



# **GASP Mechanics: The roadmap approach**

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## RESOLUTION A36-7

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- *The Assembly: ...*
- 3. Resolves that these global plans [GASP and GANP] shall provide the framework in which regional, sub-regional and national implementation plans will be developed and implemented thus ensuring harmonization and coordination of efforts aimed at improving international civil aviation safety and efficiency

# RESOLUTION A36-7

## Appendix A

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- *Noting with satisfaction* the Global Aviation Safety Roadmap as developed by key industry partners acting as the Industry Safety Strategy Group (ISSG) with ICAO and which forms the basis for the Global Aviation Safety Plan;
- *Noting* the intent to continuously apply the Global Aviation Safety Plan as a tool to enhance safety by focusing action where it is most needed

# ICAO Global Aviation Safety Roadmap



## Background:

- Inspired by 7th ICAO ANC Industry meeting May 2005
- Produced by the Industry Safety Strategy Group (ISSG) and ICAO ANC:

- *Airbus*
- *Airports Council International*
- *Boeing*
- *Council of Air Navigation Service Organizations*
- *Flight Safety Foundation*
- *International Air Transport Association*
- *International Federation of Airline Pilot Associations*



## Global Aviation Safety Roadmap

A strategic action plan for future aviation safety developed jointly by ACI, Airbus, Boeing, CANSO, FSF, IATA and IFALPA for ICAO



# ICAO 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 for commercial aviation
- Avoid duplication of effort and uncoordinated strategies
- Encourage close industry and government cooperation on common safety objectives



# ICAO Global Aviation Safety Roadmap PART II

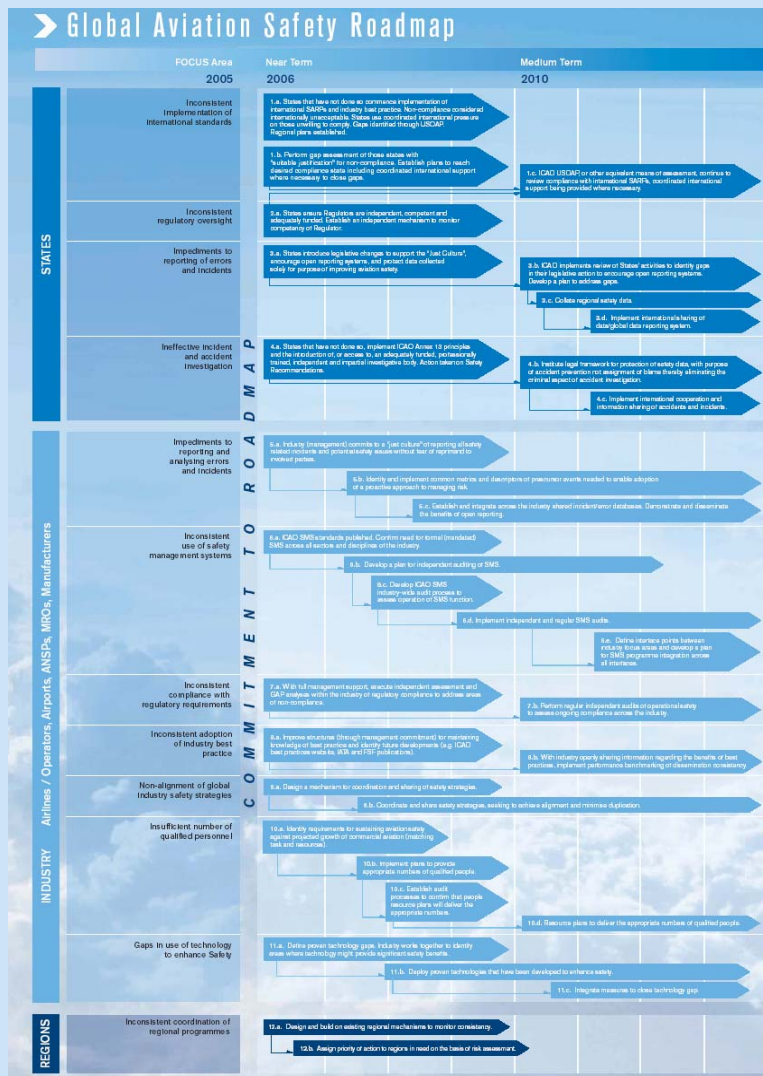
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- **A detailed plan intended to guide Roadmap implementation**
- **Best Practices described for each Objective**
- **Metrics provided for each Best Practice**
- **A four-level Maturity Model provided for each Objective based on implementation of Best Practices**
- **Process described to assess current status and gaps that need to be addressed**



