



ICAO

**SIXTEENTH MEETING OF THE ASIA PACIFIC REGIONAL
AVIATION SAFETY TEAM (APRAST/16)**

Bangkok, Thailand, 17 to 18 March 2021 on Virtual Platform

APRAST/16–WP/12

Agenda Item 5

Agenda Item 5: Presentations – State / Industry / ICAO

**IMPLEMENTATION OF ASIA-PACIFIC REGIONAL AVIATION
SAFETY PLAN 2020-2022 EDITION (AP-RASP: 20-22 EDITION)**

(Presented by the Secretariat)

SUMMARY

AP-RASP 20-22 was adopted by RASG 10 and was published in ICAO APAC website in February 2020 including Appendix A – Implementation Road Maps. Implementation Road Maps describes two sectors: ORG and OPS Road maps having identified 38 action items and recognized all stakeholders involved and Custodians to lead the stake holder in achieving identified targets in a timely manner.

In order to proceed with the implementation of such a Road map, APRAST needs now to identify some of the Custodians and champions as mentioned in table in Attachment 1 to the Paper.

Action by the meeting is mentioned in Paragraph 3.

1. BACKGROUND

1.1 AP-RASP:20-22 was developed and published in ICAO APAC website February 2020 as the region’s strategy to strengthen the management of aviation safety in the APAC region to continually reduce aviation fatalities and the risk thereof. By means of AP-RASP, all aviation stakeholders of the APAC region including States/ Administrations, industry partners, international organizations and regional groupings, affirm their commitment to aviation safety and to the resourcing of activities and to increasing collaboration at the regional level to enhance safety, and contribute to the continuous improvement of aviation at the global, regional and state levels.

1.2 AP-RASP 20-22 is available on ICAO APAC website on the hyperlink;

<https://www.icao.int/APAC/RASG/Pages/default.aspx>

1.3 Key objective of this Working Paper presented to APRAST 16 is to trigger actions to begin implementation of the AP-RASP Road Maps; Appendix A (Attachment 1 to WP 12) and to seek support from all the Custodians mentioned thereof:

- a. ICAO APAC Secretariat;
- b. APRAST;
- c. SEI WG;
- d. SRP WG;

- e. APAC-AIG;
- f. APPNIRG; and
- g. IATA.

(Note: Please refer Attachment 1 to this working Paper: – AP-RASP;20-22 Appendix A: Road Maps)

2. DISCUSSION

2.1 The AP-RASP document is organized into two Parts:

The first Part on Planning includes the purpose of the AP-RASP, the region’s strategic approach to managing safety at the regional level, the regional operational safety risks identified up to 2018, and other regional safety issues and activities addressed in the AP-RASP.

2.1.1 Top operational safety risks were identified from the AP-RASPAT and APAC Annual Safety Report (ASR) 2019 are: runway safety (incursions and excursions), hard landings and tail strikes on landing, and loss of control in-flight.

Weakest areas in terms of ICAO Universal Safety Oversight Audit Programme (USOAP) Effective Implementation (EI) score were critical elements CE-8: Resolution of safety issues, CE-4: Technical personnel qualifications, and CE-7: Surveillance Obligations; and technical areas AIG, AGA and ANS.

2.1.2 Top regional organizational/ systemic challenges and issues were identified from meeting reports of ICAO APAC platforms:

- a) Ensuring States’ safety oversight and management capabilities and aviation (physical and institutional) infrastructure keep pace with the fast-growing air traffic volume in APAC region and associated airspace congestion risks;
- b) Increasing changes and complexity of our aviation system and significant diversity of APAC States’ operational, geographical and terrain contexts, regulatory systems and industry; and
- c) Increased need for capability and capacity building especially among civil aviation authorities (CAAs) in the region.

2.2. The **APAC region’s strategic approach** is to address varying standards and aviation environments in a timelier manner, as applicable. This comprises two Pillars:

2.2.1. First Pillar: Enhance the existing regional platforms/ mechanisms and establish effective safety oversight and management capabilities. This involves integrating and refining existing Regional Aviation Safety Group (RASG-APAC)/ Asia-Pacific Regional Aviation Safety Team (APRAST) building blocks and enhancing their links, coordination and communication with other regional mechanisms especially COSCAPs, and their respective RASTs, Regional Safety Oversight Organisations (RSOOs) such as the Pacific Aviation Safety Office (PASO) and the Asia/Pacific Air Navigation Planning and Implementation Regional Work Group (APANPIRG and its Subgroups), which should be leveraged to drive AP-RASP implementation at sub-regional level. Making training expertise and resources across Cooperative Development of Operational Safety and Continuing Airworthiness Programme (COSCAPs)/RSOOs more readily available to States/ Administrations will also facilitate their establishment of effective safety oversight capabilities;

2.2.2. Second Pillar: Address operational safety risks effectively and establish effective safety risk management. These SEIs are to be implemented by APAC States/ Administrations and their industry in a more targeted and customized manner.

