



International Civil Aviation Organization

**SEVENTH MEETING OF THE ASIA PACIFIC REGIONAL AVIATION SAFETY TEAM  
(APRAST/7)**

*(Bangkok, Thailand, 31 August to 4 September 2015)*

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**Agenda Item 5: Update, discussion and review of APRAST activities.**

**ASIA AND PACIFIC REGIONAL PRIORITIES AND TARGETS**

*(Presented by the Secretariat)*

**SUMMARY**

This Paper presents the Asia and Pacific Regional Priorities and Targets, their current status and proposals for implementation of these priorities within the proposed timeframes.

**1. INTRODUCTION**

1.1 Responding a request by the ICAO for all Regions to develop each region's safety priorities and targets the RASG APAC/4 meeting held in Hong Kong, China in November, 2014 approved the APAC Region's Safety Priorities and targets.

**2. DISCUSSION**

2.1 The APAC Regional Priorities and Targets are attached at Appendix A to this paper.

2.2 Appendix A also provides a brief description of the current implementation status of each of the APAC Safety Priorities.

2.3 During the APRAST/6 meeting held in Bangkok the meeting was briefed of Regional Priorities. However due to time constraints APRAST/6 meeting was unable to discuss these priorities in detail and develop action plans required for timely implementation of the Priorities.

2.4 Taking the current status of the Priorities in to consideration this paper also proposes this meeting to discuss and propose changes as considered appropriate to some actions listed in Appendix A which are aimed at achieving timely implementation of APAC Regional Safety Priorities.

**3. ACTION BY THE MEETING**

3.1 The Meeting is invited to:

- a) Note the APAC Regional Priorities and Targets and their current status at Appendix A to this paper.
- b) Also discuss/amend the proposals for timely implementation of the Priorities listed at Annex as required; and
- c) Develop and recommend the submission of the necessary action plans to RASG/5 meeting to be held in October, 2015 for approval and inclusion in RASG APAC 2015/2016 Work Programme.

## PRIORITIES AND TARGETS

Regional Priorities		Action	Targets	Remarks
1.	<p><b>Reduction of operational risks</b></p> <p>According to the APAC Annual Safety Report, the percentage of global fatal accidents attributed to the APAC region has increased from 11% in 2008 to 25% in 2011. The report has also identified Loss of Control In-flight (LOC-I), Controlled Flight Into Terrain (CFIT) and runway safety related accidents as the main contributing factors to fatal accidents in the APAC region, which is in line with the analysis in the ICAO Global Aviation Safety Plan.</p> <p><b>Metric:</b></p> <ul style="list-style-type: none"> <li>Number of fatal accidents irrespective of the volume of air traffic in the APAC region.</li> </ul>	<p><b>Implement priority Safety Enhancement Initiatives (SEIs)</b></p> <ul style="list-style-type: none"> <li>RASG-APAC should continue its focus on the development of the current SEIs to address the priority areas of LOC-I, CFIT and Runway Safety.</li> <li>RASG-APAC should continue to provide implementation support to States and industry.</li> <li>States and industry should likewise accord priority to the implementation of these SEIs.</li> </ul>	<ul style="list-style-type: none"> <li>RASG-APAC to complete the development of currently identified priority SEIs by end 2016.</li> <li>States and industry to complete the implementation of all priority SEIs in RASG-APAC work programme by 2018.</li> <li>[RPD] Reduction in the number of fatal accidents in 2018 compared to 2014 irrespective of the volume of air traffic in the APAC region</li> </ul>	<ul style="list-style-type: none"> <li>There is a total of 40 SEIs identified with 9 SEIs completed and posted on the ICAO Website. States have been notified through a State letter Ref: T 6/13.11 – AP170/14 (FS) dated 17 December 2014 of the availability of these safety documents.</li> <li>A survey was carried out through State letter Ref: T 6/13.11 – AP066/15 (FS) dated 16 April 2015 to determine the number of completed SEIs implemented by the States and industry partners. Only 7 States/ Administrations responded. The States responded indicated that only a total of 20 RASG APAC SEIs have been implemented by the seven States.</li> <li>The SRP WG will continue to monitor the accidents in the region in the coming years and will share the results through the APAC Safety report.</li> </ul>

