)) and the EUR/NAT RASP (<https://www.icao.int/eurnat/>). The SEIs listed in the KASP support the improvement of safety at the wider regional and international levels in the line with GASP and RASP and include several actions to address specific safety issues and recommended SEIs (<https://www.icao.int/eurnat/>).

## 3. STRATEGIC DIRECTION FOR THE MANAGEMENT OF AVIATION SAFETY IN KAZAKHSTAN

The KASP presents the SEIs derived from the SSP, including Kazakhstan’s safety risk management process and safety data collection and processing systems, as well as the work undertaken by service providers in the development and implementation of their SMS. This plan is developed and maintained by AAK, in coordination with all stakeholders and is updated at least once every four (4) years, or more frequently as required.

The KASP includes the following national safety goals and targets for the management of aviation safety, as well as a series of indicators to monitor the progress made towards their achievement.

Goal	Targets	Indicators	Link to GASP and RASP
<b>Operational safety risks</b>			
1. Improve the safety of Kazakhstan aviation operations across all sectors and reduce the operational risks	1.1. Maintain a decreasing trend of national accident rate	Number of accidents occurring in Kazakhstan per 10 000 flights Number of fatal accidents occurring in Kazakhstan per 10 000 flights	This goal is directly linked to Goal 1 and Target 1.1 of the GASP & linked to Goal 1 and Target 1.1 of the RASP
	1.2 Decrease the number of safety occurrences associated with High-Risk Category (HRC)	Number of serious incidents and incidents related to HRC (LOC-I, MAC, CFIT, RE, RI) per 10 000 flights	
	1.3 Decrease the number of safety occurrences associated with the presence of wildlife on and in aerodrome vicinity	Bird strike occurrence rate per 10 000 flights	

## Kazakhstan Aviation Safety Plan (KASP) 2024 - 2027

Goal	Targets	Indicators	Link to GASP and RASP
<b>Organizational challenges</b>			
2. Strengthen Kazakhstan's safety oversight capabilities	2.1 By 2026, reach an EI of the CEs of the Kazakhstan safety oversight system score of 90%	Meet EI score	This goal is directly linked to Goal 2 and Target 2.1 of the GASP & linked to Goal 2 and Target 2.1 of the RASP
		Number of fully implemented priority Protocol Questions (PQ) related to a safety oversight system	
		Percentage of required corrective action plans (CAPs) submitted by Kazakhstan (using OLF) Percentage of completed CAPs (using OLF)	
3. Implement effective SSP	3.1 By 2025, effective implementing the SSP foundation	Number of applicable Service Providers who have implemented an SMS	This goal is directly linked to Goal 3 of the GASP and Goal 3 of the RASP
	3.2 By Jan 2024, publish a Kazakhstan aviation safety plan (KASP)	Publication of approved KASP in AAK website	
4. Expand the collaboration at regional level	4.1 By 2025, contribute information on operational safety risks, including safety performance indicators (SPIs), and emerging issues	Number of applicable Service Providers who have shared their SPIs	This goal is directly linked to Goal 4 of the GASP and Goal 4 of the RASP
5. Expand the use of industry programmes and safety information sharing networks	5.1 Maintain an increasing trend in industry's contribution in safety information sharing networks	Number of service providers contributing to an SDCPS or a safety information sharing network	This goal is directly linked to Goal 5 of the GASP and Goal 5 of the RASP
6. Ensure Kazakhstan has the appropriate aviation infrastructure to support safe operations	6.1 By 2026, maintain in increasing trend with air navigation and aerodrome infrastructure that meet relevant ICAO standards.	Number or percentage of infrastructure-related air navigation deficiencies, against the global air navigation plans	This goal is directly linked to Goal 6 of the GASP and Goal 6 of the RASP
		Number or percentage implemented infrastructure-related PQs linked to the basic building blocks	

*Table 2. National safety goals and targets*

The SEIs in this plan are implemented through AAK's existing safety oversight capabilities and safety management systems of the service providers. SEIs derived from the ICAO Global Aviation Safety Roadmap (Doc 10161) were identified to achieve the national safety goals presented in the KASP. Some of the national SEIs are linked to overarching SEIs at the regional and international levels and help to enhance aviation safety globally. The full list of the SEIs is presented in Appendix 1 to the KASP.