# The "Roadmap"



# The Roadmap Elements: 3 Dimensions and 12 Focus Areas



## States - Areas for Action

1. Consistent implementation of international Standards
2. Consistent regulatory oversight
3. No impediments to reporting of errors & incidents
4. Effective incident & accident investigation

## Industry - Areas for Action

1. No impediments to reporting & analysing errors / incidents
2. Consistent use of safety management systems
3. Consistent compliance with regulatory requirements
4. Consistent adoption of industry best practice
5. Alignment of industry safety strategies
6. Sufficient number of qualified personnel
7. No gaps in the use of technology to enhance safety

## Regional Area of Focus

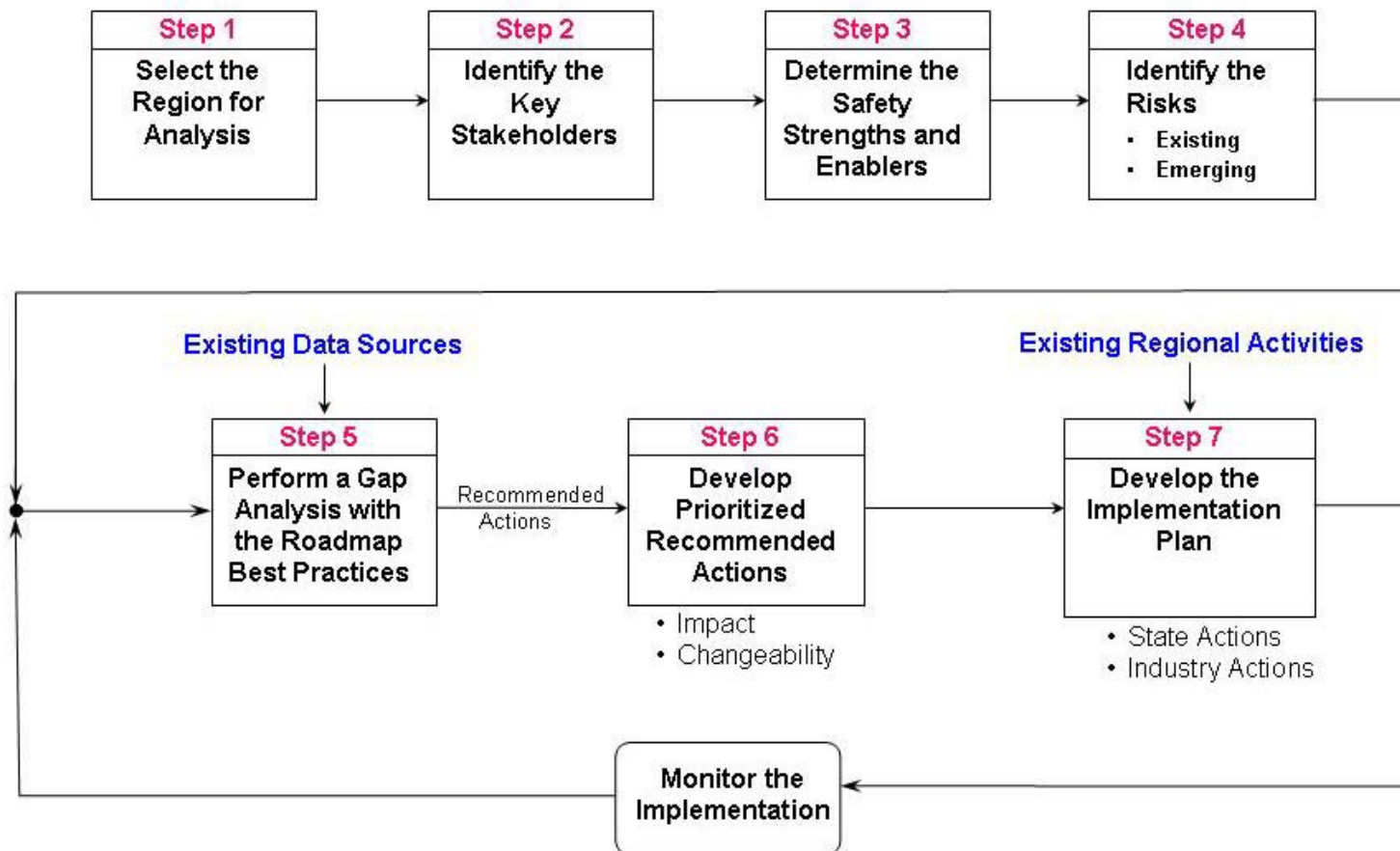
Consistent coordination of regional programmes



