

## AFI Comprehensive Implementation Programme



Presentation/Overview of the ICAO Regional Implementation Plan for Aviation Safety in Africa

### Plan


- Why an Aviation Safety Plan for Africa?
- The AFI Comprehensive Implementation Programme (ACIP)
- Where are we?
- What next?

### Results of the findings of ICAO USOAP audits

#### What do the results of USOAP in Africa tell us?

Lack of appropriate legislation, regulations, procedures, documentation and guidance material	Lack of adequate organizations and safety management systems	Lack of adequate number of qualified and experienced technical personnel
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### What else do the results of USOAP in Africa tell us?



- Inadequate certification and licensing practices
- Inadequate control and supervision of licensed and certificated individuals and organizations
- Lack of a system for the resolution of safety issues
- Lack of an appropriate and systemic surveillance system

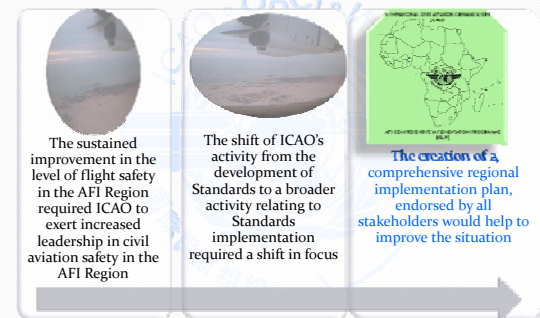
### Solutions attempted so far

The solutions attempted so far include:

Corrective action plans at States levels	Ad-hoc donor supported projects to rectify identified deficiencies, and	resolutions and declarations;
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Have they addressed the issues of effectiveness and sustainability of the resulting systems?

### Implications



- The sustained improvement in the level of flight safety in the AFI Region required ICAO to exert increased leadership in civil aviation safety in the AFI Region
- The shift of ICAO's activity from the development of Standards to a broader activity relating to Standards implementation required a shift in focus
- The creation of a comprehensive regional implementation plan, endorsed by all stakeholders would help to improve the situation

ICAO's New Approach  
A safety implementation plan for Africa

Focus Area 1	Focus Area 2	Focus Area 3
Enabling States to establish and maintain a sustainable safety oversight system (infra-structure and capacity building);	Assisting States to resolve identified deficiencies within a reasonable time; and	Enhancing aviation safety culture of African aviation service providers.

Enabling States to establish and maintain a sustainable safety oversight system

Two specific and focussed approaches

States with civil aviation activity capable of supporting an effective and sustainable national safety oversight system

- Specific gap analysis to be conducted, using the GASP methodology, in collaboration with concerned States and other partners;
- Identify remedial action and develop a project;
- Inform all stakeholders and solicit support as required to implement the project (A36/1, rc4).

Enabling States to establish and maintain a sustainable safety oversight system

Two specific and focussed approaches

States with civil aviation activities not able to support an effective and sustainable national safety oversight system on their own

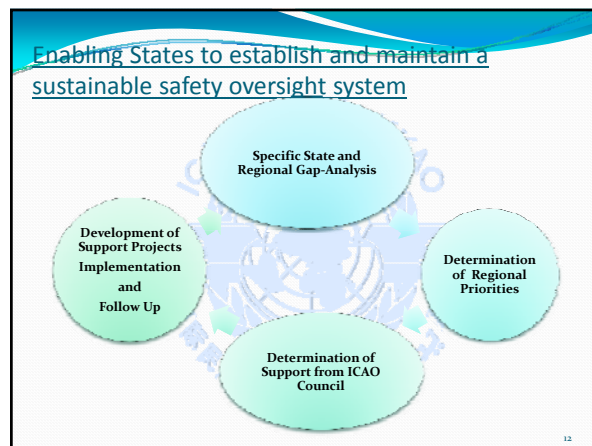
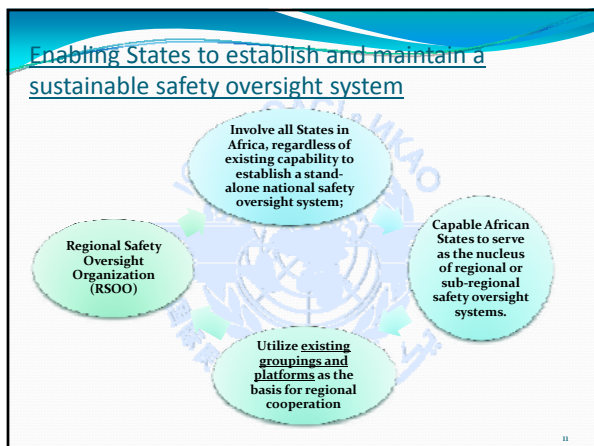
- Identify possible members utilizing existing groupings and platforms;
- Communicate intention/findings with concerned States and regional groupings