#### 4. NATIONAL OPERATIONAL SAFETY RISKS

The KASP includes SEIs that address national operational safety risks, derived from lessons learned from occurrences and from a data-driven approach. These SEIs include actions such as rule-making, policy development, targeted safety oversight activities, safety data analysis and safety promotion.

The AAK publishes an Annual Safety Report. A summary of accidents that occurred in Kazakhstan, and those involved in commercial air transport and aircraft involved in general aviation, aerial work and flight training organization (FTO) is shown in the tables below:

Year	Fatal accidents	Non-fatal accidents
<b>Commercial air transport occurrences in Kazakhstan</b>		
Average 2011-2022	0.2	1
2022 Year	0	0
<b>General aviation / Aerial work / FTO aircraft occurrences in Kazakhstan</b>		
Average 2011-2022	1.7	2.2
2022 Year	0	2

Table 3. Summary of accidents

The following 5 national high-risk categories of occurrences (N-HRCs) in the Kazakhstan context were considered of the utmost priority because of the number of fatalities and risk of fatalities associated with such occurrences. They were identified based on analyses from mandatory reporting systems, accident and incident investigation reports, as well as on the basis of operational safety risks described in the GASP.

- 1) Loss of control in-flight (LOC-I);
- 2) Controlled flight into terrain (CFIT);
- 3) Mid-air collision (MAC);
- 4) Runway excursion (RE);
- 5) Runway incursion (RI);

## 5. ORGANIZATIONAL CHALLENGES

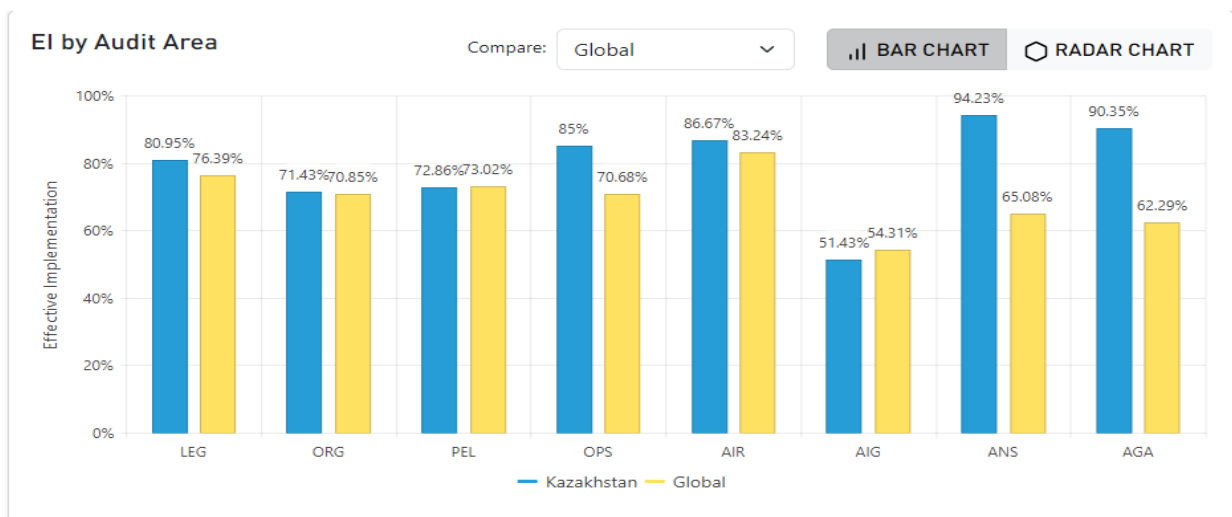
In addition to the national operational safety risks listed in the KASP, Kazakhstan has identified organizational challenges and a series of SEIs, selected for the KASP, to address them. These are given priority in the KASP since they are aimed at enhancing and strengthening Kazakhstan’s safety oversight capabilities and the management of aviation safety at the national level.

The eight critical elements (CEs) of a safety oversight system are defined by ICAO. Kazakhstan is committed to the effective implementation of these eight CEs, as part of its overall safety oversight responsibilities, which emphasize commitment of Kazakhstan to the safety in respect of its aviation activities.