2.2.3 *The Five Priority Areas* to focus the work of APAC Region to address the top regional organizational/systemic risks and operation safety risks were adopted from the AP-RASPAT. These are:

- a) Reduction in Operational Risks;
- b) Improvements in Safety Oversight and Compliance;
- c) Consistent and effective safety management system (SMS) and State Safety Programme (SSP);
- d) Data-driven regulatory oversight; and
- e) Enhanced aviation infrastructure.

2.3.1 **38 Actions** are proposed to address APAC top regional risks and key safety challenges.

20 Organizational (ORG) Actions help implement AP-RASP and are aligned with and fulfil Safety Enhancement Initiatives (SEIs) and Actions in the GASP, AP-RASPAT and Beijing Declaration, as well as related key work items arising from Conference of Directors General of Civil Aviation, Asia and Pacific Regions (DGCA-APAC) and RASG-APAC/APRAST meetings.

18 Operational (OPS) Actions are the outputs of the existing 17 RASG-APAC/ APRAST SEIs and APAC Standardized Capacity Building Programme (SCBP), which address the High Risk Categories of occurrences (HRCs) of controlled flight into terrain (CFIT), loss of control – inflight (LOC-I), runway safety (RS) including runway excursion (RE) and runway incursion (RI), and the USOAP fourth Critical Element (CE-4): Qualified technical personnel.

Stakeholders for implementation of AP-RASP are listed accordingly for each AP-RASP Action, and are expected to coordinate amongst themselves to implement the Actions. Custodian(s) may be appointed from among relevant stakeholders of each Action to lead its implementation. Where appropriate, regional platforms and mechanisms are to incorporate the relevant Actions in their respective annual workplans, as applicable, if not already existing.

The second Part on Implementation provides a description of how the implementation of initiatives listed in the AP-RASP will be monitored.

2.3.2. **19 Targets**, categorized and mapped accordingly to the ORG and OPS Roadmaps, are introduced to track implementation of AP-RASP Actions and safety improvement outcomes. These were carefully selected to ensure a balanced focus on organizational or systemic improvements and addressing operational safety risks, and to ensure alignment with Targets in the various key global and regional documents.

The Region's overall progress in implementing and monitoring the effectiveness of the Actions and achieving the APAC Regional Aviation Safety Targets will be monitored and annually reported at RASG-APAC/ APRAST meetings, subject to the timely availability of the relevant data.

Key stakeholders, and their respective roles and responsibilities for the administration and implementation of AP-RASP, are identified.

2.4 **Entities responsible for governance, development, implementation and monitoring of AP-RASP**

2.4.1 To ensure successful implementation of the AP-RASP 2020-2020 Edition following its approval at RASG-APAC/9 in November 2019, practical and detailed arrangements are required to ensure tight coordination among the various identified stakeholders.

2.4.1.2 RASG-APAC is responsible for the overall development, implementation and monitoring of the AP-RASP, together with APAC States/ Administrations, Industry Partners, International Organizations, regional groupings including the three APAC COSCAPs and PASO, the ICAO APAC Regional Office, and APANPIRG. The AP-RASP is to be supported by NASPs developed by States in the APAC region as well as work plans of other stakeholders, such as regional and non-governmental organizations. The Custodians are the lead entities for the general aspects concerning the implementation of the AP-RASP and its Actions, and are responsible for the roles and responsibilities as summarized in below table:

Custodians	Roles and Responsibilities
ICAO APAC Regional Office (Administrator of AP-RASP)	<ul style="list-style-type: none"> • Oversee implementation of AP-RASP Actions and achievement of Targets • Include AP-RASP Actions in yearly Work plans of APRAST and other regional platforms and mechanisms, including APAC COSCAPs • Advise on available Mechanisms/ Tools to facilitate implementation of Actions
APRAST Co-Chairs	<ul style="list-style-type: none"> • Oversee that top APAC safety risks and challenges are addressed (especially emerging issues with high and widespread impact), and ensure achievement of objectives and Targets • Report progress status of AP-RASP implementation and achievement of Targets to RASG-APAC • Present proposed revisions to the AP-RASP, following endorsement by APRAST, to RASG-APAC for approval
SRP WG	<ul style="list-style-type: none"> • Develop second-order indicators, as appropriate, to measure and track progress of the achievement of Targets • Prepare AP-RASP progress reports customised for every RASG-APAC and APRAST meeting
SEI WG	<ul style="list-style-type: none"> • Develop clear guidelines for States/ Administrations to indicate their implementation status for each OPS Action • Develop indicators to track and analyse the relevance and effectiveness of ORG and OPS Actions, in close coordination with the SRP WG • Work with Custodians to track and analyse the progress of implementation of all AP-RASP Actions
COSCAPs and PASO	<ul style="list-style-type: none"> • Support their respective States/ Administrations and industry stakeholders with implementation of the AP-RASP and its Actions
AP-RASP Ad-hoc WG	<ul style="list-style-type: none"> • Formed to review and develop the AP-RASP for the next triennium • Present the updated AP-RASP to APRAST for endorsement
Action Custodians	<ul style="list-style-type: none"> • Appointed by APRAST to lead the group of stakeholders identified in the AP-RASP to further develop specific details and timeline for implementation of their respective Actions • Provide updates to SEI and SRP WGs and ICAO-APAC Office on the progress status of their Actions

Custodians responsible for the administration of AP-RASP, and their roles

2.4.2 Action Custodians are to be appointed by APRAST for each ORG Action from among the group of stakeholders identified in the AP-RASP for that Action, while the rest of the group of stakeholders will support and contribute to the implementation work as assigned by the Custodian. ICAO APAC Regional Office will disseminate the ORG Actions, as appropriate, to relevant APAC

regional platforms and mechanisms to follow up to include in their Workplans, and request the Custodians and their respective identified Stakeholder groups to further develop specific details and a timeline for implementation of their ORG Actions.

2.4.3 For OPS Actions which have already been developed, SEI WG is the overall Custodian. To develop new SEIs and/ or OPS Actions in future, Action Custodians may be assigned by APRAST.

2.5 **Implementation of AP-RASP 20-22 Road Map Appendix A;** (Attachment 1 to this discussion Paper) AP-RASP 20-22 RM clearly identifies and indicates the above action items explained in details together with custodians and time lines.

2.5.1 Considering the fact that both SEI and SRP WGs have been already working on the implementation of the Road Maps, hopefully other custodians mentioned such as APRAST, APANPIRG, APAC-AIG and IATA may wish take similar initiatives for the implementation, Monitoring and Reporting as described in the document.

3. ACTION BY THE MEETING

3.1 Meeting is invited to:

- a) Consider AP-RASP:20-22 Appendix A- Road Maps (Attachment 1 to WP/12), has been formally adopted by the APRAST for the Implementation,
- b) Consider to take action to bring in amendments, if necessary, to RASG-APAC Procedural Handbook TORs of APRAST, SEI, SRP and relevant subgroups in order to undertake Action Items as custodians according to AP-RASP Appendix A Road Maps (Attachment 1),
- c) Consider to review the Triennium actions of AP-RASP 2020-2022 and include them in the RASG-APAC Annual Work Programme as additional tasks revising the timelines on said Road maps (Attachment 1),
- d) Consider Establishment of an additional Task Force/Subgroup through identification of Champion States/Organizations and determine the custodians on behalf of APRAST for the actions described in the Road Maps (Attachment 2 to this paper).

(Ref: APPENDIX A of AP-RASP 2020-2022 EDITION ROADMAPS)

Ops Roadmap

Regional HRC 1: LOC-I							
Regional Goal I: Reduction in Operational Risks							
Targets							
T1*: Maintain a decreasing trend of fatal accidents per million departures [from 2018 to 2021]							
T2*: Maintain a decreasing trend of LOC-I-related accidents per million departures [from 2018 to 2021]							
GASP SEI	Action	Action Custodian	Timeline	Stakeholders	Metrics	Source/ Fulfills	Monitoring Activity
Ops1 (CFIT); Ops2 (LOC-I)	A.I.1* LOC 1, CFIT 2: Model Advisory Circular — Air Operators Standard Operating Procedures for Flight Deck Crewmembers	SEI WG	2022	APRAST, SEI WG, SRP WG, COSCAPs, ICAO-APAC, other regional platforms/ bodies, States/ Administrations., Industry/ Associations, International Organizations, APANPIRG	Implementation levels A-D	GASP	RASG-APAC/ APRAST Online SEI monitoring tool
Ops2 (LOC-I)	A.I.2* LOC 2, LOC 4: Guidance Material on Flight Crew Proficiency						
	A.I.3* LOC 5: Advisory Circular — Mode Awareness and Energy State Management Aspects of Flight Deck Automation						
	A.I.4* LOC 6: Guidance material on Upset Prevention and Recovery Training (UPRT) – ICAO Doc 10011 – ICAO Doc 9868 – Airplane UPRT Aid						

