2026-2028 GASP: ICAO's Global Safety Strategy & What it Means for the NASP

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Martin Maurino, M.Eng
Technical Officer, Global Aviation Safety

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Overview

- Global safety issues
- Introduction to 2026-2028 edition of GASP
  - its role in NASP development/revision
- Updated guidance material for RASP & NASP
- Use of ICAO documents & tools
  - Global aviation safety roadmap
  - Standardized frameworks
  - GASP indicator forms

Global Safety Issues

ICAO GASP-Study Group

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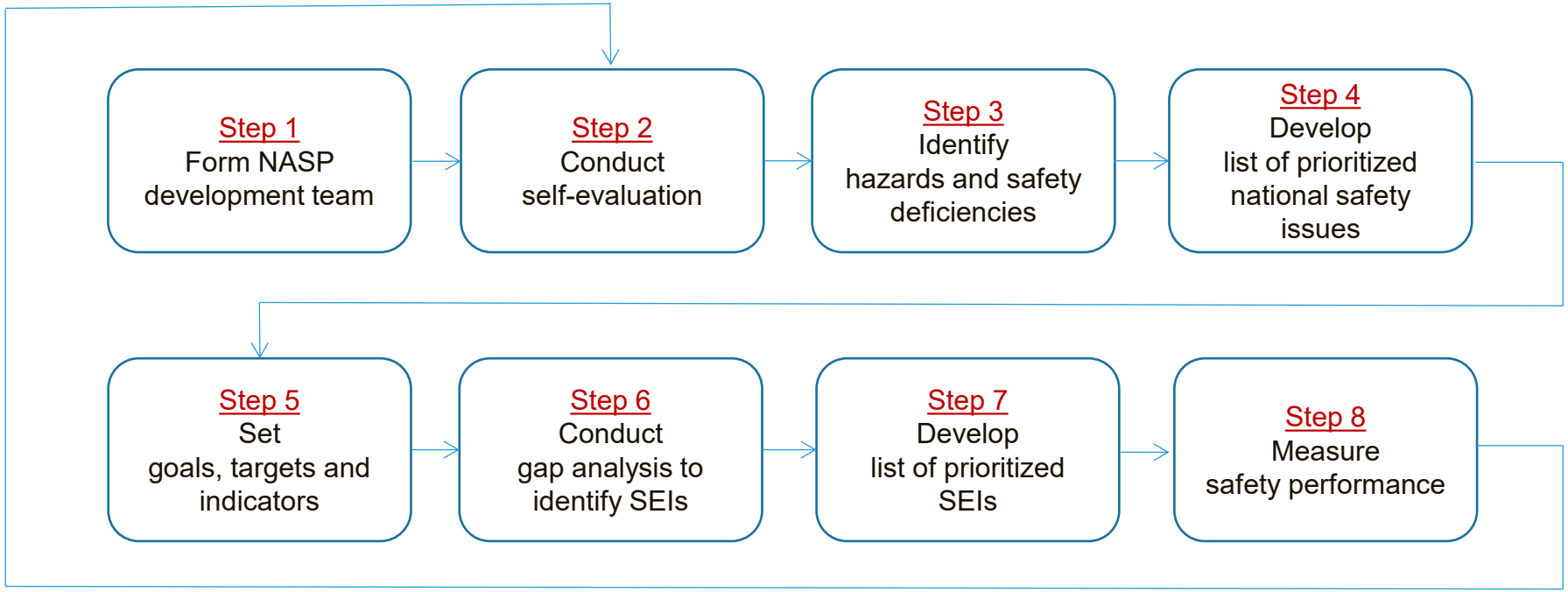
AIRPORTS COUNCIL INTERNATIONAL · canso · EUROCONTROL · FLIGHT SAFETY FOUNDATION · IATA · ICCAIA · IFALPA

Use of NASP Development Process

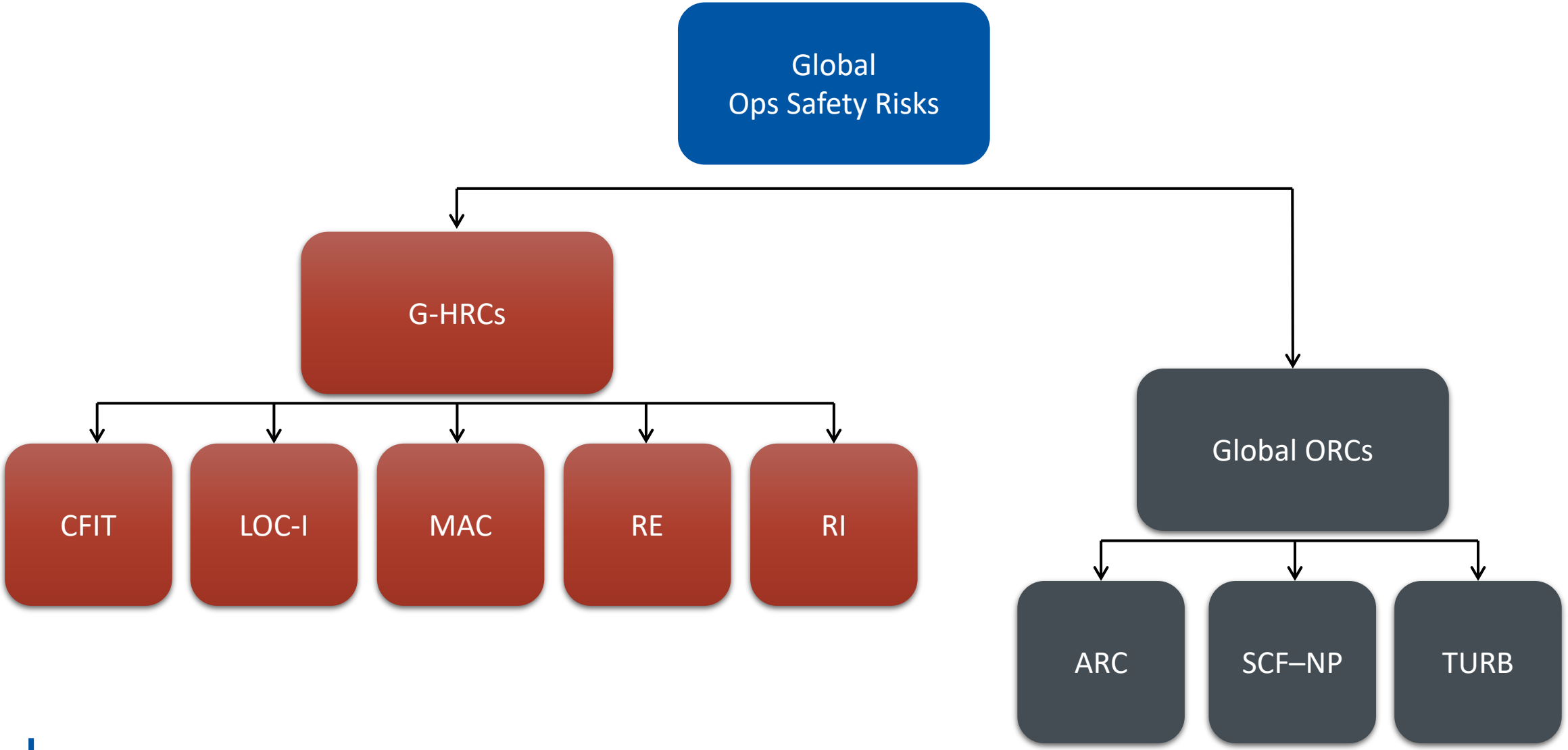


Process to Identify Global Safety Issues

- Several data sources
  - Accident & serious incident data (ICAO, IATA, FSF)
  - USOAP data, incl. trends
  - Other ICAO sources, such as iSTARS
  - RASPs from all Regions

- Structured methodology for transparent analysis/selection
  - Use of Standardized Frameworks for ORG & HRCs
  - + drafting of Goals & Targets
  - Decision aid for existing Goals & Targets