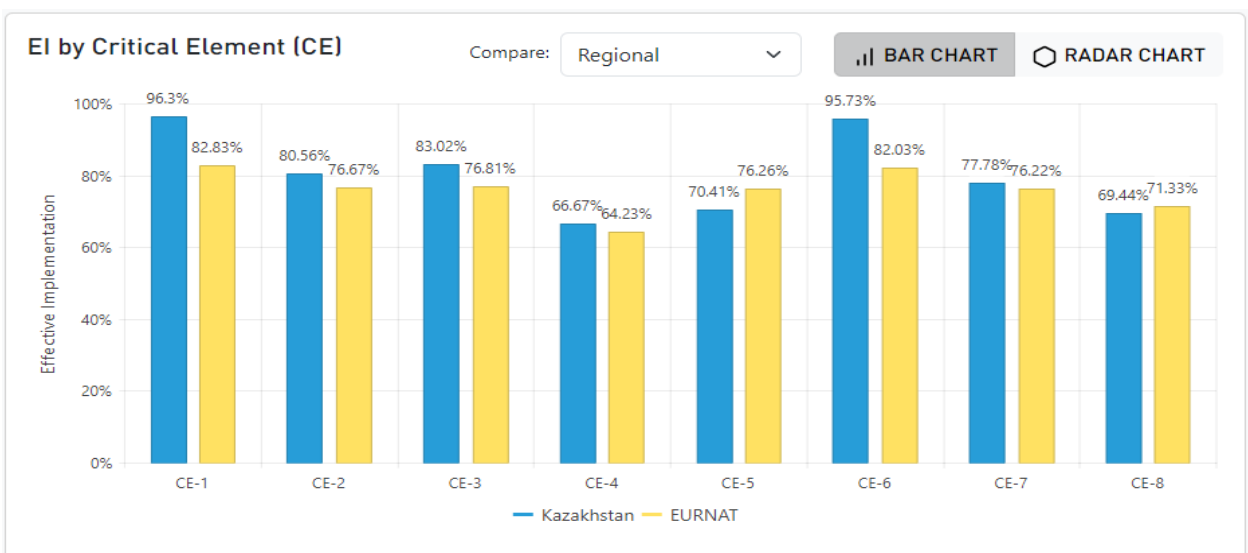
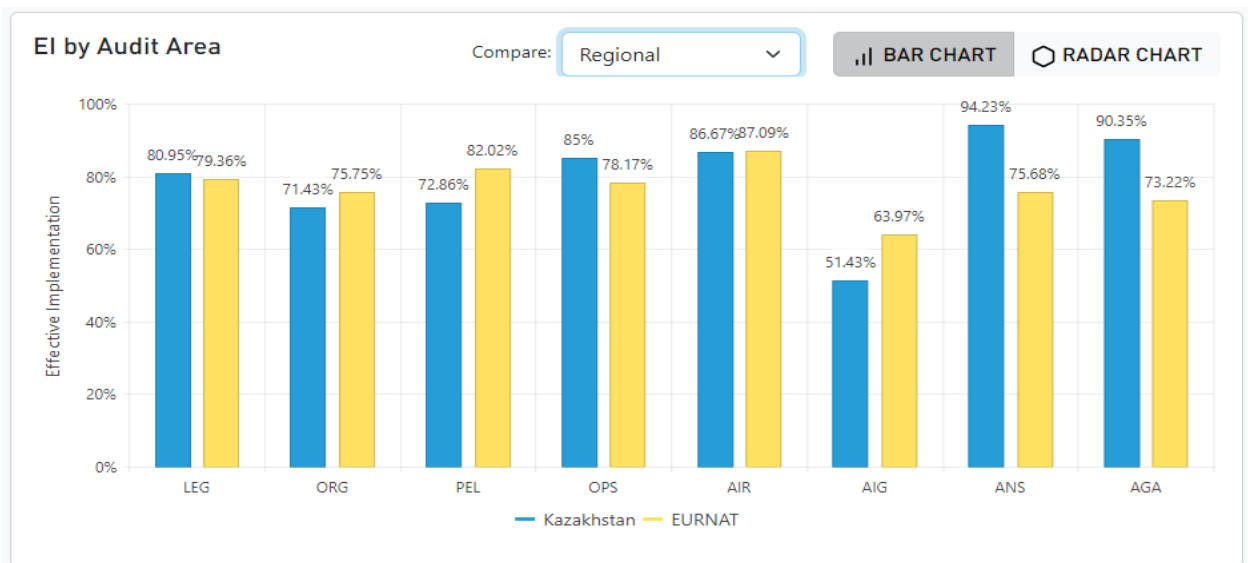
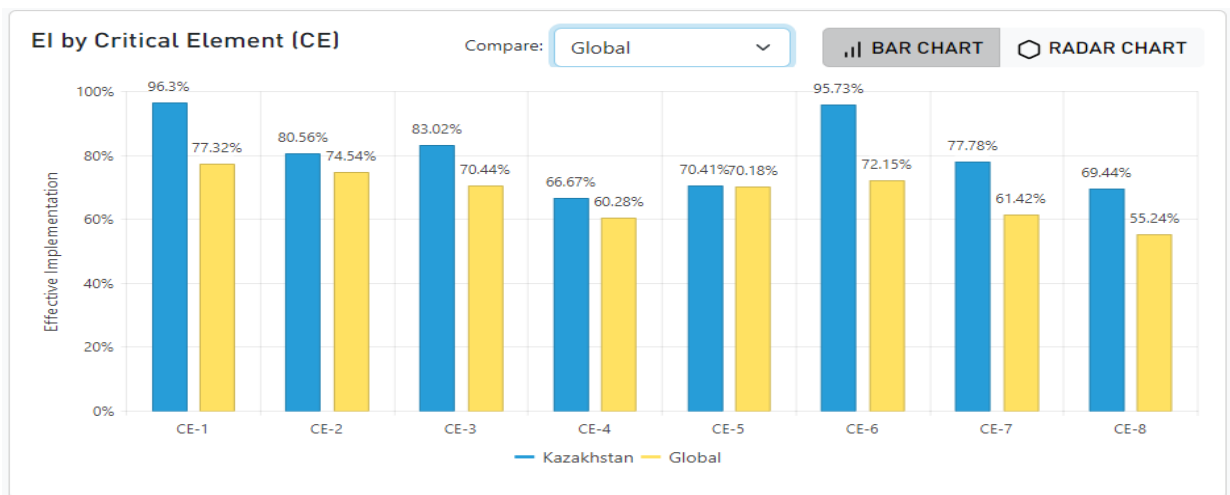
The latest ICAO activities, which aim to measure the effective implementation of the eight CEs of Kazakhstan’s safety oversight system, as part of the ICAO Universal Safety Oversight Audit Programme (USOAP), have resulted in the following scores (as of August 2021):