Table 1: Ops Actions and Targets associated with Regional HRC 1

Regional HRC 2: RS, including RE and ARC							
Regional Goal I: Reduction in Operational Risks							
Targets							
T1*: Maintain a decreasing trend of fatal accidents per million departures [from 2018 to 2021]							
T3*: Maintain a decreasing trend of RS-related accidents per million departures [from 2018 to 2021]							
GASP SEI	Action	Action Custodian	Timeline	Stakeholders	Metrics	Source/ Fulfills	Monitoring Activity
Ops4 (RE); Ops5 (RI)	A.I.5* RS 1: Runway Safety Maturity Checklist	SEI WG	2022	APRAST, SEI WG, SRP WG, COSCAPs, ICAO-APAC, other regional platforms/ bodies, States/ Administrations., Industry/ Associations, International Organisations, APANPIRG	Implementation levels A-D	GASP	RASG-APAC/ APRAST Online SEI monitoring tool
Ops4 (RE)	A.I.6* Runway Excursion (RE) 2: Guidance material on Unstabilised Approach						
	A.I.7* RE 7: Guidance material and training program for runway pavement, maintenance and operations from aerodrome operator’s perspective						
Ops5(RI)	A.I.8* RI 2: Model Advisory Circular — Runway Incursion (RI) Prevention and Pilot Training						

Table 2: Ops Actions and Targets associated with Regional HRC 2

Regional HRC 3: CFIT							
Regional Goal I: Reduction in Operational Risks							
Targets							
T1*: Maintain a decreasing trend of fatal accidents per million departures [from 2018 to 2021]							
GASP SEI	Action	Action Custodian	Timeline	Stakeholders	Metrics	Source/ Fulfils	Monitoring Activity
Ops1 (CFIT)	A.I.9* CFIT 1: Model Regulation on Ground Proximity Warning System (GPWS)	SEI WG	2022	APRAST, SEI WG, SRP WG, COSCAPs, ICAO-APAC, other regional platforms/ bodies, States/ Administrations., Industry/ Associations, International Organisations, APANPIRG	Implementation levels A-D	GASP	RASG-APAC/ APRAST Online SEI monitoring tool
	A.I.10* CFIT 1: Advisory Circular — Guidance for Operators to Ensure Effectiveness of GPWS Equipment						
	A.I.11* CFIT 1: Advisory Circular — Guidance for Operators on Training Programme on the use of GPWS						
	A.I.12* CFIT 3: Model Advisory Circular — Instrument Approach Procedures Using Continuous Descent Final Approach Techniques						
	A.I.13* CFIT 4: Guidance on the Establishment of a Flight Data Analysis Programme (FDAP)						
	A.I.14* CFIT 5: Advisory Circular — Crew Resource Management Training Programme (CRM)						
	A.I.15* CFIT 6: Advisory Circular — Controlled Flight into Terrain (CFIT) and Approach and Landing Accident Reduction (ALAR) Training Programme						

	A.I.16* CFIT 7: Guidance for Air Operators in Establishing a Flight Safety Documents System						
	A.I.17* CFIT 8: Model Advisory Circular — Issuance of Terrain or Obstacle Alert Warning						
Ops1 (CFIT); Ops2 (LOC-I)	A.I.1* [duplicate] LOC 1, CFIT 2: Model Advisory Circular — Air Operators Standard Operating Procedures for Flight Deck Crewmembers						

