



# *ICAO Universal Safety Oversight Audit Programme Continuous Monitoring Approach USOAP-CMA*

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# Outline

- ❑ USOAP-CMA Background/Evolution
- ❑ Objectives of USOAP-CMA
- ❑ Components of the USOAP-CMA
- ❑ Critical Elements (CEs) of the safety oversight system
- ❑ USOAP audit areas
- ❑ USOAP-CMA and the State Safety Programme (SSP)
- ❑ USOAP-CMA computer-based training (CBT)
- ❑ CMA Benefits Benefits

# USOAP-CMA Background/ Evolution

# USOAP CMA Background/Evolution

**Mandatory  
Audit  
Programme  
(USOAP)**

1997  
2004  
181 Audits,  
162  
Follow-ups  
Annex 1



35<sup>th</sup>  
Assembly  
2004



**Comprehensive  
Systems  
Approach  
(CSA)**  
2005 -  
2010  
180 Audits  
Safety-



36<sup>th</sup>  
Assembly  
2007



**Developm  
ent of  
Continuou  
s  
Monitoring  
Approach  
(CMA)**  
beyond

Approach

# USOAP CMA Background/Evolution



# Objective of the Programme

## The objective of USOAP under the CMA is:

- to promote global aviation safety through continuous monitoring of the Member States' safety oversight capabilities.

## The USOAP CMA provides a mechanism for ICAO:

- to collect safety information from Member States and other stakeholders, and
- to analyze this information using a risk-based approach to identify and prioritize appropriate activities to be carried out by ICAO.

# Components of the USOAP CMA

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- States
- Internal stakeholders
- External stakeholders

Collection of safety information

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

Determination of State safety risk profile

- Mandatory Information Requests (MIRs)
- PQ findings
- Significant Safety Concerns (SSCs)
- Corrective Action Plans (CAPs)

Update of LEI and status of SSCs

Prioritization and conduct of USOAP CMA activities

- ICVMs
- CMA audits
- ICVM audits
- Coordinated Validation Activities (ICVMs)
- ICVM validation activities
- ICVM reporting





# Collection of safety information

Internal stakeholders include:

- ICAO Secretariat Bureaus/Sections; and
- Regional Offices (ROs).

# Collection of safety information

External stakeholders include:

- Airports Council International (ACI);
- Civil Air Navigation Services Organization (CANSO);
- European Aviation Safety Agency (EASA);
- European Commission (EC);
- EUROCONTROL;
- Interstate Aviation Committee (IAC);
- International Air Transport Association (IATA); and
- other national, regional, supranational and international organizations recognized by ICAO.



# Determination of State safety risk profile



# Determination of State safety risk profile

## Safety risk factors

- Previous USOAP activity results
- Level of traffic in the State
- Progress



## Safety risk indicators

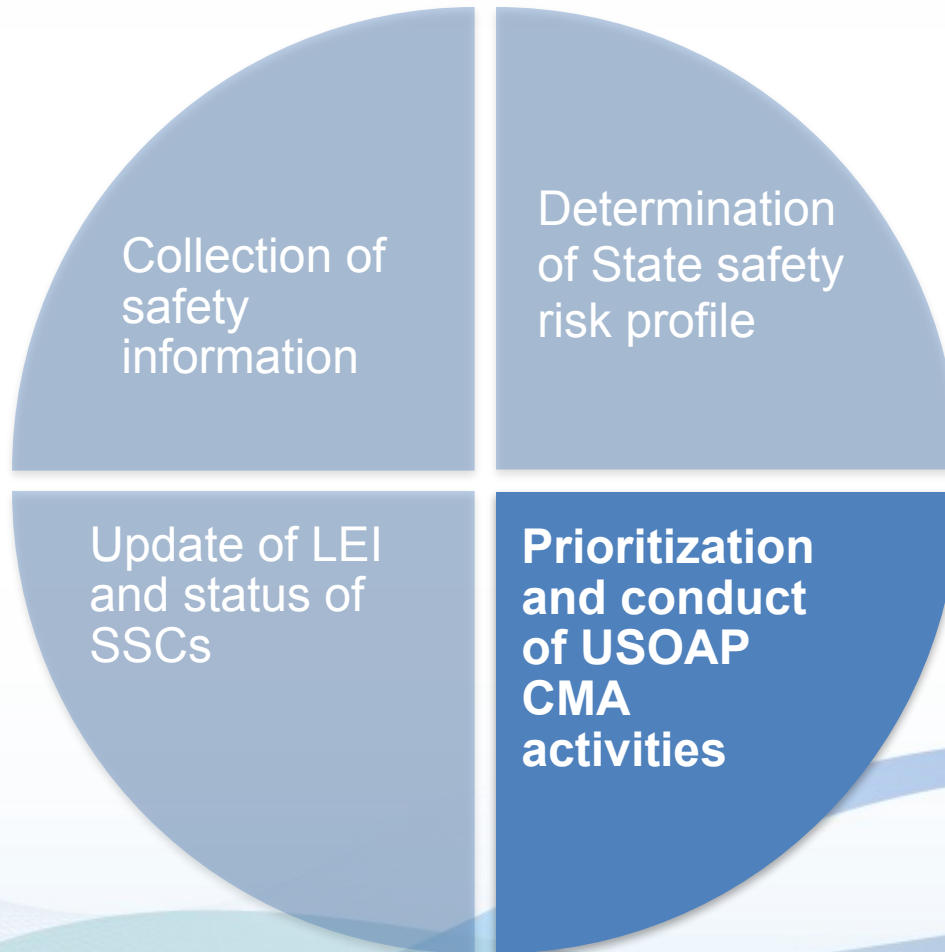
- LEI vs. traffic (exposure)
- Existence of SSC(s)
- Level of aviation activities



