



NPF/SIP/2010-WP/17

Global Aviation Safety Plan

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International Civil Aviation Organization

**Workshop on the development of
National Performance Framework for
Air Navigation Systems
(Nairobi, 6-10 December 2010)**

Presentation Overview

- **Addressing the Safety Risk**
- **Global Aviation Safety Roadmap**
- **Global Aviation Safety Plan**
- **Global Aviation Safety Initiatives**

Addressing the Safety Risk

- **Accident rates and numbers of fatalities differ dramatically in different regions of the world**
- **Better use and coordination of industry and government resources can dramatically reduce these kinds of accidents**
- **An action plan of global dimensions was required, that clearly identified the roles played by the regulatory and industry elements, while emphasising their complementary roles**

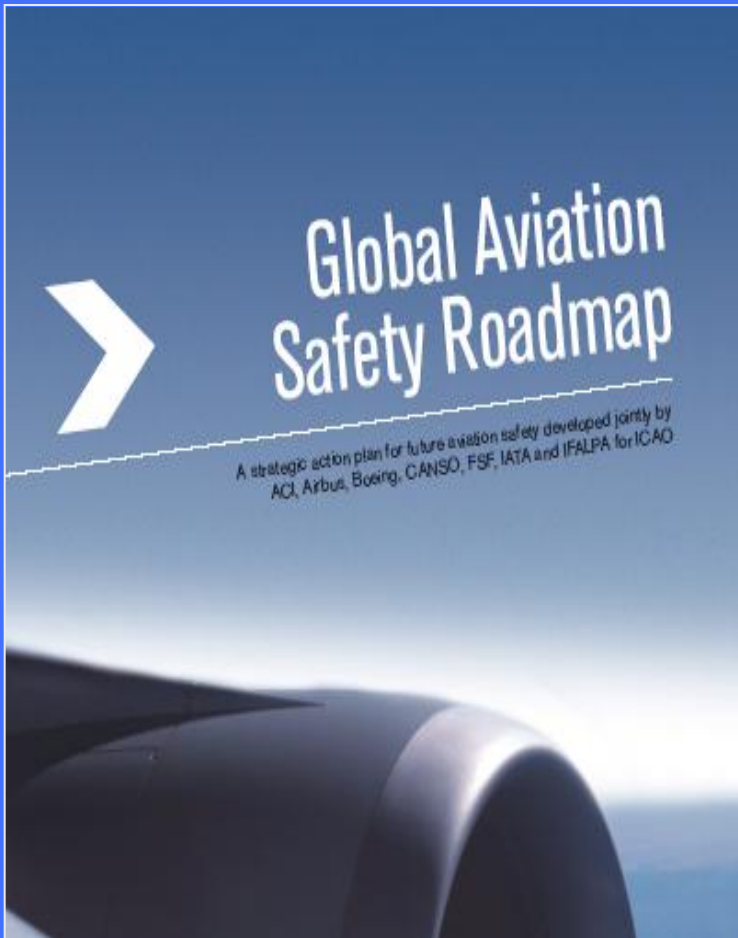
Global Aviation Safety Roadmap

Background:

- **Inspired by 7th ICAO ANC Industry meeting May 2005:**
 - **Desire to reduce accident rate, particularly in developing regions of the world**
 - **Need to harmonize best practices worldwide**
 - **Apply resources wisely**