Table 3: Ops Actions and Targets associated with Regional HRC 3

Org Roadmap

Issue 1: Slow pace of implementation of RASG-APAC/ APRAST SEIs and tools to mitigate operational risks							
Regional Goal I: Reduction in Operational Risks							
Targets							
T4*: States/ Administrations and industry to update the online SEI monitoring tools on their status of implementation of all applicable priority RASG-APAC/ APRAST SEIs (Ops Actions) [by 2020]							
T5: States/ Administrations with effective safety oversight capabilities (i.e. which have, or are expected to meet, GASP Goal 2 and have attained Level 4 SSP implementation), should actively lead RASG-APAC’s safety risk management activities [from 2020 to 2022]							
T6*: States/ Administrations should contribute information on safety risks, including SSP safety performance indicators (SPIs), to RASG-APAC [by 2022]							
GASP SEI	Action	Action Custodian	Timeline	Stakeholders	Metrics	Source/ Fulfils	Monitoring Activity
2.1.1 SEI-3; 2.1.2 SEI-7; 3.1 SEI-2C; 3.1 SEI-3 (A,B)	A.I.18* Review, implement (and update the status of) priority RASG-APAC/ APRAST SEIs aka AP-RASP Ops Actions	SEI WG	2022	APRAST, SEI WG, States/ Administrations, COSCAPs, Industry	No. of States/ Administrations which have updated their implementation status on RASG-APAC/ APRAST Online SEI monitoring tool	GASP, AP-RASPAT	RASG-APAC/ APRAST Online SEI monitoring tool
2.1.1 SEI-3; 2.1.2 SEI-7	A.I.19 Enhance the current methodology for the tracking of RASG-APAC/ APRAST SEI implementation, and introduce indicators and targets to measure the implementation and effectiveness thereof; disseminate the results to Directors General			APRAST, SEI WG, SRP WG	Completion of review and enhancement of tracking methodology; Introduction of indicators and targets to measure effectiveness of implementation	GASP	Progress report to APRAST and RASG-APAC meetings
2.1.1 SEI-3; 2.1.2 SEI-7; 3.1 SEI-3 (A,B)	A.I.20 Develop an inspector competency building framework, and any new RASG-APAC/ APRAST SEIs for urgent risks	To be determined by APRAST		APRAST, SEI WG, SRP WG, States/ Administrations	Completion of framework; New SEIs introduced to address urgent risks	GASP, DGCA-APAC/55	
2.2 SEI-16	A.I.21 Develop a more precision/ targeted approach of prioritisation of existing RASG-APAC/	SEI WG		APRAST, SEI WG, COSCAPs, States/ Administrations, Industry	Completion of prioritisation approach	GASP, APRAST /13	

	APRAST SEIs for implementation (by sub-region or common- issue/risk States/ Administrations)						
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Table 4: Org Actions and Targets associated with Regional Issue 1

<p>Issue 2: Lower EI scores for all categories as compared to global average, namely</p> <ul style="list-style-type: none"> · CE-8 on Resolution of safety concerns (CE-8), · CE-4 on Technical personnel qualifications and training, · CE-7: Surveillance Obligations · Aircraft and incident investigation (AIG), · Aerodrome and ground aids (AGA), and · Air navigation services (ANS) 							
<p>Regional Goal II: Improvements to safety oversight and compliance</p> <p>Targets</p> <p>T7: Conduct workshops and seminars relating to ANS, AIG, AGA at least yearly [from 2020 to 2022]</p> <p>T8*: Endeavour to have no Significant Safety Concerns (SSCs) under the USOAP Continuous Monitoring Approach (CMA), and to resolve any SSCs promptly within the time frame specified in the Corrective Action Plan and agreed to by ICAO [from 2020 to 2022]</p> <p>T9*: Increase the number of IOSA registered APAC airlines and ISAGO registrations by 50% over July 2016 figures (82 and 51 respectively) [by 2022]</p> <p>T10*: 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]</p> <p>T11*: States should reach a safety oversight index greater than 1 in all categories [by 2022]</p>							
GASP SEI	Action	Action Custodian	Timeline	Stakeholders	Metrics	Source/ Fulfils	Monitoring Activity
2.1.1 SEI-1; 2.1.2 SEI-6	A.II.1 Conduct workshops and courses to promote effective implementation of SARPs, especially in the technical areas of ANS, AIG, AGA	To be determined by APRAST	2020-2022	APRAST, COSCAPs, PASO, ICAO-APAC, States/ Administrations	No. of workshops conducted on areas of ANS, AIG, AGA	GASP	Progress report to APRAST and RASG-APAC meetings
2.1.1 SEI-5; 2.1.1 SEI-9	A.II.2* Establish, enhance and populate COSCAP and RSOO technical experts databases	APAC COSCAPs		COSCAPs, PASO, States/ Administrations	No. of qualified technical experts populated in database	GASP, APAC COSCAPs	
3.1 SEI-7 (C,D,E,F)	A.II.3* Encourage IATA, IOSA and ISAGO registrations	IATA		APRAST, Industry, States/ Administrations	No. of IOSA and ISAGO registrations	GASP, AP-RASPAT	
NA	A.II.4* GEN: Standardized Capacity Building Programme	SEI WG	2022	APRAST, SEI WG, SRP WG, COSCAPs, ICAO-APAC, other regional platforms/ bodies, States/ Administrations, Training Organisations	Implementation levels A-D	Beijing Declaration	RASG-APAC/ APRAST Online SEI monitoring tool