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2.	<p><b>Improvements to safety oversight and compliance</b></p> <p>Recognizing that the APAC region has one of the fastest air traffic growth rates and that effective safety oversight systems are crucial in ensuring high standards of safety, States should enhance their safety oversight system as a high priority.</p> <p><i>Metric:</i></p> <ul style="list-style-type: none"> <li>• APAC States' ICAO USOAP CMA effective implementation rate.</li> <li>• Registration rate for IOSA and ISAGO</li> </ul>	<p><b>Enhance safety oversight systems through capacity building</b></p> <p>Capacity building is an important element to enhance safety oversight capabilities. Considering that ICAO's last comprehensive systems approach audit cycle showed that the highest lack of effective implementation (52%, please see Figure 1 below) was in the area of CE 4 "qualified personnel", programmes should be initiated to increase the number of qualified inspectors in the region. A dedicated task force should be established by APRAST to develop an action plan on capacity building.</p> <p><b>Resolve Significant Safety Concerns (SSCs)</b></p> <p>States should accord the utmost priority to the resolution of any SSCs identified by the ICAO Universal Safety Oversight Audit Programme Continuous Monitoring Approach (USOAP CMA) programme. States with SSCs should draw on the necessary resources available, including technical assistance from other States and regional programmes such as COSCAPs, where necessary, to resolve the SSCs promptly.</p>	<ul style="list-style-type: none"> <li>• Task force (to be formed by APRAST) to develop an action plan on capacity building by December 2015.</li> <li>• [RPD] States to resolve any SSCs identified by the ICAO USOAP CMA programme promptly within the timeline specified in the corrective action plan and agreed to by ICAO.</li> <li>• [RPD] States to achieve at least 60% EI in USOAP CMA by 2017.</li> </ul> <p><b>Percentage of APAC states with at least 60% EI is at 50%</b></p> <ul style="list-style-type: none"> <li>• Maintain at least 60% of applicable APAC airlines to be IOSA certified by the end of 2017.</li> <li>• Achieve at least 15% of applicable APAC airlines to be ISSA certified by the end of 2017.</li> <li>• Pursue at least a 50% increase in ISAGO registrations by end of 2017.</li> </ul>	<ul style="list-style-type: none"> <li>• APRAST/7 to form the task force for developing an action plan for capacity building with special emphasis on CE4.</li> <li>• There are two States, Nepal and Thailand in the Region with SSCs in the area of Air Operator certification. Both States are in the process of engaging external resources supplement the local experts engaged in resolving the SSCs.</li> </ul>

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	<p><b>Use of the IATA Operational Safety Audit (IOSA) and the IATA Standard Safety Assessment (ISSA)</b></p> <p>IOSA registered carriers have demonstrated safety performance more than 2 times better than that for non-registered operators for the period between 2008 and 2013. IOSA can be utilised as an effective tool for States to evaluate operational capability and to establish level of confidence of air operators. Airlines are encouraged to pursue IOSA registration as a means to strengthen their safety management and compliance. States should consider various options to leverage IOSA from including recognition of IOSA to encouraging IOSA registration for all applicable operators. ISSA is a new safety programme, applicable to smaller operators whose aircraft or business model does not meet the eligibility criteria of IOSA. States are also encouraged to promote ISSA registration for all applicable operators.</p> <p><b>Use of the IATA Safety Audit for Ground Operations (ISAGO) to improve ground safety</b></p> <p>Aircraft ground damage is a significant APAC issue and contributes to a global figure of nearly US\$ 4-billion annual loss in terms of damage and injury. ISAGO aims to improve safety oversight of ground service providers, promptly identify ground operation activities with higher risks and reduce the number of accidents related to ground operations. With these aims in mind, operators are encouraged to pursue ISAGO registration for ground service providers for enhancement in aviation safety.</p>		<ul style="list-style-type: none"> <li>• APRAST/7 to discuss an effective method to encourage States to Promote IOSA, ISSA and ISAGO</li> </ul>