Main Findings

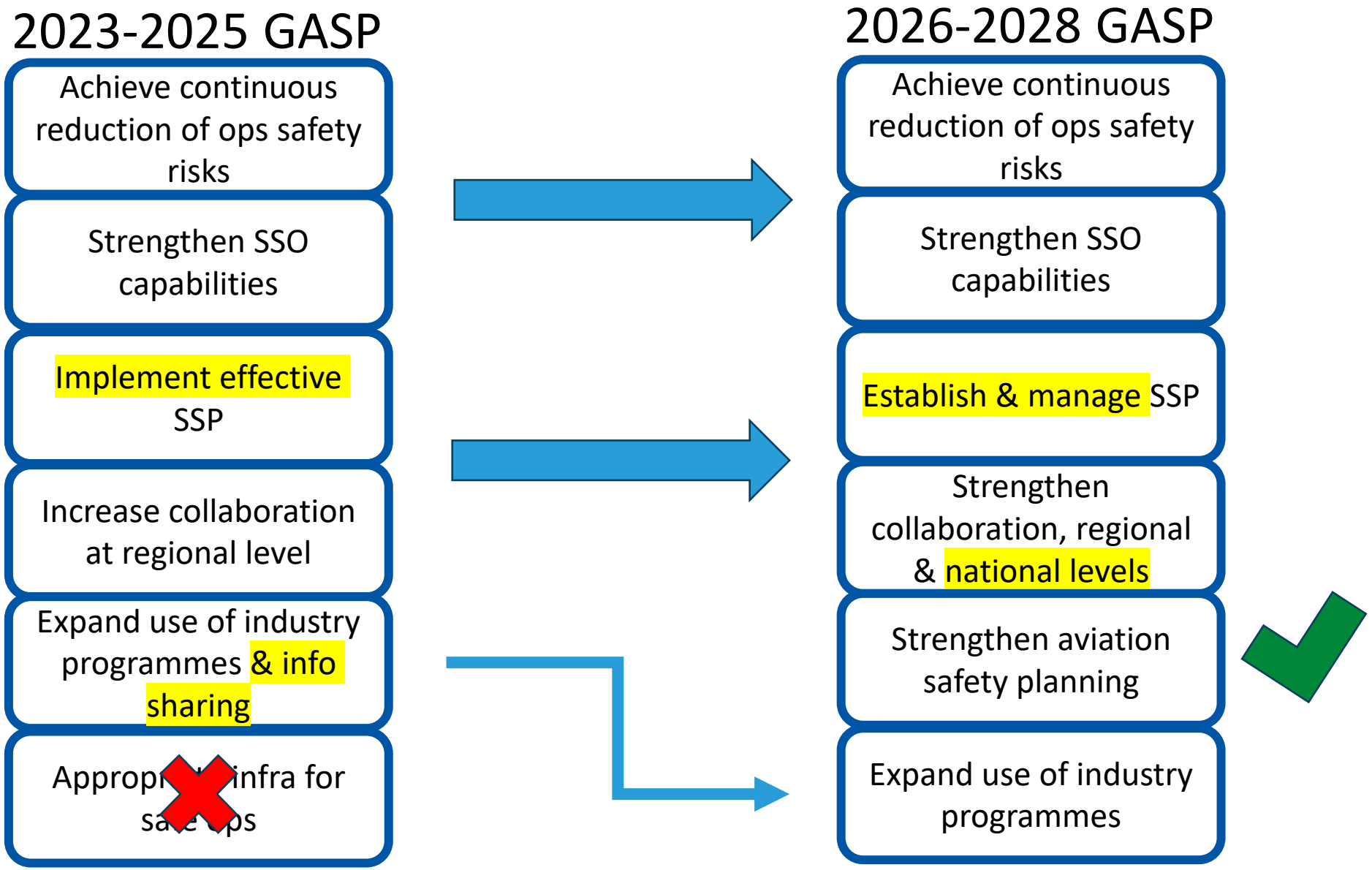


Main Findings

Global ORG Challenges 2026-2028
Lack of sufficient financial resources for safety oversight authority to meet national and international obligations
Lack of qualified technical personnel, primarily in AIG & AGA
Lack of regulatory process to address resolution of safety issues, primarily in AGA
Low level of SSP implementation at global level
Deficiencies in safety data & safety information collection, analysis, and exchange, to support safety management activities

Introduction to the 2026-2028 edition of GASP

Draft GASP Goals



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2026-2028 GASP Goals

1. Achieve continuous reduction of ops safety risks
2. Strengthen States' safety oversight capabilities
3. Establish & manage SSP
4. Strengthen collaboration at regional & national levels to address safety issues
5. Strengthen aviation safety planning
6. Expand use of industry evaluation & data sharing programmes

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ICAO aspirational safety goal "zero fatalities by 2030 and beyond"			
Goal	*Target*		*Indicators*
Goal 1: Achieve a continuous reduction of operational safety risks	1.1	By 2028, States, regions and industry to decrease the accident rate, globally and within each ICAO region[1]	– Accident rate (number of accidents per million departures) – Fatal accident rate (number of fatal accidents per million departures) – Fatality rate (number of fatalities per billion passengers carried)
	1.2	By 2028, States, regions and industry to decrease the rate of accidents and serious incidents for each global high-risk category of occurrence (G-HRC), globally and within each ICAO region[2]	– Accident rate by G-HRC – Serious incident rate by G-HRC – Percentage of accidents related to G-HRC compared to all accidents – Percentage of serious incidents related to G-HRC compared to all serious incidents
	1.3	By 2028, States, regions and industry to decrease the rate of accidents and serious incidents related to the other global risk categories of occurrences, globally and within each ICAO region[2]	– Accident rate by other global risk category of occurrence – Serious incident rate by other global risk category of occurrence – Fatal accident rate by other global risk category of occurrence – Fatality rate by other global risk category of occurrence – Number of injuries per billion passengers carried (injury rate)

Goal 2: Strengthen States' safety oversight capabilities	2.1	By 2028, all States to commit to national aviation safety plans that allocate to each safety oversight authority sufficient financial resources to meet national and international obligations, with at least 70 per cent of States having sufficient financial resources	– Percentage of States with a "satisfactory" rating for the Universal Safety Oversight Audit Programme (USOAP) protocol question (PQ) 2.051[2]
	2.2	By 2028, all States to improve their effective implementation (EI) score for qualified technical personnel (CE-4) for aircraft accident and incident investigation (AIG) and for aerodromes and ground aids (AGA), respectively, with a further commitment that no State has a score of less than the baseline global average[3]	– Number of States that meet the EI score of equal or greater than the baseline global average for CE-4/AIG – Number of States that meet the EI score of equal or greater than the baseline global average for CE-4/AGA
	2.3	By 2028, all States to improve their EI score for the resolution of safety issues (CE-8) in AGA with a further commitment that no State has a score of less than the baseline global average[4]	– Number of States that meet the EI score of equal or greater than the baseline global average for CE-8/AGA

Goal 3: Establish and manage State safety programmes (SSPs)	3.1	By 2026, all States to assess the level of implementation of their SSP	– Percentage of States having completed their SSP PQ self-assessment, using the ICAO online framework (OLF)
	3.2	By 2028, all States to establish an SSP	– Percentage of States having established an SSP – Percentage of States having established a safety data collection and processing system (SDCPS) – Percentage of States having established a framework for the protection of safety data and safety information

Goal 4: Strengthen collaboration at the regional and national levels to address safety issues	4.1	By 2026, all regions to identify States that need assistance to address safety issues	– Percentage of States in each region that need assistance to address the lack of sufficient financial resources for the safety oversight authority to meet its national and international obligations – Percentage of States in each region that need assistance to address the lack of qualified technical personnel, primarily aircraft accident investigators and aerodrome inspectors – Percentage of States in each region that need assistance to address the resolution of safety issues, primarily related to aerodrome operations – Percentage of States in each region that need assistance to address a low level of SSP implementation – Percentage of States in each region that need assistance to address deficiencies in safety data and safety information collection, analysis and exchange, to support safety management activities – Percentage of States in each region that need assistance to address operational safety risks, including HRCs – Percentage of States in each region that need assistance to address other safety issues

Goal 4: Strengthen collaboration at the regional and national levels to address safety issues	4.2	By 2028, all regions to facilitate the required assistance, to identified States, to address safety issues	– Percentage of States in each region that receive the required assistance to address the lack of sufficient financial resources for the safety oversight authority to meet its national and international obligations – Percentage of States in each region that receive the required assistance to address the lack of qualified technical personnel, primarily aircraft accident investigators and aerodrome inspectors – Percentage of States in each region that receive the required assistance to address the resolution of safety issues, primarily related to aerodrome operations – Percentage of States in each region that receive the required assistance to address a low level of SSP implementation – Percentage of States in each region that receive the required assistance to address deficiencies in safety data and safety information collection, analysis and exchange, to support safety management activities – Percentage of States in each region that receive required assistance to address operational safety risks, including HRCs – Percentage of States in each region that receive the required assistance to address other safety issues

Goal 4: Strengthen collaboration at the regional and national levels to address safety issues	4.3	By 2027, all regions to implement a mechanism to make use of the information on operational safety risks and emerging issues for the purpose of aviation safety planning	– Number of States registered to the Secure Portal on Operational Safety Risks and Emerging Issues – Number of reports received via the Secure Portal on Operational Safety Risks and Emerging Issues – Number of studies or analyses conducted by regional aviation safety groups (RASGs) based on reports received via Secure Portal on Operational Safety Risks and Emerging Issues – Percentage of safety enhancement initiatives completed by RASGs – Number of regions having a mechanism that makes use of the information on operational safety risks and emerging issues

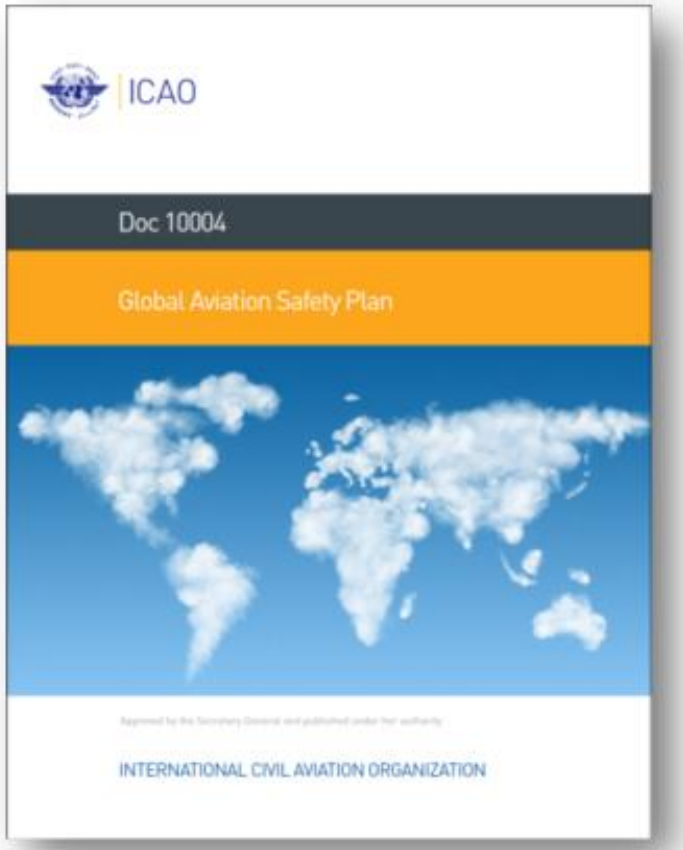
Goal 5: Strengthen aviation safety planning	5.1	By 2026, all regions to publish an updated regional aviation safety plan (RASP), taking into consideration the 2026–2028 edition of the GASP	– Number of regions having published an updated RASP – Number of RASPs developed in consultation with industry – Number of regions reporting provision of safety information by industry to assist in the development of RASPs
	5.2	By 2027, all States to publish an updated national aviation safety plan (NASP), taking into consideration the 2026–2028 edition of the GASP and their corresponding RASP	– Number of States that published an updated NASP – Number of NASPs developed in consultation with industry – Number of States reporting provision of safety information by industry to assist in the development of NASPs