Table 5: Org Actions and Targets associated with Regional Issue 2

Issue 3: Slow pace of SSP implementation, as well as understanding of newer safety management and performance-based concepts								
Regional Goal III: Effective SMS and SSP								
Targets								
T12*: States should attain L3 SSP implementation [by 2022]								
T13*: States should develop national aviation safety plans [by 2022]								
GASP SEI	Action	Action Custodian	Timeline	Stakeholders	Metrics	Source/ Fulfils	Monitoring Activity	
2.2 SEI-10; 2.2 SEI-11; 2.2 SEI-12; 3.1 SEI-7 (C,D,E,F)	A.III.1* Support the robust implementation and continuous improvement of SMS and SSP	To be determined by APRAST	2020-2022	DGCA-APAC, RASG-APAC, APRAST, SEI WG, SRP WG, APAC-AIG, COSCAPs, PASO, ICAO-APAC, other regional platforms/ bodies, States/ Administrations, Industry	No. of SSP-related courses/ workshops conducted for region (not including domestic); No. of States participated in workshop	GASP, AP-RASPAT	Progress report to APRAST and RASG-APAC meetings	
2.2 SEI-11; 3.1 SEI-1 (C,D); 3.1 SEI-7 (C,D,E,F)	A.III.2 Improve the sharing of best practices in safety management, safety data and analyses among regional platforms including APANPIRG Sub-groups via RASG-APAC	ICAO APAC RO		RASG-APAC, APRAST, APAC-AIG, COSCAPs, ICAO-APAC, other regional platforms/ bodies, APANPIRG	No. of SSP-related sharing sessions/ presentations; No. of SSP areas covered; No. of States which presented			GASP, AP-RASPAT, Beijing Declaration
2.2 SEI-11	A.III.3* Support the development of NASPs			ICAO HQ, ICAO-APAC, APRAST, States/ Administrations	No. of States who have published their NASP			

Table 6: Org Actions and Targets associated with Regional Issue 3

Issue 4: Lack of resources and expertise to manage and collect data on a State level, and no formal mechanisms in place that allow for the sharing and benchmarking of information at the regional level

Regional Goal IV: Data-driven regulatory oversight

Targets

T14 Develop a regional mechanism for data collection, analysis and sharing [by 2020]

T15* Pursue a 50% increase in participation in flight data sharing initiatives by APAC air operators, with aircraft of mass 27,000kg above, over July 2016 figures (15) [by 2020]

GASP SEI	Action	Action Custodian	Timeline	Stakeholders	Metrics	Source/ Fulfills	Monitoring Activity
2.1.1 SEI-5; 2.1.2 SEI-9	A.IV.1* Establish a mechanism to collect and analyse SSP SPI data from APAC States and common industry indicators	To be determined by APRAST	2022	APRAST, SRP WG, COSCAPs, ICAO-APAC, States/ Administrations, Industry	Completion of mechanism	GASP	Progress report to APRAST and RASG-APAC meetings
2.2 SEI-13; 3.1 SEI-4C; 3.1 SEI-7 (C,D,E,F)	A.IV.2 Establish and populate a Regional Risk Register	SEI WG	2021	APRAST, SRP WG, COSCAPs, States/ Administrations, Industry	Completion and population of risk register	GASP, APRAST	
2.2 SEI-14	A.IV.3 Develop guidance on governance framework for cross-border aviation safety data sharing projects (including G2B/ third party involvement, funding, liability, info security/ protection)	To be determined by APRAST		APRAST, COSCAPs, States/ Administrations	Completion of governance framework	GASP	
2.2 SEI-14; 2.2 SEI-15	A.IV.4* Establish a mechanism for regional aviation safety data collection and sharing and support States'/ Administrations' participation in regional aviation safety data-sharing projects			APRAST, States/ Administrations, Industry	Launch of mechanism	GASP, AP-RASPAT	
2.2 SEI-16; 3.1 SEI-4C; 3.1 SEI-7 (C,D,E,F)	A.IV.5 Develop a more data-driven, precision-/ targeted approach of identifying risks (by sub-region or common-issue/risk groups of States/ Administrations)	SRP WG	2022	APRAST, SEI WG, SRP WG, COSCAPs, States/ Administrations, Industry	Completion of approach	GASP, Beijing Declaration	

