



**17th STEERING COMMITTEE MEETING  
Progress Report on the Implementation of the ICAO Universal Safety Oversight Audit Programme  
Continuous Monitoring Approach  
(USOAP CMA)**

**Information Paper 4**

(Submitted by the ICAO Secretariat)

<b>EXECUTIVE SUMMARY</b>	
<p>This paper provides a progress report on the implementation and activities of the Universal Safety Oversight Audit Programme Continuous Monitoring Approach (USOAP CMA) during 2016, and the activities planned for 2017.</p> <p>Action by the meeting is in paragraph 5.</p>	
<i>Strategic Objectives:</i>	This paper relates to the Safety Strategic Objective.
<i>Financial implications:</i>	No additional resources required.
<i>References:</i>	EB 2017/4 EB 2017/2 EB 2016/70 EB 2016/63 <i>Report on USOAP CMA results 2013-2015</i>

**1. INTRODUCTION**

1.1 This information paper provides a progress report on the implementation and activities of the Universal Safety Oversight Audit Programme Continuous Monitoring Approach (USOAP CMA), highlighting the milestones achieved, activities conducted and improvements made in 2016, as well as activities and developments planned for 2017.

## 2. USOAP MILESTONES IN 2016

2.1 During 2016, work continued on improving the user experience and functionality of the USOAP CMA Online Framework (OLF) (<https://www.icao.int/usoap>). The State Aviation Activity Questionnaire (SAAQ) was redesigned with a more uniform look and now allows States to perform offline updates, extract reports, and provide ICAO with SAAQ updates. In addition, a new mandatory information request (MIR) module was launched. The 2016 edition of “Protocol Questions” (PQs) was published. A new data exchange module was also released, which will allow States to interact between their systems and the OLF (EB 2017/04 refers). The OLF continues to be closely integrated with ICAO’s iSTARS (subscription available at <http://portal.icao.int> – group name: SPACE) as its applications use live data from the OLF, allowing States to conduct more accurate and timely analyses.

2.2 In 2014, ICAO published a set of “new PQs on safety management” for audit use and other continuous monitoring activities. These PQs are used to conduct voluntary, confidential and cost-recovery assessments of State Safety Programme (SSP) implementation at the request of ICAO Member States. Considering the lack of readiness by most States for effectively implementing an SSP, and the fact that the fourth edition of the *Safety Management Manual* (Doc 9859) (SMM) will be published in July 2017, the audit of the new SSP-related PQs has been postponed to January 2018 (further details in paragraph 4.4).

2.3 The increase in effort by States to resolve their safety deficiencies and improve their effective implementation (EI) scores has also created more demand for ICAO to validate the progress reported by States. ICAO has responded to this demand in a timely manner by conducting more off-site validation activities. To perform an increased number of validation activities, ICAO introduced a USOAP CMA designee system in September 2016. The key feature of this system is for ICAO to retain specialized expertise gained through investments in training, conduct of missions and overall USOAP CMA corporate knowledge, under a system that designates functions to highly qualified and experienced USOAP CMA experts. Designees support the performance of off-site validation activities, assessments of Corrective Action Plans (CAPs) and CAP updates. The rollout of the designee system included the establishment of comprehensive processes and procedures (now part of the Monitoring and Oversight Quality Management System) for its administration, as well as the organization of a training session for the designees, which was held in Montréal from 29 August to 2 September 2016, conducted in parallel with a USOAP CMA standardization training (further details in paragraph 2.6).

2.4 In 2016, ICAO rolled out a new initiative to support continuous monitoring in general and off-site validation activities in particular, through more active participation of ICAO technical officers from both ICAO Headquarters (HQ) and Regional Offices (ROs), as well as technical experts from safety partners (specifically from the European Aviation Safety Agency (EASA) for activities in States receiving EASA standardization inspections). When all requirements are met and the PQs are limited in number, continuous monitoring activities resulting from this initiative are then validated by the Safety and Air Navigation Oversight Audit (OAS) Section, in coordination with the concerned RO or safety partner. During a State visit, these experts collect evidence on CAPs implementation and the resolution of USOAP audit findings by the State. The experts then submit the collected evidence to ICAO HQ for validation. The list of designated safety partners for USOAP CMA validation activities may expand to include additional Regional Safety Oversight Organizations (RSOOs) in due time.

