



**WORKING PAPER**

**ASSEMBLY – 38TH SESSION**

**TECHNICAL COMMISSION**

**Agenda Item 29: Aviation Safety – Monitoring and Analysis**

**SINGAPORE'S EXPERIENCE IN IMPLEMENTING A  
CONTINUOUS MONITORING APPROACH (CMA) PROGRAMME**

(Presented by Singapore)

**EXECUTIVE SUMMARY**

The 37th Session of the Assembly directed the Secretary General (A37-5 refers) to evolve the Universal Safety Oversight Programme (USOAP) to a risk-based continuous monitoring approach (CMA) in assessing Member States' safety oversight capabilities. Singapore supports the USOAP CMA and recognises the importance for Member States to meet their obligations under the USOAP CMA. After implementing our CMA programme for over a year, Singapore would like to share our experience on our implementation of the programme.

**Action:** The Assembly is invited to urge Member States to:

- a) support the USOAP CMA; and
- b) establish systems and processes that will provide the necessary focus on their obligations under the USOAP CMA.

<i>Strategic Objectives:</i>	This information paper relates to the Safety Strategic Objective.
<i>Financial implications:</i>	Not applicable.
<i>References:</i>	Doc 9958, <i>Assembly Resolutions in Force (as of 8 October 2010)</i>

**1. INTRODUCTION**

1.1 The 37th Session of the Assembly directed the Secretary General (A37-5 refers) to evolve the Universal Safety Oversight Audit Programme (USOAP) to a risk-based continuous monitoring approach (CMA) in assessing Member States' safety oversight capabilities. The USOAP CMA would involve systematic and more proactive monitoring of Member States' safety oversight activities by ICAO. Since the 37th Assembly, ICAO and Member States had worked on the implementation of the major components of the USOAP CMA, resulting in its successful introduction in early 2013.

1.2 The USOAP CMA places greater emphasis on the provision of regular updates by Member States on their overall safety oversight system as well as their status of compliance with ICAO SARPs. Under the USOAP CMA, Member States are required to continually provide ICAO with a substantial volume of up-to-date information through the Compliance Checklists (CC), Protocol

Questions (PQ) and State Aviation Activity Questionnaire (SAAQ). This information allows ICAO to prioritise its USOAP CMA activities. The CMA also encourages Member States to actively monitor their level of effective implementation of the critical elements of a safety oversight system and ensure continued compliance with ICAO SARPs.

1.3 Member States will need to implement their own ‘CMA programme’ to support and interface with the USOAP CMA. However, implementing an effective CMA programme can be a challenging task for Member States. Member States may need to devote additional resources and build additional capabilities in order to deliver on their USOAP CMA obligations. Many Member States face increasing pressure to do more with fewer resources, in the face of rapid air traffic growth coupled with the shortage of aviation professionals. In managing the CMA programme, there is also a need for close coordination within the civil aviation authority as well as with other agencies with aviation safety oversight responsibilities within the Member State.

## 2. SINGAPORE’S EXPERIENCE IN IMPLEMENTING A CMA PROGRAMME

2.1 Singapore has found its journey preparing for the USOAP to be a useful one. One of the key positive effects of the USOAP Comprehensive Systems Approach (CSA) audits previously was that it helped to galvanise our aviation agencies to review our policies and practices for compliance with ICAO SARPs and alignment with international best practice. The USOAP CSA offered an opportunity to spring-clean our system: internal policies, processes and procedures were reviewed and enhanced, and outdated ones removed. Moving from the USOAP CSA to the USOAP CMA, we leveraged on the momentum and positive energies from our USOAP CSA experience.

2.2 Unlike our previous practice of setting up a committee to manage our USOAP CSA programme, we chose to set up a dedicated CMA office within the Civil Aviation Authority of Singapore (CAAS) to coordinate our CMA programme activities. A dedicated outfit can provide greater focus and faster response on CMA matters, which better fits the more dynamic nature of the USOAP CMA. The CMA office assists the National Continuous Monitoring Coordinator (NMC) to meet the USOAP CMA deliverables. Given that Member States now have the responsibility to continually update ICAO, the CMA office plays an essential role in managing this interface with ICAO. The CMA office also keeps the USOAP CMA documents up-to-date and liaises with ICAO on matters relating to Mandatory Information Requests, ICVMs and Corrective Action Plans. This office also ensures that there is always an adequate pool of CAAS staff who are trained on the USOAP CMA and on each of the audit modules under the USOAP.

2.3 It is essential that ICAO receives timely, accurate and complete information from Singapore to assess Singapore’s level of effective implementation of the critical elements of safety oversight. Given limited manpower resources, subject matter experts in CAAS who are responsible for operational safety oversight work also need to provide technical inputs for the CMA programme reporting. The CMA office plays an important role in consolidating and corroborating the information for reporting to ICAO in a timely manner. Besides establishing standardised procedures to ensure integrity and consistency, the CMA office constantly seeks to optimise the workflow processes. The CMA office is also exploring info-comm technology to enhance the workflow processes and information management.

2.4 The external perspectives offered by the USOAP CSA auditors during the audit of Singapore in 2010 were invaluable in identifying areas for improvement in our safety oversight system. In preparing for the USOAP CMA, we felt that it was important to systematically create impetus that would galvanise efforts to review and improve our system. Singapore has therefore put in place a system of internal and external audits modelled after the USOAP CSA audits. Using the SAAQ, CC and PQs as the

primary basis, and supplemented with additional checklists where appropriate, we have instituted a three-year cycle of audits. For the first two years in each cycle, we have planned for internal audits which will be carried out by our staff and led by our own USOAP-trained auditors. For the third year of each cycle, we plan to engage external auditors for a comprehensive review of our system. These audits will serve as continuous reviews of the safety oversight policies, practices and performance of all agencies involved in aviation safety oversight in Singapore.

2.5 We have also offered more of our staff to be trained as USOAP auditors across the different modules. Singapore currently has one USOAP CMA-trained auditor, with another six undergoing USOAP CMA training. Besides contributing to the USOAP CMA, having such USOAP CMA-trained staff promotes the cross-pollination of best practices with other Member States. Where relevant, the best practices of other Member States would be adopted in our system to further enhance it. Having USOAP CMA-trained staff also provides us with a better understanding and appreciation of the USOAP CMA philosophy and processes. We envisage that this knowledge will help us better design our CMA programme to better support the USOAP CMA.

### 3. CONCLUSION

3.1 The USOAP CMA is a step forward for the advancement of global aviation safety. It is imperative for Member States to support the USOAP CMA and to establish effective and efficient processes and systems for their obligations under the USOAP CMA. Member States should also actively and regularly review their aviation safety environment and CMA programme implementation.

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