Goal 6: Expand the use of industry evaluation programmes and safety data sharing programmes	6.1	By 2028, industry to maintain an increasing trend in its use of industry evaluation programmes and safety data sharing programmes	– Number of service providers participating in the corresponding ICAO-recognized industry evaluation programmes – Number of service providers participating in industry safety data sharing programmes

Link Between Issues & Targets

Global Safety Issues	Draft 2026-2028 GASP Targets
G-HRCs	T1.1 & 1.2
G-ORCs	T1.1 & 1.3
Lack of sufficient financial resources	T2.1
Lack of qualified technical personnel (AIG/AGA)	T2.2
Lack of regulatory process to address safety issues (AGA)	T2.3
Low SSP implementation	T3.1 & 3.2
Deficiencies in safety data analysis and exchange	T 3.2; 4.3; 6.1
All issues	T4.1; 4.2; 5.1; 5.2

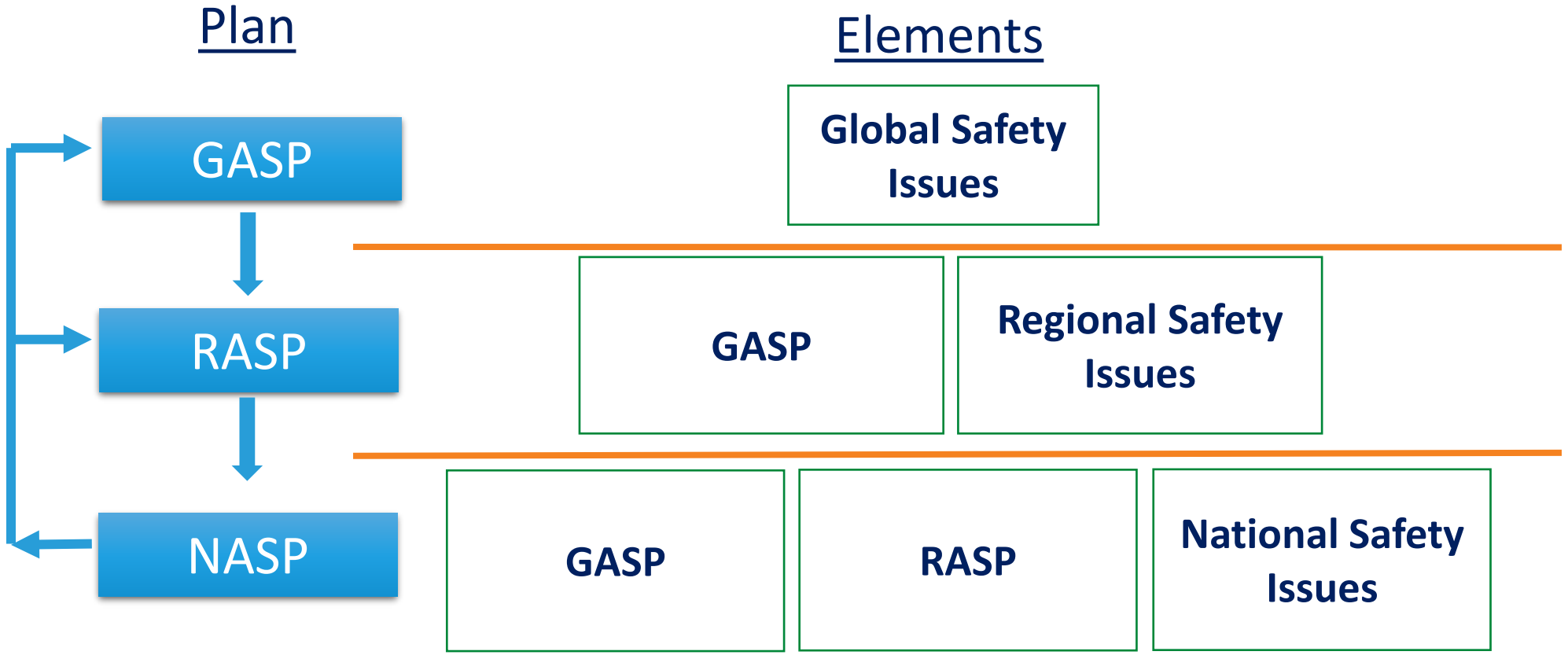
GASP Structure & Content



- Foreword
- Executive Summary
- Summary of Amendments
- Glossary

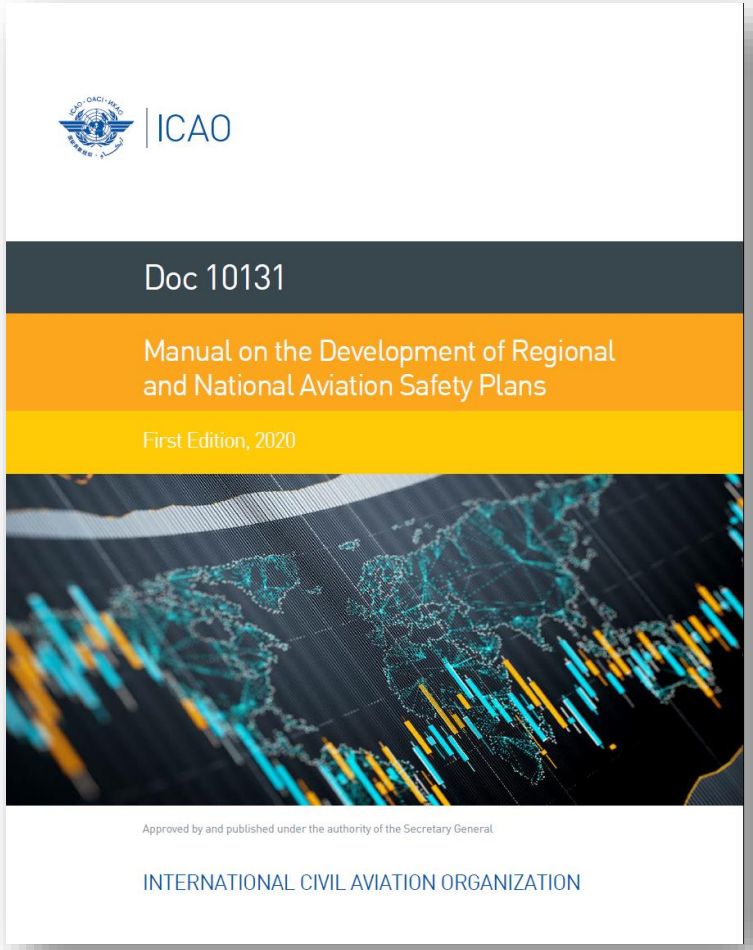
- Section 1 – Intro to GASP
- Section 2 – Purpose of GASP (link to other plans)
- Section 3 – Global OPS Safety Risks
- Section 4 – Global ORG Challenges
- Section 5 – Global Strategic Direction for the Management of Aviation Safety
- Section 6 – Monitoring Implementation

Relationship between GASP, RASP and NASP

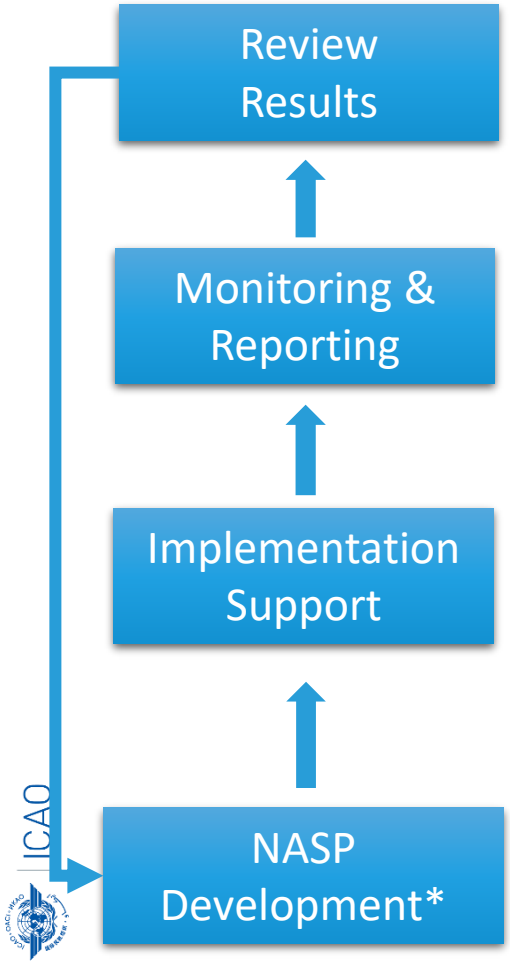


Updated Guidance Material for RASP & NASP

GASP Accompanying Guidance



GASP-related Documents & Tools



Status of Goals & Targets
GASP Dashboard
(www.icao.int/gasp)

Monitoring Goals & Targets
GASP Dashboard
(www.icao.int/gasp)

Reporting
Secure Portal on Operational Safety Risks and Emerging Issues
(http://portal.icao.int)

Information Sharing & Exchange
NASP Online Community
(http://portal.icao.int)

Direct Implementation Support
NASP iPacks
(www.icao.int/ipack)

Online Training
NASP Online Courses
(www.icao.int/training)

Information Centre for All GASP/RASP/NASP
GASP Public Website
(www.icao.int/gasp)

Safety Strategy
Global Aviation Safety Plan
(Doc 10004)

Action Plan
Global Aviation Safety Roadmap
(Doc 10161)

Content of RASP & NASP
Manual on the Development of Regional and National Aviation Safety Plans
(Doc 10131)

