

17th STEERING COMMITTEE MEETING
Discussion Paper 3
Regional Aviation Safety Teams
Reports and Proposed Actions
(Presented by Wayne Chapin)

SUMMARY

The purpose of this paper is to formally present to the Steering Committee the conclusions and proposed actions from the 20th and 21st NARAST meetings. The conclusions and proposed actions arising from these meetings are attached to this paper: 20th Meeting of the NARAST (Attachment I) 21th Meeting of the NARAST (Attachment II); RASG 2016-2017 Work Programme (Attachment III) and APAC Regional Aviation Safety Priorities and Targets (Attachment IV).

1 Background

- 1.1 The objective of the NARAST is to recommend accident prevention interventions to the Steering Committee. The recommendations, once approved by the Steering Committee, may be implemented through the coordinated efforts of the regulatory authorities, in consonance with service providers, airlines and aircraft manufacturers. When such actions are endorsed by the Steering Committee, the Team Members will serve as focal points for introducing the interventions within their respective Administrations and for coordinating their government's efforts with industry.
- 1.2 To accomplish the objectives, the team will continue to undertake its deliberations in full consideration of the work of the RASG / APRAST. The priority for the Team will be to introduce, support, and develop actions which have the potential to effectively reduce regional aviation risks to enhance aviation safety.
- 1.3 A list of all NARAST OPEN Items for ALL Member States can be downloaded from the COCSAP-NA website at <http://www.coscap-na.com>.
- 1.4 The RASG produces a **RASG APAC 2016-2017 WORK PROGRAMME** which is located at Attachment III.
- 1.5 The **APAC Regional Aviation Safety Priorities and Targets** can be found at Attachment IV.

2 Discussion

- 2.1 The Proposed Actions arising from the **20th and 21st NARAST meetings** (Attachment I and II) are provided for the consideration and decision of the Steering Committee.
- 2.2 The CTA with the assistance of the ROK Intern will continue to work on the redesign of the current NARAST database format with a view to adding safety enhancement initiatives generated by RASG/APRAST and the APAC Regional Aviation Safety Priorities (Attachment IV) and improving the readability of the information provided in the database to make it more user friendly.
- 2.3 The CTA will also monitor the status of the implementation of ICAO Regional Aviation Safety Priorities as part of normal mission activities and provide assistance as requested.

3 Action of the Meeting

- 3.1 The Meeting is invited to review the conclusions and proposed actions from the 20th and 21st NARAST meetings and accord its approval as appropriate.
- 3.2 The Meeting is invited to also review the RASG Work Programmes (Attachment III) and the APAC Regional Aviation Safety Priorities (Attachment IV) and comment as applicable.
- 3.3 As approved by the Steering Committee, the CTA is to update the Implementation Status Report and provide it to Member Administrations for their review and further input.
- 3.4 As approved by the Steering Committee, the CTA will support Member Administrations in the implementation of the safety enhancement actions.

**Record of Conclusions and Actions of the
20th Meeting of the North Asia Regional Aviation Safety Team
Beijing, China
21 September 2016**

1. Present

The 20th Meeting of North Asia Regional Aviation Safety Team (NARAST) was attended by representatives from China, the Democratic People's Republic of Korea and a representative from the AAPA. Mongolia and The Republic of Korea sent their regrets at being unable to attend the meeting. The CTA was supported by Ms. Sun Qun Programme Secretary, Hanmi CHO ROK Intern and Captain CHEN Bin Flight Operations Intern with COSCAP-NA. There were a total of 12 participants (see Attachment III for list of participants).

2. Venue

The Meeting was held 21 September in the ICAO Regional Sub-Office in Beijing, China.

3. Proceedings of the Meeting

The CTA COSCAP-NA facilitated the meeting, and it progressed in accordance with the Programme a copy of which is placed at Attachment I.

