



# SEIs' identification and prioritization

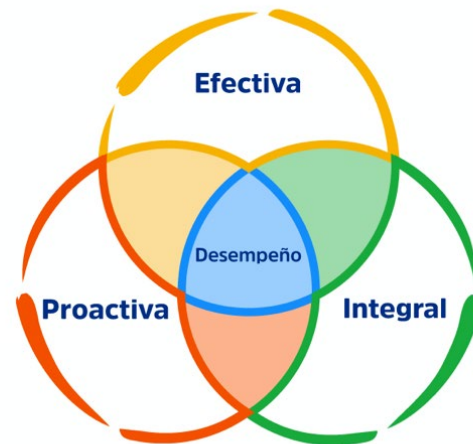
Presented by:  
Marco López

ICAO NACC NASP Workshop  
5 – 6 December 2022



# Safety Enhancement Initiatives

One or more measures aimed at eliminating or mitigating safety risks or at resolving a detected safety problem.



# Safety Enhancement Initiatives

Initiatives associated with the objectives and goals of the GASP, as well as the G-HRC.



**Controlled flight into terrain CFIT**



**Loss of control in Flight LOC-I**



**Run way excursion RE**



**Mid air collision MAC**



# GASP ROADMAP

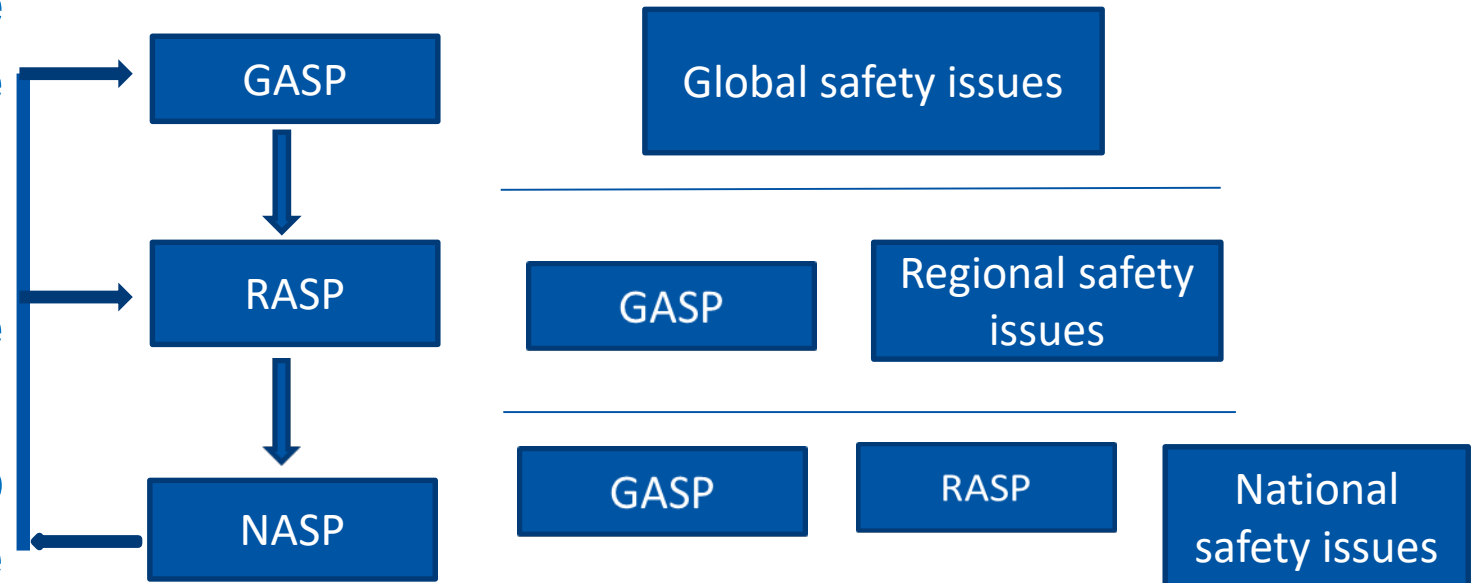
Action Plan to assist the aviation community in the development of RASPs and NASPs, consistent with the objectives of the GASP.