Global Aviation Safety Roadmap

Industry commits to unify plans through Roadmap



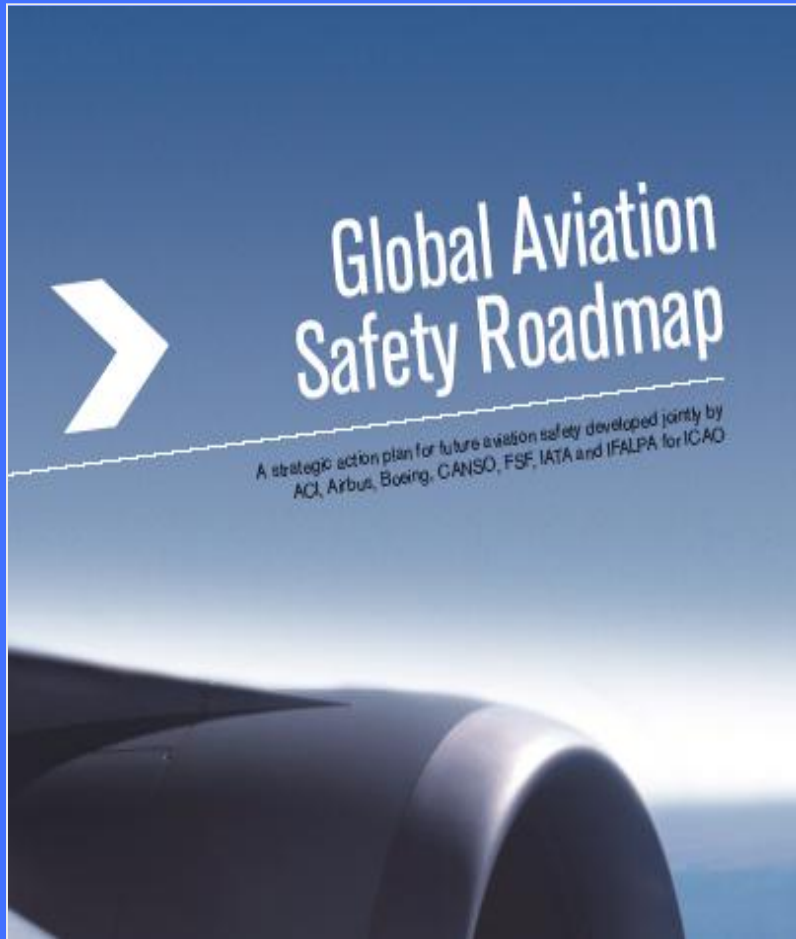
Global Aviation Safety Roadmap

Goals and Objectives:

- **Provide a common frame of reference for all stakeholders**
- **Coordinate and guide safety policies and initiatives worldwide to reduce the accident risk**
- **Avoid duplication of effort and uncoordinated strategies**
- **Encourage close industry and government cooperation on common safety objectives**

Global Roadmap's 12 Focus Areas: "The Roads"