2.5 ICAO issued a safety report on the USOAP CMA activities conducted over a three-year period starting with the launch of the CMA on 1 January 2013 until 31 December 2015. This report not only provides statistical data, but also highlights a number of challenges which States continue to face. The report is available on the ICAO public website (<http://www.icao.int/safety/CMAForum>).

2.6 Two USOAP CMA standardization training sessions were held in 2016: the first was conducted in March for team leaders and team members of the Monitoring and Oversight (MO) Office; the second was conducted at the end of August/early September for all USOAP CMA team leaders, prospective team leaders from the ROs and all technical staff of MO. Through such standardization training, USOAP CMA team leaders are kept informed of the latest updates and improvements in USOAP CMA methodology and tools, thereby ensuring that USOAP CMA activities are conducted in a uniform and efficient manner.

2.7 The USOAP CMA quality management system (QMS) successfully completed its annual surveillance audit in October 2016, ensuring its ongoing compliance with the ISO 9001:2008 Standard. The QMS 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. USOAP CMA procedures, processes and other documentation managed through the QMS were updated, streamlined and standardized, as applicable. Through the USOAP CMA QMS, ICAO collects data from States regarding their level of satisfaction with USOAP CMA activities. Feedback from States in 2016 indicated an overall satisfaction rate of 92 per cent, a 3 per cent increase of the rate reported in 2015.

### 3. USOAP CMA ACTIVITIES IN 2016

3.1 **Appendix A** outlines USOAP CMA activities conducted during 2016, including audits, ICAO Coordinated Validation Missions (ICVMs), off-site validations, mandatory information requests (MIRs), SSP implementation voluntary assessments, and seminars/workshops. The USOAP CMA Activity Plan, issued as an electronic bulletin and posted on ICAO-NET twice a year (EB 2017/2 refers), lists the USOAP CMA activities that were conducted in 2016 as full-scope activities (covering all eight audit areas) or as limited-scope activities (targeting some of the audit areas). In 2016, a total of forty-six USOAP CMA activities impacted the States' EI scores. The increased number of activities is the result of the maturity of the USOAP CMA and the efficiencies gained in its implementation.

3.2 The graphs in **Appendix B** provide a summary of the USOAP CMA status at the global level. The areas with the lowest level of EI are aircraft accident and incident investigation (AIG) and aerodrome and ground aids (AGA). The Critical Elements (CE) with the lowest level of EI are CE-4 (qualified technical personnel) and CE-8 (resolution of safety issues).

3.3 In 2016, Georgia, Kazakhstan, Kyrgyzstan<sup>1</sup>, Lebanon, Sierra Leone and Uruguay resolved the significant safety concerns (SSCs) identified by ICAO. At the end of 2016, on a global level, there were eight unresolved SSCs in eight States, all of them in the area of aircraft operations (OPS).

### 4. USOAP CMA ACTIVITIES AND IMPROVEMENTS PLANNED FOR 2017

4.1 ICAO will continue to monitor States' activities through the OLF, prioritizing activities based on risk factors and indicators. The ongoing collection of data from the OLF allows ICAO to determine the appropriate monitoring and assistance activities for each State and to assign resources where required. The

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<sup>1</sup> An SSC pertaining to the certification process for the issuance of air operator certificates remains unresolved in Kyrgyzstan.

criteria used for the selection and planning of USOAP CMA activities are outlined in the *Universal Safety Oversight Audit Programme Continuous Monitoring Manual* (Doc 9735), Sections 3.6 and 4.7.

4.2 In line with the approved budget and available resources, as well as considering the efficiencies gained in the implementation of the programme, USOAP CMA activities planned for 2017 include fifteen USOAP CMA audits, eighteen ICVMs, twenty off-site validation activities, and three regional seminars/workshops (**Appendix C** and EB2017/2 refer). Cost-recovery activities will be conducted as requested by States.

4.3 ICAO also scheduled three additional voluntary assessments of SSP implementation, at the request of States. The results of these assessments will be used to gather additional experience and continue to train OAS experts for the audit of SSP implementation. In the meantime, States with EI above 60 per cent are expected to conduct self-assessments on SSP-related PQs and complete the Annex 19 — *Safety Management* compliance checklists.