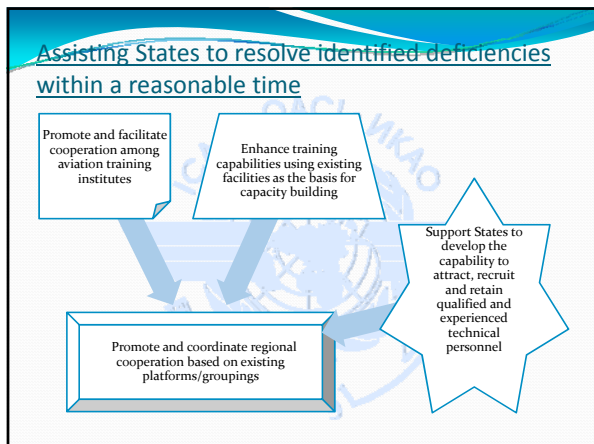
Enabling States to establish and maintain a sustainable safety oversight system

Two specific and focussed approaches

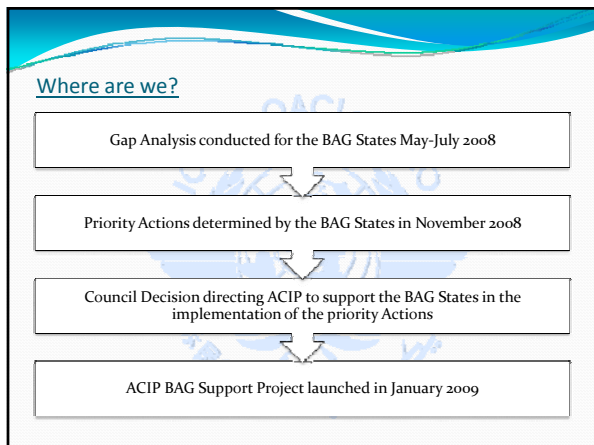
States with civil aviation activities not able to support an effective and sustainable national safety oversight system on their own

- Use every platform available including meetings of Directors General of Civil Aviation in the WACAF and ESAF regions;
- Provide clear indication of support that can be made available (ICAO and all stakeholders) to States that opt to join a Regional Safety Oversight Organization (RSOO).