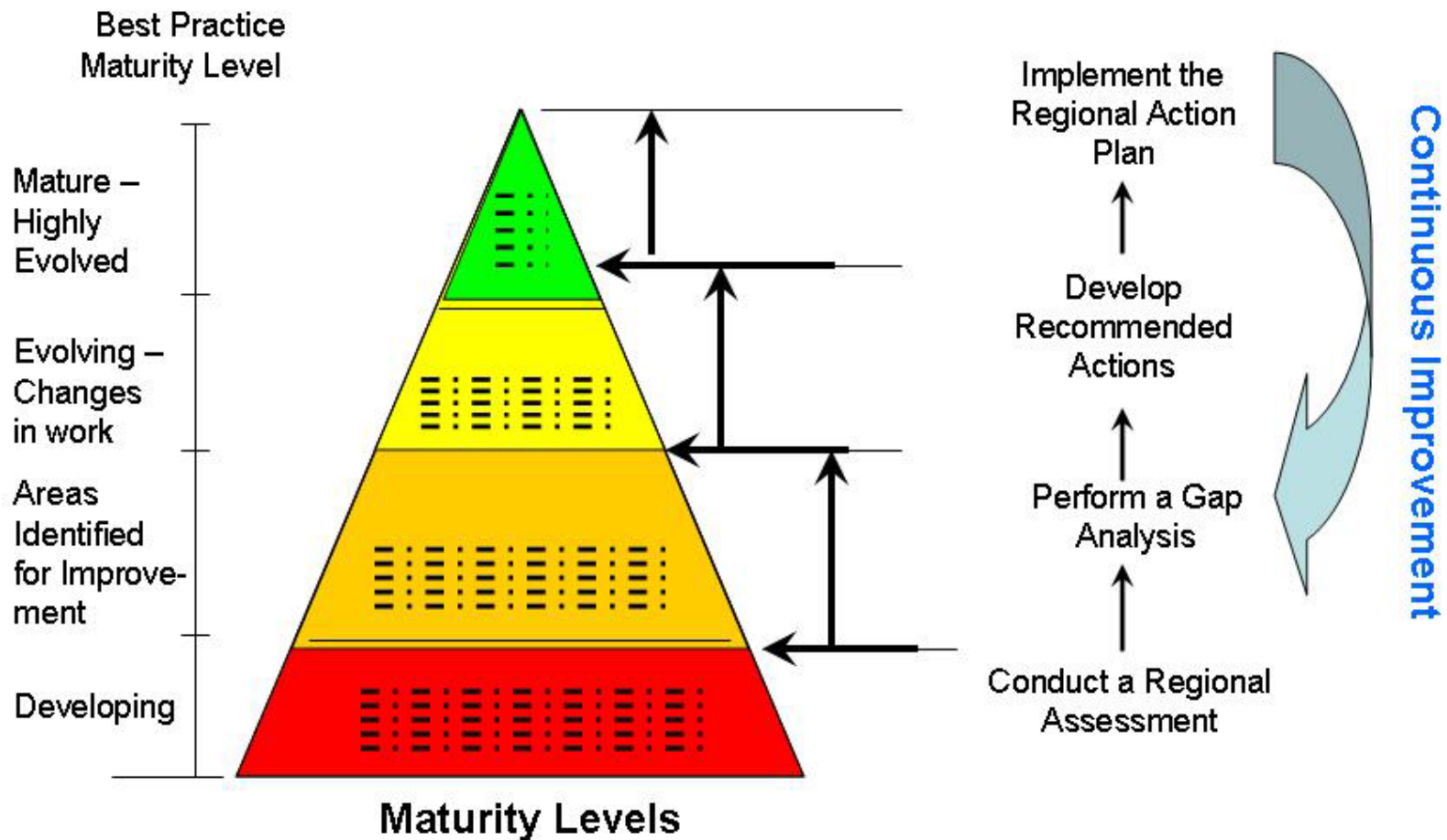
# Implementing the Roadmap



## Regional Safety Enhancement Plan Development Process

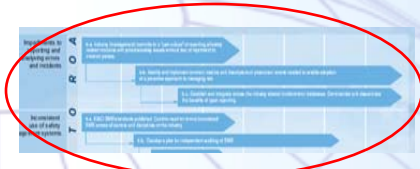


# Maturity Model to Guide Gap Analysis



# Developing a Best Practice Approach – State

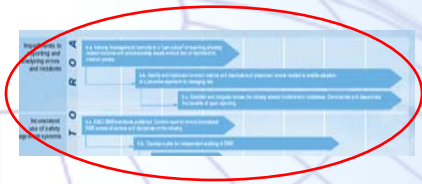




## Focus Area 2 Objectives

### Focus Area 2 – Inconsistent Regulatory Oversight

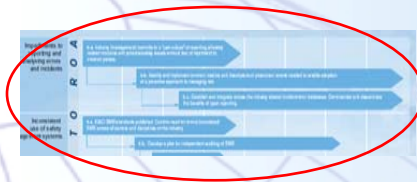
- **Objective 2a** – *States ensure their Regulatory Authority is independent, competent and adequately funded. Establish an independent mechanism to monitor competency of Regulatory Authority.*
- **Objective 2b** – *ICAO USOAP, or other equivalent means of assessment, continue to review compliance with international SARPs, coordinated international support being provided where necessary.*



# Best Practices: Objective 2a

## Inconsistent Regulatory Oversight

Table 2a – Best Practices	Metrics
<p>BP 2a-1 – <b><u>State utilizes/implements the 8 critical elements of the safety oversight system</u></b></p> <p>Primary aviation legislation                      Specific operating regulations                      CAA structure and safety oversight functions                      Technical guidance                      Qualified technical personnel                      Licensing and certification obligations                      Continued surveillance obligations                      Resolution of safety issues</p>	<ul style="list-style-type: none"> <li>• State implements in accordance with ICAO Doc 9734, Part A, Chapter 3</li> </ul>
<p>BP 2a-2 – <b><u>State provides a mechanism for sufficient funding of safety oversight activities</u></b></p>	<p>a.USOAP ORG 2.051</p>



# Best Practices: Objective 2a

## Inconsistent Regulatory Oversight

Table 2a – Best Practices	Metrics
<p>BP 2a-3 – <b><u>State applies the principles of risk management to its safety related activities.</u></b></p> <ul style="list-style-type: none"> <li>a) Hazards and risks are assessed and prioritized on a regular basis.</li> <li>b) Risk mitigation strategies are developed and implemented.</li> <li>c) Results are assessed and corrective action taken as needed.</li> </ul>	<ul style="list-style-type: none"> <li>a) ICAO Doc. 9859, para. 3.3</li> <li>b) Attendance at <a href="#"><u>ICAO SMS Training Course</u></a></li> </ul>