Aviation safety planning	
Strategy	Action Plan
Global Aviation Safety Plan (Doc.10004)	Global Aviation Safety Roadmap (Doc.10161) <sup>1</sup>

<sup>1</sup> Under development by ICAO

# Safety Improvement

- Some RASP SEIs may not apply directly to the State because they are addressed to the RASG.
- States should consult both the GASP and the corresponding RASP when developing the NASP to define the SEIs to be implemented





# SEI and N-HRC

- Safety Enhancement Initiative (SEI).
- Action / Measure.
- Term.
- Responsible.
- Stakeholders.
- Measurements / Indicators.
- Priority
- Monitoring Activity.



ICAO



# Safety Enhancement Initiative

*HRC: High-Risk Categories.*

*Objective: to Achieve continuous reduction of safety risks.*

Goal: the state will maintain a downward trend in the national accident rate from 2022 to 2024.

# Safety Enhancement Initiative

**Issue No. 1:** Operational Safety Risks

**HRC 1:** Controlled Flight Into Terrain (CFIT)

**Goal 1:** Achieve a continuous reduction of operational safety risks  
**Target 1.1:** Maintain a decreasing trend of the national accident rate

Safety enhancement initiative	Action	Responsible entity	Timeline	Stakeholders	Metrics	Priority	Monitoring Activity
<i>GASP OPS SEI on CFIT (State) — Mitigate contributing factors to the risk of CFIT</i>	1. Implement the following CFIT safety actions:						
	a. Ensure aircraft are equipped with terrain awareness and warning system (TAWS) in accordance with Annex 6.	FSSD	Implemented				Surveillance of operator, ANSP activities  Safety reporting (MOR/VO R)
	b. Promote the wider use of TAWS beyond the requirements of Annex 6.	FSSD	Implemented	ANSSSD ANSP FSSD Air Operators	Number of CFIT Accident/incident per 10,000 flight movements.	High	
	c. Issue a Safety Advisory to increase adherence to TAWS warning procedures	FSSD	Implemented				
d. Promote the use of GPS-derived position data to feed TAWS	FSSD	2022					





# Safety Enhancement Initiative

## HRC 4: Runway Excursion (RE)

**Goal 1:** Achieve a continuous reduction of operational safety risks  
**Target 1.1:** Maintain a decreasing trend of the national accident rate

Safety enhancement initiative	Action	Responsible entity	Timeline	Stakeholders	Metrics	Priority	Monitoring Activity
GASP OPS SEI on RE (State) — Mitigate contributing factors to risk	1. Implement the following RE safety actions: <ul style="list-style-type: none"> <li>a. Ensure the establishment and implementation of a State runway safety Programme (RSP) and runway safety teams (RST) in all certified aerodromes.</li> </ul>	ASSD	2022	<ul style="list-style-type: none"> <li>• Air Operators</li> </ul>	Number of RE Accident/incident per 10,000 flying	High	Surveillance of Aerodromes, ANSP, air operator and ATO training activities

# Safety Enhancement Initiative

**APPENDIX - B**  
**DETAILED SEIs: STATE SAFETY OVERSIGHT CAPABILITIES**

Issue no. 2: Establishment of a safety oversight framework

Focus on lower EI scores for categories namely

- CE-8: Resolution of safety Issues,
- CE-4: Technical personnel qualifications and training,
- CE-7: Surveillance Obligations
- Organization (ORG)
- Aircraft and incident investigation (AIG),
- Aerodrome and ground aids (AGA), and
- Air navigation services (ANS)

**Goal 2: Strengthen State safety oversight capabilities**

Target 2.1: Endeavour to have no Significant Safety Concerns (SSCs) under the USOAP Continuous Monitoring Approach (CMA), and to resolve any SSC promptly within the time frame specified in the Corrective Action Plan and agreed to by ICAO [from 2020 to 2022]

Target 2.2: Encourage to increase the number of IOSA registered APAC airlines and ISAGO registrations.

