



International Civil Aviation Organization

Regional Seminar/Workshop on USOAP CMA and SAST Tools

Introduction to the USOAP Continuous Monitoring Approach (CMA)

Module 4

Module Objective



At the end of this module, the participants will be able to explain the:

- concept and different components of the USOAP CMA;
- roles and responsibilities of the various stakeholders;
- details of the USOAP CMA activities; and
- means used to collect, process, and share safety information.

- ❑ Concept and benefits of the USOAP CMA
- ❑ Components of the CMA
 - Collection of safety information
 - Determination of State's Safety Risk Profile
 - Prioritization and conduct of USOAP CMA activities
 - Update of the Lack of Effective Implementation (LEI) and status of Significant Safety Concerns (SSCs)
- ❑ Collection, processing and sharing of safety information
- ❑ Roles and responsibilities under the USOAP CMA

USOAP CMA Concept



USOAP CMA is designed to monitor, on a continuous basis, the:

- safety oversight capabilities, and
- safety performance of States.

CMA Benefits



Collective sharing of safety data and information

Continuous monitoring of States' safety oversight capabilities

Transition from a one-time assessment activity (snapshot) to a continuous monitoring process

Identification of safety risks

Monitoring of the safety performance of States

CMA Benefits (cont'd)

Real-time, interactive and effective operational system

Long-term, cost-effective, resource-efficient and sustainable approach

A layered approach to the USOAP programme

Proactive approach to safety under the safety management concept

Promotes and encourages the sharing of safety information

Transition to CMA



USOAP Continuous Monitoring Approach



Promoting global aviation safety

by continuously monitoring and updating
the safety oversight capabilities of all ICAO Member States.



- ✈ Two-year transition to the CMA (2011-2012)
- ✈ CMA implementation will begin in January 2013

Transition Plan



2011

State

Update CAP
Complete SAAQ
Sign new MOU
Appointment of
NCCMs

ICAO

- Doc 9735
- Seminars/
Workshops
- CBT/OJT
- Expand
agreements
- Conduct ICVMs

2012

State

Update CAP
Complete SAAQ
CMA Online protocols

ICAO

- CBT/OJT
- Prioritize CMA
activities
- Conduct ICVMs
- Conduct safety audits

2013

State

Update CAP
Update SAAQ
CMA Online protocols

ICAO

- CBT/OJT
- Prioritize CMA
activities
- Conduct ICVMs
- Conduct safety
audits
- Conduct CSA audits

State Obligations During Transition Period



Sign a new Memorandum of Understanding (MOU)

Designate a National Continuous Monitoring Coordinator (NCCM) (previously NSOC)

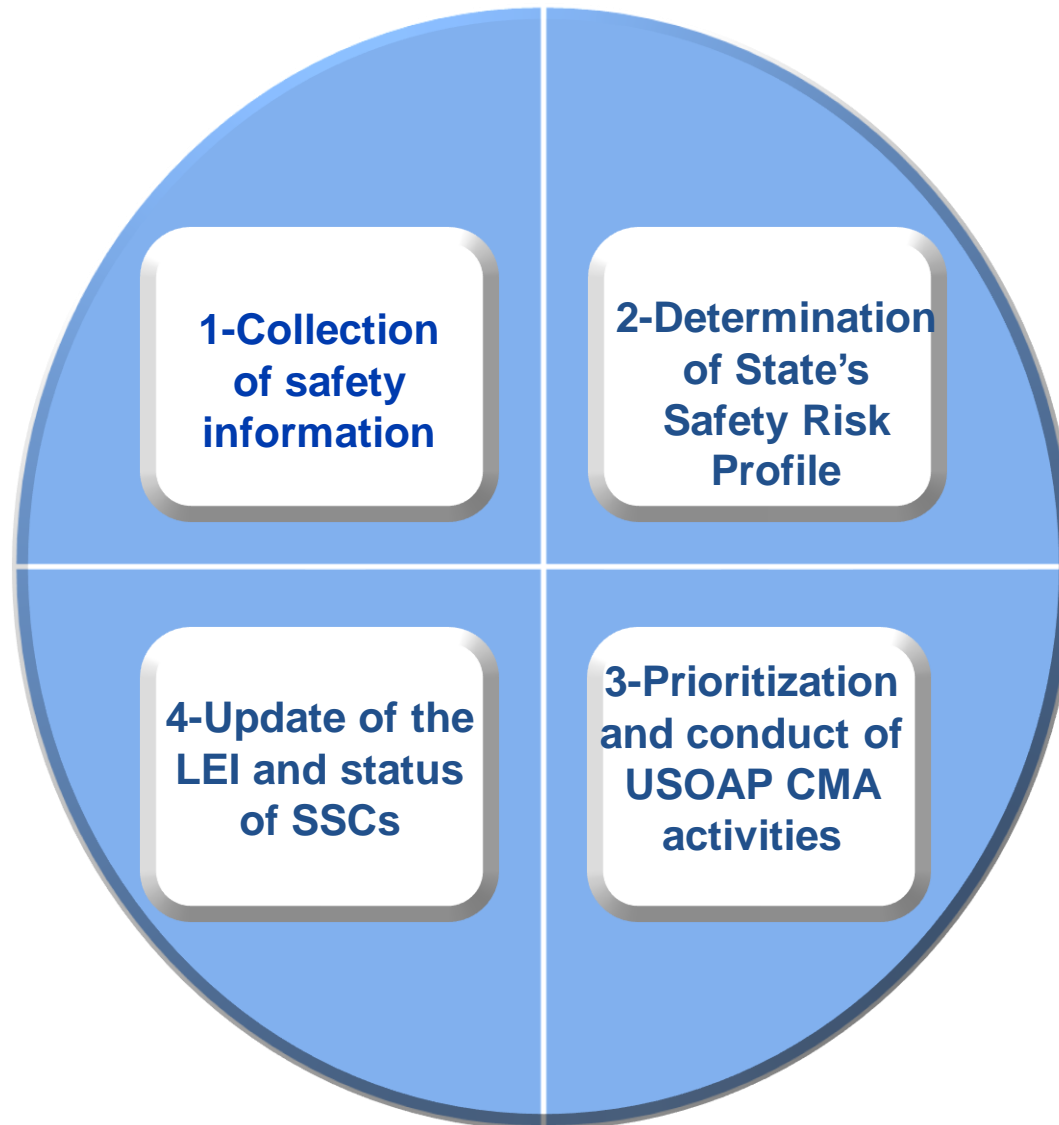
Ensure the NCCM and other State personnel are trained to use the CMA online framework

Manage the online State Aviation Activity Questionnaire (SAAQ)

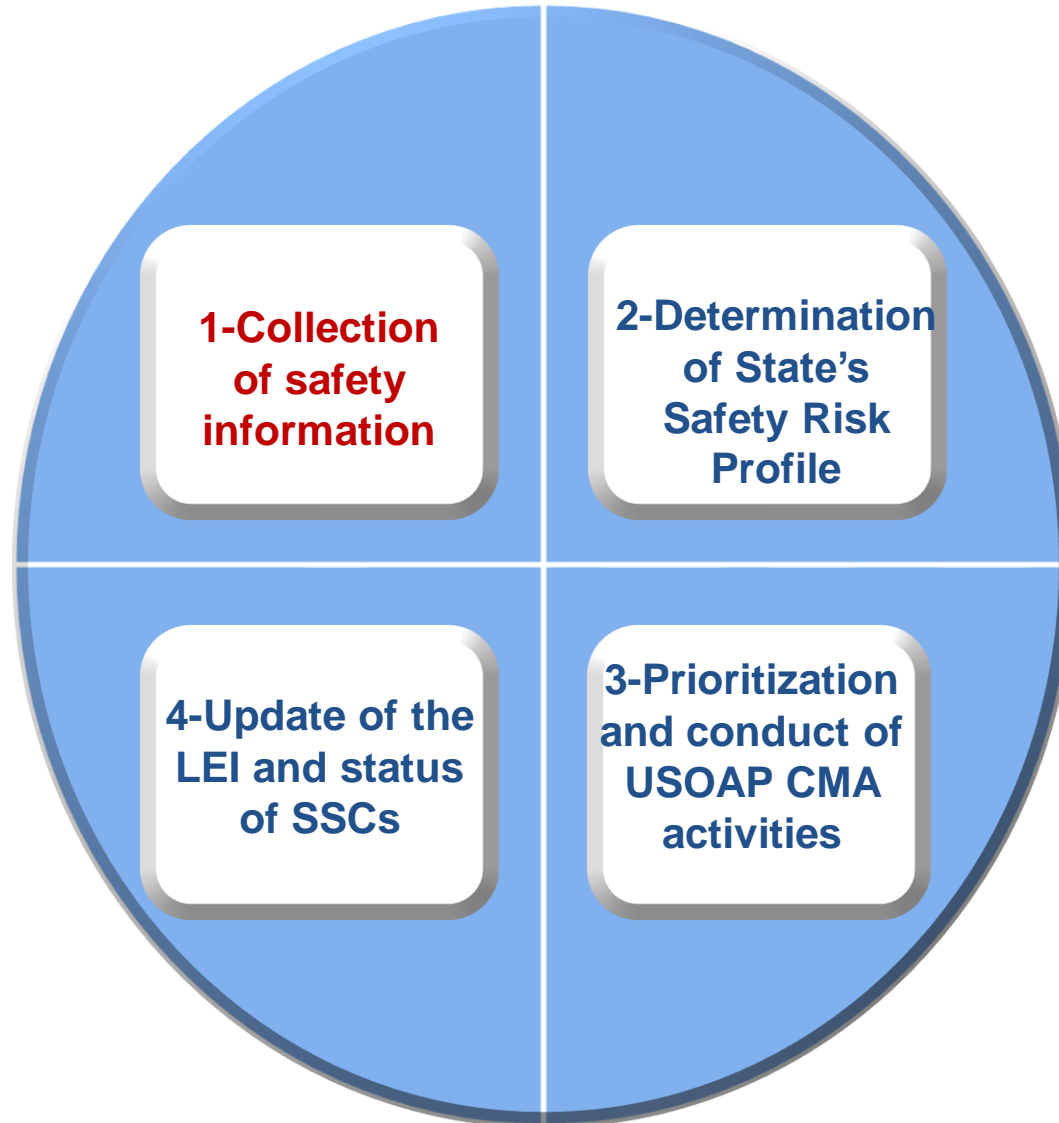
Periodically update the corrective action plans (CAPs)

USOAP CMA COMPONENTS

USOAP CMA Components



USOAP CMA Components



Collection of Safety Information



The CMA provides a mechanism for collecting safety information from three main sources:

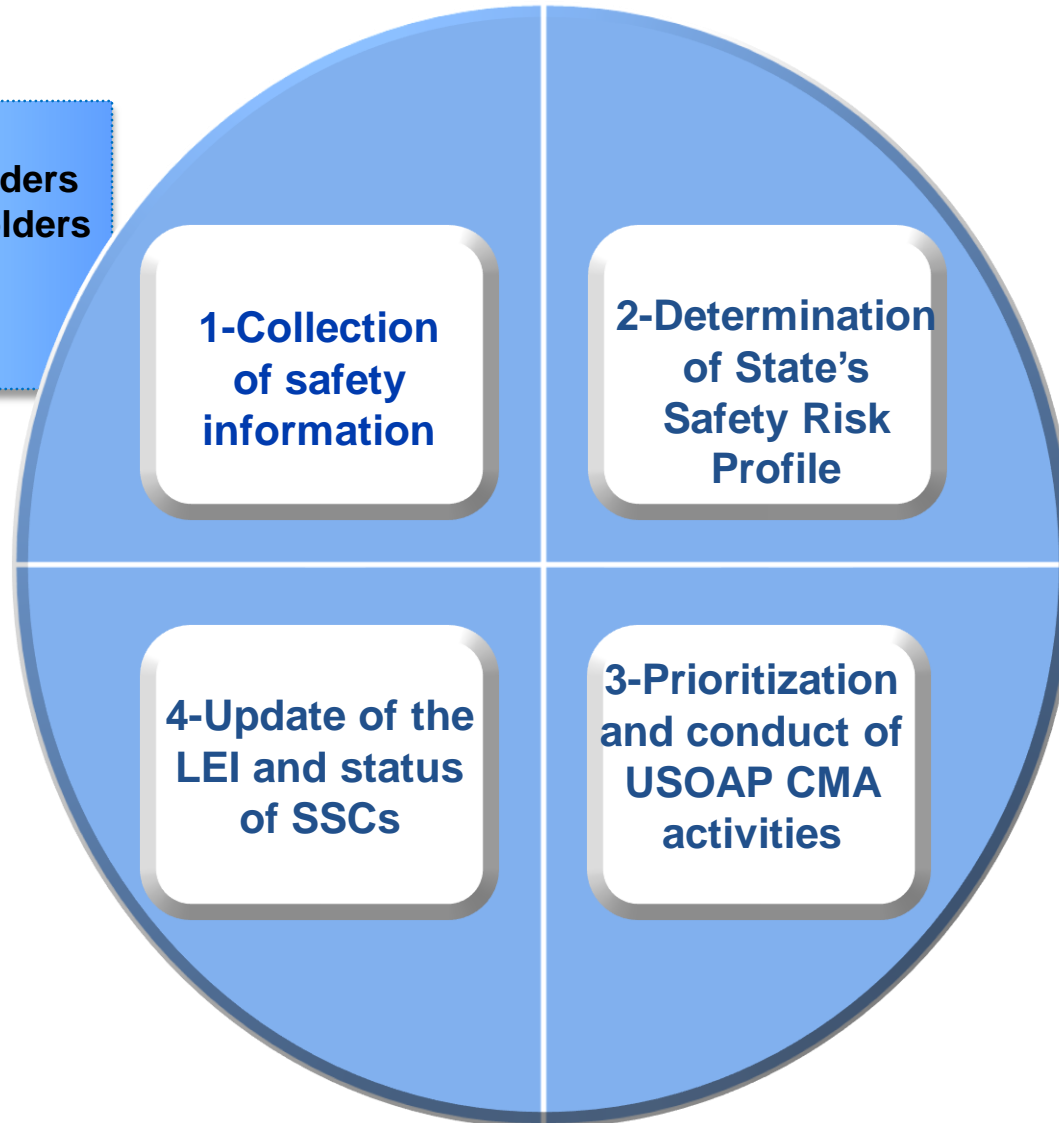
- States
- Internal stakeholders
- External stakeholders

CMA has an online framework to facilitate the collection of safety information.

USOAP CMA Components



- **States**
- Internal stakeholders
- External stakeholders



Collection of Safety Information — States



States provide information by completing and submitting their:

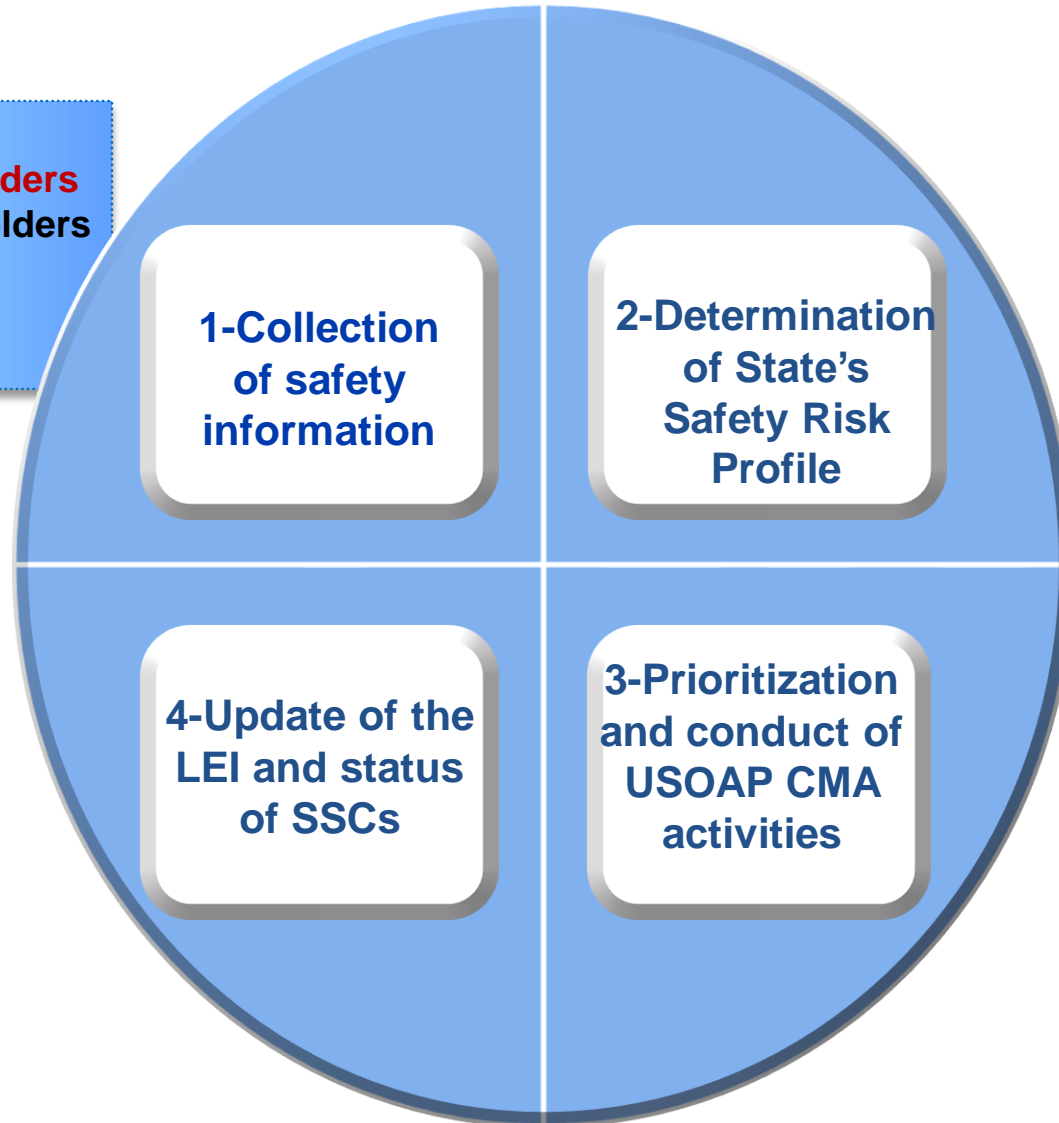
- SAAQs,
- Compliance Checklists (CCs) or Electronic Filing of Differences (EFOD),
- USOAP CMA Protocol Questions (PQs), and
- Updated CAPs.

As the State Safety Programmes (SSPs) evolve, they will generate additional safety data to be used by the USOAP CMA.

USOAP CMA Components



- States
- **Internal stakeholders**
- External stakeholders



Collection of Safety Information — Internal Stakeholders



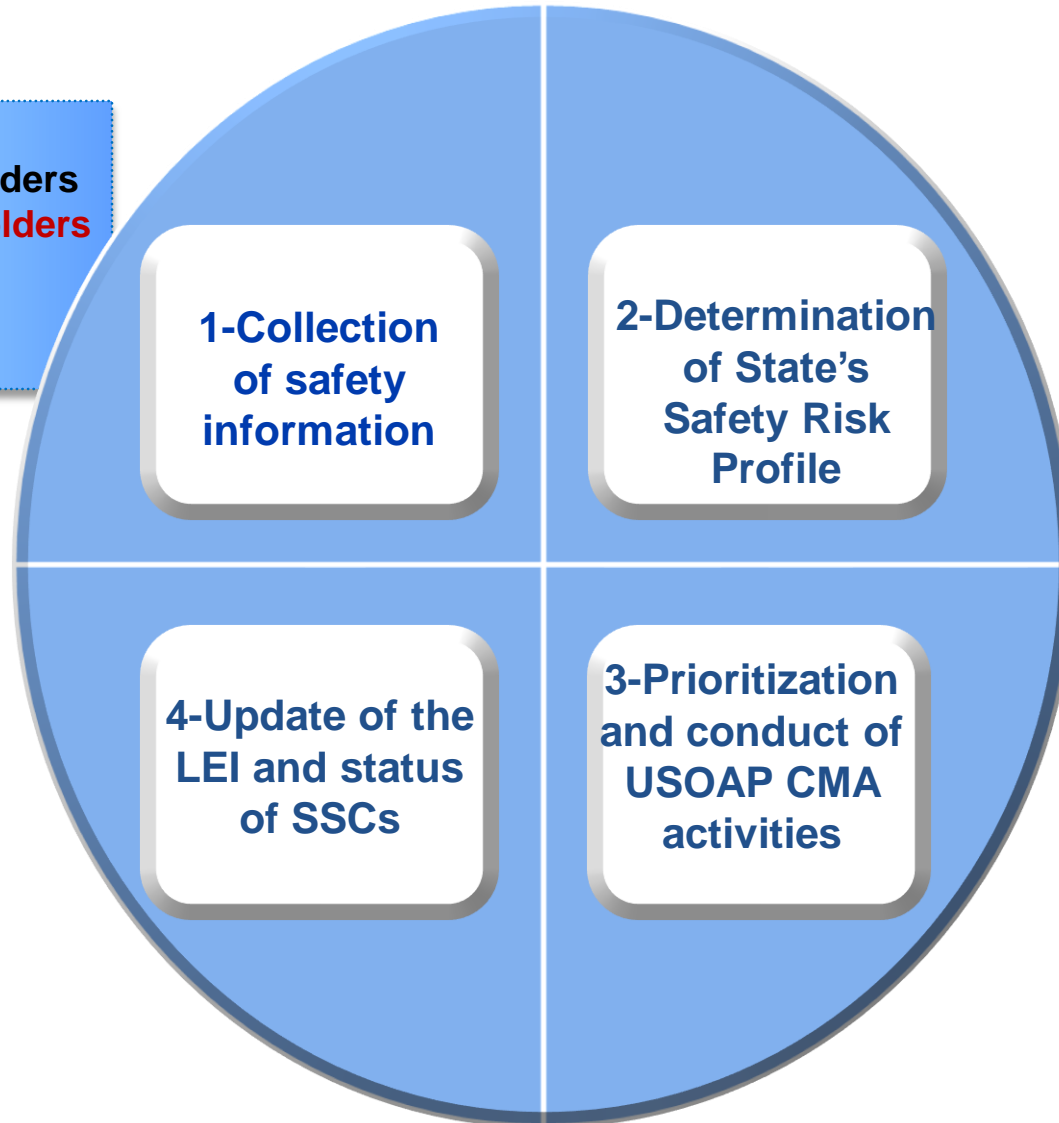
Include all ICAO Secretariat Bureaus, Sections and Regional Offices.

The information is collected and shared internally through ICAO's Integrated Safety Trend Analysis and Reporting System (ISTARS).

USOAP CMA Components



- States
- Internal stakeholders
- External stakeholders



Collection of Safety Information — External Stakeholders



Include national, regional, supranational, and international organizations recognized by ICAO.