Overall EI score (%)							
82.1%							
EI score by CE (%)							
CE-1	CE-2	CE-3	CE-4	CE-5	CE-6	CE-7	CE-8
96.3%	80.56%	83.02%	66.67%	70.41%	95.73%	77.78%	69.44%
EI score by audit area (%)							
LEG	ORG	PEL	OPS	AIR	AIG	ANS	AGA
80.95%	71.43%	72.86%	85%	86.67%	51.43%	94.23%	90.35%

Table 4. Critical Elements (CE) of safety oversight system



## Kazakhstan Aviation Safety Plan (KASP) 2024 - 2027



The following organizational challenges in the context were considered of the utmost priority because they impact the effectiveness of safety risk controls. They were identified based on analysis from USOAP data, accident and incident investigation reports, safety oversight activities over the past years, the SSP, as well as on the basis of regional analysis conducted within EUR RASG of ICAO. These



issues are typically organizational in nature and relate to challenges associated with the conduct of States' safety oversight functions, implementation of SSP at the national level and the level of SMS implementation by national service providers. They take into consideration organizational culture, policies and procedures within AAK and those of service providers. These organizational challenges are in line with those listed in the 2023-2026 of the GASP, as well as the RASP:

1) Lack of personnel licensing system – this was the area, where Kazakhstan received the lowest EI score during the last USOAP, below Global and Regional averages, especially lack of examiners.

2) Inadequate technical guidance – CE5 was the area, where Kazakhstan received the lowest EI score during the last USOAP, below Global and Regional averages.

3) Implementation of SMS by service providers – oversight has shown that service providers are at a different level of SMS.

4) Competency of technical personnel – CE4 was the area, where Kazakhstan received the lowest EI score during the last USOAP, below Global and Regional averages.

5) Timely implementation of amendments to ICAO SAPRs.

To address the organizational challenges listed above, Kazakhstan will implement a series of SEIs, some of which are derived from the ICAO ORG roadmap, contained in the ICAO Global Aviation Safety Roadmap (Doc 10161). The full list of the SEIs is presented in Appendix 1 to the KASP.

## **6. MONITORING IMPLEMENTATION**

The AAK will continuously monitor the implementation of the SEIs listed in the KASP and measure safety performance of the national civil aviation system to ensure the intended results are achieved, using the mechanisms presented in the Appendix 1 to this plan.