Enable, Implement, Confirm, Integrate and Share

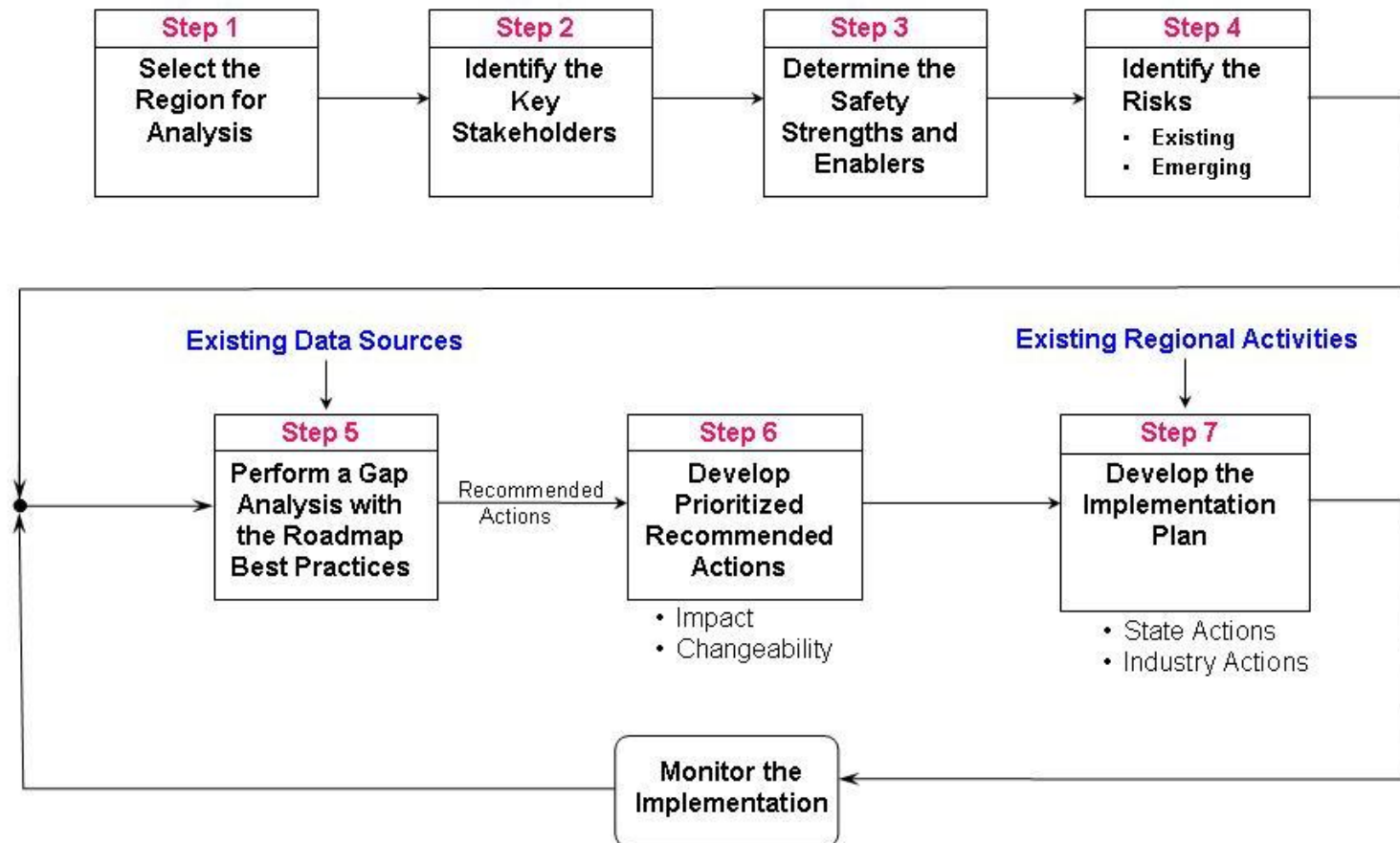


Focus Areas

- **States**
 - Consistent implementation of int'l. standards
 - Consistent regulatory oversight
 - No impediments to reporting errors/ incidents
 - Effective incident and accident investigation
- **Industry**
 - No impediments to reporting and analyzing errors/ incidents
 - Consistent use of Safety Management Systems
 - Consistent compliance with regulatory rqmts
 - Consistent adoption of industry best practices
 - Alignment of global industry safety strategies
 - Sufficient number of qualified personnel
 - No gaps in use of technology to enhance safety
- **Regions**
 - Consistent coordination of regional programs

Implementing the Roadmap

Regional Safety Enhancement Plan Development Process



The ICAO Global Aviation Safety Plan

Milestones:

- **Dec 2006: The Global Aviation Safety Roadmap was handed to ICAO and following a detailed review by the ANC, now constitutes the basis on which the Global Aviation Safety Plan is built, becoming an integral part of it**
- **The updated version of GASP was approved by the ICAO Air Navigation Commission on 12 June 2007 and accepted by the ICAO Council on 19 July 2007**

(GSI-1) CONSISTENT IMPLEMENTATION OF INTERNATIONAL STANDARDS AND INDUSTRY BEST PRACTICES

Scope: Full implementation of applicable ICAO SARPs and industry best practices.

Primary stakeholders: ICAO, States

Related Global Aviation

Safety Roadmap component: Focus Area 1

Description of strategy

- 1. States implement ICAO SARPs and best practices consistently. Compliance with ICAO Standards is considered internationally essential and sound application of ICAO Recommendations and best practices is accepted as the effective way to achieve consistent implementation worldwide: States coordinate their activities to influence those unwilling to comply. Gaps are identified through USOAP and the notification of differences process.**
- 2. Perform gap assessment for those States that cannot comply. Establish plans to reach desired compliance, including coordinated international support where necessary to close gaps.**
- 3. Compliance with international SARPs is assessed on a continuing basis through ICAO USOAP and other equivalent means of assessment. Coordinated international support is being provided where necessary.**

(GSI-2) CONSISTENT REGULATORY OVERSIGHT

Scope: Each State is in a position to objectively evaluate any given safety critical aviation activity within its jurisdiction and require that the activity adhere to standards designed to ensure an acceptable level of safety.

Primary stakeholders: ICAO, States

Related Global Aviation

Safety Roadmap component: Focus Area 2

Description of strategy

- 1. States ensure their Regulatory Authority is independent in the conduct of its safety functions, competent and adequately funded.**
- 2. States establish appropriate systems to ensure continued effectiveness of their regulatory function.**

(GSI-3) EFFECTIVE ERRORS AND INCIDENTS REPORTING

Scope: A free flow of data exists that is required to assess aviation system safety on a continuous basis and to correct deficiencies when warranted.

Primary stakeholders: ICAO, States

Related Global Aviation

Safety Roadmap component: Focus Area 3

Description of strategy

- 1. States introduce legislative changes to support the “just culture”, encourage open reporting systems, and protect data collected solely for the purpose of improving aviation safety.**
- 2. ICAO implements review of States’ activities to identify gaps in their legislative action to encourage open reporting systems. Develop a plan to address gaps.**
- 3. Collate regional safety data.**
- 4. Implement international sharing of data/global data reporting system.**

(GSI-4) EFFECTIVE INCIDENT AND ACCIDENT INVESTIGATION

Scope: The accident or incident investigations provide the opportunity for an in-depth examination of both the causal factors leading up to the particular event and the broader questions concerning the underlying safety of an entire operation.