Table 7: Org Actions and Targets associated with Regional Issue 4

Issue 5: Increasing risks associated with airspace congestion, and the lack of appropriate infrastructure to support safe operations; lack of capacity of regulatory authorities							
Regional Goal V: Enhanced aviation infrastructure (physical and institutional)							
Targets							
T16* States should 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]							
T17* States should 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]							
T18* Certify all aerodromes the APAC region that are used for international operations [by 2022]							
T19* States should establish an independent accident and incident investigation authority (AIIA) as required by Annex 13, as well as related investigation system and procedures [by 2022]							
GASP SEI	Action	Action Custodian	Timeline	Stakeholders	Metrics	Source/ Fulfils	Monitoring Activity
2.1.1 SEI-4; 2.1.2 SEI-8	A.V.1 Integrate the existing basic building blocks of RASG-APAC/ APRAST towards the envisioned safety data collection and processing system (SDCPS) for the APAC region	APRAST	2020-2022	APRAST, SEI WG, SRP WG, APAC-AIG, COSCAPs, ICAO-APAC	Completion of documented clear lines and procedures for communication of respective types of data/ information between APRAST and other regional groups	GASP	Progress report to APRAST and RASG-APAC meetings
2.1.1 SEI-4; 2.1.2 SEI-8	A.V.2 Enhance the terms of reference (TORs) of various regional bodies using a TOR framework	ICAO APAC RO	2020	APRAST, SEI WG, SRP WG, APAC-AIG, COSCAPs, ICAO-APAC	Completion of review and revision of TORs	GASP, Regional Cooperation Mechanism Task Force	
2.1.1 SEI-4; 2.1.2 SEI-8	A.V.3 Improve the communication of activities and coordination of schedules among regional bodies and meetings, regional workshops/ courses, e.g. via a one-stop calendar of regional events			DGCA-APAC, RASG-APAC, APRAST, SEI WG, SRP WG, APAC-AIG, COSCAPs, ICAO-APAC, other regional platforms/ bodies, States/ Administrations, Industry	Completion of documented clear lines and procedures for communication of respective events; completion of regional one-stop calendar	GASP	
2.1.1 SEI-5; 2.1.2 SEI-9	A.V.4* Establish a means for States/ Administrations to informally share information and coordinate on	To be determined by APRAST		APRAST, COSCAPs, ICAO-APAC, States/ Administrations	Completion of information sharing channels/ platform; completion of	GASP	

	operational issues in the USOAP Audit Areas of OPS, ANS and AGA				directory of appropriate CAA contact points for various areas and associated procedures to update the directory		
2.2 SEI-10; 3.1 SEI-7 (C,D,E,F)	A.V.5 Enhance the websites of various regional platforms, consolidate information on activities, and enhance related links among platforms	ICAO APAC RO	2021	ICAO-APAC, COSCAPs, other regional platforms/ bodies	Completion of review and revision to websites and information platforms	GASP	
3.1.1 SEI-7 (F)	A.V.6* Implement safety-related initiatives from the APAC Seamless ANS Plan ³ in a timely manner, as applicable	APANPIRG	2020-2022	APANPIRG, ICAO-APAC, States/ Administrations	No of States which have implemented safety-related initiatives under APAC Seamless ANS Plan	AP-RASPAT, APAC Seamless ANS Plan	APANPIRG and SubGroups meeting reports
2.1.1 SEI-2	A.V.7* Establish an independent accident and incident investigation authority (AAIIA) as required by Annex 13, as well as related investigation system and procedures	APAC-AIG	2022	APAC-AIG, States/ Administrations	No. of States which have established their AAIIA	GASP, Beijing Declaration	Progress report to APRAST and RASG-APAC meetings

Table 8: Org Actions and Targets associated with Regional Issue 5

³ The safety-related initiatives under the APAC Seamless ANS Plan (version 2.6, August 2019) are as follows:

- a) Implementation of runway safety teams (ICAO Manual on the Prevention of Runway Incursions (Doc 9870) and RST Handbook refers);
- b) Implementation of advanced surface traffic management visual aids, pilot comprehensive awareness and runway alerting and enhanced ATC alerting systems such as A-SMGCS, routing service to support ATC and enhanced vision systems (EVS) for taxiing and runway safety alerting logic consistent with SURF-B1/1 – 5 (second column: Asia/Pacific Seamless ANS Plan refers);
- c) Implementation of ground-based safety nets, including STCA, MTCD, APW, APM and MSAW consistent with ASBU elements FRTO-B0/4 and SNET-B0/1 – 4 (second column: Asia/Pacific Seamless ANS Plan refers);
- d) Implementation of regulations supporting the integration of UAS operations in non-segregated airspace, using a risk-based approach and in accordance with the Asia/Pacific Regional Guidance for the Regulation of UAS, as a minimum (second column: Asia/Pacific Seamless ANS Plan refers); and e)

Implementation of enhanced and effective safety reporting (second column: RASMAG Reports refer).