4.4 In July 2017, amended SSP-related PQs will be published by ICAO to reflect Amendment 1 to Annex 19, the fourth edition of the SMM and lessons learned to date. Although Amendment 1 does not become applicable until November 2019, selected States will be approached by ICAO with a view to performing audits including the amended SSP-related PQs in 2018 and 2019 on a voluntary, but non-confidential basis. As of 2020, ICAO will perform audits using the amended SSP-related PQs on States meeting the criteria to be established by ICAO, in line with the 2020-2022 edition of the Global Aviation Safety Plan. ICAO will continue to develop and implement a plan to prepare and train USOAP CMA auditors to address SSP-related PQs.

4.5 During 2017, the *Safety Oversight Manual, Part A — The Establishment and Management of a State's Safety Oversight System* (Doc 9734) will be amended to reflect Amendment 1 to Annex 19, and the feedback received from States and other stakeholders. In addition, Doc 9735 will be amended to reflect the evolution of the USOAP CMA, particularly the new types of validation activities introduced in 2016 and the roll-out of the designee system.

4.6 Following the outcome of the 39th Session of the Assembly, ICAO will, in early 2017, establish a group of experts from selected States (two members per regional aviation safety group), an RSOO, the Air Navigation Commission and the Secretariat, to be chaired by an expert nominated by a State, to undertake a structured review of the USOAP CMA processes and methodology. The aim of this review is to identify adjustments to the programme with a view to further strengthening it, and taking into consideration the evolving safety strategy of ICAO and States' progress in implementing Annex 19, in particular, SSP requirements. It is expected that such a review should be completed by the end of 2017.

## 5. ACTION BY THE MEETING

5.1 The meeting is invited to:

- a) note the contents of this paper; and
- b) endorse the following draft conclusion.

**DRAFT Conclusion – ICAO USOAP CMA Implementation**

That States are urged to fulfil their obligations under the USOAP CMA Memorandum of Understanding (MOU) and to take actions as needed to provide up-to-date information on their safety oversight systems, with particular attention to:

- a) States with an SSC, focusing on implementing sustainable corrective actions to resolve the SSC with a high priority;
- b) updating the content and implementation progress of their CAPs on the OLF;
- c) completing the self-assessment of the PQs on the OLF;
- d) requesting assistance from the ICAO Regional Office, if required; and
- e) informing the ICAO Regional Office once significant updates have been made on the OLF.

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## APPENDIX A

The table below provides details on USOAP CMA activities and developments during 2016.

Activity	Planned/Conducted	Comments
<b>1. On-site USOAP CMA Activities</b>		
1.1	<i>USOAP CMA Audits</i>	
	Determine States' capabilities for safety oversight by assessing the effective implementation of the critical elements of a State's safety oversight system.	As planned for 2016, 12 audits were conducted (in chronological order): Kyrgyzstan, Nigeria, Kuwait, Ukraine, Malaysia, Senegal, Morocco, Tajikistan, Honduras, Israel, Cambodia and New Zealand.
		Audit results are available on the USOAP CMA online framework at: <a href="https://www.icao.int/usoap">https://www.icao.int/usoap</a> .
1.2	<i>ICAO Coordinated Validation Missions (ICVMs)</i>	
	Assess the status of corrective actions taken by the State to address previously identified findings and determine whether or not the State has satisfactorily resolved deficiencies, including any significant safety concerns (SSCs).	15 ICVMs were planned for 2016.  By the end of the year, 17 ICVMs were conducted across all ICAO regions (in chronological order): Uruguay, Zambia, Kazakhstan, Georgia, Lebanon, Togo, Jamaica*, Viet Nam, Paraguay*, Bolivia, the former Yugoslav Republic of Macedonia, Sweden, Egypt, Cyprus, Guinea, Guyana and Equatorial Guinea.
		ICVM results are available on the USOAP CMA online framework at: <a href="https://www.icao.int/usoap">https://www.icao.int/usoap</a> .  * ICAO also conducted off-site validation activities for these States (see 2.1 below).