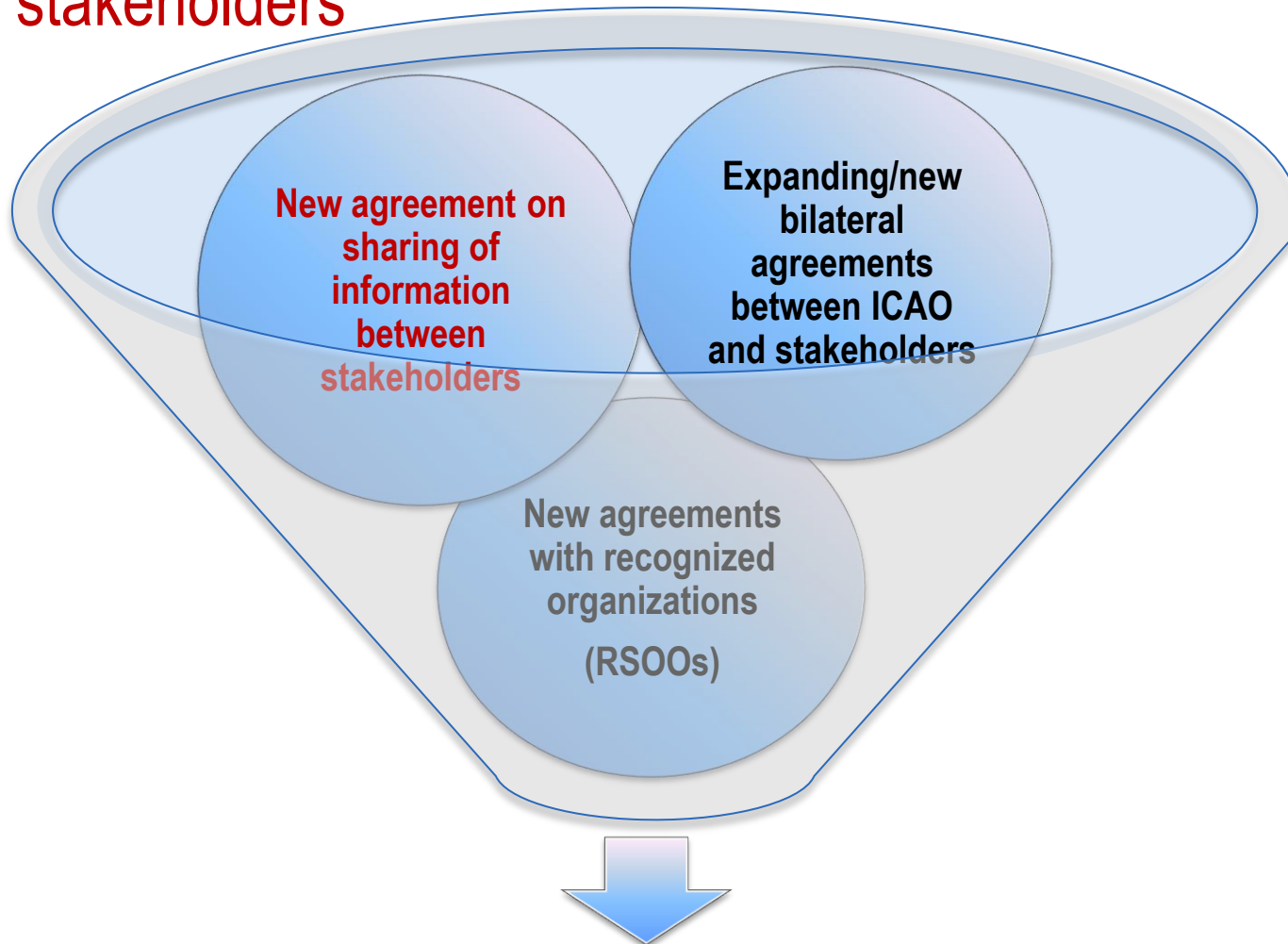
These organizations have audit programmes and activities that generate safety data and information.

Expanded agreements facilitate the sharing of safety information that ICAO validates to reduce the duplication of monitoring activities.

Collection of Safety Information (cont'd)



External stakeholders



Greater efficiencies for USOAP CMA

New Multilateral Agreement: Global Safety Information Exchange (GSIE)



- ❑ Information sharing is critical to success of ICAO's approach.
- ❑ An MOU on GSIE was signed in 2010 between:

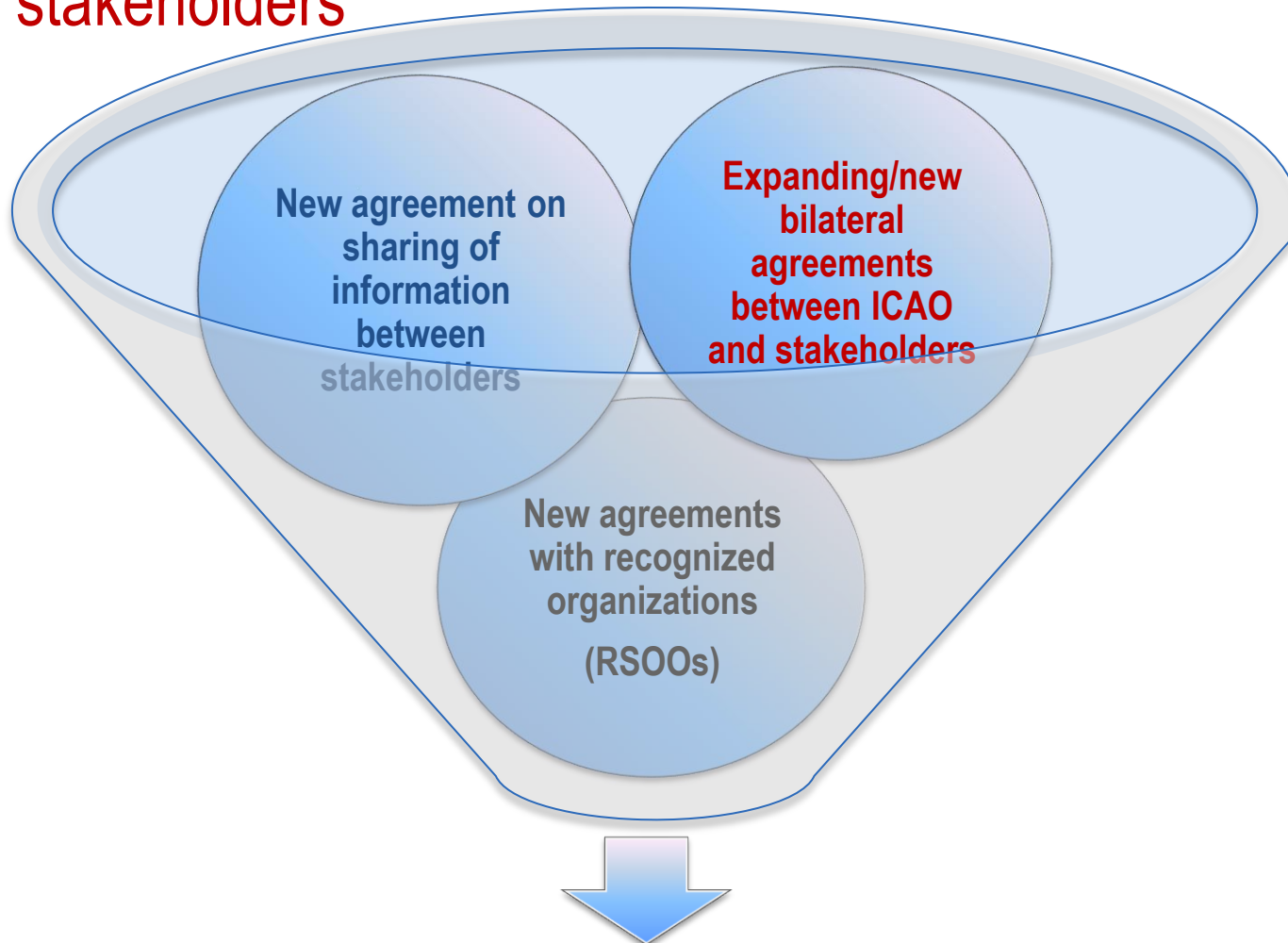


- ❑ Aims to assist in identifying and reducing risks to international civil aviation by exchanging and pooling information.

Collection of Safety Information (cont'd)



External stakeholders



Greater efficiencies for USOAP CMA

New Bilateral Agreement MOC with the EU

- ❑ Memorandum of Cooperation (MOC) signed 5 May 2011 between ICAO and the EU, with a dedicated Safety Annex.
- ❑ Enables cooperation in the fields of safety, security, environment and air traffic management as well as better use of resources by sharing information and coordinating efforts.

Collection of Safety Information (cont'd)



Expanding agreements between ICAO and stakeholders

MOUs related to USOAP were concluded with:

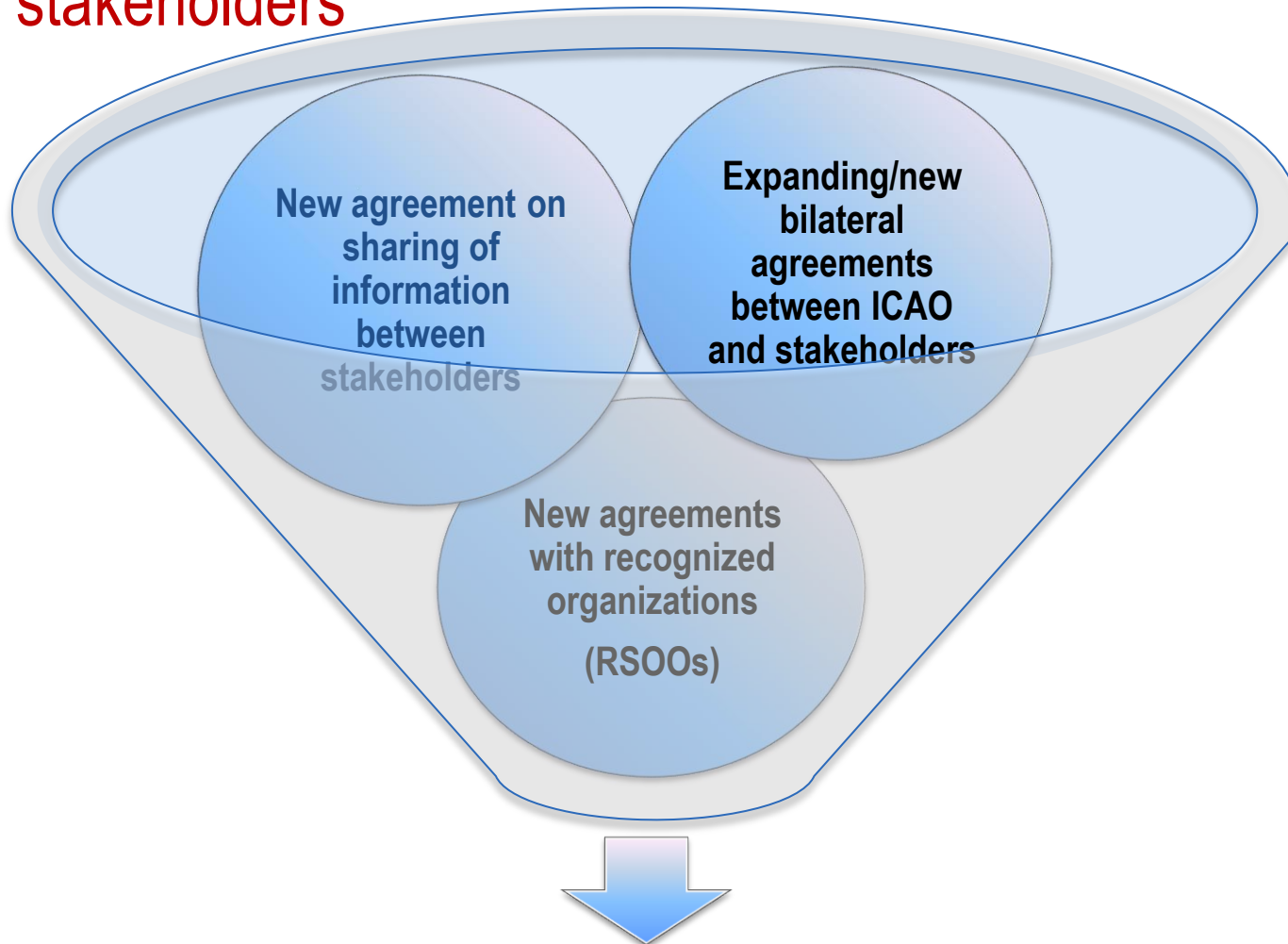
- European Aviation Safety Agency (EASA)
- EUROCONTROL
- Interstate Aviation Committee (IAC)
- International Air Transport Association (IATA)

These agreements are being reviewed and updated to reflect the needs of the USOAP CMA.