In addition to the above, AAK will review the KASP at least once every four (4) years or earlier, if required, to keep the identified operational safety risks, organizational challenges and selected SEIs updated and relevant. The AAK will periodically review the safety performance of the initiatives listed in the KASP to ensure the achievement of national safety goals. If required, AAK will seek the support of international organizations to ensure the timely implementation of SEIs to address safety deficiencies and mitigate risks. Through close monitoring of the SEIs, AAK will adjust the KASP and its initiatives, if needed, and update the KASP accordingly.

The AAK will use the indicators listed in Section 3 of this plan to measure safety performance of the civil aviation system and monitor each national safety target.

If the national safety goals are not met, the root causes will be identified. If AAK identifies critical operational safety risks, reasonable measures will be taken to mitigate them as soon as practicable, possibly leading to an unscheduled revision of the KASP.

The AAK is responsible for the development, implementation and monitoring of the KASP with SEIs listed, in collaboration with the national aviation industry. The KASP was developed in consultation with national operators and other stakeholders, and in alignment with the EUR/NAT RASP and GASP.

**APPENDIX 1 – Safety enhancement initiatives**

<b>Operational Safety risks</b>					
<b>Goal 1: Improve the safety of Kazakhstan aviation operations across all sectors and reduce the operational risks</b>					
<b>Safety enhancement initiatives</b>	<b>Action</b>	<b>Timeline</b>	<b>Responsible entity</b>	<b>Stakeholders</b>	<b>Priority</b>
SEI-1 Continued availability of safety data and safety information to support safety management activities at the national level	1A. Establish SSP safety performance indicators of operational safety risks	2024	AAK	AAK	H
	1B. Develop safety performance measurement guidance/instrument aligned with the global safety metrics, using the established safety risk management process	2024	AAK	Industry	H
	1C. Promote safety awareness and the two-way communication, sharing and exchange of safety-relevant information within the Kazakhstan’s aviation organizations and encourage sharing of safety information with industry within the Kazakhstan	2025	AAK	Industry	H
	1D. Digitization of business processes and control and oversight activities to safety improvement.	2026	AAK	AAK	H
SEI-2 Mitigate the risk of “Controlled flight into terrain – (CFIT)” occurrences	2A Review and amend in SEIs-2 to mitigate the risk of the identified contributing factors, if any, for CFIT.	Continuing process	AAK	AAK Industry	H
	2B. As part of oversight activities, AAK shall monitor the implementation of SEIs-2 by industry	Continuing process	AAK	AAK	H
	2C. Validate the effectiveness of the Safety Enhancement Initiatives (SEIs-2) presented in this roadmap through the analysis of Mandatory Occurrence Reporting (MORs) and accident/incident investigations and state safety oversight report concerning CFIT	Continuing process	AAK Industry	AAK Industry	H

*Kazakhstan Aviation Safety Plan (KASP) 2024 - 2027*

<b>Safety enhancement initiatives</b>	<b>Action</b>	<b>Timeline</b>	<b>Responsible entity</b>	<b>Stakeholders</b>	<b>Priority</b>
	2D. Validate the effectiveness of the SEI-2 through the analysis of Flight Data Monitoring and pilots' reports applying safety management methodologies.	Continuing process	Air Operators	AAK Air Operators (AOC holders)	<b>H</b>
SEI-3 Mitigate the risk of "Mid-air collision (MAC)" occurrences	3A Review and amend in SEIs-3 to mitigate the risk of the identified contributing factors, if any, for MAC.	Continuing process	AAK	AAK Industry	<b>H</b>
	3B. As part of oversight activities, AAK shall monitor the implementation of SEIs-3 by industry	Continuing process	AAK	AAK	<b>H</b>
	3C. Validate the effectiveness of the Safety Enhancement Initiatives (SEIs-3) presented in this roadmap through the analysis of Mandatory Occurrence Reporting (MORs) and accident/incident investigations and state safety oversight report concerning MAC	Continuing process	AAK Industry	AAK Industry	<b>H</b>
	3D. Validate the effectiveness of the SEI-3 presented in this roadmap through the analysis of Flight Data Monitoring and pilots' reports applying safety management methodologies.	Continuing process	Air Operators	AAK Air Operators (AOC holders)	<b>H</b>
	3E. Validate the actions related to implementation of the ICAO Aviation System Upgrade Blocks (Air Navigation System Block Upgrade (ASBU)) connected to MAC	Continuing process	ANSP	AAK ANSP	<b>H</b>
SEI-4 Mitigate the risk of "Loss of control in flight"	4A Review and amend in SEIs-4 to mitigate the risk of the identified contributing factors, if any, for LOC-I.	Continuing process	AAK	AAK Industry	<b>H</b>
	4B. As part of oversight activities, AAK shall monitor the implementation of SEIs-4 by industry	Continuing process	AAK	AAK	<b>H</b>

