

RASG-APAC REGIONAL AVIATION SAFETY PRIORITIES AND TARGETS

Approved by RASG-APAC/8
Reference: RASG-APAC Decision 8/9

RASG-APAC Regional Aviation Safety Priorities and Targets (Version 2.1)

Considering the continued strong growth in air traffic in the APAC region, it is necessary that the APAC region step up its commitment to improve its safety oversight capability, which relates to the reduction of regional operational risks and improvement in safety oversight capabilities of States. For this purpose, the APAC Regional Priorities and Targets were developed at APRAST/5 (September 2014), taking into account the discussions at APRAST/3 and the then-newly adopted ICAO Global Aviation Safety Plan (GASP), and approved at RASG-APAC/4.

The underlying objective of the APAC Regional Aviation Safety Priorities is rooted in the GASP aspirational goal to achieve zero fatalities in scheduled commercial operations, i.e. no fatalities recorded on scheduled commercial flights in a given year, by 2030. The APAC Regional Aviation Safety Priorities support this aspirational goal and the objectives of the GASP, and primarily stem from the analysis presented in the APAC Annual Safety Report, which identifies safety-related challenges and the prioritisation of areas that require action to enhance safety in the APAC region.

The APAC Regional Aviation Safety Priorities are grouped into five areas:

- a. Reduction in Operational Risks
- b. Improvements in Safety Oversight and Compliance
- c. Consistent and effective Safety Management Systems (SMS) and State Safety Programmes (SSP)
- d. Predictive risk management and advanced regulatory oversight
- e. Enhanced aviation infrastructure

Arising from the Priorities are Actions that serve to fulfil their associated Priorities. Targets that support the Actions are selected to ensure a balanced focus on organisational or systemic improvements and addressing operational safety risks.

The region's progress in attaining the APAC Regional Aviation Safety Targets is continuously monitored at APRAST meetings, and reported at the annual RASG-APAC meeting. The implementation of SEIs is monitored through the implementation of their outputs as updated by States/Administrations on an online monitoring mechanism.

The APAC Regional Aviation Safety Priorities and Targets, and associated timelines, are updated periodically to remain aligned to the ICAO Global Aviation Safety Goals, Targets and Indicators outlined in the revised Global Aviation Safety Plan (GASP). The current Version 2.1 of the APAC Regional Aviation Safety Priorities and Targets incorporates tentative targets of the GASP Edition 2020-2022 and the APAC Ministerial Declaration 2018, otherwise known as the Beijing Declaration.

Regional Aviation Safety Priorities	Action	Regional Aviation Safety Targets
<p>Reduction of operational risks</p> <p>According to the APAC Annual Safety Report 2017, the accident and fatal accident rates attributable to States/Administrations in the APAC region improved from 3 and 0.28 respectively in 2014 to 1.69 and 0.16 respectively in 2016.</p> <p>The report has also identified Loss of Control In-Flight (LOC-I), and Controlled Flight Into Terrain (CFIT) as the main contributing factors to fatal accidents in the APAC region, which is similar to the analysis in the ICAO Global Aviation Safety Plan.</p> <p>Metric:</p> <ul style="list-style-type: none"> Number of fatal accidents irrespective of the volume of air traffic in the APAC region, and number of fatal accidents per million departures. 	<p>Implement priority Safety Enhancement Initiatives (SEIs)</p> <ul style="list-style-type: none"> RASG-APAC should continue its focus on the development of the current SEIs to address the global priority areas of LOC-I, CFIT and Runway Safety and other priority areas as identified for the APAC region, which may include emerging risks such as UAS, aircraft network security, dangerous goods, global flight tracking and space transportation. States/ Administrations should use data driven methodologies to identify high risk categories of occurrences, and implement collaborative solutions to reduce accident rates and fatalities in the region. RASG-APAC should continue to provide implementation support to States and industry, including through the development of better guidance materials as well as the organisation of workshops to provide assistance and guidance to APAC States e.g. on SEI implementation. States/ Administrations and industry should likewise accord priority to the implementation of these SEIs. 	<ul style="list-style-type: none"> All States/Administrations and industry to update the online monitoring mechanism on their status of implementation of all applicable priority SEIs in RASG-APAC work programme by end-2019. [Regional Performance Dashboard] Maintain a decreasing trend of fatal accidents per million departures, with a view to achieve an aspirational target of zero fatalities by 2030.
<p>Improvements to safety oversight /Industry safety audits</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>Resolve Significant Safety Concerns (SSCs)</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"> [RPD] States to progressively enhance safety oversight capability to achieve at least 75% EI in USOAP CMA, and to achieve an APAC average overall USOAP EI score higher or equal to the global average by 2022.