Collection of Safety Information (cont'd)



External stakeholders

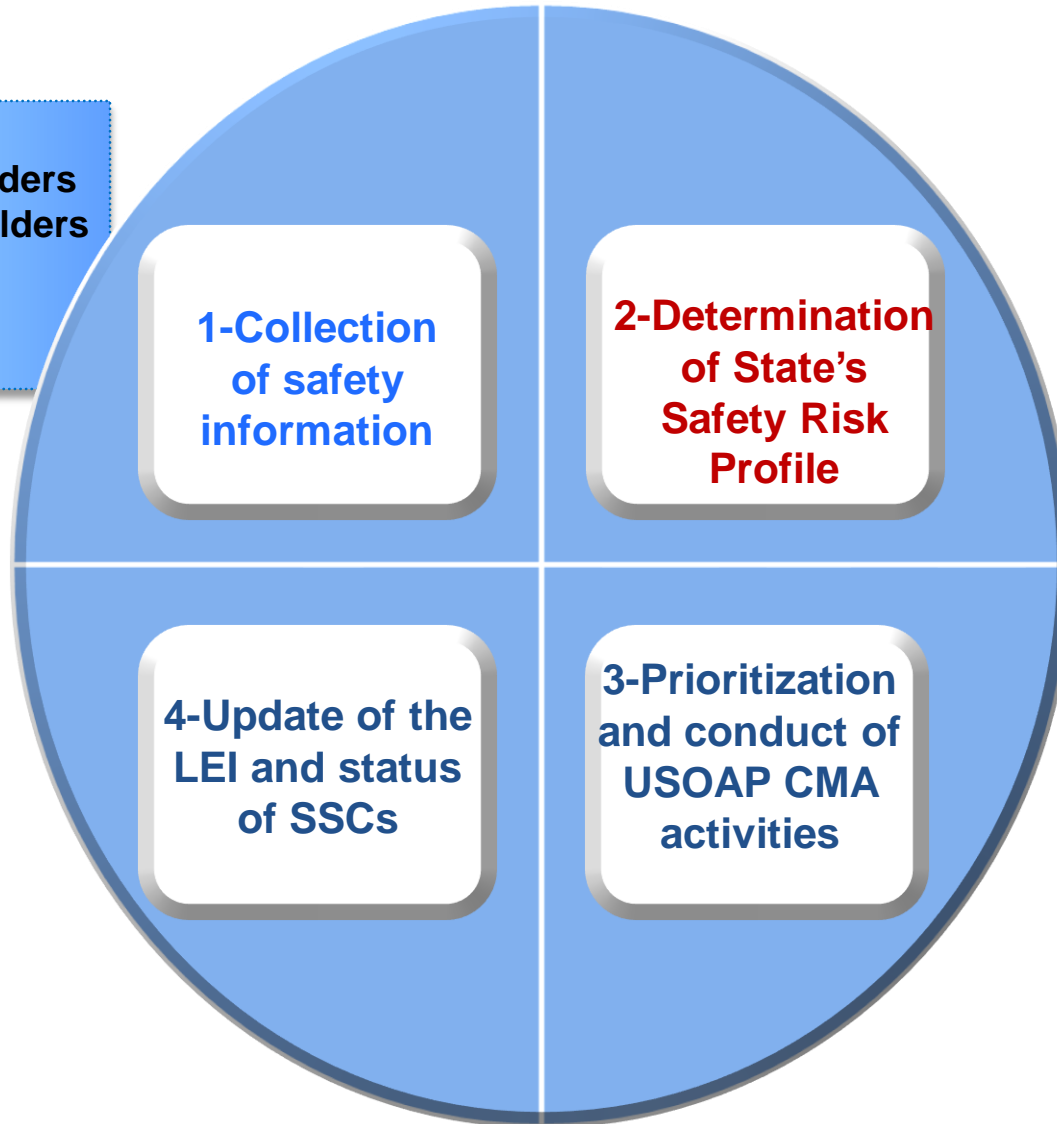


Greater efficiencies for USOAP CMA

USOAP CMA Components



- States
- Internal stakeholders
- External stakeholders



State's Safety Risk Profile



Determined/monitored on an ongoing basis by ICAO HQ.

Used to prioritize USOAP CMA activities.

Based on various safety risk indicators related to specific information.

State's Safety Risk Profile (cont'd)

The following are safety risk indicators:

- Lack of effective implementation (LEI)
- Existence of SSC(s)
- Level of aviation activities for each audit area
- Projected growth of aviation activities
- Level of acceptability of the State's CAPs
- Progress in implementation of State's CAPs
- Ongoing or planned assistance projects
- Progress in implementing safety management system (SMS) and SSP

USOAP CMA Components



- States
- Internal stakeholders
- External stakeholders

**1-Collection
of safety
information**

**2-Determination
of State's
Safety Risk
Profile**

- **Analysis of safety risk factors**
- Evaluating State's safety management capabilities

**4-Update of the
LEI and status
of SSCs**

**3-Prioritization
and conduct of
USOAP CMA
activities**

State's Safety Risk Profile (cont'd)

Safety Risk Indicators

LEI
SSC
CAP
acceptability
CAP progress

Level & growth
of aviation
activities
Accidents &
serious
incidents
SMS and SSP
output

Safety Targets

Improvements in
SARPs
implementation
Reductions in CFIT &
runway accidents/
incidents

Power plant or
component failure
In-flight accidents/
serious incidents

Applying the fundamentals of Safety Management

**Reactive, proactive,
predictive risk assessment**
- Correlation of LEI and accident
rates
- Traffic and traffic growth

**Establishing targets and
measuring results**

USOAP CMA Components



- States
- Internal stakeholders
- External stakeholders

**1-Collection
of safety
information**

**2-Determination
of State's
Safety Risk
Profile**

- Analysis of safety risk factors
- Evaluating State's safety management capabilities

**4-Update of the
LEI and status
of SSCs**

**3-Prioritization
and conduct of
USOAP CMA
activities**

Prioritization and Conduct of USOAP CMA Activities



CMA strategy for measuring and promoting improvement of global aviation safety, on a continuous basis, includes the following activities:

- Comprehensive Systems Approach (CSA) audits
- Safety Audits
- ICAO Coordinated Validation Missions (ICVMs)

Prioritization and Conduct of USOAP CMA Activities (cont'd)



The scope of each of these CMA activities will be determined in the planning and scheduling process. The scope of the activities may be:

- Full-scale, covering the eight audit areas, or
- Limited, targeting specific areas.

USOAP CMA Components



- States
- Internal stakeholders
- External stakeholders

**1-Collection
of safety
information**

**2-Determination
of State's
Safety Risk
Profile**

- Analysis of safety risk factors
- Evaluating State's safety management capabilities

**4-Update of the
LEI and status
of SSCs**

**3-Prioritization
and conduct of
USOAP CMA
activities**

- **CSA Audits**
- Safety Audits
- ICAO Coordinated Validation Missions (ICVMs)

CMA Activities: CSA Audits



Comprehensive Systems Approach (CSA) Audit

CSA Audits are carried out by ICAO to determine Member States' capabilities for safety oversight by:

- Assessing the effective implementation of the eight critical elements of a safety oversight system.
- Verifying the status of States' implementation of all safety-related ICAO SARPs, associated procedures, guidance material, and best safety practices.

USOAP CMA Components



- States
- Internal stakeholders
- External stakeholders

**1-Collection
of safety
information**

**2-Determination
of State's
Safety Risk
Profile**

- Analysis of safety risk factors
- Evaluating State's safety management capabilities

**4-Update of the
LEI and status
of SSCs**

**3-Prioritization
and conduct of
USOAP CMA
activities**

- CSA Audits
- **Safety Audits**
- ICAO Coordinated Validation Missions (ICVMs)

CMA Activities: Safety Audits



Safety Audits

- The objective of a Safety Audit is to perform, at the request of a Member State and on a cost recovery basis, an audit of its current safety oversight system.
- CSA Audits and Safety Audits apply the same methodology.

USOAP CMA Components



- States
- Internal stakeholders
- External stakeholders

**1-Collection
of safety
information**

**2-Determination
of State's
Safety Risk
Profile**

- Analysis of safety risk factors
- Evaluating State's safety management capabilities

**4-Update of the
LEI and status
of SSCs**

**3-Prioritization
and conduct of
USOAP CMA
activities**

- CSA Audits
- Safety Audits
- **ICAO Coordinated Validation Missions (ICVMs)**

ICAO Coordinated Validation Missions (ICVMs)

- Document progress and collect evidence to validate the status of corrective actions or mitigating measures taken to address previously identified F&Rs and SSCs.
- Provide on-site guidance to the State to resolve remaining deficiencies.

USOAP CMA Components



- States
- Internal stakeholders
- External stakeholders

**1-Collection
of safety
information**

**2-Determination
of State's
Safety Risk
Profile**

- Analysis of safety risk factors
- Evaluating State's safety management capabilities

- **Mandatory Information Requests (MIRs)**
- Findings and Recommendations (F&Rs)
- Significant Safety Concerns (SSCs)
- Corrective Action Plans (CAPs)

**4-Update of the
LEI and status
of SSCs**

**3-Prioritization
and conduct of
USOAP CMA
activities**

- CSA Audits
- Safety Audits
- ICAO Coordinated Validation Missions (ICVMs)

Mandatory Information Requests (MIRs)



The CMO Section may submit an MIR to a State to request information or documentation needed for USOAP CMA review and validation.

An MIR can be issued when:

SAAQ, CCs and/or PQs are not submitted, outdated or contradictory to other available information.

CAPs are not submitted or kept up-to-date.

Missing or inadequate information gathered during a USOAP CMA activity.

MIRs (cont'd)



An MIR can be issued when:

A significant change is observed in the organization responsible for safety oversight.

There is transfer of CAA responsibilities or functions to a different authority.

A deficiency may exist and additional information is required for validation purposes.

USOAP CMA Components



- States
- Internal stakeholders
- External stakeholders

**1-Collection
of safety
information**

**2-Determination
of State's
Safety Risk
Profile**

- Analysis of safety risk factors
- Evaluating State's safety management capabilities

- Mandatory Information Requests (MIRs)
- Findings and Recommendations (F&Rs)
- Significant Safety Concerns (SSCs)
- Corrective Action Plans (CAPs)

**4-Update of the
LEI and status
of SSCs**

**3-Prioritization
and conduct of
USOAP CMA
activities**

- CSA Audits
- Safety Audits
- ICAO Coordinated Validation Missions (ICVMs)

Findings and Recommendations (F&Rs)



Used to notify a State of identified deficiencies, when:

- The State fails to provide an acceptable response to a MIR.
- Evidence is obtained that indicates a deficiency in the State.

Are related to one or more of the eight CEs and indicate the State's lack of:

- Compliance with the Chicago Convention.
- Implementation of ICAO SARPs and Procedures for Air Navigation Services (PANS).
- Application of guidance material and relevant safety-related practices.

A completed F&R contains:

PQ(s) found to be not-satisfactory

Applicable CE(s)

A description of the identified deficiency

ICAO's recommendation on how to resolve the identified finding

F&Rs (cont'd)



**APPENDIX 1-1-02
FINDINGS AND RECOMMENDATIONS REPORT TO THE
PRIMARY AVIATION LEGISLATION AND CIVIL AVIATION REGULATIONS**

Audited State (points to **Auditland**)

F&R number (points to **LEG/02 1.027; 4.107; 8.099**)

Document reference (points to **DOC 9735, Appendix F**)

Not-satisfactory PQs (points to **CE-2 X, CE-5 X, CE-6 X**)

CMA activity dates (points to **Audit Period: 18-02-2009 - 25-02-2009**)

Finding (points to **FINDING:**)

Critical element(s) concerned (points to **critical elements**)

Recommendation (points to **RECOMMENDATION:**)

DOCUMENT REFERENCE:
Refer to Doc 9735, Appendix F for the document reference(s) associated with the protocol questions identified in this finding.

