ASSEMBLY — 38TH SESSION

TECHNICAL COMMISSION

Agenda Item No. 29: Aviation Safety − Monitoring and Analysis

ICAO UNIVERSAL SAFETY OVERSIGHT AUDIT PROGRAMME
CONTINUOUS MONITORING APPROACH (USOAP CMA)

(Presented by the Council of ICAO)

EXECUTIVE SUMMARY

The 37th Session of the Assembly directed the Secretary General to evolve the Universal Safety Oversight Audit Programme (USOAP) to a continuous monitoring approach (CMA), incorporating the analysis of safety risk factors on a universal basis in order to assess States' oversight capabilities. A transition period to implement CMA was set at two years to allow ICAO and Member States time to gradually implement the actions required under the new approach.

The Assembly also directed the Council to assess how information on significant safety concerns (SSCs) identified under the USOAP could be shared with the public in a form which would allow them to make an informed decision about the safety of air transport.

This paper provides a consolidated progress report on the activities of the USOAP including the full-scale implementation of CMA in January 2013. It also reports on the Council's decision for the sharing of SSCs with the public.

Action: The Assembly is invited to:
 a) note the progress achieved in the overall implementation of the USOAP including activities completed during the two-year transition phase to CMA and full implementation of the USOAP CMA in January 2013;
 b) support the continued activities of the USOAP CMA as outlined in paragraph 2 and the Appendix to this paper;
 c) urge the continuing cooperation of States in the implementation of the USOAP CMA as called for in A37-5; and
 d) endorse the decision of the Council on the sharing of unresolved SSCs with the public, as outlined in paragraph 3.

Strategic Objectives:	Strategic Objective A: Safety – *Enhance global aviation safety*.
Financial implications:	Resources for the activities referred to in this paper are included in the proposed budget for 2014 to 2016.
References:	Doc 9958, *Assembly Resolutions in Force* (as of 8 October 2010) Doc 9735, *Universal Safety Oversight Audit Programme Continuous Monitoring Manual*

1.   **INTRODUCTION**

1.1   The 37th Session of the Assembly directed the Secretary General to evolve the Universal Safety Oversight Audit Programme (USOAP) to a continuous monitoring approach (CMA), incorporating the analysis of safety risk factors on a universal basis in order to assess States' oversight capabilities (A37-5 refers).

1.2   The USOAP CMA is designed to continuously monitor the safety oversight capabilities of States and ensure that States develop, maintain and apply national regulations in accordance with ICAO Standards and Recommended Practices (SARPs). CMA incorporates principles of safety management using safety risk management and safety assurance concepts. The methodology provides a mechanism for ICAO to collect safety information from member States and other stakeholders, and to analyse this information using a risk-based approach. This allows for the identification and prioritization of appropriate strategies to rectify deficiencies and reduce or eliminate risk.

1.3   It was agreed that CMA would be introduced over a two-year transition period, from 2011 to 2012, to allow ICAO to further develop the required tools as well as provide detailed guidance and training to Member States. A transition plan was developed and presented to the last Assembly that provided for both States and ICAO to gradually implement the different elements of the new approach.

1.4   In the context of the USOAP, the 37th Session of the Assembly also directed the Council to assess how information on significant safety concerns (SSCs) could be shared with the public in a form which would allow them to make an informed decision about the safety of air transport.

1.5   This paper provides a consolidated progress report on the activities of the USOAP, particularly since the commencement of the transition phase in 2011, leading to the successful full-scale implementation of USOAP CMA in January 2013. It also reports on the Council's decision for the sharing of SSCs with the public.

2.   **IMPLEMENTATION OF THE USOAP CMA**

2.1   Significant progress was made in all areas related to the transition plan to implement CMA and the programme was fully launched as scheduled in January 2013.

2.2   The CMA transition plan included numerous activities related to: communications, supporting documentation and the development of the online framework; upgrading of the USOAP CMA Quality Management System; training of auditors and experts; the conduct of on-site CMA activities in States; and the development and expansion of agreements with relevant partners to foster coordination and cooperation. Appendix A sets forth the specific activities undertaken during the transition phase and provides an update on the status of actions taken under the Programme.

2.3   State activities are continuously monitored through the CMA online framework which is available for interactive use in 'real time' through a suite of web-based integrated application systems. The ongoing collection of data allows ICAO to determine which activities are appropriate for each State and to focus resources where required. The primary on-site activities conducted under USOAP CMA are: ICAO Coordinated Validation Missions (ICVMs), Comprehensive System Approach (CSA) Audits, and Safety Audits (on request).