Excerpts from Road Maps

Action Custodian identified as “APRAST” or “to be determined by APRAST” Identification of a Champion State or Organization or Partner

GASP SEI	Action	Action Custodian	Timeline	Stakeholders	Metrics	Source/ Fulfils	Monitoring Activity	Champion
2.1.1 SEI-3; 2.1.2 SEI-7; 3.1 SEI-3 (A,B)	A.I.20 Develop an inspector competency building framework, and any new RASG-APAC/ APRAST SEIs for urgent risks	To be determined by APRAST	2022	APRAST, SEI WG, SRP WG, States/ Administrations	Completion of framework; New SEIs introduced to address urgent	GASP, DGCA-APAC/55		?
2.1.1 SEI-1; 2.1.2 SEI-6	A.II.1 Conduct workshops and courses to promote effective implementation of SARPs, especially in the technical areas of ANS, AIG, AGA	To be determined by APRAST	2020-2022	APRAST, COSCAPs, PASO, ICAO-APAC, States/ Administrations	No. of workshops conducted on areas of ANS, AIG, AGA	GASP	Progress report to APRAST and RASG-APAC	?
2.2 SEI-10; 2.2 SEI-11; 2.2 SEI-12; 3.1 SEI-7 (C,D,E, F)	A.III.1* Support the robust implementation and continuous improvement of SMS and SSP	To be determined by APRAST	2020-2022	DGCA-APAC, RASG-APAC, APRAST, SEI WG, SRP WG, APAC-AIG, COSCAPs, PASO, ICAO-APAC, other regional platforms/ bodies, States/ Administrations, Industry	No. of SSP-related courses/ workshops conducted for region (not including domestic); No. of States participated in workshop	GASP, AP-RASPAT	Progress report to APRAST and RASG-APAC meetings	?
2.1.1 SEI-5; 2.1.2 SEI-9	A.IV.1* Establish a mechanism to collect and analyse SSP SPI data from APAC States and common industry indicators	To be determined by APRAST	2022	APRAST, SRP WG, COSCAPs, ICAO-APAC, States/ Administrations, Industry	Completion of mechanism	GASP	Progress report to APRAST and RASG-APAC meetings	?

GASP SEI	Action	Action Custodian	Timeline	Stakeholders	Metrics	Source/ Fulfills	Monitoring Activity	Champion
2.2 SEI-14	A.IV.3 Develop guidance on governance framework for cross-border aviation safety data sharing projects (including G2B/ third party involvement, funding, liability, info security/ protection)	To be determined by APRAST	2022	APRAST, COSCAPs, States/ Administrations	Completion of governance framework	GASP	Progress report to APRAST and RASG-APAC meetings	?
2.2 SEI-14; 2.2 SEI-15	A.IV.4* Establish a mechanism for regional aviation safety data collection and sharing and support States'/ Administrations' participation in regional aviation safety data-sharing projects			APRAST, States/ Administrations, Industry	Launch of mechanism	GASP, AP-RASPAT	Progress report to APRAST and RASG-APAC meetings	?
2.1.1 SEI-4; 2.1.2 SEI-8	A.V.1 Integrate the existing basic building blocks of RASG-APAC/ APRAST towards the envisioned safety data collection and processing system (SDCPS) for the APAC region	APRAST	2020-2022	APRAST, SEI WG, SRP WG, APAC-AIG, COSCAPs, ICAO-APAC	Completion of documented clear lines and procedures for communication of respective types of data/	GASP	Progress report to APRAST and RASG-APAC meetings	?
2.1.1 SEI-5; 2.1.2 SEI-9	A.V.4* Establish a means for States/ Administrations to informally share information and coordinate on	To be determined by APRAST	2022	APRAST, COSCAPs, ICAO-APAC, States/ Administrations	Completion of information sharing channels/ platform; completion of	GASP		?