CE-1	CE-2 X	CE-3	CE-4	CE-5 X	CE-6 X	CE-7	CE-8
------	--------	------	------	--------	--------	------	------

FINDING:
Auditland's legislative provisions provide for the issuance of exemptions, which have also been issued in practice without having established the corresponding policy and procedures.

RECOMMENDATION:
Auditland should:
1) establish a policy and develop and implement procedures for the issuance of exemptions at corresponding limitations; and
2) develop a mechanism for ensuring that exemptions are systematically recorded.

USOAP CMA Components



- States
- Internal stakeholders
- External stakeholders

**1-Collection
of safety
information**

**2-Determination
of State's
Safety Risk
Profile**

- Analysis of safety risk factors
- Evaluating State's safety management capabilities

- Mandatory Information Requests (MIRs)
- Findings and Recommendations (F&Rs)
- **Significant Safety Concerns (SSCs)**
- Corrective Action Plans (CAPs)

**4-Update of the
LEI and status
of SSCs**

**3-Prioritization
and conduct of
USOAP CMA
activities**

- CSA Audits
- Safety Audits
- ICAO Coordinated Validation Missions (ICVMs)

Significant Safety Concerns (SSCs)



SSCs are issued by ICAO to notify a State of identified deficiencies that may pose an immediate safety risk to international civil aviation.

An SSC is generated when:

The State does not address a previously issued F&R that may pose an immediate safety risk to international civil aviation.

Evidence and information indicate a potential SSC in the State.

SSCs may be identified by:

- A USOAP CMA activity team during the conduct of an on-site USOAP CMA activity.
- ICAO at any stage during the continuous monitoring process.

USOAP CMA Components



- States
- Internal stakeholders
- External stakeholders

**1-Collection
of safety
information**

**2-Determination
of State's
Safety Risk
Profile**

- Analysis of safety risk factors
- Evaluating State's safety management capabilities

- Mandatory Information Requests (MIRs)
- Findings and Recommendations (F&Rs)
- Significant Safety Concerns (SSCs)
- **Corrective Action Plans (CAPs)**

**4-Update of the
LEI and status
of SSCs**

**3-Prioritization
and conduct of
USOAP CMA
activities**

- CSA Audits
- Safety Audits
- ICAO Coordinated Validation Missions (ICVMs)

Corrective Action Plans (CAPs)



States have the responsibility to develop a CAP in response to any identified F&R.

The proposed CAP must:

- Address all elements identified in the F&R.
- Indicate the responsible action office.
- Indicate the estimated implementation date for each action.

CAPs shall be submitted to the CMO Section within 45 calendar days from the date of :

- Posting of the F&Rs on the USOAP CMA online framework.
- Notification of the F&Rs through the draft final report.

CAPs (cont'd)



The CMO Section shall provide the State with feedback on the acceptability of the proposed CAP.

If the CAP does not fully address the F&R, the CMO Section notifies the State and requests an improved CAP.

If a State fails to submit a CAP within the required time frame, the CMO will coordinate with the RO and other relevant ICAO Sections.

CAPs (cont'd)



If there is any change to a CAP, the State shall provide this information to the CMO Section through a CAP update.

The State shall provide the CMO Section with regular progress reports on the implementation of their CAPs, along with any supporting evidence.

CAPs, CAP updates and CAP progress reports will be reviewed by the CMO Section and published on the CMA online framework.

CAPs (cont'd)



The CMO Section will validate the information and evidence supporting CAP progress reports and will update the status of the following:

Not-satisfactory PQs

F&Rs

SSCs

State's LEI

USOAP CMA Components



- States
- Internal stakeholders
- External stakeholders

**1-Collection
of safety
information**

**2-Determination
of State's
Safety Risk
Profile**

- Analysis of safety risk factors
- Evaluating State's safety management capabilities

- Mandatory Information Requests (MIRs)
- Findings and Recommendations (F&Rs)
- Significant Safety Concerns (SSCs)
- Corrective Action Plans (CAPs)

**4-Update of the
LEI and status
of SSCs**

**3-Prioritization
and conduct of
USOAP CMA
activities**

- CSA Audits
- Safety Audits
- ICAO Coordinated Validation Missions (ICVMs)

Updating of LEI Status



The validation of collected safety information enables ICAO to continuously update the LEI of the safety oversight capability of a State.

The LEI is based on the number of applicable not-satisfactory PQs.
These PQs are grouped together to identify F&Rs.

Updating of SSC Status



An SSC is a F&R that poses immediate safety risk to international civil aviation.

The State is requested to take immediate corrective actions or mitigating measures.

The SSC is published, through the CMA online framework, if evidence of corrective actions or mitigation measures is not provided within the specified time frame.

Updating of LEI and SSC Status



The LEI and the status of any SSC will be updated subsequent to a CSA Audit or a Safety Audit.

The LEI and SSC status will be updated only after validation by ICAO HQ of the information collected and documented through an ICVM.

The LEI and SSC status may also be changed without an on-site activity through validation by ICAO HQ of safety information, including the following:

- CAPs received from States,
- States' responses to MIRs , and/or
- Information received from ICAO Regional Offices (ROs), recognized organizations and other stakeholders.

Collection, Processing and Sharing of CMA Information



CMA programme information is gathered, processed and shared with various stakeholders using:

CMA online framework

ICAO guidance material on CMA

Training

CMA Online Framework



The online framework provides ICAO, its Member States and other authorized users with a set of web-integrated applications for continuous monitoring and reporting of safety-related information and documentation received from different sources.

The applications within the online framework will include:

State Aviation Activity Questionnaires (SAAQs)

Compliance Checklists (CCs)

Protocol Questions (PQs)

Mandatory Information Requests (MIRs)

Findings and Recommendations (F&Rs)

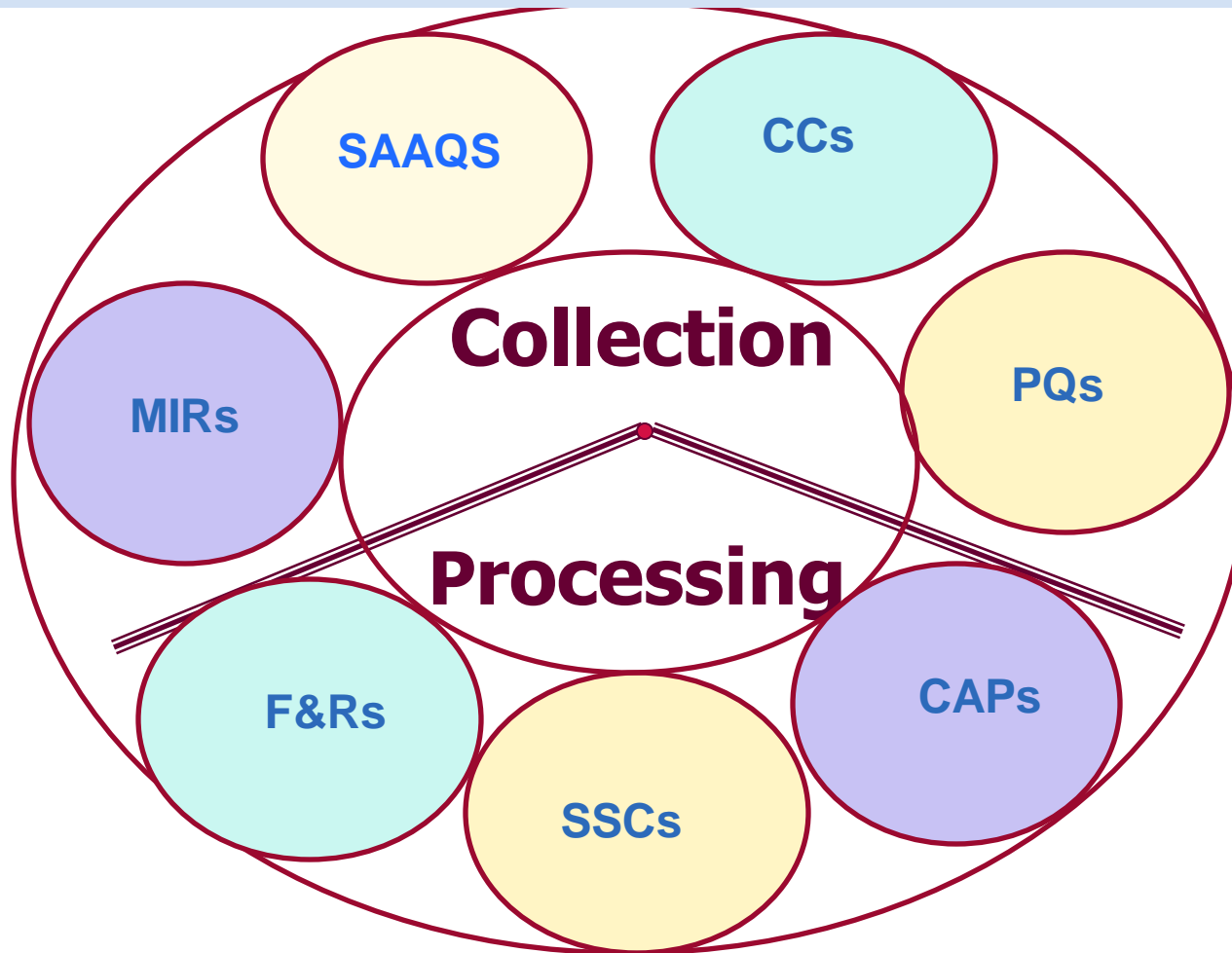
Significant Safety Concerns (SSCs)

Corrective Action Plans (CAPs)

CMA Online Framework (cont'd)



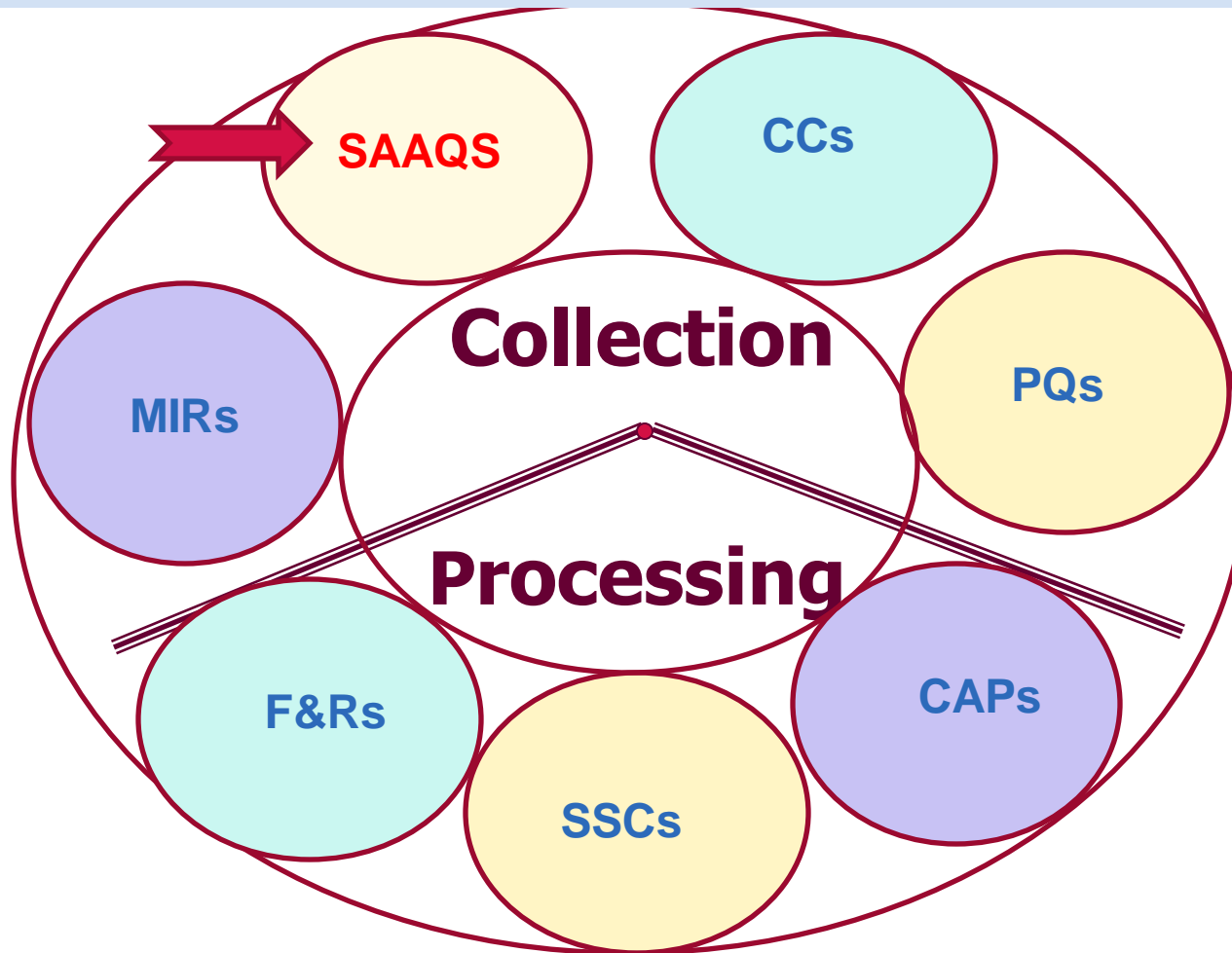
Means for collection and processing of CMA information



CMA Online Framework (cont'd)



Means for collection and processing of CMA information



State Aviation Activity Questionnaire (SAAQ)



Designed to collect comprehensive and specific information on each of the State's aviation activities.