Activity	Planned/Conducted	Comments
<b>2. Off-site USOAP CMA Activities</b>		
2.1	<i>Off-Site Validation Activities</i>	
	Assess the status of corrective actions taken by the State to address previously identified findings and determine whether or not the State has satisfactorily resolved its deficiencies, without conducting an ICVM.	<p>18 off-site validations were conducted (in chronological order): Namibia, Nepal, Germany***, Vanuatu, France***, Hungary***, Paraguay*, Finland***, Indonesia, Australia, Liberia, Jamaica*, El Salvador, the Dominican Republic**, Ireland***, Serbia*** and Congo.</p> <p>* ICAO also conducted ICVMs in these States in 2016 (see 1.2 above).</p> <p>** 2 off-site validation activities were completed for the Dominican Republic in 2016.</p> <p>*** The evidence for 6 of the off-site validation activities was collected and assessed by experts from the European Aviation Safety Agency (EASA), on behalf of ICAO, as part of an agreement between the two organizations and agreed to by the States. The evidence was subsequently reviewed and validated by experts from the OAS Section.</p>
2.2	<i>Mandatory Information Requests (MIRs)</i>	
	Request information or documentation needed for USOAP CMA assessment and validation.	<p>In 2016, 3 MIRs were issued, bringing the total number of MIRs issued to date to 19.</p> <p>The processing of an MIR is considered as an off-site USOAP CMA activity.</p>

Activity	Planned/Conducted	Comments
<b>3. Training</b>		
3.1	<i>Training of Auditor and Subject Matter Expert Nominees</i>	
	<p>Manage the USOAP CMA computer-based training (CBT) as a tool for the selection and training of potential auditors and subject matter experts of the USOAP CMA.</p> <p>41 nominees, qualified for the training of auditors and subject matter experts, took the USOAP CMA CBT in 2016.</p> <p>As of December 2016 and since the launch of the CBT in 2011, 348 participants from 64 States and 6 international/regional organizations have completed the CBT.</p> <p>The USOAP CMA roster now includes a total of 99 qualified USOAP auditors and/or subject matter experts.</p>	<p>States and recognized organizations are called upon to nominate experts for secondment to ICAO as auditors and subject matter experts, on a long- or short-term basis, in support of the USOAP CMA.</p> <p>In 2016, France, Malaysia, the Republic of Korea, Singapore and Turkey continued to provide long-term secondments to support the USOAP CMA.</p>
3.2	<i>Familiarization Training for State Employees</i>	
	<p>Provide training to States' National Continuous Monitoring Coordinators (NCCMs) and familiarize States' safety oversight employees with USOAP CMA methodology and activities.</p> <p>As of December 2016 and since the launch of the CBT in 2011, 522 participants from 91 States and 13 international/regional organizations have taken the CBT for NCCM and familiarization training.</p>	<p>NCCM and familiarization training allows States to enhance the knowledge and competency of their aviation safety personnel regarding USOAP CMA, particularly in preparation for an upcoming USOAP CMA activity.</p>