## Safety risk profile

- ICAO determines

the safety risk profile which is generated by determining



## Prioritization and conduct of USOAP CMA activities

States are prioritized by ICAO, based on their safety risk profile taking into consideration the approved budget and resources available.



## Prioritization and conduct of USOAP CMA activities

The scope of an ICVM is based on:

- Level of aviation activity in the State;
- Level of progress reported by State in implementing CAPs; and
- Request by a State (cost-recovery ICVM).

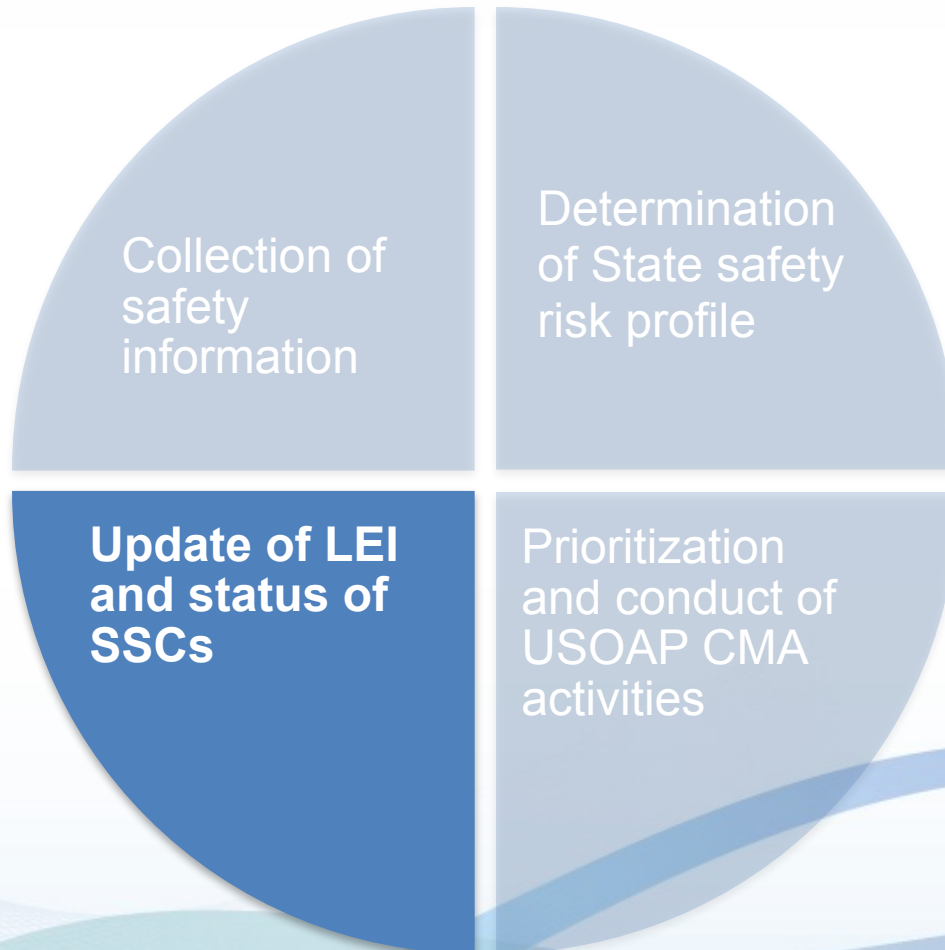
Duration of an ICVM is determined by the scope.

## Prioritization and conduct of USOAP CMA activities

The scope of a USOAP CMA audit is based on:

- All relevant PQs;
- Level of aviation activity in the State;
- State's self-assessment; and
- Request by the State (cost-recovery audit).

Duration of an audit is determined by the scope.



# Update of LEI/EI

## Lack of Effective Implementation (LEI)

- The validation of collected safety information enables ICAO to continuously update the LEI of the safety oversight capability of a State.
  - Results of the on-site activities (Audit and ICVM)
  - Results of the off-site validation (CE1 to CE 5)
  - Mandatory Information Requests (MIRs)
  - Significant Safety Concerns (SSCs)

# Critical Elements of an Effective Safety Oversight System

# Critical Elements of an Effective Safety Oversight System



# CEs of the safety oversight system

## CE-1: Primary aviation legislation

- The State shall promulgate a comprehensive and effective aviation law, consistent with the size and complexity of the State's aviation activity and with the requirements contained in the Convention on International Civil Aviation, that enables the State to regulate civil aviation and enforce regulations through the relevant authorities or agencies established for that purpose.