Primary stakeholders: ICAO, States

Related Global Aviation

Safety Roadmap component: Focus Area 4

Description of strategy

- 1. States implement ICAO Annex 13 principles and the introduction of, or access to, an adequately funded, professionally trained, independent and impartial investigative body. Action is taken on safety recommendations.**
- 2. States institute a legal framework for protection of safety data, with the purpose of accident prevention, not assignment of blame.**
- 3. Implement international cooperation and information sharing of accidents and incidents.**

(GSI-5) CONSISTENT COORDINATION OF REGIONAL PROGRAMMES

Scope: While regional differences will dictate different implementations of best practices at different levels of maturity, there is much benefit that can be gained by sharing the experience between regions.

Primary stakeholders: ICAO, States, regions

Related Global Aviation

Safety Roadmap component: Focus Area 5

Description of strategy

- 1. Design regional mechanisms and build on existing ones in order to foster consistency.**
- 2. Assign priority of action to regions on the basis of risk assessment.**

(GSI-6) EFFECTIVE ERRORS AND INCIDENTS REPORTING AND ANALYSIS IN THE INDUSTRY

Scope: The development and maintenance of a “Just Culture” is one of the primary means available to industry to understand where the hazards and risks lie within an organization.

Primary stakeholder: Industry

Related Global Aviation

Safety Roadmap component: Focus Area 6

Description of strategy

- 1. Industry commits to a “Just Culture” of reporting all safety-related and potential safety issues without fear of reprimand to involved parties.**
- 2. Identify and implement common metrics and descriptors of precursor events needed to enable adoption of a proactive approach to managing risk.**
- 3. Establish and integrate across the industry shared incident/error databases. Demonstrate and disseminate the benefits of open reporting.**

(GSI-7) CONSISTENT USE OF SAFETY MANAGEMENT SYSTEMS (SMS)

Scope: A systematic management of the risks associated with flight operations, aerodrome ground operations, air traffic management and aircraft engineering or maintenance activities is essential to achieve high levels of safety performance.

Primary stakeholder: Industry

Related Global Aviation

Safety Roadmap component: Focus Area 7

Description of strategy

- 1. SMS is mandated across all sectors and disciplines of the industry.**
- 2. Develop a plan for incorporation of SMS into audit processes.**
- 3. Develop audit processes to assess operation of SMS function.**
- 4. Implement review of SMS during audits.**
- 5. Define interface points between industry focus areas and develop a plan for SMS programme integration across all interfaces**

(GSI-8) Consistent Compliance with Regulatory Requirements

Scope: The attainment of a safe system requires that industry complies with State regulations. The main responsibility for compliance rests with industry, which has a legal, commercial and moral obligation to ensure that operations are conducted in accordance with the regulations.

Primary stakeholder: Industry

Related Global Aviation

Safety Roadmap component: Focus Area 8

Description of strategy

- 1. With full management support, execute independent assessment and gap analysis within the industry of regulatory compliance to address areas of non-compliance.**
- 2. Perform regular independent audits of operational safety to assess ongoing compliance across the industry.**

(GSI-9) CONSISTENT ADOPTION OF INDUSTRY BEST PRACTICES

Scope: Best practices, which represent the application of lessons learned globally by industry, are adopted by individual organizations in a timely manner.

Primary stakeholder: Industry

Related Global Aviation

Safety Roadmap component: Focus Area 9

Description of strategy

- 1. Improve the structures (through management commitment) for maintaining knowledge of best practices and identify future developments in best practices.**
- 2. With industry openly sharing information regarding the benefits of best practices, implement performance benchmarking of dissemination consistency.**

(GSI-10) ALIGNMENT OF INDUSTRY SAFETY STRATEGIES

Scope: The efforts of all industry stakeholders to improve aviation safety at the local, State, and regional levels are more effective at a global level if they are well aligned and based on shared goals and methods.

Primary stakeholder: Industry

Related Global Aviation

Safety Roadmap component: Focus Area 10

Description of strategy

- 1. Design a mechanism for coordination and sharing of safety strategies.**
- 2. Coordinate and share safety strategies, seeking to achieve alignment and minimize duplication.**

(GSI-11) SUFFICIENT NUMBER OF QUALIFIED PERSONNEL

Scope: Industry and the regulatory authorities have access to a sufficient number of qualified staff to support their activity.