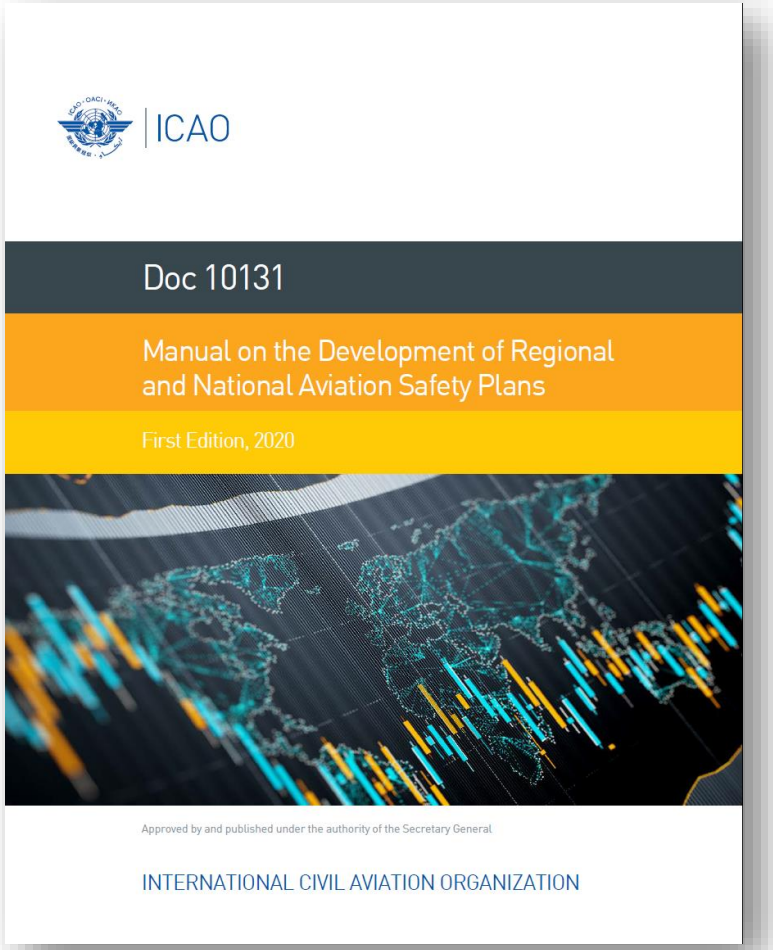
Indicator Development
Manual on Monitoring Implementation of Regional and National Aviation Safety Plans
(Doc 10162)

** Cycle starts with NASP Development*

Use of ICAO Documents & Tools

NASP Guidance & Template

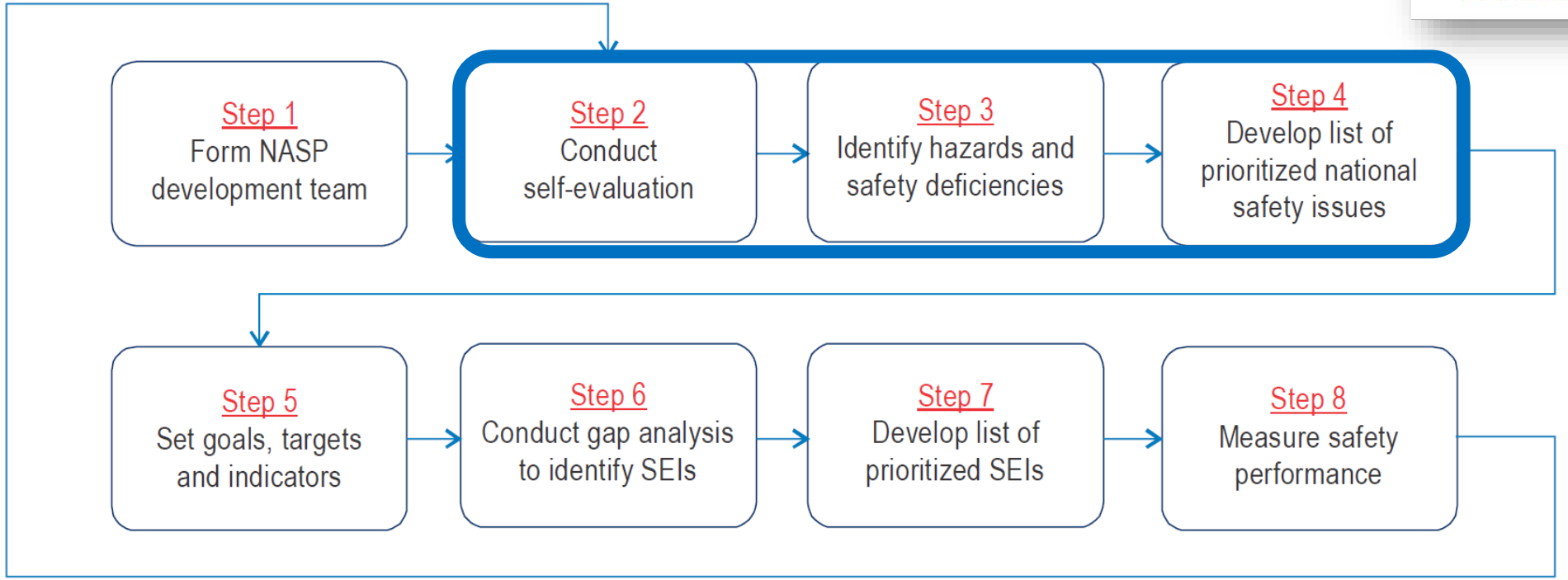
- ICAO developed guidance
  - Doc 10131, *ICAO Manual on the Development of Regional and National Aviation Safety Plans*
- Provides guidelines for NASP development
- Explains in detail content to be included in plan
- Provides Template + Checklist
- 3rd Ed to include Frameworks to guide development



NATIONAL AVIATION SAFETY PLAN CHECKLIST

Doc 10131, Chapter 4, 4.3, Detailed Sections of the NASP (reference)	*National aviation safety plan (NASP) content (aspect to be analysed or question to be answered)*	*Answer (Yes/No or N/A[1])*	*Reference in State's NASP (if different from template)*
4.3.1 Introduction of the NASP			
4.3.1 a)	Does it provide an overview of the NASP, including its structure (chapters, sections and their content)?	☐ Yes ☐ No	
4.3.1 b)	Does it note the State's commitment to aviation safety and to the resourcing of activities at the national level to enhance aviation safety, by issuing a statement signed by a senior aviation ministerial or government agency representative?	☐ Yes ☐ No	
4.3.1 c)	Does it describe how the NASP is linked to the SSP or how the NASP is linked to achieving effective safety oversight in the absence of a fully implemented SSP?	☐ Yes ☐ No	

NASP Development Process



National Safety Issues Pt 1

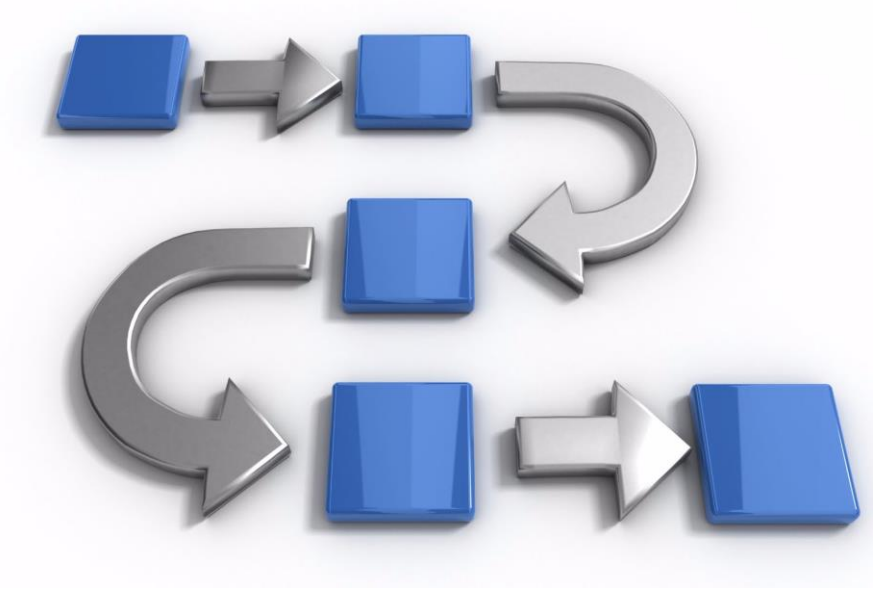
Operational Safety Risks

HRCs: Top Ops Safety Risks

- HRCs represent unsafe outcomes
  - CICTT
- They are “end states”
  - need to be avoided
  - to prevent fatalities
  - need to address pre-cursors & contributing factors
- HRCs can be global, regional or national
  - G-HRCs, R-HRCs, N-HRCs

How to Identify N-HRCs?