Includes useful information on the system established by a State to meet its safety oversight obligations.

Used in prioritizing and planning USOAP CMA activities.

SAAQ (cont'd)



Completed and maintained up-to-date by each State to enable continuous monitoring of the level of activities in the State in each audit area.

Completed online by using the CMA online framework.

Contents of the SAAQ:

State's profile

Part I — Legislation

Part II — Organization

Part III — Personnel licensing

Part IV — Aircraft Operations

Part V — Airworthiness

Part VI — Aircraft accident and incident investigation

Part VII — Air navigation services

Part VIII — Aerodromes

SAAQ (cont'd)



SAAQ: WEB-BASED VERSION

ICAO Universal Safety Oversight Audit Programme State Aviation Activity Questionnaire 2005



Section Contents for Aviation Questionnaire



Report

3 of 86

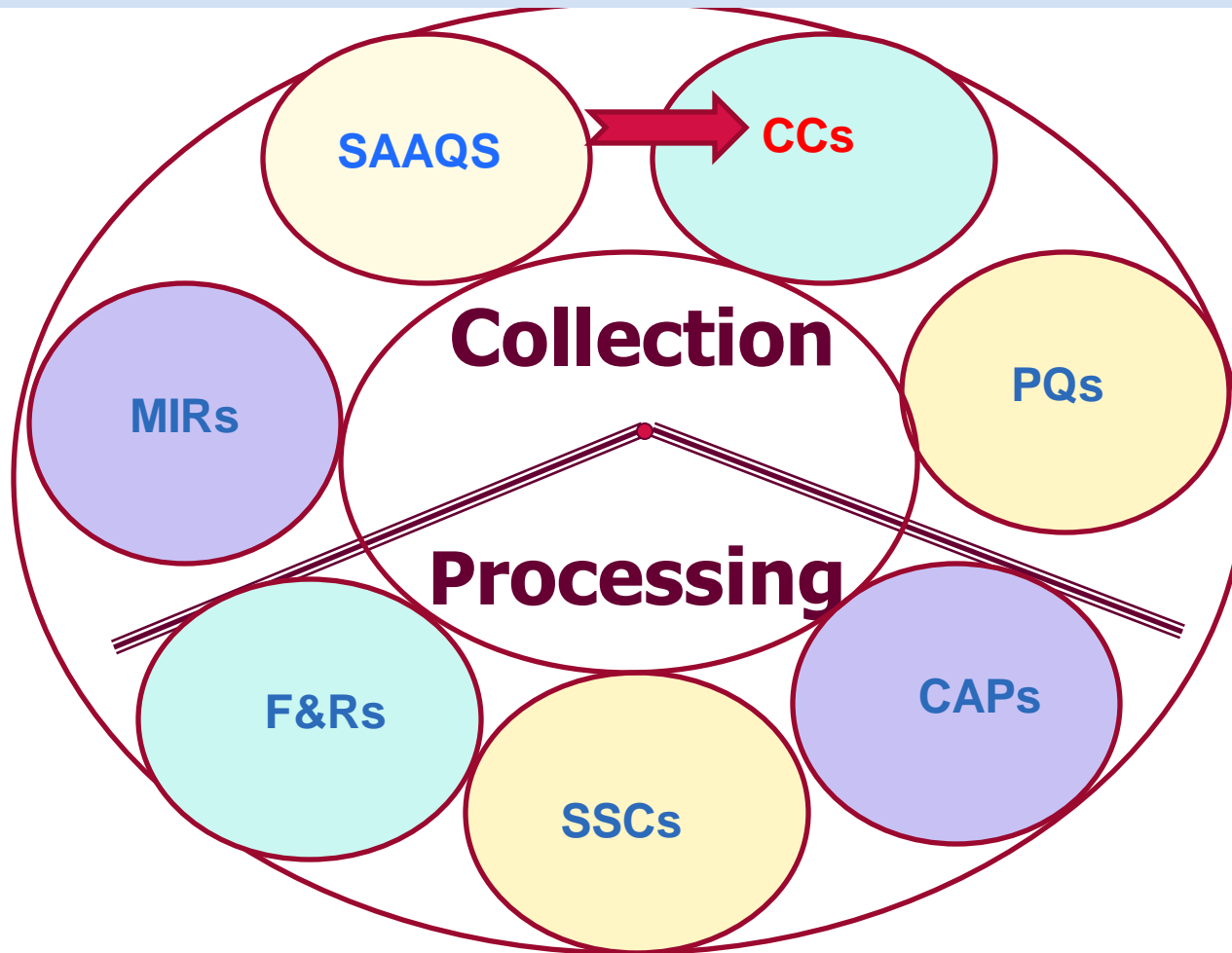
[Prev](#) [Next](#)

Reference	Questions	Comments	Number	Yes	No	
LEG 2.7	Does the primary aviation legislation provide for the enforcement of the air navigation regulations and associated operating regulations and rules? Provide reference and brief description:			<input type="checkbox"/>	<input type="checkbox"/>	
LEG 2.8	Has the State developed and promulgated a specific legislation to enable the implementation of the provisions of ICAO for: Annex 1 Provide legislation reference:			<input type="checkbox"/>	<input type="checkbox"/>	
LEG 2.8.1	Annex 2 Provide legislation reference:			<input type="checkbox"/>	<input type="checkbox"/>	
LEG 2.8.2	Annex 3 Provide legislation reference:			<input type="checkbox"/>	<input type="checkbox"/>	
LEG 2.8.3	Annex 4 Provide legislation reference:			<input type="checkbox"/>	<input type="checkbox"/>	
LEG 2.8.4	Annex 5 Provide legislation reference:			<input type="checkbox"/>	<input type="checkbox"/>	
LEG 2.8.5	Annex 6 Provide legislation reference:			<input type="checkbox"/>	<input type="checkbox"/>	

CMA Online Framework (cont'd)



Means for collection and processing of CMA information



Compliance Checklists (CCs)



CCs were developed for each of the Annexes within the scope of the USOAP CMA.

CCs provide ICAO with information about a State's level of implementation of ICAO SARPs.

Completed CCs allow ICAO to maintain a database on each State's level of compliance with the ICAO SARPs.

States are required by the MOU to maintain the CCs up-to-date through the online system.

CCs (cont'd)



States are encouraged to provide this information through the EFOD system.

A foreword in the CC provides States with instructions on how to complete the document.

The foreword also describes the different categories concerning the level of implementation of ICAO SARPs.

Compliance Checklist – Sample content

ICAO SARP's compliance and status of implementation

NINTH EDITION - JULY 2001

Annex Reference & SARP Identifier	ANNEX 13 AIRCRAFT ACCIDENT AND INCIDENT INVESTIGATION Annex Standard or Recommended Practice	Legislation Compliance Quote Relevant State Act/ Regulation or Document Reference	Difference				Not Applicable	Text of the difference identified by the State including the reason for the difference	Comments
			Yes Level of implementation of SARP's						
			More stringent or Exceeds	Difference in character or Other means of compliance	Less protective or partially implemented or not implemented				
AIG0003250 Chapter 5 5.5 Std.	<i>Investigator-in-charge - Designation</i> The State conducting the investigation shall designate the investigator-in-charge of the investigation and shall initiate the investigation immediately.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Space for comments
AIG0003310 Chapter 5 5.6 Std.	<i>Investigator-in-charge - Access and control</i> The investigator-in-charge shall have unhampered access to the wreckage and all relevant material, including flight recorders and ATS records, and shall have unrestricted control over it to ensure that a detailed examination can be made without delay by authorized personnel participating in the investigation.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
AIG0003350 Chapter 5 5.7 Std.	<i>Flight recorders - Accidents and incidents</i> Effective use shall be made of flight recorders in the investigation of an accident or an incident. The State conducting the investigation shall arrange for the read-out of flight recorders without delay.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

Level of implementation

SARP Identifier

Annex Reference






Annex SARP

Legislation Reference

Text on difference(s)

CC/EFOD: WEB-BASED VERSION

Derek Tahamont, ICAO - SSA/ACR [Log Out] [Home]

Select Annex  Reports  Help  Filters  Search  Save

Annex 1 PERSONNEL LICENSING, TENTH EDITION - JULY 2006
Amendment 169
Standard
2.5.2.3 200 of 537

Before exercising the privileges of a commercial pilot licence in a single-pilot operation in aeroplanes, the licence holder shall have:

- a) completed in aeroplanes 70 hours, either as pilot-in-command, or made up of not less than 10 hours as pilot-in-command and the necessary additional flight time as pilot-in-command under supervision;
- b) completed 20 hours of cross-country flight time as pilot-in-command, or made up of not less than 10 hours as pilot-in-command and 10 hours as pilot-in-command under supervision, including a cross-country flight totalling not less than 540 km (300 NM) in the course of which full-stop landings at two different aerodromes shall be made; and
- c) met the requirements for the commercial pilot licence specified in 2.4.1.2, 2.4.1.3, 2.4.3.1.1 (with the exception of 2.4.3.1.1.1 a)) and 2.4.3.2 appropriate to the aeroplane category.

Note 1.—When a Contracting State grants single-pilot operation privileges to the holder of a multi-crew pilot licence, it can document the privileges through an endorsement of the multi-crew pilot licence or through the issuance of a commercial pilot licence in the aeroplane category.