4. Review of the NARAST Terms of Reference

4.1 The CTA explained the purpose of the proposed changes to the NARAST Terms of Reference (Attachment II) to participants and sought comments. With no comments from participants it was agreed that the CTA would present the proposed changes to the 17th COSCAP-NA Steering Committee meeting for approval.

Action: The CTA was requested to present the proposed changes to the NARAST Terms of Reference to the 17th Steering Committee meeting for approval.

5. Review of 19th NARAST Decision Record

5.1 Attendees accepted the 19th NARAST Decision Record without comment.

Action: N/R

6. Review of 8th APRAST Meeting Final Report

6.1 Attendees reviewed the 8th APRAST Final Report focusing on the Regional Aviation Safety Priorities and Targets (Attachment IV). It was noted that the CTA will monitor implementation status when on mission and that the Regional Office Implementation Monitoring web tool will be useful once fully operational. States requiring any assistance with the implementation of Priorities and Targets should contact the CTA.

Action: The CTA was requested to continue to monitor implementation.

7. Review of NARAST Implementation Status of OPEN Items



7.1 The CTA led a review of the NARAST implementation status of priority items recorded as OPEN as of September 1, 2016.

7.2 The following actions arose from the review of the NARAST records:

COSCAP-NA

S/N 15.0203 Runway Incursion – Air Traffic Control Training – SE 46, 47

Update: Remains OPEN for all.

Action: The CTA is to contact Mr. Chris Collins (FAA) for follow up and resolution.

China (CAAC)

S/N 15.0302 Runway Incursion – Air Traffic Control Training – SE 46, 47

Update: Remains OPEN

Action: N/R

S/N 22.0301 Midair – ACAS Policies and Procedures – SE 165

Update: CAAC has implemented a study involving some China air carriers for the purposes of researching ACAS/TCAS RAs and TAs. Preliminary data was shared with participants of the 20th NARAST. Additional data analysis will be completed and the CAAC will report back to the NARAST.

Action: CAAC to report back to the NARAST when study is complete

S/N 24.0101 Cargo – Cargo Loading Training and SOPs – SE 121

Update: Awaiting data from Boeing.

Action: CTA will send FAA AC 120-85A and UK Ramp/ Aircraft Loading Operations Checklist to Members for comments and consideration for distribution to Members.

S/N 41.0101 ICAO Global Aviation Safety Plan – NARAST to identify GASP/Roadmap objectives/best practices that are applicable to NARAST safety enhancement.

Update: Members recommended that this item be closed for all and when the new GASP/Roadmap is approved by the Assembly to open up another item for All.

Action: CTA to circulate new GASP/Roadmap to Members when available and to open a new item for All in the NARAST database. This item to be assessed as completed for All.

S/N 76.0501 Runway Safety Action Teams (RST) – Member Administrations who have yet to do so to review the ICAO Guidance material and establish a Runway Safety Programme with priority on International Airports.

Update: The CAAC informed Members that there are currently 215 RST in China. Reference: CAAC AC 91-FS-2014-23. The CAAC requested that this item be assessed as completed for China.

Action: The CTA is to send the link to the ICAO RST webpage where the CAAC can complete the RST survey.

S/N 77.0501 Enhanced Surface Marking and Lighting – SE 178 Member Administrations to encourage participation at the Global Runway Safety Symposium.

Update: The CAAC will participate actively in such an event. Members agreed that this item should be assessed as completed for all since Runway Safety Symposiums will now be a regional event.

Action: This item is to be assessed as completed.

DPRK (GACA)

S/N 760501 Runway Safety Action Teams – Member Administrations who have yet to do so to review the ICAO Guidance material and establish a Runway Safety Programme with priority on International Airports – SE-176

Update: A RST is being established at Kalna International Airport.

Action: Ongoing.

S/N 41.0101 ICAO Global Aviation Safety Plan – NARAST to identify GASP/Roadmap objectives/best practices that are applicable to NARAST safety enhancement.

Update: Members recommended that this item be closed for all and when the new GASP/Roadmap is approved **by the Assembly to open up another item for All.**

Action: CTA to circulate new GASP/Roadmap to Members when available and to open a new item for All in the NARAST database. This item to be assessed as completed for All.