2.4   The success of the USOAP CMA will be dependent upon the cooperation of States and their commitment to the Programme. To date, this has been manifested through State participation in CMA activities through the online framework, acceptance of dates for on-site audits and validation missions, and the signing of the Memorandum of Understanding with ICAO allowing for CMA activities. As called for in A37-5, support from States has also been received in the form of short and long-term secondments of experts to assist ICAO in the implementation of the Programme.

3.   **SIGNIFICANT SAFETY CONCERNS**

3.1   In November 2006, the Council approved a mechanism to deal with significant safety concerns (SSCs) identified during the conduct of safety oversight audits. It was agreed that unresolved SSCs would be made available to Member States on the USOAP secure website.

3.2   There is an objective and documented process for addressing SSCs identified under the USOAP which includes regular, ongoing communications with the concerned State and a structured mechanism in place for assisting States, if required. Coordinated assistance may be provided through the development of an ICAO Plan of Action which is developed in cooperation with the State concerned and with the involvement of ICAO Bureaux and Offices (ANB, TCB and the applicable Regional Office), along with communications with donors and the development of a project document.

3.3   As of 31 July 2013, a total of 43 SSCs had been identified under the USOAP since 2006 through the conduct of continuous monitoring activities. Of these, 26 SSCs were resolved through corrective actions taken by the States concerned, including 7 which were resolved by immediate action (within fifteen days), prior to being posted on the ICAO secure website. There are 17 outstanding SSCs which remain unresolved, involving 12 States (5 States have more than one unresolved SSC).

3.4   Further to A37-5, the Council considered, during its 195th and 197th Sessions, a mechanism for the sharing of unresolved SSCs with the public. The Council approved in principle that:

a)   SSCs be made available on the ICAO public website commencing in January 2014;

b)   for new SSCs identified after January 2014, there be a period of 90 days between the time an SSC is posted on the secure site for Member States and the time it is posted on the ICAO public website, in order to allow States to resolve the SSC quickly and to provide a window for assistance activities;

c)   information on the existence and nature of an unresolved SSC be posted alongside the State-specific information already made available on the ICAO public website (formerly the FSIX) using a standardized wording. This would include the opportunity for the concerned State to comment and update its progress on the resolution of the SSC, subject, in due course, to validation by ICAO. It would also include links to "frequently asked questions" (FAQs) and a tutorial on the audit and SSC process; and

d)   the wording and format be put through a trial run on the secure website commencing in January 2013, allowing a one-year period for comments on the presentation of the information. The Secretariat would take into account the feedback received.

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APPENDIX

The table below sets forth the primary activities undertaken during the transition phase of CMA and provides an update on the status of actions taken:

Activity	Status/Outcomes	Comments
1. Communications, Supporting Documentation and Online Framework		
1.1 ***Communications:*** develop a communications and outreach strategy to promote and provide information on the USOAP CMA to Member States and stakeholders as well as to receive input on key documents and tools.	At the inception of the transition period, the USOAP restricted website was enhanced in accordance with Assembly Resolutions to facilitate the exchange of information on CMA activities. Interactive presentation to familiarize all States with CMA was developed and is available free of charge in all ICAO languages on the ICAO public website: http://www.icao.int/safety/CMAForum/Pages/cmainteractive.aspx A USOAP CMA Activity Plan is posted biannually on the ICAO-NET and USOAP restricted website.	
1.2 ***Guidance Material:*** draft and publish a new edition of the *Safety Oversight Audit Manual* (Doc 9735) to incorporate guidance on the CMA approach. Develop other guidance material as necessary.	The newly titled *USOAP Continuous Monitoring Manual* (Doc 9735) was published and is available on the ICAO-NET and USOAP restricted website in all ICAO languages. Other guidance material is developed and made available on specific topics as required, such as in the series of tutorials and 'Help' topics on the USOAP restricted website and presently made available in all ICAO languages (for example, a specific training module was developed to provide detailed instructions on the development and update of State Corrective Action Plans).	The *USOAP Continuous Monitoring Manual* is the main reference document supporting the USOAP. It provides information and guidance on the management and conduct of programme activities using CMA concepts and methodologies, and outlines the standardized processes and procedures that ensure USOAP CMA activities are conducted in a systematic, consistent and objective manner.
1.3 ***Memorandum of Understanding (MoU):*** draft a generic MoU to govern the relationship between ICAO and Member States with respect to CMA activities.	The Council approved a new generic MoU (C-DEC 192/8) and, as of 31 July 2013, 188 States had signed (or were in the process of signing) the MoU allowing for CMA activities.	