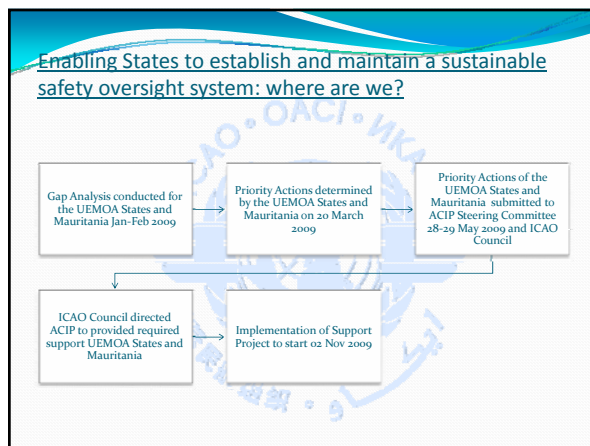


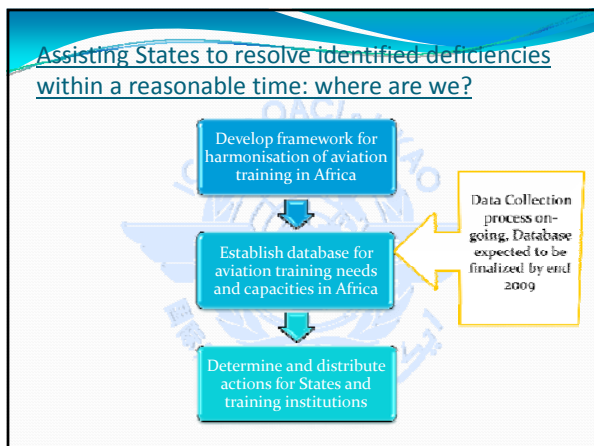
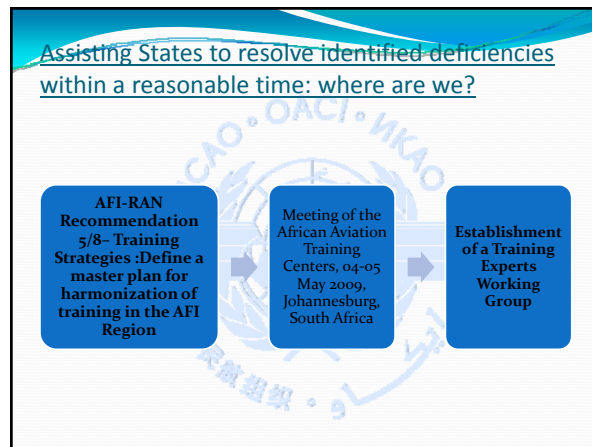
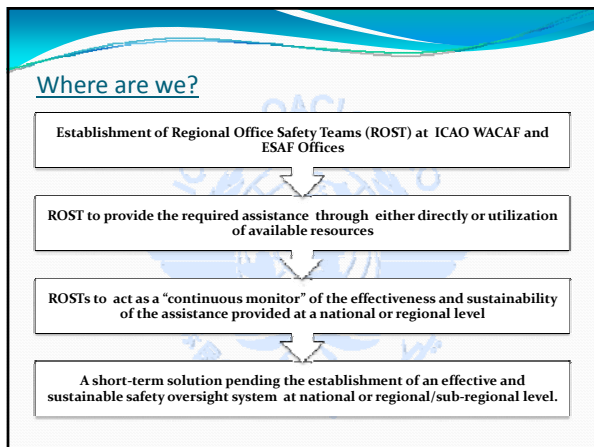
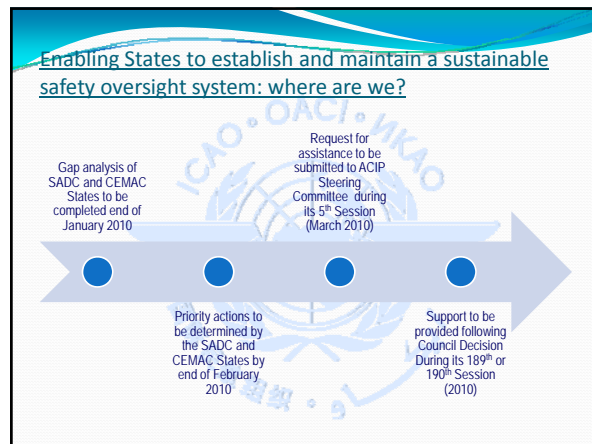
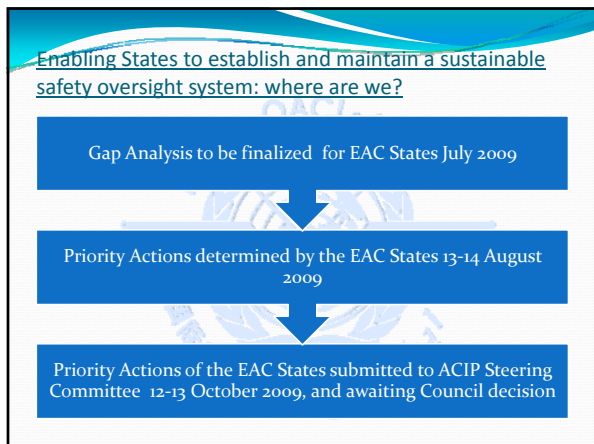
- ### Enhancing aviation safety culture of African aviation service providers
- Provide State safety programme (SSP) and safety management systems (SMS) training courses to States and aviation service providers in Africa;
  - Provide support to States and service providers in the establishment and management of SSP and SMS;
  - Coordinate and cooperate with IATA, AFRAA, ACI-Africa, CANSO, ASECNA, etc., to deliver the required capabilities for maintaining an effective safety management systems.