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3.	<p><b>Consistent and effective Safety Management Systems (SMS) and State Safety Programmes (SSP)</b></p> <p>The growing air traffic in the APAC region and the increasingly complex operating environment necessitate the involvement of both industry and States in ensuring high levels of safety. During the period between 2008 and 2012, 27% of APAC accidents involved deficiencies in safety management while 33% of the accidents in APAC involved deficiencies in regulatory oversight. Effective implementation of SMS is essential for the industry to identify hazards and resolve safety concerns. The robust implementation of the SSP also enables States to focus their safety oversight resources where they are most needed.</p> <p><b>Metrics:</b></p> <ul style="list-style-type: none"> <li>• Number of organizations that have implemented SMS as a percentage of the number of organizations required to implement SMS.</li> <li>• Number of States that have implemented SSP.</li> </ul>	<p><b>Support robust implementation of SMS and SSP</b></p> <ul style="list-style-type: none"> <li>• RASG–APAC should facilitate the sharing of best practices amongst States in the region on SMS and SSP.</li> <li>• States should accord priority to the implementation of SMS and SSP to achieve an acceptable level of safety in aviation operations.</li> <li>• APAC COSCAPs should focus on assisting States in the implementation of SMS and SSP.</li> </ul>	<ul style="list-style-type: none"> <li>• [RPD] Industry, particularly airlines, aviation training organizations, maintenance and repair organizations, airport operators, air navigation service providers, organizations responsible for the type design or manufacture of aircraft and aviation service providers to implement SMS by 2017.</li> <li>• [RPD] States to implement the full ICAO SSP by 2022</li> </ul>	<ul style="list-style-type: none"> <li>• The first workshop aimed at sharing of best practices among States was held on August 31 during APRAST/7 meeting.</li> <li>• APRAST/7 to discuss an effective system to monitor the implementation of SSP/SMS at State level with a view to assist those States that may need external assistance.</li> <li>• COSCAPs to consider the inclusion of SSP/SMS implementation assistance to member States if it has not been already included in to COSCAP Work Programmes. COSCAPs also to consider having a mechanism in place to report the level of SSP/SMS implementation in their respective States and the need for assistance if any.</li> </ul>
4.	<p><b>Predictive risk management and advanced regulatory oversight</b></p> <p>The evolution from reactive to predictive safety management and data-driven regulatory oversight systems hinges on the availability of high quality safety data. Proper risk management and oversight is also reliant on the effective</p>	<p><b>Implementation of AIG AWG recommendations to address Annex 13 requirements</b></p> <p>States should consider it a priority to implement the APAC AIG's recommendations.</p>	<ul style="list-style-type: none"> <li>• [RPD] States to achieve at least 60% EI in AIG of USOAP CMA by 2017.</li> <li>• To develop regional mechanism for data collection, analysis and sharing by 2017.</li> </ul>	<ul style="list-style-type: none"> <li>• Currently no formal mechanism in place to monitor and assist States with the effective implementation of APAC AIG recommendation.</li> </ul>

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<p>investigation of accidents and incidents in order to prevent recurrence.</p> <p>Many APAC States have yet to fully implement ICAO Annex 13 requirements for accident investigation (53% - please see Figure 2 below). AIG AWG recommendations offer guidance to States to at least meet the minimum requirements. Implementation of these recommendations would help to improve each State’s capacity to effectively investigate accidents and serious incidents and should also enhance the level of reporting by States to assist in the identification of regional safety issues and trends.</p> <p>Furthermore, APAC States often lack the resources and expertise to manage and collect data on a State level and there are currently no formal mechanisms in place that allow for the sharing and benchmarking of information at the regional level.</p> <p>Finally, while many air operators in APAC have Flight Data Analysis Programmes, many have yet to fully incorporate the data into their risk management decision-making and few are leveraging on the valuable information available from external data-sharing platforms such as the IATA Flight Data Exchange (FDX) or the FAA Aviation Safety Information Analysis and Sharing (ASIAS) programmes.</p> <p><b>Metrics:</b></p> <ul style="list-style-type: none"> <li>States’ ICAO USOAP CMA EI rate for AIG module</li> </ul>	<p><b>Establish a structure for safety data collection, analysis and sharing</b></p> <p>RASG–APAC should establish an action plan that facilitates the use of standardized taxonomies for data collection in the region. Standardized taxonomies, for example in the description of safety occurrences, ramp inspection outcomes and definitions of audit findings, would facilitate the benchmarking and sharing of data among States. In the longer term, RASG-APAC should put in place a structure for the collection, analysis and sharing of safety and operational data in the region in support of predictive risk management.</p> <p><b>Establish a mechanism for regional data collection and sharing</b></p> <p>RASG-APAC should facilitate initiatives to develop regional data collection, analysis and sharing systems, including collaboration with existing data sharing systems ASIAS and IATA FDX programmes, with support from States and industry.</p>	<ul style="list-style-type: none"> <li>50% of APAC air operators participating in flight data sharing initiative by 2016.</li> <li>APAC States to provide assurance that predictive risk management is fully effective by 2027</li> </ul>	<ul style="list-style-type: none"> <li>APRAST/7 or APAC AIG to develop an action plan that facilitates the use of standardized taxonomies for benchmarking and sharing of data among States.</li> <li>APRAST/7 to discuss the establishment of a regional data collection and sharing system that would collaborate with the existing data sharing systems such as ASIAS and IATA FDX programmes.</li> </ul>