- Standardized Framework for Identification of HRCs
  - criteria may be used for inclusion & removal of occurrences from HRC list
- Framework defines
  - Criteria – Aspects / areas to analyse
  - Specifics – Detailed elements to analyse
  - Methodology – Set of methods for analysis
- Guide analysis of existing data sources
  - in transparent & repeatable manner
- Tool for organizing information
  - direct data collection & analysis



Criteria	Specifics	Methodology
Number of fatalities	Fatalities by accident occurrence categories (as per the Commercial Aviation Safety Team/ICAO Common Taxonomy Team (CICTT))	1) Analyse the classification of occurrences 2) Identify categories that resulted in the highest number of fatalities
Fatality risk	Fatality risk by accident or serious incident occurrence categories (as per CICTT)	1) Analyse the classification of occurrences 2) Identify events linked to categories with the highest number of fatalities (in terms of severity) associated with the potential outcome
Number of accidents and serious incidents	Number of accidents or serious incidents by occurrence categories (as per CICTT)	1) Analyse the classification of occurrences 2) Identify categories that resulted in the highest number of accidents and serious incidents
Breakdown **(based on min of 5-year data set)**	Frequency of occurrences	• 5-year rolling average • Consider including use of rate-based data (e.g., sectors flown)
	Commonality of occurrence across the region	If an occurrence category appears in multiple States in the region, consider it potentially a regional or national one
	Use of information from accidents	• Focus on pre-cursors and contributing factors • Sources: ICAO and Industry • Develop and monitor associated safety performance indicators

Criteria to Identify HRCs

- Number of fatalities
- Fatality risk by accident or serious incident occurrence categories
- Number of accidents or serious incidents by occurrence categories
  - as per CICTT
- Breakdown by ICAO Region
  - based on a minimum of five-year data set
- Consideration of G- & R- HRCs
  - in setting N-HRCs

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AIRPROX/TCAS ALERT/LOSS OF SEPARATION/NEAR MIDAIR COLLISIONS/MIDAIR COLLISIONS (*MAC*)

Air proximity issues, Traffic Collision Avoidance System (TCAS)/Airborne Collision Avoidance System (ACAS) alerts, loss of separation as well as near collisions or collisions between aircraft in flight.

Usage Notes:

Includes:

- All collisions between aircraft while both aircraft are airborne.
- Separation-related occurrences caused by either air traffic control or cockpit crew.
- AIRPROX reports
- Genuine TCAS/ACAS alerts.

Does NOT include:

- False TCAS/ACAS alerts caused by equipment malfunctions, which are coded as SCF-NP.
- Loss of separation with at least one aircraft on the ground, which may be coded as ATM, GCOL, NAV, and/or RI if the occurrence meets the criteria and usage notes for those categories.

Crossover to/from other occurrence categories:

- Code both MAC and NAV if the event was caused by a navigation error and the event meets the usage notes of both categories.
- Code both MAC and ATM if the event was caused by an ATC/ATM error and the event meets the usage notes of both categories.

Example: Fatality Risk

Occurrence per CICTT	Categories linked to Occurrence
• Mid-air Collision (MAC)	• Air proximity issues • TCAS/ACAS alerts • Loss of separation • Near collisions • Collisions between aircraft in flight

Facilitated Exercise I

Develop a List of Prioritized National Safety Issues (Pt. 1)

Exercise – What are the N-HRCs?

- State info for past 5 years:
  - No fatal accidents involving aircraft of MTOW > 5 700 kg
  - Several serious incidents due to AIRPROX issues (TCAS/ACAS)
  - 3 RIs (classified as serious incidents) – all at same airport
  - Increase in Unstable APRs
  - Increase in TURB encounters (incl. one resulting in serious injuries)
  - Increase in reports of SCF–NP

- Based HRC Framework Criteria…
  - Number of fatalities
  - Fatality risk by CICTT
  - Number of accidents or serious incidents by CICTT

- Which can be N-HRCs?

Exercise – What are the N-HRCs?

Occurrence	N-HRC	Justification
AIRPROX (MAC)	X	Risk of fatalities
Runway Incursion	X	Risk of fatalities + Number of events
Unstable APR (RE)	X	Risk of fatalities
Turbulence		
SCF–NP		

National Safety Issues Pt 1

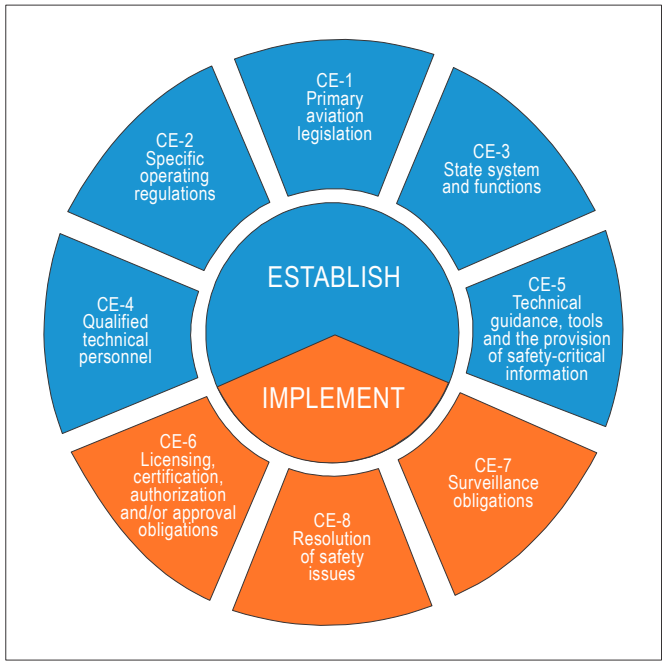
Organizational Challenges

What is an ORG Challenge?

- Organizational challenges are systemic issues
- Take into consideration impact of ORG aspects
  - on State's SO & SM capabilities
- Examples of ORG aspects
  - ORG culture; policies & procedures; training; etc.
- "Organization" refers to State's aviation-related entities
  - such as CAA & AIA
  - in national context, also include service providers

How To Identify ORG Challenges?

- Standardized Framework for Identification of ORG Challenges
- Same structure & components as one for HRCs
- Criteria focuses on
  - Operational context description
  - Safety oversight system & capabilities
  - SSP establishment & management
  - Consideration of Global & Regional ORG Challenges in setting National ones



Operational Context Description

- Main points to cover
  - Traffic volume data
  - Number/types of aerodromes & heliports
  - Airspace classifications
  - Types of operations
  - Complexity of ops
  - PBN implementation
  - Impact of socio-political issues

Safety Oversight System & Capabilities

- State aviation activity questionnaire (SAAQ)
- USOAP CMA self-assessment (Compliance)
- Significant Safety Concerns (SSCs)
- 5 lowest scoring PPQ EI by AA & CE combination
  - based on State's "Heat Map"
- PQs used to assess Civil Aviation Organization & State System and Functions (ORG/CE-3)

- Refer to ICAO OLF: https://soa.icao.int

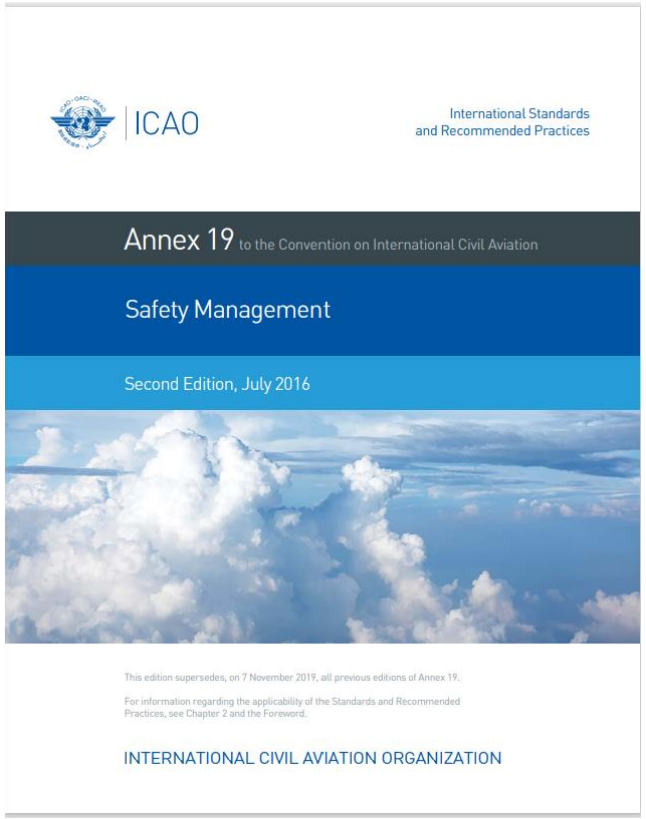
5 Lowest Scoring PPQs (AA & CE Combo)

PQs to assess ORG/CE-3

PQ	Description
2.051 (PPQ)	Establishment & implementation of mechanism to ensure each SOA has sufficient financial resources to meet national/int'l obligations
2.053	Establishment of mechanism to ensure that each SOA has sufficient personnel to meet national/int'l obligations
2.103	Each SOA/AIA's ability to attract, recruit, and retain qualified technical personnel

SSP Establishment & Management

- USOAP CMA self-assessment (SSP)
  - https://soa.icao.int



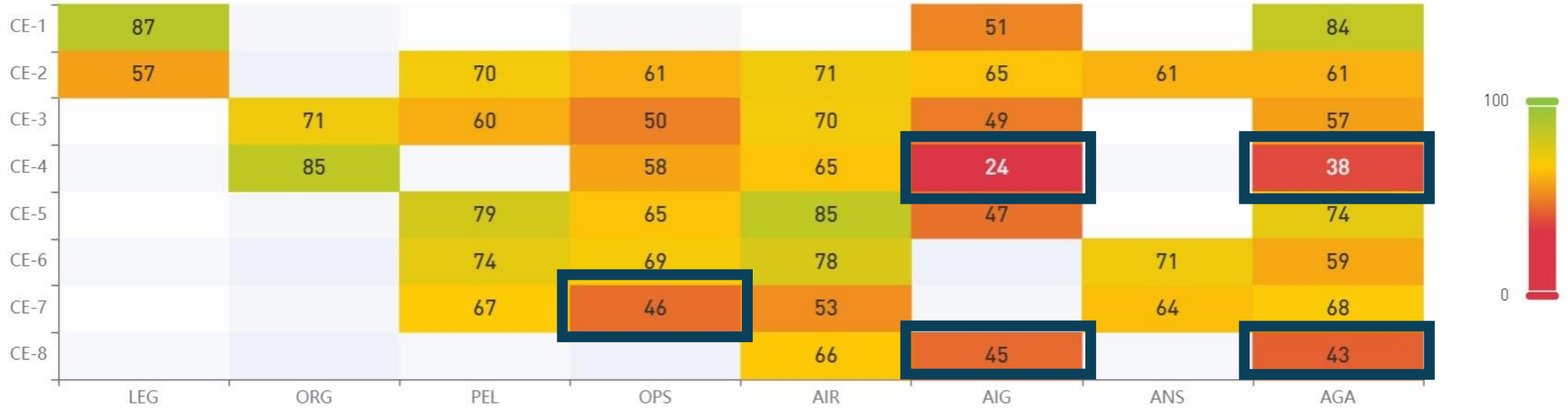
Common ORG Challenges - GASP & RASP

- If GASP calls for States to address specific ORG Challenge...
- If RASP calls for States in Region to address specific ORG Challenge...
  - Consider it potential National ORG Challenge in NASP
- Refer to
  - GASP public website: www.icao.int/gasp
  - RASP Library: www.icao.int/rasp