<p>BP 2a-4 – <b><u>The Regulatory Authority acts independently where safety issues are implicated in its actions.</u></b></p> <ul style="list-style-type: none"> <li>a) The individuals responsible for such action must be given appropriate authority to exercise their responsibilities.</li> <li>b) Accountability for the exercise of regulatory authority must be in accordance with the principles of a “just culture” (see <i>Objective 3a for a discussion of “just culture”</i>).</li> </ul>	<ul style="list-style-type: none"> <li>a) USOAP LEG 1.109; USOAP 1.111</li> <li>b) Annex 13, Attachment E; i.e. USOAP AIG 6.505</li> </ul>

## Maturity Table: Focus Area 2

Maturity Level	Capability
Level 1 – Developing	<ul style="list-style-type: none"> <li>▪ Low level of implementation of SARPs and little or no attempt to correct the situation is in progress</li> <li>▪ State unable or unwilling to exercise oversight.</li> <li>▪ [Added significance if a large part of the aviation activity under the oversight of the State occurs in other States]</li> </ul>
Level 2 – Areas Identified for Improvement	<ul style="list-style-type: none"> <li>▪ State aware of and attempting to correct deficiencies but has not completed implementation of corrective action</li> <li>▪ There is no certainty that the State is able to provide proper oversight for existing level of activity</li> </ul>

## Maturity Table: Focus Area 2 (continued)

Maturity Level	Capability
Level 3 – Evolving – Changes in work	<ul style="list-style-type: none"> <li>▪ State has the capacity to exercise oversight on the type of operation for which it has responsibility</li> <li>▪ State has limited ability to continue oversight if there is:               <ul style="list-style-type: none"> <li>➤ a significant increase in the volume or scope of activities</li> <li>➤ improvements in technology</li> </ul> </li> </ul>
Level 4 – Highly Evolved	<ul style="list-style-type: none"> <li>▪ State aware of level of compliance, has implemented appropriate SARPs and has access to the resources necessary to support the existing activities</li> <li>▪ State has processes in place and access to the necessary resources to continually reassess and maintain levels of compliance in light of modifications to SARPs and changes in activity within its jurisdiction.</li> </ul>