	Regional Priorities	Action	Targets	Remarks
5.	<p><b>Enhanced Aviation Infrastructure</b></p> <p><b>Air Traffic Services</b></p> <p>Sustainable growth of the international aviation system will require the introduction of advanced safety capabilities (e.g. full trajectory-based operations) that increase capacity while maintaining or enhancing operational safety margins. The long-term safety objective is intended to support a collaborative decision making environment characterized by increased automation and the integration of advanced technologies on the ground and in the air, as contained in ICAO’s Aviation System Block Upgrades (ASBUs) strategy.</p> <p><b>Aerodrome Facilities</b></p> <p>Particular attention should be paid to runway safety. Most aerodromes in the region are not certified due to lack of capacity of their respective regulatory authorities. The aerodrome and ground aids (AGA) CMA module has one of highest levels of lack of effective implementation (39%, see Figure 2 above). In 2012, 13% of APAC accidents included threats that were related to the malfunction or unavailability of ground based navigation aids. During the period between 2008 and 2012, 30% of the accidents in APAC were runway excursions.</p> <p><b>Metrics:</b></p> <ul style="list-style-type: none"> <li>Structures in place to collect and share regional ATM data.</li> </ul>	<p><b>Coordination with APANPIRG</b></p> <ul style="list-style-type: none"> <li>Support the implementation of ASBU and ensure their implementation accounts for and properly manages existing and emerging risks (i.e. approaches with vertical guidance (APV) to mitigate CFIT and runway excursion).</li> <li>Jointly develop the proper structures to sustain the collection and sharing of regional ATM data.</li> </ul> <p><b>Promotion of Effective Implementation of AGA</b></p> <ul style="list-style-type: none"> <li>RASG-APAC should promote effective implementation of AGA, with focus on runway safety programmes that support the establishment of Runway Safety Teams (RSTs) and implementation of inter-organizational SMS and Collaborative.</li> <li>Decision Making schemes.</li> </ul>	<ul style="list-style-type: none"> <li>Implement structures between RASG and APANPIRG to facilitate collection and sharing of ATM data by end 2015.</li> <li>[RPD] States to achieve at least 60% EI in AGA of USOAP CMA by 2017.</li> <li>Promote runway safety through workshops and seminars at least yearly.</li> <li>All aerodromes in APAC region that are used for international operations to have RSTs by 2017.</li> </ul>	<ul style="list-style-type: none"> <li>Implementation of ASBU is being closely monitored by APANPIRG. No action by the RASG to date.</li> <li>RASG has developed a proposal for the implementation of GO Teams to assist in the implementation of the Runway Safety Teams. (RASG Decision 4/23 Note; approved the implementation of the Go-Team to help air operators in the implementation of SMS.)</li> </ul>

Regional Priorities	Action	Targets	Remarks
<ul style="list-style-type: none"> <li>• States' ICAO USOAP CMA EI rate for AGA module.</li> <li>• Number of runway safety seminars, workshops or other events at APRAST or RASG-APAC.</li> <li>• Number of aerodromes with RSTs in APAC region that are used for international operations.</li> </ul>			

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