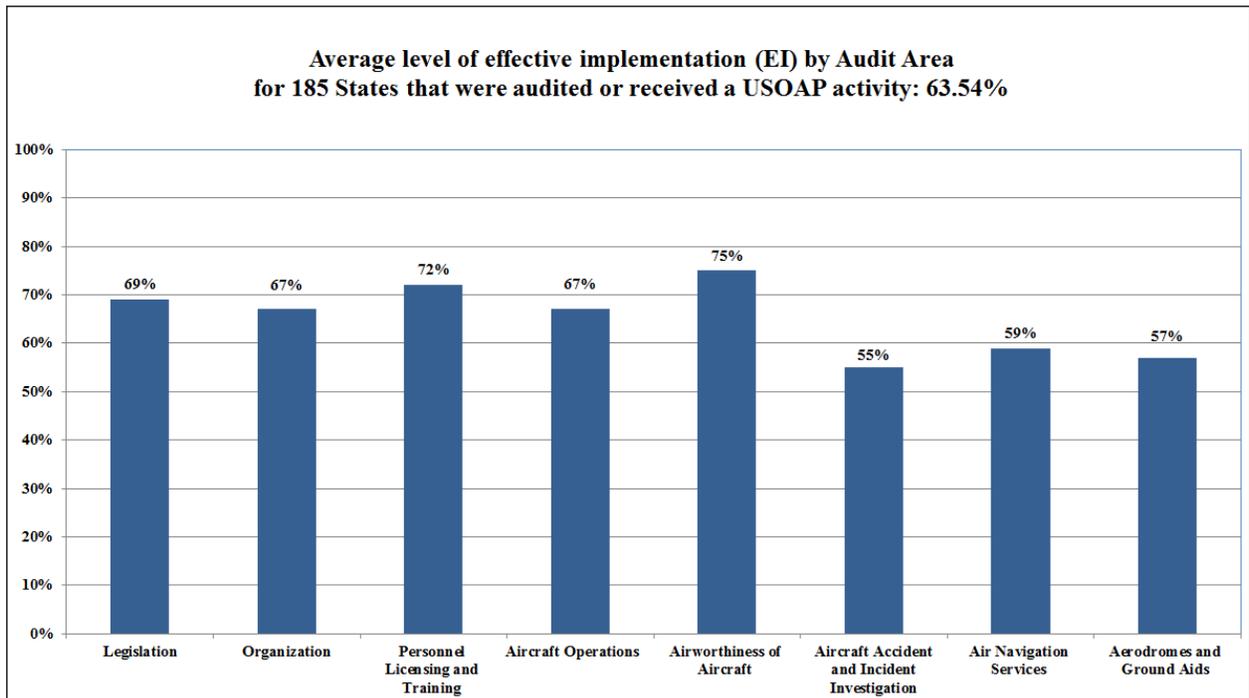
Activity	Planned/Conducted	Comments
3.3	<i>Seminars/ Workshops</i>	
	<p>Assist States with their participation in USOAP CMA and, specifically, with preparations for an upcoming USOAP CMA activity.</p> <p>9 seminars/workshops were conducted with 335 participants from 48 States and 2 international/regional organizations.</p> <p>2 regional seminars/workshops were budgeted and conducted by ICAO: one was hosted by the Asia and Pacific Regional Office (APAC) in Bangkok, Thailand for States in the APAC Region and another was hosted by the Eastern and Southern African Regional Office, (ESAF) in Nairobi, Kenya for the States in the ESAF Region. A regional meeting/workshop for the North American, Central American and Caribbean Regional Office, (NACC) NCMCs was also held in Mexico City, Mexico.</p> <p>6 seminars/workshops were conducted on a cost-recovery basis in: Angola, Canada, the former Yugoslav Republic of Macedonia, Guyana, the Islamic Republic of Iran and South Africa.</p>	<p>Since the transition period and launch of the USOAP CMA, seminars/workshops have been conducted in all ICAO regions.</p>

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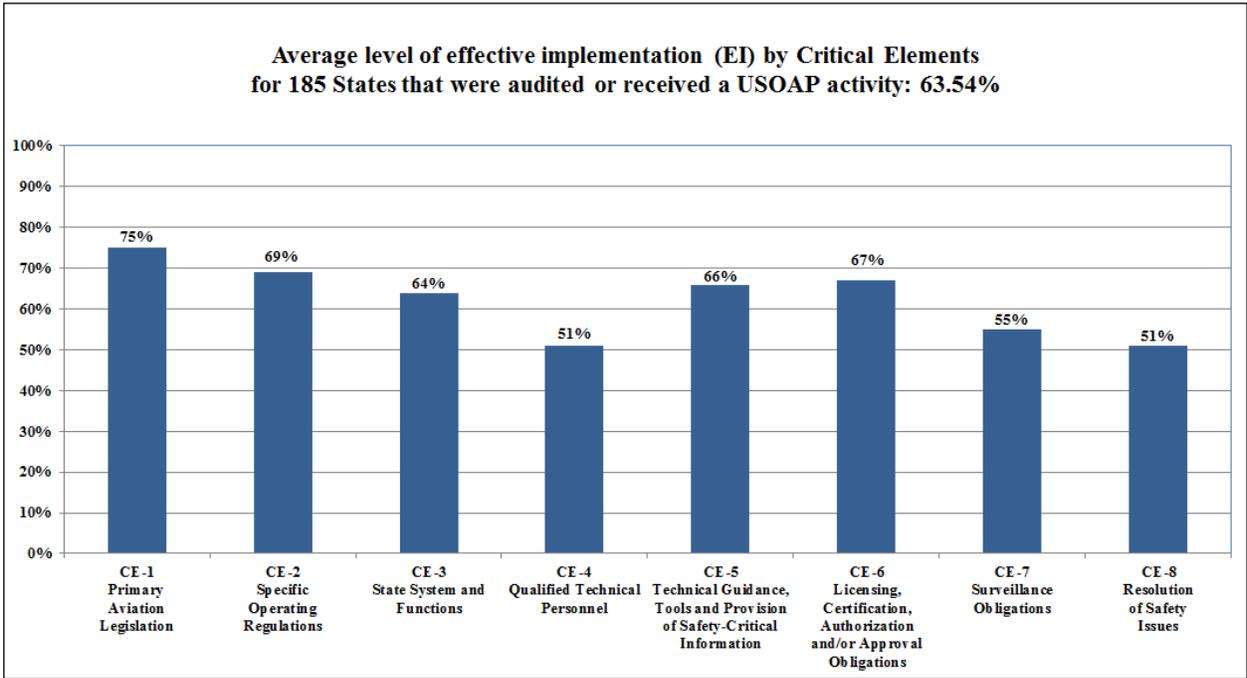
## APPENDIX B