	Activity	Status/Outcomes	Comments
	Seek Council approval and circulate for signature to all Member States.		
1.4	*National Continuous Monitoring Coordinators (NCMCs):* communicate with States regarding the need to nominate one or more NCMCs as a focal point for ICAO CMA activities. Develop computer-based training (CBT) to familiarize NCMCs with relevant aspects of CMA.	As of 31 July 2013, 116 States had nominated one or more NCMCs. All nominated NCMCs have been provided access to the CMA on line framework, including tutorials and free CMA CBT training.	
1.5	*Online Framework:* design and develop a CMA interactive online framework along with a centralized database to properly manage data gathered under the USOAP on an ongoing basis. This includes the redesign of the following tools required for CMA activities: • State Aviation Activity Questionnaires (SAAQs); • Compliance Checklists (CCs) through the Electronic Filing of Differences (EFOD) system; • USOAP CMA Protocol Questionnaires (PQs); • State Corrective Action Plans (CAPs); • Mandatory Information Requests (MIRs); and • Self-assessment checklists.	All tools required for the conduct of CMA activities were redesigned and made available for interactive use in 'real time' on the CMA online framework through a suite of web-based integrated application systems: https://soa.icao.int/usoap . All States that were identified for CMA activities during the transition period and beyond have successfully used the suite of web-based applications.	In addition to information received directly from States, the online framework includes information received from ICAO regional offices.
1.6	*Sharing of Audit Information:* make all safety oversight-related information generated by the CMA available to Member States through a restricted website.	The ICAO USOAP restricted website was migrated to the USOAP CMA online framework. Results of all CMA activities are kept on the restricted website and regularly updated as information becomes available. The Integrated Safety Trend	Similar information was also made available under the previous USOAP comprehensive systems approach (CSA) audit cycle.

Activity	Status/Outcomes	Comments
	Continue to enhance the ICAO public website which allows public access to certain safety-related information.	Analysis and Reporting System (iSTARS) was expanded to make information available to Member States in a more user-friendly manner: https://portal3.icao.int/ISTARS An overview of audit results for each Member State is also made available to the public through the ICAO public website. Enhancements were made to present information in a more user-friendly manner.	
2.	**USOAP CMA Quality Management System (QMS)**		
2.1	***Quality Management System (QMS)***: expand the QMS and related processes and mechanisms in support of USOAP CMA activities.	The CMO Section expanded its QMS (procedures, processes, tools, and quality system requirements) to include CMA. The CMO Section has also developed a plan for extending the QMS to ICAO regional offices in support of CMA activities.	The QMS in the CMO Section consists of controlled and documented procedures, processes and mechanisms for monitoring and improving the USOAP and ensuring that CMA activities are carried out according to defined provisions and requirements.
2.2	***ISO 9001 Certification:*** obtain ISO 9001 certification on the expanded scope and methodology of USOAP CMA.	The CMO Section was recertified to the ISO 9001:2008 standard for quality management systems. The certification scope includes: the collection, processing and sharing of safety oversight information, the conduct of continuous monitoring activities, and the provision of safety training and seminars for the enhancement of global aviation safety.	The CMO Section has been certified to ISO 9001 since 2002. The most recent recertification audit was conducted in December 2012 by National Quality Assurance, an independent, non-governmental certification body.
2.3	***Continual Improvement***: seek regular input and feedback from States, stakeholders and auditors on USOAP CMA activities.	The CMO Section collects data from States regarding their satisfaction with USOAP activities. The feedback received from States thus far on ICAO Coordinated Validation Missions (ICVMs) conducted since 2011 indicates an overall satisfaction rate of 94 per cent. The mechanism for collecting State feedback data has been improved for USOAP CMA activities, and is expected to generate more focused and	The USOAP remains committed to maintaining and improving the quality and effectiveness of all aspects of CMA.