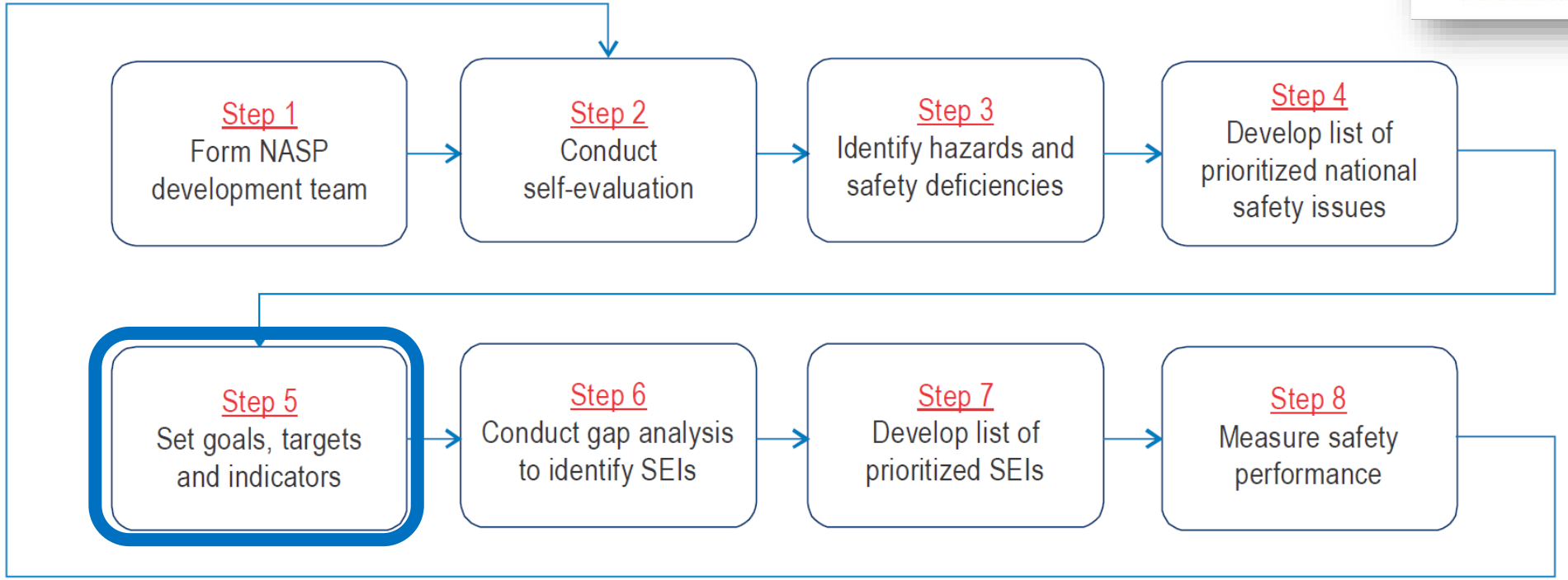
Facilitated Exercise II

Develop a List of Prioritized National Safety Issues (Pt. 2)

Exercise – What are the ORG Challenges?



NASP Development Process



Strategic Direction

Drafting Goals, Targets and Indicators

Drafting Challenges & Use of Framework

- States face challenges when drafting NASP goals, targets & indicators
  - How do you write goal vs target or indicator?
  - How many items can you measure?
  - Do you have data to measure?

- Standardized Framework for Development of Goals, Targets & Indicators

- Addresses
  - Drafting criteria
  - Specific points for consideration
  - Examples & rationale

Writing Goals

- Describes high-level outcome State aims to achieve
  - desired results that strategy aims to produce
- Qualitative manner
  - e.g., using terms such as “strengthen” or “enhance”
  - does not include quantification
- General manner, without citing specifics
  - e.g., “strengthen safety oversight”, not “recruit inspectors”
  - does not identify who actions are directed to
  - enables goal to remain high-level & linked to more than 1 target
- Can be understood as standalone statement
  - avoid including reference to documents
  - or anything that would require reader to crosscheck other source

Specific Points for Consideration

- Use list of national safety issues to set national safety goals
  - list points to topics State wishes to address through strategy
- Consider results toward which efforts in safety are directed
  - what is reason for wanting to hire more inspectors
  - or modify existing regulation?
- Identify what State wants to achieve, in terms of management of safety
  - e.g., better collaboration with stakeholders; improved oversight capabilities
- Express goal through qualitative action statements
  - on selected high-level/high-consequence outcomes
  - e.g., reduce ops safety risks

Example

Increase effective safety oversight capabilities

- ✓ High-level outcome
- ✓ Does not identify who actions are directed to
- ✓ Qualitative & general
- ✓ Easily understood

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Writing Targets

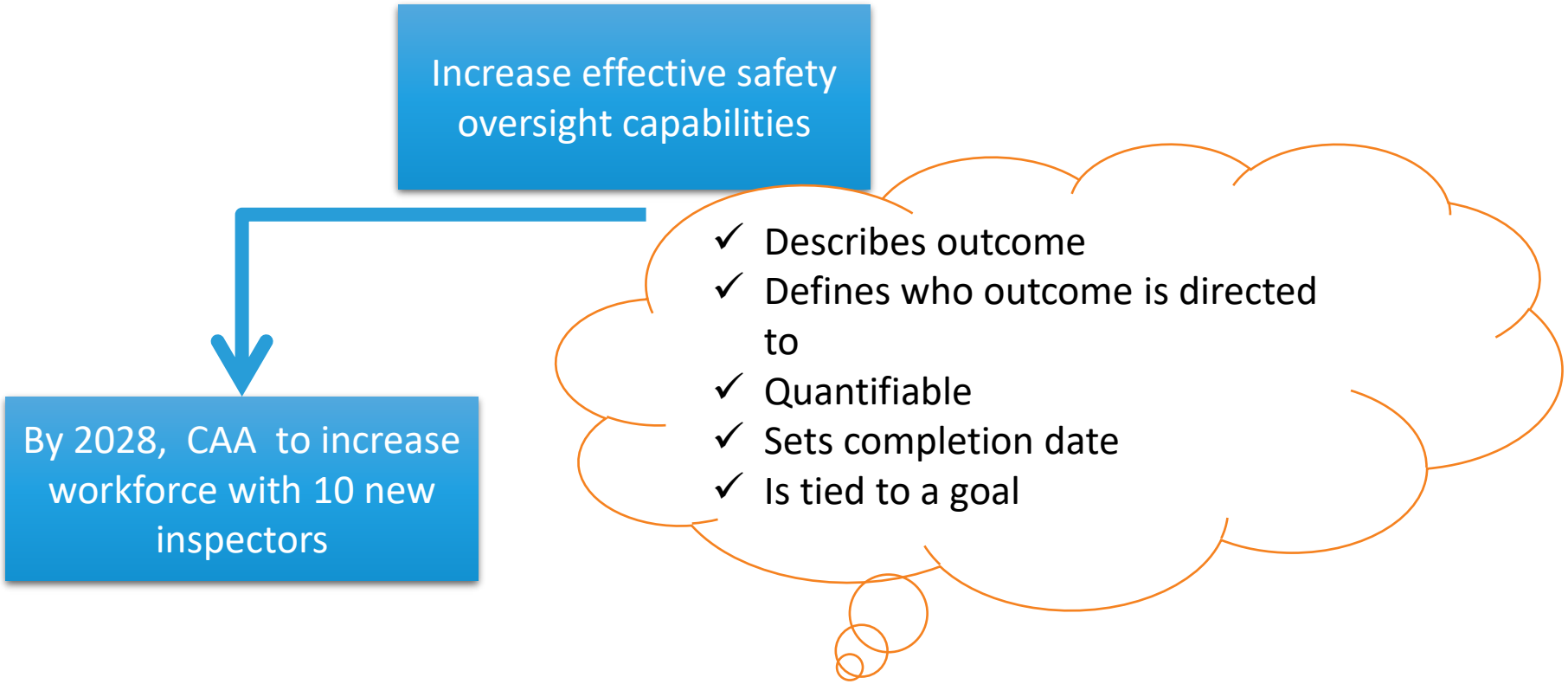
- Describes specific desired outcome
  - from specific actions taken to achieve goal, at certain point in time
- Identifies who specific outcome is directed to
- Quantitative or reference completed actions
  - e.g., using numerical values or percentage – “achieve 75% score”
  - e.g., “complete recruitment process of all new inspectors”
- Date by which outcome needs to be completed
- Can be understood as standalone statement

Specific Points for Consideration

- Use list of national safety issues to set national safety targets
  - at this level, list can be used to address specific items
  - vs general ones at level of goal

- Target should provide measurable way
  - of ensuring and demonstrating effectiveness of actions (i.e., SEIs)
- Realistic & achievable, yet ambitious + acceptable to stakeholders
- Target is quantifiable benchmark State wants to reach, to meet goal
  - expressed in numerical terms
- Each target should be linked to goal (from which it is derived)

Example


Increase effective safety oversight capabilities
By 2028, CAA to increase workforce with 10 new inspectors
✓ Describes outcome
✓ Defines who outcome is directed to
✓ Quantifiable
✓ Sets completion date
✓ Is tied to a goal