- ### Enabling States to establish and maintain a sustainable safety oversight system: where are we?
- #### ACIP BAG Support Project
- Two ACIP full-time staff members for six months
  - Additional experts (legal, financial, etc., recruited as advisors to the project)
  - BAG States dedicating members to a High Level Review Task Force (HLRTF)
  - Development of Frameworks and operational documents for the establishment and subsequent operation of Regional Safety Oversight Organization (RSOO) and Regional Accident Investigation Agency (RAIA)

- ### Enabling States to establish and maintain a sustainable safety oversight system: where are we?
- #### ACIP BAG Support Project (continued)
- Frameworks for the creation of BAGASOO and BAGAIA adopted at the level of the DGCAA and signed by the Ministers of Civil Aviation on 30 June 2009
  - Commitment from BAG States to establish BAGASOO and BAGAIA by 31 December 2009

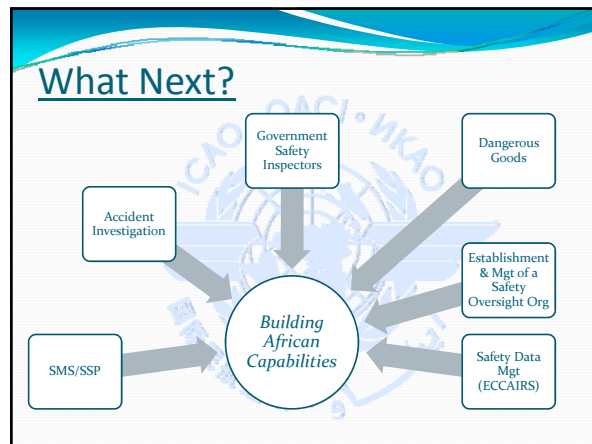




- Where are we?
- 1<sup>st</sup> SSP & SMS Training courses held in Addis Ababa, Nov 2008 in English
  - 2<sup>nd</sup> SSP & SMS Training courses held in Ouagadougou, April 2009 in French
  - 3<sup>rd</sup> SSP & SMS Training Courses to be held in English in Dar-es-Salam, 17-28 August 2009
  - Train the Trainers Workshops in English & French in September 2009
  - Instructors to be deployed throughout Africa in 2010 in response to States/Industry training needs

WHAT NEXT ?

ACIP Theme for 2010- "Building African Capabilities"



- SSP/SMS
- State Safety Programme (SSP) and Safety Management Systems (SMS)
    - A total of 15 Training Courses delivered to groups of 3-5 States maximum
    - Each course followed by a gap analysis and the development of a generic State Safety Program (SSP) to be adapted for each country

- Government Safety Inspectors (GSI)
- Personnel Licensing
  - Airworthiness
  - Operations
  - Aerodromes

**ACIP Comprehensive Implementation Programme (ACIP)**

*Thank you*

AFI Comprehensive Implementation Programme  
 Global Aviation Safety Roadmap Workshop  
 Khartoum, Sudan – 26-28 October 2009



Introduction to ICAO's  
 Global Aviation Safety Plan/Roadmap  
 GASP/GASR

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### Presentation Overview

- Global Aviation Safety Plan;
- Global Aviation Safety Roadmap;
- GASP/GASR relationship;
- GASR Objectives and characteristics;
- GASR planning and implementation process.