Primary stakeholder: Industry

Related Global Aviation

Safety Roadmap component: Focus Area 11

Description of strategy

- 1. Identify requirements for sustaining aviation safety against projected growth of commercial aviation.**
- 2. Implement resource plans to deliver appropriate numbers of qualified people.**
- 3. Establish audit processes to confirm that people resource plans will deliver the appropriate numbers.**

(GSI-12) USE OF TECHNOLOGY TO ENHANCE SAFETY

Scope: Technology advances which contribute significantly to improvements in safety are implemented.

Primary stakeholder: Industry

Related Global Aviation

Safety Roadmap component: Focus Area 12, Appendices E, F and G

Description of strategy

- 1. Define proven technology gaps. Industry works together to identify areas where technology might provide significant safety benefits.**
- 2. Deploy proven technologies that have been developed to enhance safety.**
- 3. Integrate measures to close technology gap.**

Global Aviation Safety Plan - Revision

- **Consequent to ICAO A37 Session (Sep-Oct 2010) endorsement, GASP is scheduled to be revised with expected delivery in 2011**
- **Revised GASP will take into account the SSP and will reflect the maturity levels of States' safety oversight systems.**

Strategic Approach for revision of GASP

- Goal/vision

- Will provide the theme for GASP

- Safety targets

- Linked to the overall GASP goal/vision

- Supported by specific safety targets

- Specific safety targets will be dynamic

- Will include measurements

- Global Safety Initiatives

- Linked to the global safety targets

- Will also include measurements to monitor the effectiveness of the GSIs



GASP Implementation Strategy

- **Enhanced Implementation Strategy**
 - GASP will provide strategic solutions for all member States
 - Global Safety Initiatives (GSI) focused on varying levels of State safety oversight maturity
- **Maturity Level of State Safety**
 - Based on USOAP Lack of Effective Implementation

High LEI (50 % to 100 %) – GSI 1, GSI 2, GSI 3 and GSI 4

Medium LEI (30 % to 50 %) – GSI 5 and GSI 6

Low LEI (0 % to 30 %) – GSI 7, GSI 8 and GSI 9

2007 GASP

Future GASP

GSI 1 - Consistent Implementation of International Standards and Industry Best Practices

GSI 1 - Consistent Implementation of International Standards (*GSI 1 - Modified*)

GSI 2 - Consistent Regulatory Oversight

GSI 2 - Consistent Regulatory Oversight (*GSI 2*)

GSI 3 - Effective Errors and Incidents Reporting

GSI 3 - Effective Incident and Accident Investigation (*GSI 4*)

GSI 4 - Effective Incident and Accident Investigation

GSI 4 - Sufficient Number of Qualified Personnel (*GSI 11*)

GSI 5 - Consistent Coordination of Regional Programmes

GSI 5 - Effective Errors and Incidents Reporting (*GSI 3*)

GSI 6 - Effective Errors and Incidents Reporting and Analysis in the Industry

GSI 6 - Consistent Coordination of Regional Programmes (*GSI 5*)

GSI 7 - Consistent Use of Safety Management Systems (SMS)

GSI 7 – Full implementation of State Safety Programme (SSP) (*New*)

GSI 8 - Consistent Compliance with Regulatory Requirements

GSI 8 - Use of Technology to Enhance Safety (*GSI 12*)

GSI 9 - Consistent Adoption of Industry Best Practices

GSI 9 – Continuous Improvement of State's Aviation Safety System (*New*)

GSI 10 - Alignment of Industry Safety Strategies

GSI 11 - Sufficient Number of Qualified Personnel

GSI 12 - Use of Technology to Enhance Safety

2007 GASP

GSI 1 - Consistent Implementation of International Standards and Industry Best Practices

GSI 2 - Consistent Regulatory Oversight

GSI 3 - Effective Errors and Incidents Reporting

GSI 4 - Effective Incident and Accident Investigation

GSI 5 - Consistent Coordination of Regional Programmes

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GSI 11 - Sufficient Number of Qualified Personnel

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Future GASP

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GSI 2 - Consistent Regulatory Oversight (*GSI 2*)

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GSI 4 - Sufficient Number of Qualified Personnel (*GSI 11*)

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GSI 6 - Consistent Coordination of Regional Programmes (*GSI 5*)

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GSI 8 - Use of Technology to Enhance Safety (*GSI 12*)

GSI 9 – Continuous Improvement of State's Aviation Safety System (*New*)

High LEI (50 % to 100 %)

Medium LEI (30 % to 50 %)

Thank You.

Questions?