Writing Indicators

- Quantitative manner
  - without including values i.e., actual numbers or data
- Use quantifiers such as “percentage of” or “number of”
  - e.g., should not state “50%” or “5 occurrences/month”
- Indicator defines what will be measured
  - data to fill in the blanks will come during actual SPM
- Provides evidence about whether outcomes occurred
  - “negative” outcomes/occurrences that State wishes to avoid
  - “positive” achievements & indicative of desired outcome
- Can be understood as standalone statement

Specific Points for Consideration

- Indicator is measurement index
  - used to evaluate if NASP yields expected results (evidence)
  - each indicator should be tied to target
- Measurable value to track progress in activities related to target
- Avoid writing indicator at high-level, or capturing several tasks
  - favour indicators that are specific & capture single tasks
  - indicators may measure tasks that contribute to desired outcome
    - or they may measure outcome itself
- Avoid use of qualitative references
  - favour quantitative ones
  - measure concrete action/task & be tangible

Example

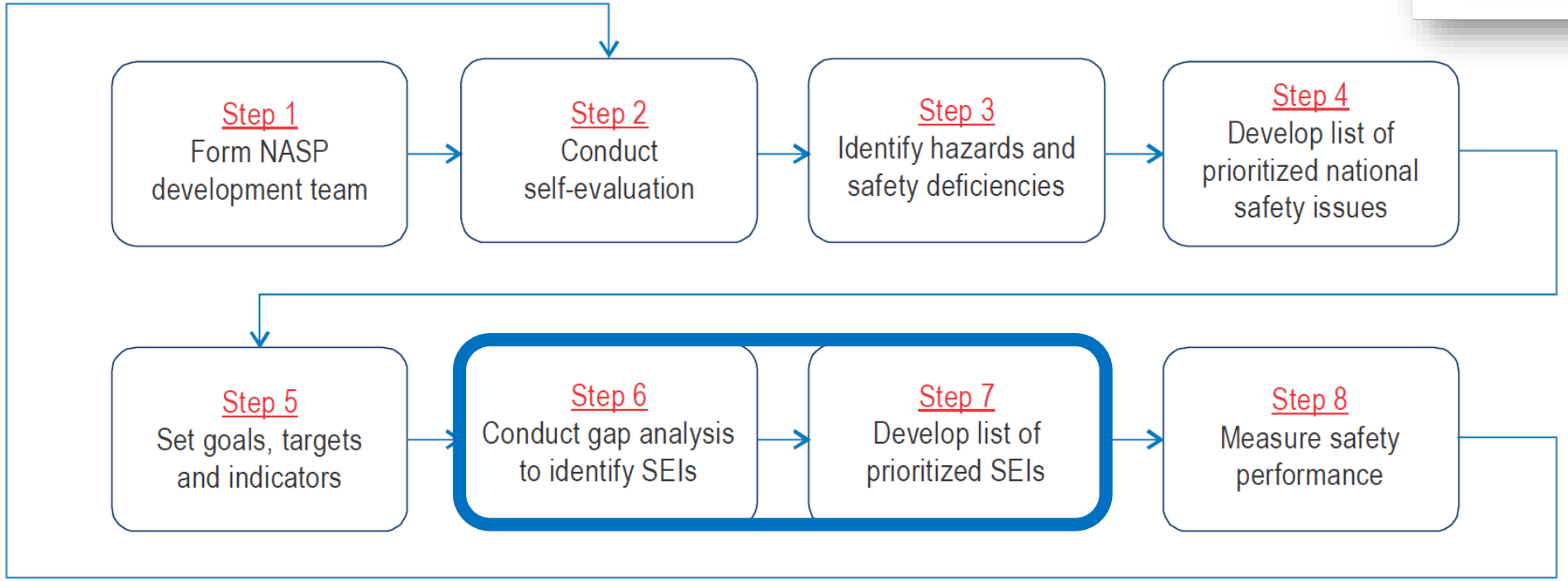
Increase effective safety oversight capabilities

- ✓ Quantifiable
- ✓ Does not contain actual numbers/data
- ✓ Defines what will be measured
- ✓ Evidence (if desired outcomes occurs)
- ✓ Is tied to a target

By 2028, CAA to increase workforce with 10 new inspectors

- Number of applications received for new inspectors, per quarter
- Number interviews conducted for new inspectors, per month
- % of candidates successfully completing inspector training course
- % of candidates successfully completing inspector OJT

NASP Development Process



Action Plan

Global Aviation Safety Roadmap

Purpose of Roadmap

- Roadmap serves as action plan
  - to develop RASPs and NASPs
  - in line with the GASP goals & targets
  - through structured, common frame of reference
  - for all stakeholders

- Defines how goals & targets may be achieved

Structure of Roadmap

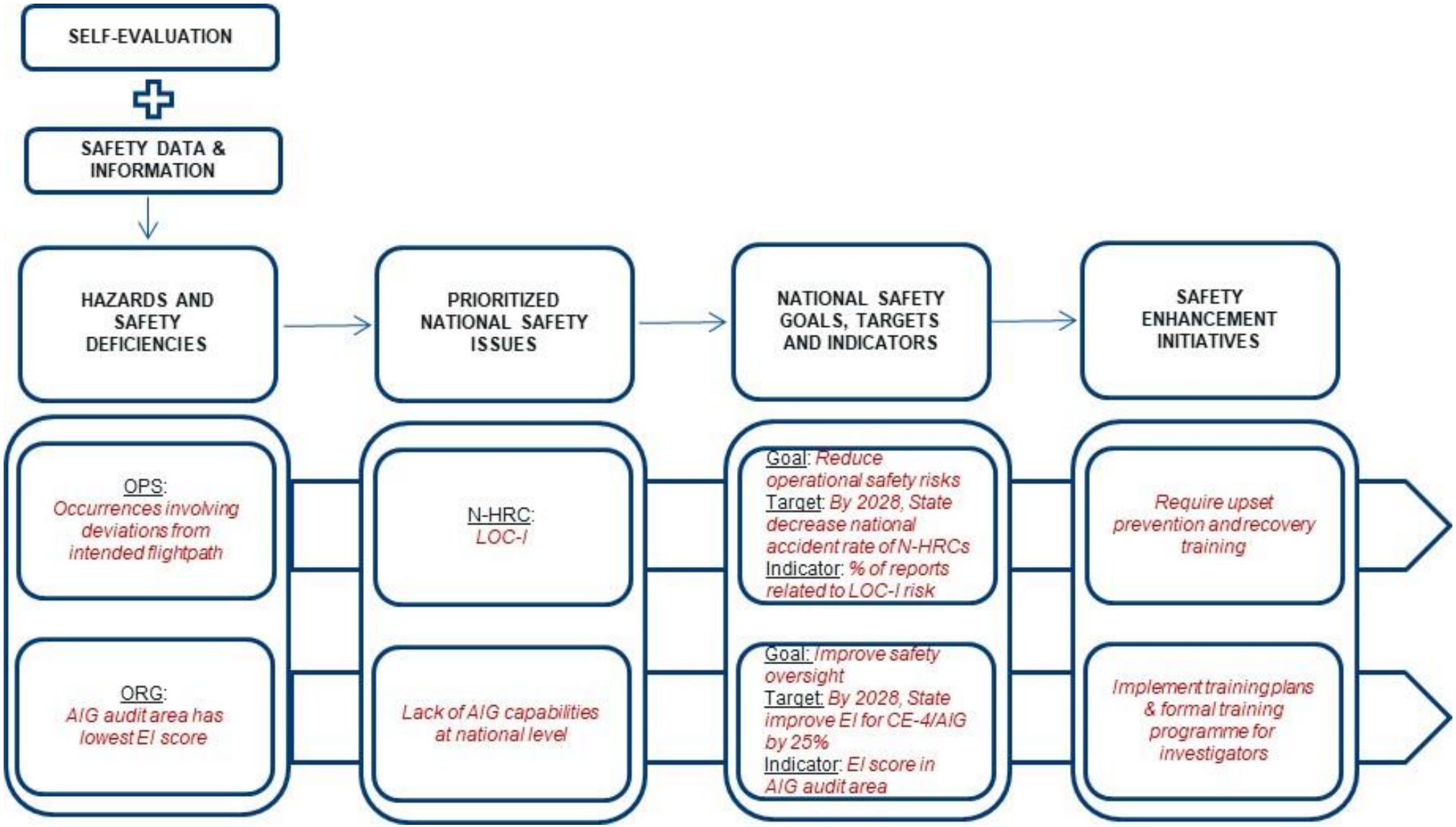
- Roadmap outlines specific SEIs
  - associated with GASP goals & targets
  - each SEI contains set of actions
- Includes SEIs for 3 stakeholders
  - States; Regions; Industry
- Roadmap is composed of 2 pieces
  - ORG challenges – ORG roadmap
  - Ops safety risks – OPS roadmap

Layout of SEIs in ORG Roadmap

Safety enhancement initiative	SEI-19 – Provision of the safety information to ICAO
Stakeholder	States
Related GASP target(s)	2.1; 2.2; 2.3; 3.1; 3.2; 5.2
Actions	19A – Update USOAP corrective action plan items 19B – Complete and submit the self-assessment checklist based on USOAP CMA Protocol Questions 19C – Complete and submit the State aviation activity questionnaire 19D – Complete and submit the compliance checklists on electronic filing of differences system 19E – Notify significant differences from ICAO Standards and Recommended Practices (SARPs) in the Aeronautical Information Publication (AIP) 19F – Update documents and records, as required, in a timely manner, paying particular attention to the Global Organizational Challenges listed in the GASP
References	— Doc 9735, *Universal Safety Oversight Audit Programme Continuous Monitoring Manual* — Doc 10004, *Global Aviation Safety Plan*