### Global Aviation Safety Plan (GASP)

- An ICAO safety strategy developed to enable ICAO to meet its safety target for 2008-2011:
  - Reduce the number of total accidents and fatalities worldwide irrespective of the volume of air traffic;
  - Achieve significant decrease in accident rates, particularly in regions where these remain high;
  - No single ICAO region shall have an accident rate more than twice the world-wide rate by the end of 2011.

### Global Aviation Safety Plan (GASP)

- GASP follows an approach and philosophy similar to that of the Global Air Navigation Plan (Doc 9750);
- Developed with close coordination and participation of industry;
- Provides a framework to ensure that regional, sub regional, national and individual initiatives are coordinated to deliver harmonized safe and efficient international civil aviation system;
- Contains 12 Global Safety Initiatives (GSIs) developed for implementation by States and industry (in the wider sense).

Montreal 26 June 2009

### Global Aviation Safety Roadmap (GASR)

- Global Aviation Safety Roadmap (GASR), developed by the Industry Safety Strategy Group (ISSG) and adopted by ICAO as the basis of the GASP;
- Based upon high-level principles vital to the enhancement of safety levels within global commercial aviation;
- Recognizes that all stakeholders of the aviation system need to be involved;
- Promotes a pro-active approach to safety;

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### Global Aviation Safety Roadmap (GASR)

#### ISSG members




### **GASP/GASR relationship**

- GASP represents the ICAO strategy for States, regions and industry and uses the “Focus Areas” to address safety strategy;
- GASP establishes a coordination mechanism to ensure that the roadmap and the plan are kept up-to-date in a coordinated manner;
- GASR constitutes the basis on which the GASP is built and is an integral part of the GASP;
- GASR identifies the “Focus Areas” that will enable effective implementation of the GSIs.

Montreal 26 - June 2009

### **GASP/GASR relationship**

- **Focus areas targeted at States**
  - **Focus Area 1: Consistent implementation of international Standards;**
  - **Focus Area 2: Consistent regulatory oversight;**
  - **Focus Area 3: No impediments to reporting errors/ incidents;**
  - **Focus Area 4: Effective incident and accident investigation;**

### **GASP/GASR relationship**

- **Focus areas targeted at Regions**
  - **Focus Area 5: Consistent coordination of regional programs.**
- **Focus areas targeted at Industry**
  - **Focus Area 6: No impediments to reporting and analyzing errors/ incidents;**
  - **Focus Area 7: Consistent use of Safety Management Systems;**
  - **Focus Area 8: Consistent compliance with regulatory requirements;**

### **GASP/GASR relationship**

- **Focus areas targeted at Industry**
  - **Focus Area 9: Consistent adoption of industry Best Practices;**
  - **Focus Area 10: Alignment of global industry safety strategies;**
  - **Focus Area 11: Sufficient number of qualified personnel;**
  - **Focus Area 12: No gaps in use of technology to enhance safety.**

### **GASR Objectives**

- Introduce the goals/objectives of the Global Aviation Safety Plan;
- Advance awareness throughout the aviation community that rapid positive change depends on:
  - Industry and government working together, and
  - joint action by both government and industry is required to solve safety-related problems;

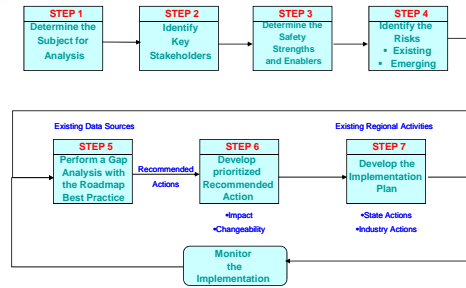
### **Characteristics of the Roadmap**

- Focus is on identifying and doing the most important things first;
- Requires that a logical process be followed so regions are always investing their energy in the most critical actions;
- Provides metrics and measurement that enables assessing action taken and further improvement required;
- Focuses and optimizes efforts through use of existing mechanisms;
- Reassures donors that their contributions will yield the desired results;
- Serves as a primary guide for Industry and States to work together to improve global aviation safety.