1. The graphs below provide a summary of the USOAP CMA status for 2016 at the global level by audit area and by Critical Element.

2. All but six Member States have received a USOAP audit. The current EI average score at the global level is 63.54 per cent. Out of the 185 audited Member States, 118 have an EI of 60 per cent or higher.



**Figure B-1. Average global level of effective implementation (EI)**



**Figure B-2. Average global level of effective implementation (EI)**

State	Activity Type	Region	Dates	Status
Australia	Audit Cost recovery	APAC	3-10 April 2017	scheduled
Australia	ICVM	APAC	9-13 Oct 2017	scheduled
Bangladesh	ICVM	APAC	12-19 Sept 2017	scheduled
Bhutan	ICVM	APAC	18-25 Jul 2017	Postponed
India	Audit 2	APAC	6-16 Nov 2017	scheduled
Indonesia	ICVM	APAC	10-17 Oct 2017	scheduled
Mongolia	ICVM	APAC	29 Aug-5 Sept 2017	scheduled
Philippines	ICVM	APAC	30 May-8 Jun 2017	scheduled
Sri Lanka	Audit	APAC	23 Oct-3 Nov 2017	Postponed
Angola	ICVM 2 (SSC)	ESAF	14-23 March 2017	completed
Kenya	Audit	ESAF	27 Nov-7 Dec 2017	scheduled
Seychelles	ICVM	ESAF	1-8 Aug 2017	scheduled
South Africa	Audit	ESAF	8-18 May 2017	scheduled
United Republic of Tanzania	ICVM	ESAF	28 March-6 April 2017	ongoing
Azerbaijan	ICVM	EUR/NAT	1-8 Aug 2017	Postponed
EASA	Audit	EUR/NAT	20-29 Nov 2017	scheduled
Finland	ICVM	EUR/NAT	5-12 Sept 2017	scheduled
France	ICVM	EUR/NAT	13-17 March 2017	completed
Georgia	ICVM	EUR/NAT	3-10 Oct 2017	Postponed
Germany	Audit	EUR/NAT	19-30 June 2017	scheduled
Portugal	ICVM	EUR/NAT	12-19 Dec 2017	scheduled
Ukraine	Audit	EUR/NAT	13-24 March 2017	completed
Uzbekistan	Audit	EUR/NAT	10-21 April 2017	scheduled
Jordan	ICVM	MID	3-10 April 2017	scheduled
Kuwait	ICVM	MID	13-20 Nov 2017	scheduled
Lebanon	Audit	MID	16-27 Oct 2017	scheduled
Qatar	Audit	MID	3-13 Dec 2017	scheduled
Bahamas	Audit	NACC	23 Oct - 2 Nov 2017	scheduled
Costa Rica	ICVM 2	NACC	14-21 Feb 2017	completed
Honduras	Audit	NACC	21-31 Aug 2017	scheduled
Trinidad and Tobago	ICVM	NACC	4-11 Jul 2017	scheduled
Chile	ICVM	SAM	28 March to 4 April 2017	ongoing
Colombia	Audit	SAM	5-15 June 2017	scheduled
Panama	ICVM	SAM	19-26 Sep 2017	scheduled
Burkina Faso	ICVM	WACAF	24-31 Oct 2017	scheduled
Equatorial Guinea	ICVM 3 Cost recovery	WACAF	7-14 Feb 2017	completed
Gambia	Audit	WACAF	11-21 Sep 2017	Postponed
Guinea-Bissau	ICVM	WACAF	9-16 May 2017	Postponed
Senegal	Audit	WACAF	9-19 Oct 2017	scheduled