Target 2.3: Nepal to progressively enhance safety oversight capability to achieve at least 75% EI by 2022, 85% by 2026 and 95% by 2030 in USOAP CMA

Target 2.4: Nepal to reach a safety oversight index greater than 1 in all categories by 2022

Target 2.5: Conduct workshops and seminars relating to ANS, AIG, AGA at least yearly [from 2020 to 2022].

Safety enhancement initiative	Action	Responsible entity	Timeline	Stakeholders	Metrics	Priority	Monitoring Activity
GASP ORG SEI 1 (State)	1. Work at the national level to address significant safety concerns as a priority	ASSRD	Continuous process	<ul style="list-style-type: none"> <li>• Air Operators</li> <li>• ANS service provider</li> <li>• Aerodrome</li> </ul>	EI percentage	High	Quality assurance of oversight functions
Consistent implementation of ICAO SARPs at the national level	2. Address all priority protocol questions (PQs) of the USOAP CMA	ASSRD	Continuous process		State Safety index		
	3. Establish primary aviation law and regulations, to empower the competent authority to conduct regulatory oversight, this includes separation of	CAAN	2022		Rate of improvement in compliance		

# Safety Enhancement Initiative

<p>GASP ORG SEI-3 (State) — Establishment of an independent accident and incident investigation authority, consistent with Annex 13</p>	<p>1. Establish an independent accident and incident investigation authority, as per Annex 13 requirements (CE-1 and CE-3)</p>	MoCTCA	2022		<p>Independent accident and incident investigation authority</p> <p>The required technical guidance and tools.</p>	<p>AIG reports</p> <p>Quality assurance regarding the AIG functions</p>	
	<p>2. Develop an effective system to promulgate technical guidance and tools, and provide safety-critical information needed for technical personnel to effectively conduct accident and incident investigations (CE-5)</p>	MoCTCA	2022				
	<p>3. Establish an effective system to attract, recruit, train and retain qualified and sufficient technical personnel to support accident and incident investigations (see SEI-5) (CE-3 and CE-4)</p>	MoCTCA	2022				
<p>GASP ORG SEI-4 (State) — Strategic allocation of resources to enable effective safety oversight</p>	<p>1. Confirm executive or legislative mandate to receive financial resources from government or other external sources and expend them (CE-1)</p>	CAAN	Implemented	<ul style="list-style-type: none"> <li>• Air Operators</li> <li>• ANS service provider</li> <li>• Aerodrome service providers</li> <li>• ASSRD</li> </ul>	<p>CAAN acts and regulations</p>	<p>Provisions and implementation of CAAN acts and regulations</p>	
	<p>2. Establish a process for the resource planning and allocation in alignment with a competent authority's organizational structure, which is required to conduct effective safety oversight (CE-2 and CE-3). SEI-1 and SEI-5 could be used to identify resource requirements (CE-1 to CE-5)</p>	ASSRD	2022				
	<p>3. Obtain a sustainable and stable source of financing through commitments from the national and agency leadership and other stakeholders (CE-1 to CE-3). For small scope short-term improvements:</p>	ASSRD	Continuously being implemented				



North American  
Central American  
and Caribbean  
(NACC) Office  
Mexico City

South American  
(SAM) Office  
Lima

ICAO  
Headquarters  
Montréal

Western and  
Central African  
(WACAF) Office  
Dakar

European and  
North Atlantic  
(EUR/NAT) Office  
Paris

Middle East  
(MID) Office  
Cairo

Eastern and  
Southern African  
(ESAF) Office  
Nairobi

Asia and Pacific  
(APAC) Sub-office  
Beijing

Asia and Pacific  
(APAC) Office  
Bangkok



THANK YOU