# CEs of the safety oversight system

## CE-2: Specific operating regulations

- The State shall promulgate regulations to address, at a minimum, national requirements emanating from the primary aviation legislation, for standardized operational procedures, products, services, equipment and infrastructures in conformity with the Annexes to the Convention on International Civil Aviation.



# CEs of the safety oversight system

## CE-3: State system and functions

- The State shall establish relevant authorities or agencies, as appropriate, supported by sufficient and qualified personnel and provided with adequate financial resources. Each State authority or agency shall have stated safety functions and objectives to fulfill its safety management responsibilities.

## CE-4: Qualified technical personnel

- The State shall establish minimum qualification requirements for the technical personnel performing safety oversight functions and provide for appropriate initial and recurrent training to maintain and enhance their competence at the desired level.
- The State shall implement a system for the maintenance of training records.

# CEs of the safety oversight system

## CE-5: Technical guidance, tools and provision of safety-critical information

- The State shall provide appropriate facilities, comprehensive and up-to-date technical guidance material and procedures, safety critical information, tools and equipment, and transportation means, as applicable, to the technical personnel to enable them to perform their safety oversight functions effectively and in accordance with established procedures in a standardized manner.

# CEs of the safety oversight system

## CE-6: Licensing, certification, authorization and/or approval obligations

- The State shall implement documented processes and procedures to ensure that personnel and organizations performing an aviation activity meet the established requirements before they are allowed to exercise the privileges of a license, certificate, authorization and/or approval to conduct the relevant aviation activity.



# CEs of the safety oversight system

## CE-7: Surveillance obligations

- The State shall implement documented surveillance processes, by defining and planning inspections, audits, and monitoring activities on a continuous basis, to proactively assure that aviation license, certificate, authorization and/or approval holders continue to meet the established requirements. This includes the surveillance of personnel designated by the Authority to perform safety oversight functions on its behalf.

## CE-8: Resolution of safety issues

- The State shall use a documented process to take appropriate corrective actions, up to and including enforcement measures, to resolve identified safety issues.
- The State shall ensure that identified safety issues are resolved in a timely manner through a system which monitors and records progress, including actions taken by service providers in resolving such issues.

# CEs of the safety oversight system

The definitions of the eight CEs of a safety oversight system are now an Appendix of Annex 19 and referred to as elements.

Guidance on the eight CEs is provided in ICAO Doc 9734, Part A.

# USOAP CMA audit areas



# USOAP CMA audit areas

Civil aviation organization (ORG)  
SAAQ

Personnel licensing and training (PEL)  
Annex 1, and 19

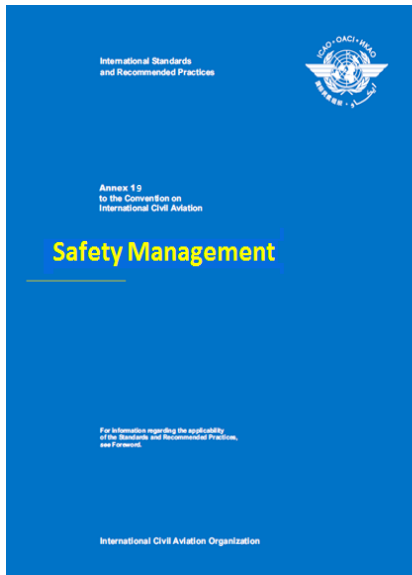
Aircraft accident and incident investigation (AIG)  
Annex 13, and 19

Air navigation services (ANS)  
Annexes 2,3,4,5,10,11,12,15, 19 and PANS-ATM

# USOAP-CMA and the State Safety Programme (SSP)

## USOAP-CMA and the State Safety Programme (SSP)

### Annex 19



- Adopted by the Council on 25 February 2013;
- Became applicable on 14 November 2013.

The Safety Management Manual (SMM) 3rd edition final (EN) version was posted on ICAO-NET on 8 May 2013.

## USOAP-CMA and the State Safety Programme (SSP)

- The PQs will be audited starting from January 2016.
- An Electronic Bulletin (EB 2014/61) has been published to inform Member States of the USOAP audit of implementation of the ICAO safety management provisions.

# USOAP CMA CBT

# USOAP CMA CBT

As per EB 2011/44, the first series of computer-based training (CBT) was launched to:

- Provide participants with a thorough understanding of the USOAP CMA methodologies and the essential knowledge required to participate in USOAP CMA activities; and
- Serve as an opportunity for States to enhance the competencies of their aviation safety personnel in the areas addressed by USOAP CMA.

# CMA Benefits

# 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

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



North American  
Central American  
and Caribbean  
(NACC) Office  
Mexico City

South American  
(SAM) Office  
Lima

ICAO  
Headquarters  
Montréal

Western and  
Central African  
(WACAF) Office  
Dakar

European and  
North Atlantic  
(EUR/NAT) Office  
Paris

Middle East  
(MID) Office  
Cairo

Eastern and  
Southern African  
(ESAF) Office  
Nairobi

Asia and Pacific  
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