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	<p>Metric:</p> <ul style="list-style-type: none"> • APAC States' ICAO USOAP CMA effective implementation rate. • Number of service providers participating in the corresponding, ICAO-recognized industry assessment programmes. 	<p>Use of the IATA Operational Safety Audit (IOSA) and the IATA Standard Safety Assessment (ISSA)</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>Use of the IATA Safety Audit for Ground Operations (ISAGO) to improve ground safety</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"> • [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. • Endeavour to have no Significant Safety Concerns (SSCs) under the USOAP Continuous Monitoring Approach (CMA), and to resolve any future SSCs within the time frame agreed with ICAO. • By 2020, (1) increase the number of IOSA registered APAC airlines by 50% over end-2016 figures; • By 2020, (3) pursue 50% increase in ISAGO registrations over end-2016 figures.

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<p>Consistent and effective Safety Management Systems (SMS) and State Safety Programmes (SSP)</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. 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>In addition, States should develop national aviation safety plans detailing an operations roadmap to address operational challenges and mitigate operational and organizational safety risks, so as to achieve a continuous reduction of regional operational risks and improvement in safety oversight capabilities of States.</p> <p>Metrics:</p> <ul style="list-style-type: none"> • Number of States having achieved Level 4 progress in SSP Implementation. • Number of States having developed a national aviation safety plan. 	<p>Support robust implementation of SMS and SSP</p> <ul style="list-style-type: none"> • Promote regional government and industry collaboration for sharing of best practices in safety management through RASG-APAC. • States should accord priority to the implementation of SMS and SSP to achieve an acceptable level of safety in aviation operations. • RASG-APAC and APRAST should focus on assisting States in the implementation of SMS and SSP, and in the development of national aviation safety plans. 	<ul style="list-style-type: none"> • [RPD] <u>All</u> States to implement the full ICAO SSP by 2025. • All States to develop national aviation safety plans by 2025.
<p>Data-driven regulatory oversight</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 investigation of accidents and incidents in order to prevent recurrence.</p>	<p>Implementation of APAC AIG recommendations to address Annex 13 requirements</p> <p>States should consider it a priority to implement the APAC AIG’s recommendations.</p>	<ul style="list-style-type: none"> • [RPD] States to achieve at least 75% EI in AIG of USOAP CMA and an APAC average USOAP EI score in AIG higher or equal to the global average by 2022.

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<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) programmes.</p> <p>Metrics:</p> <ul style="list-style-type: none"> States’ ICAO USOAP CMA EI rate for AIG module 	<p>Establish a structure for safety data collection, analysis and sharing</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 a comprehensive approach to risk management.</p> <p>Establish a mechanism for regional data collection and sharing</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> <p>Enhance the protection of aviation data information</p> <p>RASG-APAC should encourage States/ Administrations to adopt safety information protection protocols.</p>	<ul style="list-style-type: none"> To develop regional mechanism for data collection, analysis and sharing by 2020. By 2020, pursue 50% increase in participation in flight data sharing initiatives by APAC air operators, with aircraft of mass 27,000kg above, over end-2016 figures.
<p>Enhanced Aviation Infrastructure</p> <p>Air Traffic Services</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</p>	<p>Coordination with APANPIRG</p> <ul style="list-style-type: none"> 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). 	<ul style="list-style-type: none"> Implement structures between RASG and APANPIRG to facilitate sharing and resolution of ATM-related safety issues by mid-2019.

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<p>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>Aerodrome Facilities</p> <p>Particular attention should be paid to runway safety. Most aerodromes in the region are not equipped with the appropriate infrastructure to support safe operations, and/or are not certified due to lack of capacity of their respective regulatory authorities. The aerodrome and ground aids (AGA) CMA module has one of lowest EI levels (54.7%). In 2016, runway safety was one of the top two accident categories for APAC Region, and runway excursions were amongst the top three accident categories in the region over the last five years (from 2012 to 2016).</p> <p>Metrics:</p> <ul style="list-style-type: none"> • Structures in place to collect and share regional ATM data. • States’ ICAO USOAP CMA EI rate for AGA module. • Number of runway safety seminars, workshops or other events at APRAST or RASG-APAC. • Number of certified aerodromes in APAC region that are used for international operations. 	<ul style="list-style-type: none"> • Jointly develop the proper structures to sustain the collection and sharing of regional ATM data; and the sharing and resolution of safety issues. <p>Promotion of Effective Implementation of AGA</p> <ul style="list-style-type: none"> • 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 Safety Teams (CSTs). • Decision making schemes. • RASG-APAC and APRAST should focus on assisting States in the implementation of air navigation and airport core infrastructure elements. 	<ul style="list-style-type: none"> • [RPD] States to achieve at least 75% EI in AGA of USOAP CMA, and an APAC average USOAP EI score in AGA higher or equal to the global average by 2022. • Promote runway safety through workshops and seminars at least yearly. • Certify all aerodromes in APAC region that are used for international operations by 2020.