### Characteristics of the Roadmap

- Detailed plan to guide GASP implementation:
  - Best Practices described for each objective,
  - Metrics provided for each best practice,
  - Gap Analysis Process to assess current status and gaps that need to be addressed,
  - A Maturity Model provided for each objective based on implementation of best practices.

### GASR Planning and Implementation Process



### An Example of the Process

#### States

1. Inconsistent implementation of international standards
2. Inconsistent regulatory oversight
3. Impediments to reporting errors and incidents
4. Ineffective incident and accident investigation

#### Regions

5. Inconsistent coordination of regional programs

#### Industry

6. **Impediments to reporting and analyzing errors and incidents**
7. Inconsistent use of Safety Management System
8. Inconsistent compliance with regulatory requirements
9. Inconsistent adoption of industry best practices
10. Non-alignment of global industry safety strategies
11. Insufficient number of qualified personnel
12. Gaps in use of technology to enhance safety

### Example – Focus Area 6

#### 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><b>BP 6a-1 – The State has empowered an open reporting system.</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.</p>	<ul style="list-style-type: none"> <li>• Existence of regulatory framework upon which an open reporting system is based</li> <li>• Annex 13 – Attachment E</li> <li>• USOAP AIG 6.505</li> </ul>
<p><b>BP 6a-2 – Aviation organizations have implemented “Just Culture” programs within their organizations.</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. 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.</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><b>BP 6a-3 – The chief executive has signed a written “Just Culture” policy for the organization.</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.</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>

### GASR Planning and Implementation Process

1. Select Region for Analysis
2. Identify Key Stakeholders
3. Outline Strengths and Enablers
4. Identify Existing and Emerging Risks
5. **Perform Gap Analysis**
6. Develop Prioritized Recommended Actions
7. Develop an Action Implementation Plan



## Performing Gap Analysis

- “A Gap analysis is simply an evaluation that compares the existing situation to the desired one”
- Steps:
  1. Determine the existing implementation level for each Best Practice
  2. Determine the Maturity Level
  3. Identify Recommended Actions

## Determine the Best Practice

- For each best practice:
  - Review the available data and determine the implementation level,
  - Document the difference between the current situation and the desired state;
- In addition to reviewing the best practices identified in the Roadmap, you may also identify other regionally defined best practices.

## Maturity Model to Guide Gap Analysis

- In addition to describing Best Practices and Metrics for each Objective, Part 2 of the Roadmap also provides a detailed Maturity Model for each Focus Area based upon achievement of the Best Practices.
- The Model helps the analysts to assess the state of development with respect to the 12 Focus Areas and to use that assessment to fill the gaps determined.

## Identify the Regional Maturity Level

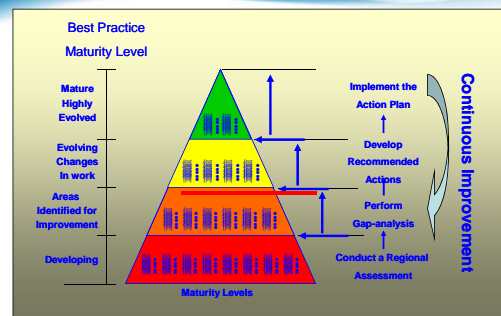
- Using the information gathered in the evaluation of the Best Practice implementation, discuss the maturity model on the next slide.
- Reach consensus on the regional maturity level.
- Draw a line on the table to indicate the consensus maturity level.