Percentage of Annex 1 duly completed + 97% Modified by: 125
Date Modified: 5/26/2008

No Difference A) More Exacting or Exceeds B) Different in character or Other means of compliance
 C) Less protective or partially implemented or not implemented Not Applicable

State Reference

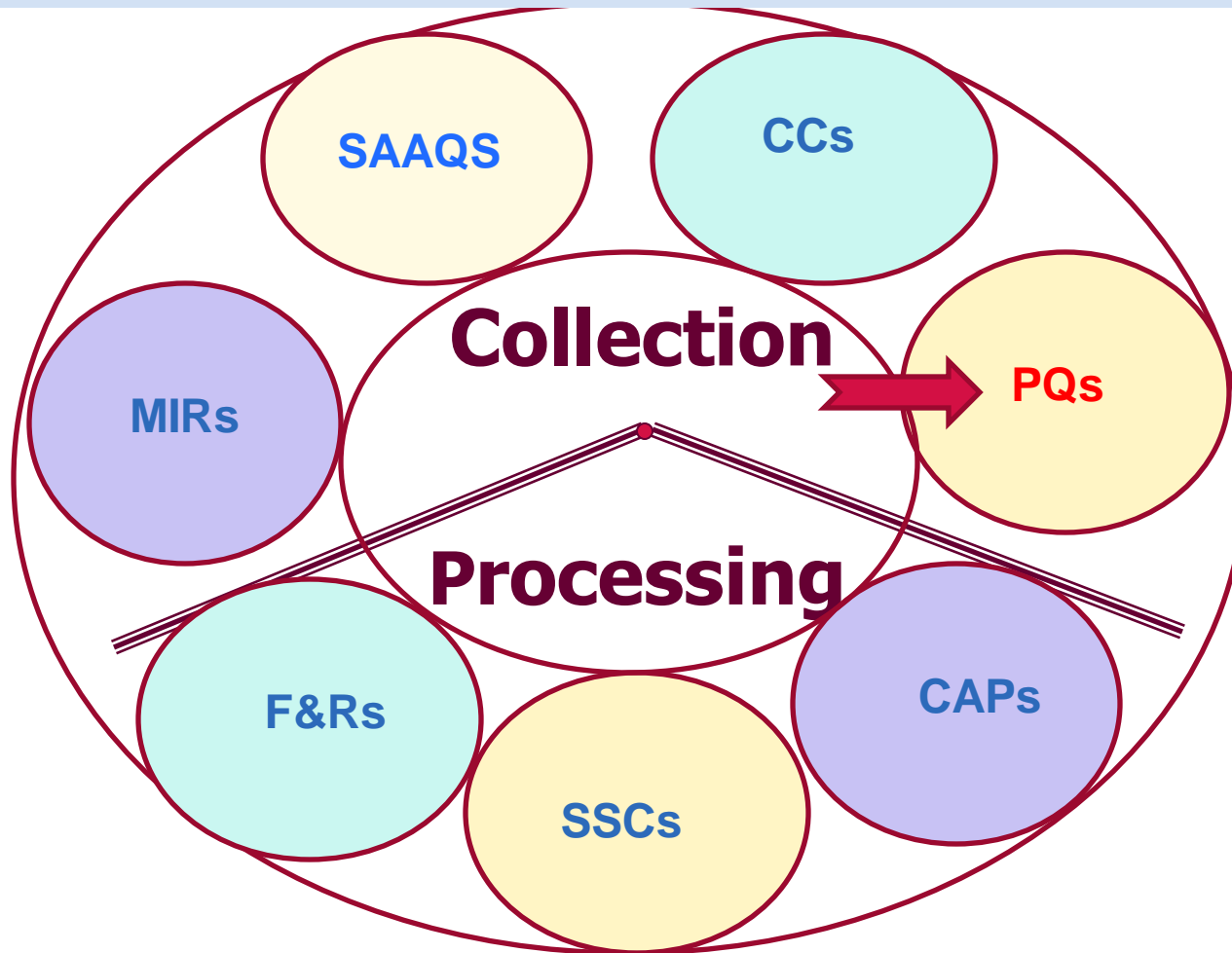
Details of Difference

Remarks

CMA Online Framework (cont'd)



Means for collection and processing of CMA information



USOAP CMA Protocol Questions (PQs)



Primary tool for assessing the LEI of a State's safety oversight system.

Standardized PQs ensure transparency, quality, reliability and fairness.

Indicates the most appropriate CE and applicable ICAO reference.

Subject to revision by ICAO from time to time.

USOAP CMA PQs (cont'd)



Maintained live and online to enable continuous updating of the status of each PQ based on evidence submitted by the State and validated by CMO.

Change in the status of a PQ will lead to an update of the State's LEI.

States are encouraged to use the online PQs for internal audits of their own safety oversight systems.

USOAP CMA Protocol Questions (PQs) Cont'd

<i>ICAO ref.</i>	<i>Aspects to be audited or questions to be answered</i>	<i>Status</i>	<i>Example of evidence to be reviewed</i>	<i>Status of implementation</i>	<i>Response/Comments</i>	<i>CE</i>
GM Doc 9734 Part A 3.3	AGA 8.003 Has the State established procedures for the amendment of its enabling regulations and national standards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<ul style="list-style-type: none"> ➤ Documented evidence of procedures developed for the amendment of regulations ➤ Amendments effected in a timely manner whenever an Annex amendment is received 	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Not satisfactory <input type="checkbox"/> Not applicable		2
STD A Doc 9734 Part A 3.2	AGA 8.005 Do the primary	<input type="checkbox"/> Yes <input type="checkbox"/> No	<ul style="list-style-type: none"> ➤ Review legislation and/or the regulations 	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Not satisfactory <input type="checkbox"/> Not applicable		1
STD A14, Vol. I 1.4.3 GM Doc 9774 2.3 a)	AGA 8.007 Do the State's regulations detail the criteria used to determine if an aerodrome should be certified?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<ul style="list-style-type: none"> ➤ Copy of the regulations 	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Not satisfactory <input type="checkbox"/> Not applicable		2

ICAO Reference

USOAP CMA Protocol Questions (PQs) Cont'd



ICAO ref.	Aspects to be audited or questions to be answered	Status	Example of evidence to be reviewed	Status of implementation	Response/Comments	CE
GM Doc 9734 Part A 3.3	AGA 8.003 Has the State established procedures for the amendment of its enabling regulations and national standards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	> Documented evidence of procedures developed for the amendment of regulations > Amendments effected in a timely manner whenever an Annex is received	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Not satisfactory <input type="checkbox"/> Not applicable		2
STD A14, Vol. I 1.4.1 GM Doc 9774 2.2 Doc 9734 Part A 3.2	AGA 8.003 Has the State established procedures for the amendment of its enabling regulations and national standards?			<input type="checkbox"/> Satisfactory <input type="checkbox"/> Not satisfactory <input type="checkbox"/> Not applicable		1
STD A14, Vol. I 1.4.3 GM Doc 9774 2.3 a)	AGA 8.003 Has the State established procedures for the amendment of its enabling regulations and national standards?			<input type="checkbox"/> Satisfactory <input type="checkbox"/> Not satisfactory <input type="checkbox"/> Not applicable		2

Protocol Question asked by the auditor to clarify specific ICAO safety provisions

USOAP CMA Protocol Questions (PQs) Cont'd



ICAO ref.	Aspects to be audited or questions to be answered	Status	Example of evidence to be reviewed	Status of implementation	Response/Comments	CE
GM Doc 9734 Part A 3.3	AGA 8.003 Has the State established procedures for the amendment of its enabling regulations and national standards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	> Documented evidence of procedures developed for the amendment of regulations Amendments effected in a timely manner	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Not satisfactory <input type="checkbox"/> Not applicable		2
STD A14, Vol. I 1.4.1 GM Doc 9774 2.2 Doc 9734 Part A 3.2	AGA 8.005 Do the primary aviation legislation and/or the regulations provide for the certification of aerodromes?			<input type="checkbox"/> Satisfactory <input type="checkbox"/> Not satisfactory <input type="checkbox"/> Not applicable		1
STD A14, Vol. I 1.4.3 GM Doc 9774 2.3 a)	AGA 8.007 Do the State's regulations detail the criteria used to determine if an aerodrome should be certified?	<input type="checkbox"/> Yes <input type="checkbox"/> No	> Copy of the regulations	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Not satisfactory <input type="checkbox"/> Not applicable		2

Status of regulatory provisions or actions taken by the State

USOAP CMA Protocol Questions (PQs) Cont'd



<i>ICAO ref.</i>	<i>Aspects to be audited or questions to be answered</i>	<i>Status</i>	<i>Example of evidence to be reviewed</i>	<i>Status of implementation</i>	<i>Response/Comments</i>	<i>CE</i>
GM Doc 9734 Part A 3.3	AGA 8.003 Has the State established procedures for the amendment of its enabling regulations and national standards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	> Documented evidence of procedures developed for the amendment of regulations > Amendments effected in a timely manner whenever a Annex amendment received	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Not satisfactory <input type="checkbox"/> Not applicable		2
STD A14, Vol. I 1.4.1 GM Doc 9774 2.2 Doc 9734 Part A 3.2	AGA 8.005 Do the primary aviation legislation and/or the regulations provide for the certification of aerodromes?	<input type="checkbox"/> Yes <input type="checkbox"/> No	> Review and/			1
STD A14, Vol. I 1.4.3 GM Doc 9774 2.3 a)	AGA 8.007 Do the State's regulations detail the criteria used to determine if an aerodrome should be certified?	<input type="checkbox"/> Yes <input type="checkbox"/> No	> Copy regulations	<input type="checkbox"/> Not applicable		2

Samples of evidence to be provided by the State

USOAP CMA Protocol Questions (PQs) Cont'd

<i>ICAO ref.</i>	<i>Aspects to be audited or questions to be answered</i>	<i>Status</i>	<i>Example of evidence to be reviewed</i>	<i>Status of implementation</i>	<i>Response/Comments</i>	<i>CE</i>
GM Doc 9734 Part A 3.3	AGA 8.003 Has the State established procedures for the amendment of its enabling regulations and national standards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<ul style="list-style-type: none"> ➤ Documented evidence of procedures developed for the amendment of regulations ➤ Amendments effected in a timely manner whenever an Annex amendment is received 	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Not satisfactory <input type="checkbox"/> Not applicable		2
STD A14, Vol. I 1.4.1 GM Doc 9774 2.2 Doc 9734 Part A 3.2	AGA 8.005 Do the primary aviation legislation and/or the regulations provide for the certification of aerodromes?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<ul style="list-style-type: none"> ➤ Review legislation and/or the regulations 	<div style="border: 2px solid black; border-radius: 20px; padding: 20px; background-color: #d4edda; width: fit-content; margin: auto;"> <p style="font-weight: bold; font-size: 1.2em;">Assessment by the auditor based upon evidence provided by the State</p> </div>		1
STD A14, Vol. I 1.4.3 GM Doc 9774 2.3 a)	AGA 8.007 Do the State's regulations detail the criteria used to determine if an aerodrome should be certified?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<ul style="list-style-type: none"> ➤ Copy of the regulations 			2

USOAP CMA Protocol Questions (PQs) Cont'd



<i>ICAO ref.</i>	<i>Aspects to be audited or questions to be answered</i>	<i>Status</i>	<i>Example of evidence to be reviewed</i>	<i>Status of implementation</i>	<i>Response/Comments</i>	<i>CE</i>
GM Doc 9734 Part A 3.3	AGA 8.003 Has the State established procedures for the amendment of its enabling regulations and national standards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	> Documented evidence of procedures developed for the amendment of regulations > Amendments effected in a timely manner whenever an Annex amendment is	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Not satisfactory <input type="checkbox"/> Not applicable		2
STD A14, Vol. I 1.4.1 GM Doc 9774 2.2 Doc 9734 Part A 3.2	AGA 8.005 Do the primary aviation legislation and/or the regulations provide for the certification of aerodromes?	<input type="checkbox"/> Yes <input type="checkbox"/> No	> Review leg and/or the			1
STD A14, Vol. I 1.4.3 GM Doc 9774 2.3 a)	AGA 8.007 Do the State's regulations detail the criteria used to determine if an aerodrome should be certified?	<input type="checkbox"/> Yes <input type="checkbox"/> No	> Copy of the regulations			2

Notes taken by the auditor (document titles, articles and actions taken by the State)