Activity	Status/Outcomes	Comments
	objective data for measuring the satisfaction of States. The CMO Section also measures the feedback of internal stakeholders including team leaders of USOAP activities. The feedback received from team leaders of ICVMs is used to improve the processes and tools of USOAP CMA.	
3. Training Activities		
3.1 *In-house Training*: conduct training of all concerned ICAO Headquarters (HQ) and regional office staff to be qualified as USOAP auditors and/or subject matter experts to conduct ICAO Coordinated Validation Missions (ICVMs).	Most of ICAO ANB HQ staff and ICAO regional staff have been trained on the CMA methodology. All ICAO regional offices have sent at least one RO for a two-month training programme with the CMO Section at Headquarters and received on-the-job training for conducting ICVMs.	Regional offices are actively involved in the continuous monitoring process. Their roles and responsibilities in relation to CMA activities are set forth in the USOAP Quality Procedures.
3.2 *Familiarization Training for State Employees:* develop and provide computer-based training (CBT) to familiarize State employees on CMA methodology and activities.	All relevant familiarization e-learning (CBT) materials were developed and are available online. As of 31 July 2013, 229 participants from fifty-one States and five international organizations have taken the familiarization training.	The familiarization training provides an opportunity for States to enhance the competencies of their aviation safety personnel without them necessarily being selected as approved CMA auditors or experts.
3.3 *Training of Seconded Auditors and Experts:* Develop and provide CBT to prepare qualified aviation experts from States or recognized international organizations to perform ICAO CMA activities, including ICVMs and USOAP audits.	All relevant e-learning (CBT) materials for auditors and subject matter experts were developed and are available online. As of 31 July 2013, 198 participants from twenty-nine States and five international organizations had taken the training for USOAP auditors and/or ICVM experts.	States and recognized organizations are called upon to nominate experts for secondment to ICAO on a long- or short-term basis in support of the USOAP CMA, either as auditors or as subject matter experts.
3.4 *Regional Seminar/ Workshops*: prepare training materials and conduct CMA regional seminar/workshops to assist States in their preparation for CMA.	Fourteen regional seminar/workshops were planned and conducted during the 2011-2012 transition period. Seven regional workshops were scheduled and conducted in 2013.	A listing of seminar/ workshops conducted and planned may be found in the USOAP CMA Activity Plan posted biannually on the ICAO-NET and the USOAP restricted website.

	Activity	Status/Outcomes	Comments
4.	**On-site CMA Activities in States**		
4.1	**ICAO Coordinated Validation Missions (ICVMs):** conduct ICVMs in appropriate States to ascertain whether previously identified safety deficiencies have been satisfactorily resolved. More specifically, assess the status of corrective actions taken by the concerned member State to address previous findings and recommendations, including any significant safety concerns (SSCs) that were identified.	A methodology for identifying States to undergo an ICVM has been developed based on: previous audit results, the level of traffic in the State, the date since the last USOAP activity, and consultation with the ICAO regional offices. ICVMs are also conducted in States that have a significant safety concern (SSC), once information is received that the SSC has been resolved. Thirty-one ICVMs in all ICAO regions were conducted during the transition period during 2011-2012. Thirty ICVMs were scheduled for 2013. As of 31 July 2013, 18 have been conducted, with the balance to be conducted by the end of the year. Seventeen ICVMs are scheduled for 2014.	The CMA Activity Plan posted on the ICAO-NET and USOAP restricted website sets forth the list of ICVMs conducted and planned. States are scheduled for an ICVM once an acceptable CAP has been submitted to ICAO and there is evidence that reasonable progress has been achieved. The results of States that underwent an ICVM showed good progress in implementing proposed corrective actions. States consider the ICVMs as a form of assistance mission to provide advice and guidance on their corrective actions. Specific audit and ICVM results may be viewed on the USOAP CMA online framework.
4.2	*Comprehensive Systems Approach (CSA) Audits:* conduct CSA audits in appropriate States to determine States' capabilities for safety oversight by assessing the effective implementation of all safety-relevant ICAO SARPs, associated procedures, guidance material and best safety practices.	As of 31 July 2013, 183 CSA audits had been conducted (including from the USOAP audit cycle before the transition to CMA). The remaining States have not been scheduled due to United Nations mission travel restrictions and the missions will take place when conditions permit. Twelve CSA audits were scheduled for 2013. As of 31 July 2013, 3 have been conducted, with the balance to be conducted by the end of the year. Eleven CSA audits are scheduled for 2014.	CSA audits will continue to be carried out by ICAO and will be tailored to the level and complexity of aviation activities in the State. CSA audits may be either full scale or of limited scope. The limited audits are useful in States where the safety oversight mechanisms in some technical areas are less developed than others, or where a specific technical area has undergone a significant change.

	Activity	Status/Outcomes	Comments
5.	**Agreements with Partners**		
5.1	Develop and expand agreements with relevant international entities in order to foster coordination and cooperation in sharing safety information.	New agreements and amendments to existing agreements for the sharing of safety information are being concluded between ICAO and a number of international entities. To date, agreements have been concluded with: • European Commission (EC) • European Aviation Safety Agency (EASA) • EUROCONTROL • Interstate Aviation Committee (MAK) • International Air Transport Association (IATA) • Airport Council International (ACI) • Civil Air Navigation Services Organization (CANSO) • US Flight Safety Foundation (FSF)	Through expanded agreements with external stakeholders, shared information can be used to supplement and help validate data currently held by ICAO. The sharing of information potentially reduces the burden on States caused by repetitive audits or inspections and the duplication of monitoring activities.

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