*Kazakhstan Aviation Safety Plan (KASP) 2024 - 2027*

<b>Safety enhancement initiatives</b>	<b>Action</b>	<b>Timeline</b>	<b>Responsible entity</b>	<b>Stakeholders</b>	<b>Priority</b>
(LOC-I) occurrences	4C. Validate the effectiveness of the Safety Enhancement Initiatives (SEIs-4) presented in this roadmap through the analysis of Mandatory Occurrence Reporting (MORs) and accident/incident investigations and state safety oversight report concerning LOC-I	Continuing process	AAK Industry	AAK Industry	H
	4D. Validate the effectiveness of the SEI-4 presented in this roadmap through the analysis of Flight Data Monitoring and pilots' reports applying safety management methodologies.	Continuing process	Air Operators	AAK Air Operators (AOC holders)	H
SEI-5 Mitigate the risk of "Runway excursion (RE)" occurrences	5A Review and amend in SEIs-5 to mitigate the risk of the identified contributing factors, if any, for RE.	Continuing process	AAK	AAK Industry	H
	5B. As part of oversight activities, AAK shall monitor the implementation of SEI-5 by industry	Continuing process	AAK	AAK	H
	5C. Establishment of the National Runway Safety Group	2024	AAK	AAK Industry	H
	5D. Establishment of a State Runway Safety Programme and Runway Safety Action Plan	2024	AAK	AAK Industry	H
	5E. Implementation of a State Runway Safety Programme and Runway Safety Action Plan	2027	AAK	AAK Industry	H
	5F. Validate the effectiveness of the Safety Enhancement Initiatives (SEIs-5) presented in this roadmap through the analysis of Mandatory Occurrence Reporting (MORs) and accident/incident investigations and state safety oversight report concerning RE	Continuing process	AAK Industry	AAK Industry	H

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<b>Safety enhancement initiatives</b>	<b>Action</b>	<b>Timeline</b>	<b>Responsible entity</b>	<b>Stakeholders</b>	<b>Priority</b>
	5G. Validate the effectiveness of the SEI-5 presented in this roadmap through the analysis of Flight Data Monitoring and pilots' reports applying safety management methodologies.	Continuing process	Air Operators	AAK Air Operators (AOC holders)	<b>H</b>
SEI-6 Mitigate the risk of "Runway incursion (RI)" occurrences	6A Review and amend in SEIs-6 to mitigate the risk of the identified contributing factors, if any, for RI.	Continuing process	AAK	AAK Industry	<b>H</b>
	6B. As part of oversight activities, AAK shall monitor the implementation of SEIs-6 by industry	Continuing process	AAK	AAK	<b>H</b>
	6C. Establishment of the National Runway Safety Group	2024	AAK	AAK Industry	<b>H</b>
	6D. Establishment of a State Runway Safety Programme and Runway Safety Action Plan	2024	AAK	AAK Industry	<b>H</b>
	6E. Implementation of a State Runway Safety Programme and Runway Safety Action Plan	2027	AAK	AAK Industry	<b>H</b>
	6F. Validate the effectiveness of the Safety Enhancement Initiatives (SEIs-6) presented in this roadmap through the analysis of Mandatory Occurrence Reporting (MORs) and accident/incident investigations and state safety oversight report concerning RI	Continuing process	AAK Industry	AAK Industry	<b>H</b>
	6G. Validate the effectiveness of the SEI-6 presented in this roadmap through the analysis of Flight Data Monitoring and pilots' reports applying safety management methodologies.	Continuing process	Air Operators	AAK Air Operators (AOC holders)	<b>H</b>