# Developing A Best Practice Approach - Industry



## Global Aviation Safety Roadmap





## Focus Area 6 Objectives

### Focus Area 6 – Impediments to Reporting and Analyzing Errors and Incidents

- *Objective 6a – Industry (management) commits to a “Just Culture” of reporting all safety related and potential safety issues without fear of reprimand to involved parties.*
- *Objective 6b – Identify and implement common metrics and descriptors of precursor events needed to enable adoption of a proactive approach to managing risk.*
- *Objective 6c – Establish and integrate across the industry shared incident/error databases. Demonstrate and disseminate the benefits of open reporting.*



# Best Practices: Objective 6a

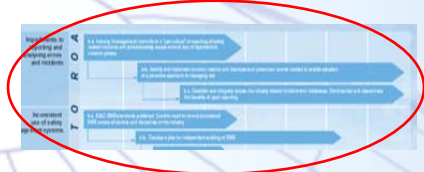


Table 6a –Best Practices	Metrics
<p>BP 6a-1 – <u>The State has empowered an open reporting system.</u></p> <p><b>Empowerment of the system by the State is the cornerstone on which a “Just Culture” is built. The regulatory authority should, in close cooperation with the aviation stakeholders, develop and implement regulations which foster open reporting.</b></p>	<ul style="list-style-type: none"> <li>• Annex 13 – Attachment E - agreement</li> <li>• Existence of regulatory framework upon which an open reporting system is based</li> <li>• USOAP AIG 6.505</li> </ul>
<p>BP 6a-2 – <u>Aviation organizations have implemented “Just Culture” programs within their organizations.</u></p> <p><b>At the same time that the regulatory authority is developing the empowerment regulations, all related aviation organizations should be developing implementation strategies for their own organizations.</b></p> <p><b>Following enactment of regulatory provisions for open reporting, corporate senior management should demonstrate investment in the program through personal and organizational commitment to a “Just Culture”. This will be done by both spoken and written proclamations from top management.</b></p>	<ul style="list-style-type: none"> <li>• “Just Culture” programs operating in each aviation organization. (IOSA ORG 1.2.1) (IS-BAO AMC 3.2)</li> </ul>
<p>BP 6a-3 – <u>The chief executive has signed a written “Just Culture” policy for the organization.</u></p> <p><b>Corporate guidance signed by the chief executive that implements a “Just Culture” within an organization and provides guidance on protections for those who report safety-related information. Changing the legal framework for reporting safety-related information may be required. Enacting regulations or legislation that establishes a “Just Culture” program and that clearly defines acceptable and non-acceptable behavior.</b></p>	<ul style="list-style-type: none"> <li>• A written “Just Culture” policy signed by the chief executive which defines acceptable and non-acceptable behavior. (IOSA ORG 1.2.1) (IS-BAO AMC 3.2 Attachment B)</li> </ul>

## Maturity Table: Focus Area 6

Maturity Level	Capability
Level 1 – Developing	<ul style="list-style-type: none"> <li>▪ <b>Neither empowerment legislation nor just culture program exists</b></li> </ul>
Level 2 – Areas Identified for Improvement	<ul style="list-style-type: none"> <li>▪ <b>Just culture empowerment legislation in place</b></li> <li>▪ <b>An organizational just culture is established</b> <ul style="list-style-type: none"> <li>○ <b>A just culture policy statement signed by the chief executive</b></li> <li>○ <b>Acceptable/non-acceptable behavior within the just culture defined in organizational documentation</b></li> <li>○ <b>Just culture education and training programs are operational</b></li> </ul> </li> </ul>



<b>Level 3 – Evolving – Changes in work</b>	<b>A confidential reporting system is operational within the organization</b> <ul style="list-style-type: none"><li>▪ <b>An ASAP program has been developed/adapted for the aviation organization</b></li><li>▪ <b>The organization vested in either regional or global IRM meetings.</b></li><li>▪ <b>Provisions are in place to protect aviation organization’s proprietary information during data collection</b></li><li>▪ <b>Proactive trending of safety information is occurring</b></li><li>▪ <b>Systems are in place to provide feedback to the organization’s work force</b></li><li>▪ <b>IOSA preparatory work completed and audit scheduled</b></li></ul>
<b>Level 4 – Highly Evolved</b>	<b>FDA system is operational</b> <ul style="list-style-type: none"><li>○ <b>Current operating personnel are involved in data analysis</b></li><li>▪ <b>Common taxonomies have been developed and agreed upon</b><ul style="list-style-type: none"><li>○ <b>Sharing of data with other organizations within the region and/or alliance partners is occurring</b></li></ul></li></ul>



## Practical Implementation

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- The next discussion will hopefully demonstrate how the concept can be applied in a particular location as a tool to enhance safety
- Questions?
- Thank you for your attention.