USOAP CMA Protocol Questions (PQs) Cont'd



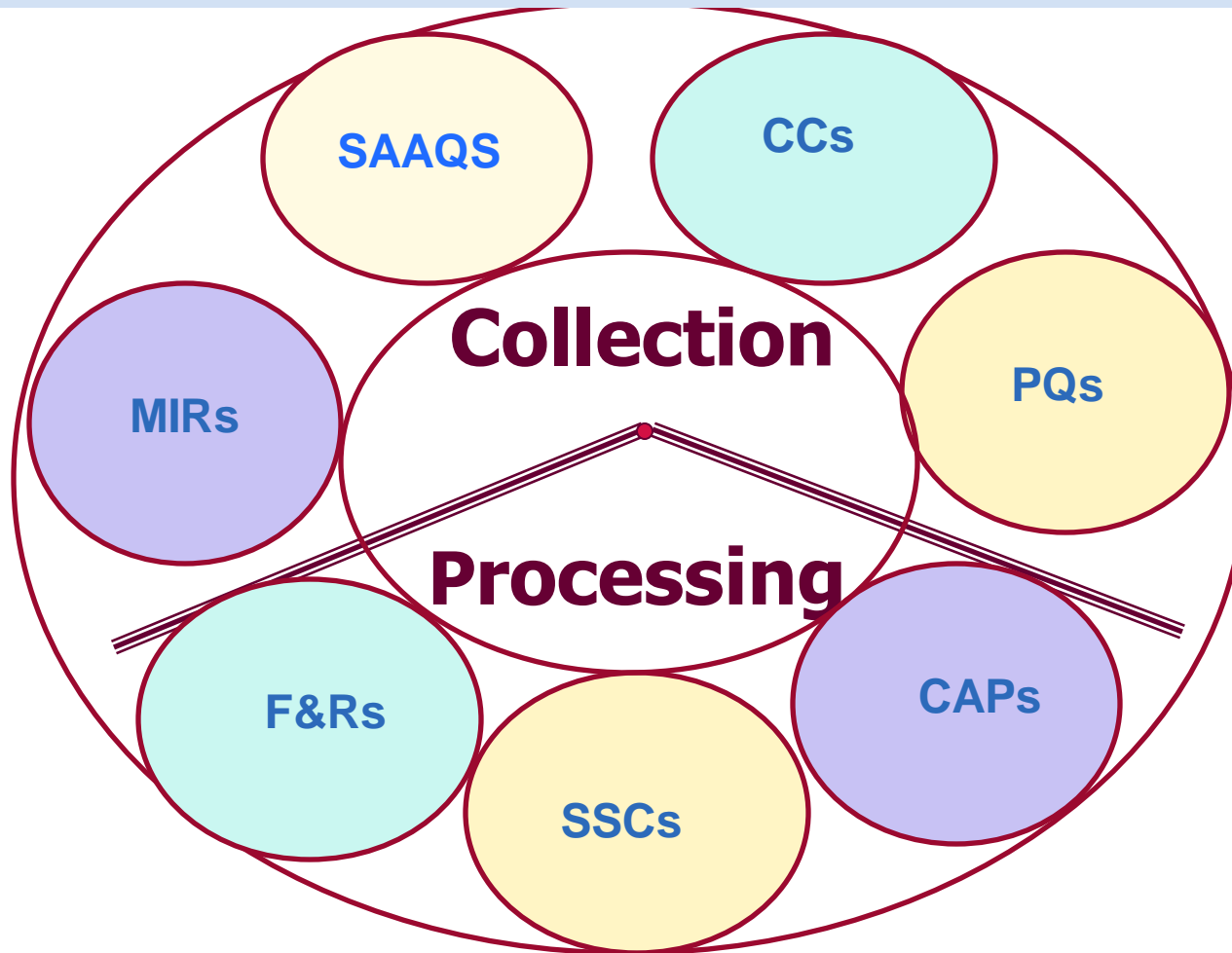
<i>ICAO ref.</i>	<i>Aspects to be audited or questions to be answered</i>	<i>Status</i>	<i>Example of evidence to be reviewed</i>	<i>Status of implementation</i>	<i>Response/Comments</i>	<i>CE</i>
GM Doc 9734 Part A 3.3	AGA 8.003 Has the State established procedures for the amendment of its enabling regulations and national standards?	<input type="checkbox"/> Yes <input type="checkbox"/> No	> Documented evidence of procedures developed for the amendment of regulations > Amendments effected in a timely manner whenever an Annex amendment is received	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Not satisfactory <input type="checkbox"/> Not applicable		2
STD A14, Vol. I 1.4.1 GM Doc 9774 2.2 Doc 9734 Part A 3.2	AGA 8.005 Do the primary aviation legislation and/or the regulations provide for the certification of aerodromes?	<input type="checkbox"/> Yes <input type="checkbox"/> No	> Review legislation and/or the regulations	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Not satisfactory <input type="checkbox"/> Not applicable		1
STD A14, Vol. I 1.4.3 GM Doc 9774 2.3 a)	AGA 8.007 Do the State's regulations detail the criteria used to determine if an aerodrome should be certified?	<input type="checkbox"/> Yes <input type="checkbox"/> No	> Copy of the regulations	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Not satisfactory <input type="checkbox"/> Not applicable		2

The Critical Element (CE) Number associated with the Protocol Question

CMA Online Framework (cont'd)



Means for collection and processing of CMA information





Doc 9734 – *Safety Oversight Manual* outlines the duties and responsibilities of ICAO Member States with respect to aviation safety oversight.

It is directed at high-level Government decision makers, as it highlights States' obligations as signatories to the *Convention on International Civil Aviation*. It consists of two parts:

- Part A provides guidance on the establishment and management of a State's safety oversight system.
- Part B provides guidance on the establishment and management of a regional safety oversight system.

The Universal Safety Oversight Audit Programme Continuous Monitoring Manual (Doc 9735)

Provides guidance on the planning, preparation, conduct and reporting of USOAP CMA activities by:

- ICAO Member States,
- Recognized organizations, and
- Team leaders, team members, subject matter experts and support staff involved.

Seminars and workshops

Used to assist States to establish an effective safety oversight system.

Provide information on USOAP CMA and on how to prepare for an ICAO CMA activity.

Means of sharing knowledge and experience with experts from other States and organizations.

USOAP CMA Activities Training Course

- Interactive web-based training aimed at providing detailed information on the CMA concept and implementation.
- Designed to provide initial and recurrent training to auditors and subject matter experts involved in the conduct of CMA activities.
- May also be used by States' staff.

Contains the following four parts:

- Part 1 — Auditing Basics
- Part 2 — USOAP Audit Modules
- Part 3 — ICVM Modules
- Part 4 — Audit Area Modules

USOAP CMA Activities Training Course

- States are encouraged to nominate qualified staff to ICAO for selection to take part in this USOAP CMA Activities Training Course.
- Will be expanded in the near future for use by States to train their staff. More information will be provided through ICAO electronic bulletins once details are confirmed.

(Inquiry for this purpose: safetytraining@icao.int)



ROLE AND RESPONSIBILITIES UNDER THE USOAP CMA

ICAO Headquarters — Continuous Monitoring and Oversight (CMO) Section

Responsible for managing the development, transition, implementation and quality of the USOAP CMA, specifically:

- Develops, implements, manages and maintains the USOAP CMA.
- Monitors the State's Safety Risk Profile to identify and prioritize appropriate USOAP CMA activities.
- Coordinates the schedule of USOAP CMA activities with ICAO ROs.

ICAO Headquarters – CMO Section

- Notifies States regarding scheduled activities.
- Selects team leaders (TLs) and team members (TMs).
- Assesses corrective actions and mitigation measures.
- Monitors the status of F&Rs and/or SSCs.
- Updates the States' LEI.
- Provides reports on the implementation of USOAP CMA.

CMO/Standards and Procedures Officers (SPOs)

SPOs are technical specialists in the areas of PEL, OPS, AIR, ANS, AGA and AIG.

Key responsibilities:

- Review States' safety information (e.g. SAAQs, CAPs and PQs).
- Conduct technical reviews of MIRs, F&Rs, SSCs and reports of USOAP CMA activities.

CMO/Portfolio Holders (PHs)

PHs within the CMO Section or within the ROs are responsible for:

- Managing a portfolio of Member States.
- Following up on all matters relating to those States.

CMO/Portfolio Holders (PHs)

Key responsibilities of PHs:

- Monitor the States' progress in submitting and updating required information.
- Coordinate actions and communicate with staff from ROs and other recognized organizations.
- Provide timely support to States under their portfolios.

Other Sections within ICAO/ANB

Other Sections within ANB provide:

- Input for the revision of PQs.
- Input for the development of guidance material related to the USOAP CMA.
- Consultation for review and confirmation of F&Rs and SSCs.
- Identification of safety risk indicators.
- Information regarding assistance projects.

ICAO Regional Offices (ROs)

- Actively involved in the continuous monitoring process.
- Facilitate communication between ICAO HQ and States.
- Participate in USOAP CMA ICVMs.

Key responsibilities:

- Monitor States' progress in submitting and updating required information.
- Provide support to States that require assistance in developing acceptable CAPs.

ICAO Member States

- Member States shall sign an MOU with ICAO:
 - to confirm their full support of the USOAP CMA, and
 - to commit to actively participating in all USOAP CMA activities.
- Member States should secure adequate resources to meet all the conditions of the MOU.

ICAO Member States (Cont'd)

Memorandum of Understanding (MOU)

- Signed between each Member State and ICAO to outline the responsibilities of both parties in the effective implementation and maintenance of USOAP CMA.
- Represents an instrument of agreement for the conduct of USOAP CMA activities.
- Outlines the terms under which USOAP CMA activities will be conducted.

ICAO Member States (Cont'd)

Memorandum of Understanding (MOU)

- State must return a signed copy of the MOU to ICAO.
- States that do not sign and submit a copy of the MOU shall be reported to the ICAO Council.
- All other Member States shall also be informed of the State's refusal to sign the MOU and to participate in the USOAP CMA activities.

ICAO Member States (cont'd)

Each Member State shall facilitate USOAP CMA on-site activities, including:

- making appropriate staff from its CAA or other relevant entities available for interview by the USOAP CMA mission team, and
- providing all necessary resources, documents, information, administrative and support functions to the USOAP CMA mission team.

ICAO Member States (cont'd) (

Member States are encouraged to enter into agreement with ICAO for secondment of auditors and technical experts for USOAP CMA activities on:

- Long-term basis, and/or
- Short-term basis.

Appointment of National Continuous Monitoring Coordinator (NCCMC)

Each State is responsible for identifying one or more qualified NCCMC(s) to act, on an ongoing basis, as primary point(s) of contact for all USOAP CMA processes and activities.

Appointment of NCMC

The NCMC is responsible for maintaining and updating the information to be provided by the State to the CMO Section on an ongoing basis, including:

- SAAQ,
- CCs,
- State responses to PQs,
- State responses to MIRs,

Appointment of NCMC

- CAPs to resolve F&Rs,
- Mitigating measures taken by the State in response to SSCs,
- The latest information regarding the SSP, and
- Other relevant safety information, as requested by ICAO.

Regional Safety Oversight Organizations (RSOOs)

- ❑ ICAO supports the establishment of RSOOs performing safety oversight-related activities on behalf of a group of Member States.
- ❑ ICAO, with consent of the State, may elect to enter into working arrangement with the RSOO to facilitate the monitoring of the State.

Other Recognized Organizations

- ❑ It is important to share safety information between ICAO and other entities involved in auditing international aviation activities.
- ❑ These entities include national, regional, supranational, international, and civil aviation organizations, such as:
 - EASA, European Commission (EC), EUROCONTROL, the United States' Federal Aviation Administration (FAA) and IATA.

Other Recognized Organizations

- ❑ Through agreements with ICAO, recognized organizations may:
 - Cooperate to review and develop auditing tools.
 - Identify and maintain an up-to-date cross reference between auditing/monitoring tools.

Other Recognized Organizations

- Provide information regarding PQ status, obtained through their own inspection/auditing activities of specific States, for validation by ICAO.

- Provide their schedules of activities to facilitate coordination of monitoring activities and establishment of a more cost-effective global network.

- ❑ Concept and benefits of the USOAP CMA
- ❑ Components of the CMA
 - Collection of safety information
 - Determination of State's Safety Risk Profile
 - Prioritization and conduct of USOAP CMA activities
 - Update of the Lack of Effective Implementation (LEI) and status of Significant Safety Concerns (SSCs)
- ❑ Collection, processing and sharing of safety information
- ❑ Roles and responsibilities under the USOAP CMA

GROUP EXERCISE

ICAO

Uniting Aviation on

Safety | Security | Environment