## Maturity Table Example

Focus area 6 – Impediments to reporting and analyzing errors and incidents

Maturity Level	Capability
Level 1 – Developing	<ul style="list-style-type: none"> <li>• Neither empowerment legislation nor a “Just Culture” program exists</li> </ul>
Level 2 – Areas Identified for Improvement	<ul style="list-style-type: none"> <li>• “Just Culture” empowerment legislation in place</li> <li>• An organizational just culture is established                             <ul style="list-style-type: none"> <li>◦ A “Just Culture” policy statement signed by the chief executive</li> <li>◦ Acceptable/non-acceptable behavior within the just culture defined in organizational documentation</li> <li>◦ “Just Culture” education and training programs are operational</li> </ul> </li> </ul>
Level 3 – Evolving – Changes in work	<ul style="list-style-type: none"> <li>• A confidential reporting system is operational within the organization</li> <li>• An ASAP program has been developed/adapted for the aviation organization</li> <li>• The organization vested in either regional or global IRM meetings.</li> <li>• Provisions are in place to protect aviation organization’s proprietary information during data collection</li> <li>• Proactive trending of safety information is occurring</li> <li>• Systems are in place to provide feedback to the organization’s work force</li> <li>• IOISA preparatory work completed and audit scheduled</li> </ul>
Level 4 – Highly Evolved	<ul style="list-style-type: none"> <li>• FDA system is operational                             <ul style="list-style-type: none"> <li>◦ Current operating personnel are involved in data analysis</li> </ul> </li> <li>• Common taxonomies have been developed and agreed upon                             <ul style="list-style-type: none"> <li>◦ Sharing of data with other organizations within the region and/or alliance partners is occurring</li> </ul> </li> </ul>

## Maturity Model to Guide Gap Analysis



## GASR Planning and Implementation Process

1. Select Region for Analysis
2. Identify Key Stakeholders
3. Outline Strengths and Enablers
4. Identify Existing and Emerging Risks
5. Perform Gap Analysis
- 6. Develop Prioritized Recommended Actions**
- 7. Develop an Action Implementation Plan**

## Impact and Changeability

- For Each Recommended Action identified during the gap analysis, the analyst should:
  - identify the safety “Impact” if the action is implemented,
  - determine the “Changeability” for the potential action, and
  - rank order the list of “Recommended Actions” into a prioritized list.

## Safety Impact

- The potential outcome in terms of safety enhancement should the recommended action be fully implemented.
- It has to be rated according to a scale:

<u>Outcome</u>	<u>Value</u>
Little safety enhancement	1
Some/moderate safety enhancement	2
Considerable safety enhancement	3

## Changeability

Ease of implementing the recommended action.

- It has to be determined according to a scale:

<u>Ease of implementation</u>	<u>Value</u>
Difficult	1
Moderate Effort Required	2
Little or No Effort Required	3

- Rating should consider the following elements:
  - Political Will/Commitment/Consensus
  - Resource Requirements/availability for implementation
  - Potential Blockers – what conditions exist that could prevent implementation

## Determine Impact/Change-ability level using the Chart

Change-ability 3 Easy 2 Moderate 1 Difficult	P7	P4	P1
	P8	P5	P2
	P9	P6	P3
	Little 1	Moderate 2	Considerable 3

**Safety Impact**

## Recommendation and Priority Selection Table - an example

Focus Area	Areas where assistance would be required	Impact	Change-ability	IC – Level	Selected Priority
3	Support to the Sub-regional Organization is required for the development and implementation of a Confidential and Voluntary Incident Reporting System (CVIRS) to serve the entire sub-region, and to ensure that: a. the required regulatory framework is developed; b. a “Safety (Just) Culture” is promoted; and c. data from reports is used in a timely and efficient manner to improve safety.	3	1	P3	2
4c	Support should be provided to the State to establish an independent Accident Investigation Office including the provision of adequate and appropriate training to the staff of the newly established Office.	3	2	P2	3
7a	Support should be provided to the CAA and service providers (air operators, airports and air traffic service providers) to develop and implement a State Safety Programme (SSP) and Safety Management System (SMS) as applicable.	3	3	P1	4
2a	The CAA would require assistance to complete the re-certification of all air operators in the country in accordance to the newly promulgated regulations.	3	1	P3	1
9a	Service providers require support to develop and establish internal audit processes to implement industry best practices.	3	2	P2	5