Layout of SEIs in OPS Roadmap

Safety enhancement initiative	SEI-6 — Mitigate contributing factors to CFIT accidents and incidents at the regional level
Stakeholder	Regions
Related GASP target(s)	1.1; 1.2
Actions	6A – Implement the following CFIT safety actions: a) Support the adoption of GPWS in accordance with Annex 6 – *Operation of Aircraft* b) Promote the wider use of GPWS beyond the requirements of Annex 6 c) Promote the adherence to GPWS warning procedures
References	– Annex 6 – *Operation of Aircraft* – ICAO Safety Report – Commercial Aviation Safety Team – Safety enhancements for CFIT – FSF ALAR Toolkit



Source: Doc 10131

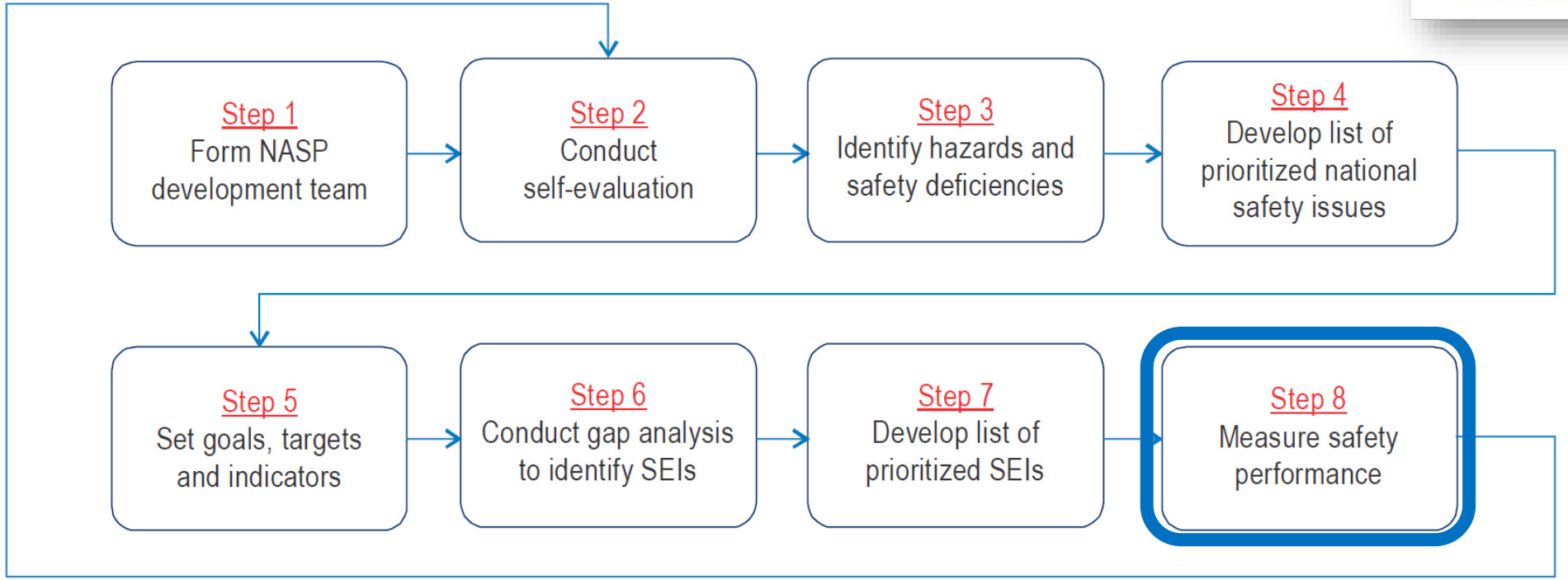
Producing Detailed SEI Forms

- Each SEI should be linked to a goal & target in NASP
- Roadmap only provides
  - overall SEI
  - associated actions
- Action plan in NASP to include (for each SEI/action)
  - Timeline
  - Responsible entity
  - Stakeholders
  - Metrics (different from indicators)
  - Priority
  - Monitoring activity

N-HRC 2: LOC-I							
Goal 1: Achieve continuous reduction of operational safety risks Target 1.1: By 2028, State and its industry to decrease national accident rate							
SEI	*Action*	*Timeline*	*Responsible entity*	*Stakeholders*	*Metrics*	*Priority*	*Monitoring activity*
Mitigate contributing factors to LOC-I accidents & incidents	Require upset prevention and recovery training in all full flight simulator type conversion and recurrent training programmes	Q1 2026 to Q4 2028	CAA	• Operators • ATO • Flight simulator product and service providers • Pilots' associations • CAA inspectors	• Training programmes updated with UPRT • Number of pilots completing UPRT • Upset occurrence rates in voluntary reporting • Stick-shaker activation events in FDA data • LOC-I occurrence rates	High	Surveillance of operator & ATO training activities

Source: Doc 10131

NASP Development Process



From Planning to Implementation

Measuring Safety Performance

National Safety Performance

- Through NASP, State sets national goals & targets
  - and determines series of SEIs to achieve them
- State also uses NASP indicators related to targets
  - to measure if SEIs attain their desired outcomes
- Defining process to monitor (planning)
  - NASP implementation
  - NASP effectiveness
- Actually measuring safety performance (doing)
  - has safety improved nationally?

Use of GASP Indicators for NASP

- Doc 10162 provide guidance on data sources
  - for indicators to measure achievement of NASP goals
- Guidance addresses
  - how to measure indicators
  - how to gather data
- GASP Indicator Form was developed for each indicator
  - to provide clear guidance & definitions
  - allows State to collects consistent, reliable data

Rationale	How indicator connects to a target What measurement and monitoring it supports
Limitations	Scope of what indicator measures
Definition of terms	Definition of terminology used in naming or defining indicator
Calculation method	Specific or technical formula available for calculation of indicator value
Data set(s)	Data needed for measuring indicator
Availability	Listed datasets may have different levels of availability Varying from 1 (unavailable) data to 3 (fully available)
Provider	Provider where data comes from

Example of GASP-I Form

GASP-I.1.1.02	*Fatal accident rate (number of fatal accidents per million departures)*
Rationale	Related to Global Aviation Safety Plan (GASP) Target 1.1: By 2028, States, regions and industry to decrease the accident rate, globally and within each ICAO region. This indicator complements GASP-I.1.1.01 by focusing on fatal accidents. It is connected to risk exposure (number of million departures).

Example of GASP-I Form (2)

Limitations	– The State of Occurrence shall forward a notification of an accident to ICAO when the aircraft involved is of a maximum mass of over 2 250 kg or is a turbojet-powered aeroplane, as required by Annex 13 – *Aircraft Accident and Incident Investigation*, paragraph. 4.1. – The State conducting the investigation shall send reports via the Accident/Incident Data Reporting (ADREP) system to ICAO for accidents to aircraft over 2 250 kg, as required by Annex 13, Chapter 7. – ICAO maintains an ADREP database with the notifications and ADREP reports it receives, as well as additional reports provided by the ICAO Occurrence Validation Study Group (OVSG). – A validation of the ADREP reports is performed annually by a group of experts (the OVSG), focusing primarily on accidents and serious incidents involving commercial air transport of aircraft of a maximum mass of over 2 250 kg. This validation does not include, as of February 2026, helicopter accidents or aircraft between 2 250 kg and 5 700 kg. – Validated ADREP data for year *n* is available in March of year *n*+1. – The Official Airline Guide (OAG) makes available to ICAO traffic data for scheduled operations with aircraft > 5 700 kg. – Validated OAG traffic data for year *n* is available in March of year *n+1*.

Example of GASP-I Form (3)

Definition of terms	– The term “accident” is defined in Annex 13, Chapter 1, Definitions. – A fatal accident is an accident in which a person is fatally injured as a result of: a) being in the aircraft; or b) direct contact with any part of the aircraft, including parts which have become detached from the aircraft; or c) 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. – For statistical uniformity only, an injury resulting in death within thirty days of the date of the accident is classified, by ICAO, as a fatal injury.

Example of GASP-I Form (4)

Calculation method	Indicator = N/D, where: a) *N* is the number of fatal accidents involving scheduled commercial operations for which: 1) the date of occurrence is between 1 January and 31 December of the year in question; 2) a notification and/or an ADREP report was forwarded to and received by ICAO or added by the OVSG; 3) the circumstances of the occurrence match those defined for "accident" in Annex 13 in which a person is fatally injured; and 4) the aircraft involved in the occurrence is of maximum mass of over 5 700 kg; and b) *D* is the number of scheduled commercial departures, divided by 1 000 000.

Example of GASP-I Form (5)

Data sets	– Notifications and ADREP reports submitted by States to ICAO under Annex 13 obligations. – OAG dataset for ICAO.
Availability (1-3)	3: Accident notification and ADREP reports are already available in the ICAO ADREP database.
Provider	ICAO (ADREP database)

Indicator Selection: Validation Process

- Vet each indicator before publication
  - by populating fields from Doc 10162
  - to ensure indicators are realistic

- Specify for each NASP indicator
  1. rationale
  2. limitations
  3. definition of terms
  4. calculation method
  5. data set(s)
  6. availability
  7. provider

Points to Remember

- Carry out 8 steps listed in Doc 10131
  - comprehensive process
- Use Standardized Frameworks
  - tools to guide analysis & prioritize issues
- Roadmap is action plan to assist in achieving GASP goals
  - provides structured, common frame of reference
  - use roadmap as basis to develop NASP SEIs (action plan)
- Use Doc 10162 to develop & track NASP indicators
  - to enable safety performance measurement

Next Steps

- Publish GASP (endorsed at A42) – Q4 2025
- Finalise Doc 10162 Ed 2 - End of Oct 2025
  - Doc 10131 Ed 3 & Doc 10161 Ed 2 being edited
- Publish all 3 Docs – Dec 2025
- NASP e-learning & iPacks being updated – Jan 2026
- Review A42 outcomes at GASP-SG/16 in UAE – Dec 2025
- Revised NASP Workshops – 2026

Email: mmaurino@icao.int

Thank You!

ICAO