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<b>Safety enhancement initiatives</b>	<b>Action</b>	<b>Timeline</b>	<b>Responsible entity</b>	<b>Stakeholders</b>	<b>Priority</b>
	6H. Validate the actions related to implementation of the ICAO Aviation System Upgrade Blocks (Air Navigation System Block Upgrade (ASBU)) connected to RI	Continuing process	ANSP	AAK ANSP	<b>H</b>
SEI-7 Mitigate contributing factors to presence of wildlife on and in the aerodrome vicinity	7A. Implement the following safety actions: a) Ensure the amendment of aerodrome's procedures of wildlife management control b) Ensure training to all personnel involved in wildlife management control	Continuing process	Aerodromes	Aerodromes, AAK	<b>H</b>
	7B. Continuous a wildlife hazard assessment in the aerodrome and vicinity of the airport	Continuing process	Aerodromes	Aerodromes,	<b>H</b>
	7C. Promote the mutual coordination and communication among aerodrome operators and other state departments regarding land-use planning and development in the vicinity of aerodrome	Continuing process	Aerodromes	AAK Aerodromes,	<b>H</b>
	7D. Implement effective control measures in the aerodrome	Continuing process	Aerodromes	AAK Aerodromes,	<b>H</b>
	7E. Validate the effectiveness of the Safety Enhancement Initiatives (SEIs) presented in this roadmap through the analysis of Mandatory Occurrence Reporting (MORs) and accident/incident investigations state safety oversight report.	Continuing process	AAK Aerodromes	AAK, Aerodromes	<b>H</b>

**Organizational challenges**

**Goal 2:** Strengthen Kazakhstan’s safety oversight capabilities

**Goal 3:** Implement effective SSP

**Goal 4:** Expand the collaboration at regional level

**Goal 5:** Expand the use of industry programmes and safety information sharing networks

**Goal 6:** Ensure Kazakhstan has the appropriate aviation infrastructure to support safe operations

Safety enhancement initiatives	Action	Timeline	Responsible entity	Stakeholders	Priority
SEI-8 Consistent implementation of ICAO SARPs at the national level	8A - Address all priority protocol questions (PQs) of the USOAP CMA	Continuing process	AAK	AAK	H
	8B - Increase the level of compliance with ICAO SARPs and the EI of CEs at the national level (all CEs)	Continuing process	AAK	AAK	H
	8C - Revise the regulations to empower the competent authority to conduct regulatory oversight	Continuing process	AAK	AAK	H
SEI-9 Development of comprehensive regulatory oversight framework <sup>a</sup>	9A - Improve the controlling system to promulgate technical guidance and tools, and provide safety-critical information needed for technical personnel to effectively perform their safety oversight functions	Continuing process	AAK	AAK	H
	9B - Establish an effective system to attract, recruit, train and retain qualified and sufficient technical personnel to support regulatory oversight	Continuing process	AAK	AAK	H



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<b>Safety enhancement initiatives</b>	<b>Action</b>	<b>Timeline</b>	<b>Responsible entity</b>	<b>Stakeholders</b>	<b>Priority</b>
SEI-10 Strategic allocation of resources to enable effective safety oversight	10A - Review the process for the resource planning and allocation in alignment with the current authority's organizational structure and current challenges, which is required to conduct effective safety oversight	Continuing process	AAK	AAK	H
	10B - Obtain a sustainable and stable source of financing through commitments from the national and agency leadership and other stakeholders	Continuing process	AAK	AAK	H
	10C - Develop a process for assessing changing resource requirements and sustain necessary coordination with resource stakeholders for safety oversight improvements	Continuing process	AAK	AAK	H
SEI-11 Qualified technical personnel to support effective safety oversight	11A - Implement a centralized system to identify and track qualifications and training of existing technical personnel necessary to implement the oversight mandate	Continuing process	AAK	AAK	H
	11B - Improve the current system to attract, recruit, train and retain qualified and sufficient technical personnel to support regulatory oversight	Continuing process	AAK	AAK	H
	11C - Implement training policies and programmes for technical personnel and verify that the type and frequency of training successfully completed (i.e. initial, recurrent, specialized and on-the-job training) are sufficient to acquire/maintain the required qualifications and level of competence corresponding to the assigned duties and responsibilities of technical personnel	Continuing process	AAK	AAK	H
	11D - Develop a process for assessing changing needs for qualified technical personnel requirements and develop procedures to update hiring, retention and training of personnel needs	Continuing process	AAK	AAK	H
SEI-12	12A - Establish and implement a process for sharing technical guidance, tools and safety-critical information related to KASP implementation	Continuing process	AAK	AAK	H