**AFI Comprehensive Implementation Programme**

**Global Aviation Safety Roadmap Workshop**

Khartoum, Sudan – 26-28 October 2009

**?**  
**Introduction to GASP/GASR**

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**Global Aviation Safety Plan (GASP)/  
Global Aviation Safety Roadmap (GASR)**

***Workshop Overview:  
Purpose, Objectives, Structure,  
& Goals***

**Ousman K. Manjang**  
Safety Officer  
AFI Comprehensive Implementation  
Programme (ACIP)

(Khartoum, Sudan, 26 October 2009)

**Presentation Overview**

- Purpose, Objectives, and Structure of the Workshop;
- Expectations/Outcomes of the Workshop.

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**Purpose of this Workshop**

- In the 21st century a safe flight should be a basic right of citizens everywhere.
- The accident rate in Africa is high and unacceptable, but it's historical.
- This meeting has the ability to change this for the future by implementing the best practices outlined in the Roadmap.
- Rapid positive change depends on:
  - ✓ Industry and government working together
  - ✓ Directing efforts towards the most significant issues first.
- This Workshop will help you determine the "priority items" and guide you in their implementation .

3

**Workshop Objectives**

- Develop a thorough understanding of the Global Aviation Safety Plan and its analytical process based upon the Roadmap.
- Understand how to use the process to support development of safety action plans for your region.
- Help the ISSG and ICAO understand how the GASR/GASP can be further improved.

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**Break-out/Workshop Sessions**

- The Workshop is designed to have all key regional stakeholders participate on an equal basis.
- Four simultaneous breakout sessions with proportional representation from diverse groups.
- Participants assigned on basis of domain, knowledge, home country, professional role, etc.

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**Break-out/Workshop Sessions**

- Facilitator team composed of ICAO staff with support from some of you.
- Facilitators direct discussions and assist participants to learn about the process in developing safety action plans.
- Detailed instructions will be provided in the breakout sessions.

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### Group Discussion Guidelines

- Contribute your knowledge to the discussion and ask questions;
- Maintain mutual respect for other's ideas;
- The facilitators will involve everyone;
- Any participant may submit a point anonymously in written format;
- Participants can change their minds at any time;

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### Group Discussion Guidelines

- Facilitators will be mindful of potential language barriers and will attempt to ensure clear communication;
- Facilitators and participants are expected to remind others of these guidelines;
- Facilitators will ask for volunteers as Rapporteurs to keep notes of the ideas, facts, consensus, and questions raised.

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### Work Groups/Focus Areas

- **Group 1:** Focus Area 2 – Inconsistent Regulatory Oversight
  - Facilitator: Ms. Nancy Onyedim
  - Co-Facilitator: Mr. Ashraf Siddig
- **Group 2:** Focus Area 5 – Inconsistent Coordination of Regional Programmes
  - Facilitator: Mr. Mamoune Chakira
  - Co-Facilitator: Mr. Samir Alsraraj

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### Work Groups/Focus Areas

- **Group 3:** Focus Area 7 – Implementation of Safety Management Systems Facilitators
  - Facilitator: Mr. Geoffrey Moshabesha
  - Co-Facilitator: Mr. Seboseso Machobane
- **Group 4:** Focus Area 11 - Insufficient Number of Qualified Personnel
  - Facilitator: Mr. Ousman Manjang
  - Co-Facilitator: Mr. Jihad Faqir

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### Expectations/Outcomes

- A viable self-sustaining industry-government regional safety team.
- Initial regional action plans initiated for the four focus areas identified:
  - Initial Gap Analysis completed
  - Data requirements defined and sources identified
- All sectors commit to continue the process.
  - Commit to holding next Workshop
  - Commit to cover the remaining focus areas
- Participants assess the usefulness of this Workshop.

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Global Aviation Safety Plan (GASP)/  
Global Aviation Safety Roadmap (GASR)

## Questions???

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