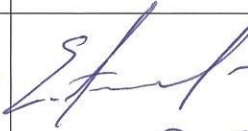








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<b>Safety enhancement initiatives</b>	<b>Action</b>	<b>Timeline</b>	<b>Responsible entity</b>	<b>Stakeholders</b>	<b>Priority</b>
Strategic collaboration with key aviation stakeholders	including advisory circulars, staff instructions, safety performance indicators, etc. in collaboration with national stakeholders				
	12B - Collaborate, develop, and agree KASP with key aviation stakeholders for further implementation	Continuing process	AAK	AAK	H
	12C - Establish a system for the continuous evaluation and improvement of KASP in collaboration with all key aviation stakeholders	Continuing process	AAK	AAK	H
SEI-13 Provision of the primary source of safety information to ICAO by updating all relevant documents and records	13A - Update USOAP corrective action plan items	Continuing process	AAK	AAK	H
	13B - Update and submit the self-assessment checklist based on USOAP CMA PQs	Continuing process	AAK	AAK	H
	13C - Update and submit the State aviation activity questionnaire	Continuing process	AAK	AAK	H
	13D - Update and submit the compliance checklists on the electronic filing of differences system	Continuing process	AAK	AAK	H
	13E - Update documents and records, as required, in a timely manner	Continuing process	AAK	AAK	H
SEI-14 Acquisition of resources to increase the proactive use of risk modelling capabilities	14A - Identify resources needed to support safety intelligence collection and processing, advanced data analysis, risk modelling and information-sharing capabilities	Continuing process	AAK	AAK	H
	14B - Attract, recruit, train and retain qualified technical personnel to specialize in risk modelling	Continuing process	AAK	AAK	H

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<b>Safety enhancement initiatives</b>	<b>Action</b>	<b>Timeline</b>	<b>Responsible entity</b>	<b>Stakeholders</b>	<b>Priority</b>
SEI-15 Advancement of safety risk management at the national level	15A - Establish data sharing connectivity and integration among the aviation safety databases of the State, including the mandatory occurrences reporting system, voluntary safety reporting systems, safety audit reports and aviation system statistics (traffic volume, weather information, EI scores, etc.)	Continuing process	AAK	AAK	H
	15B - Develop risk modelling capabilities to support monitoring system safety issues and accident/incident prevention	Continuing process	AAK	AAK	H
	15C - Encourage information-sharing with industry	Continuing process	AAK	AAK	H
SEI-16 Expand the use of industry programmes	16A - Encourage industry to participate in the corresponding ICAO-recognized industry assessment programmes (etc. for aerodromes operators - ACI Airport Excellence (APEX) in Safety, for ground handlers - IATA Safety Audit for Ground Operations (ISAGO), for aircraft operators - IATA Operational Safety Audit (IOSA))	Continuing process	AAK	AAK	H

## SIGN-OFF SHEET

#	Name	Organization	Date	Signature
1.	Zhanat Abdugalinov	AAK	21.12.23	
2.	Araiym Raimzhanova	AAK	21.12.23	
3.	Svetlana Yeroshina	AAK	21.12.23	
4.	Yernar Amantaiuly	AAK	21.12.23	
5.	Rishat Rozbakiyev	AAK	21.12.23.	
6.	Tulekov Ulukbek	AAK	22-12-23	
7.	Andreyev Oleg	AAK	27.12.23	
8.	Aslan Satzhanov	AAK	22.12.23	
9.	Ardyn Akylbekov	AAK	22.12.2023	
10.	Vyacheslav Skitelkin	AAK	22.12.2023	
11.	Osman Umulduzbayev	AAK	22.12.2023	
12.	UAH BABIC	AAK	22.12.2023	

#	Name	Organization	Date	Signature
13				
14				
15				
16				
17	Kataev Alexander	CONTRACT	25.12.23	Katsh
18	Dayanova Zina	JSC Aircompany "SCAT"	25.12.23	Z. Dayanova
19	Albina Tajiyeva	JSC Aircompany "SCAT"	25.12.23	Albina Tajiyeva
20	Serikbayeva Gozal	Almaty International Airport	26.12.2023	Gozal
21	Kenzhebayev Puman	ALA	26.12.2023	Puman
22	Zhomart Chustemov	JSC "QAZAQ AIR"		Zhomart Chustemov
23	Davletgarayev Rinat	RSE "KAN"		Rinat
24	Vislapu Viktor	RSE KAN		Vislapu Viktor
25				