8. Review of RASG – Regional Aviation Safety Priorities and Targets

8.1 The CTA facilitated a review of the Regional Aviation Safety Priorities and Targets with a view to ensuring everyone understood the importance of implementing the applicable safety initiatives within the established timeframe. Members were also informed of the Regional Implementation Monitoring tool currently under development which will be posted for updating on the ICAO Regional Secure website. The CTA indicated that Members needing any assistance should contact the COSCAP-NA Office.

9. Sub-Regional Aviation Safety Issues for APRAST 9

9.1 Members reviewed the draft APRAST Working Paper regarding the need to identify an issue with the coordination of the reporting of safety hazards to outside organizations. Under Safety Management Systems (SMS) service providers are to establish and maintain a confidential reporting system whereby individuals can report safety hazards. In some instances the reporting of a safety hazard involves a hazard created by an outside aviation organization. It can be difficult in some cases to establish communication channels in order to submit a report to the organization's safety reporting system. The identified safety hazard may remain in place if a reporting channel is not established and action taken by the organization that "owns" the hazard.

9.2 Members did not see a need to submit the draft paper for the consideration of the APRAST9 meeting.

10. Other Business

10.1 The CTA reiterated that NARAST will continue as a paperless meeting.

10.2 The CAAC requested the CTA to organize a Fatigue Risk Management System (FRMS) for air traffic controllers in Beijing, China.

Action: The CTA will work with CAMIC and other appropriate parties to plan and organize a workshop on FRMS for air traffic controllers.

10.3 There being no further business the meeting was concluded at 1600.

11. Date and Venue of the 21st NARAST Meeting

11.1 A meeting date and venue for the 21st NARAST will be set after the APRAST 9 meeting.

20th Meeting of the North Asia Regional Aviation Safety Team (NARAST) 21 September 2016 ICAO Regional Sub-Office Beijing, China TENTATIVE PROGRAMME	
September 21, 2016	
0900-0910	1. Welcome and self-introduction
0910-1000	2. Review of NARAST Terms of Reference with a view to revising the document to reflect the new meeting format.
1000-1015	Tea Break
1015-1200	3. Review of Conclusions/Actions of 19th NARAST Meeting 4. Review of 8th APRAST Final Report
1200-1315	Lunch
1315-1430	5. Review of the Implementation Status Report OPEN List items
1430-1500	6. COSCAP-NA Sub-Regional Aviation Safety Issues for APRAST9 Working Paper on the Coordination of Safety Reporting in North Asia
1500-1515	Tea Break
1515-1600	7. Any other business 8. Next meeting date/place 9. Review of Conclusions of the 20 th NARAST 10. Close of the Meeting



**Record of Conclusions and Actions of the
21st Meeting of the North Asia Regional Aviation Safety Team (NARAST)**

**Beijing, China
4 April 2017**

1. Present

The 21st Meeting of North Asia Regional Aviation Safety Team (NARAST) was attended by representatives from China, Airbus and EASA. The Democratic People's Republic of Korea, Mongolia, and the Republic of Korea (ROK) sent their regrets at being unable to attend the 21st NARAST meeting. ROK did submit by e-mail a status update that is reflected in the meeting record.

The CTA was supported by Ms. Sun Qun Programme Secretary, Captain CHEN Bin Flight Operations Intern with COSCAP-NA and Amy Goo ROK COSCAP-NA Intern. There were a total of 8 participants (see Attachment II for list of participants).

2. Venue

The Meeting was held in the morning of 4 April 2017 in Beijing, China in advance of the 10th Asia Pacific Regional Aviation Safety Team (APRAST).

3. Proceedings of the Meeting

The CTA COSCAP-NA facilitated the meeting, and it progressed in accordance with the Programme a copy of which is placed at *Attachment I*.

4. Review of the 20th NARAST Meeting Decision Record

4.1 No changes were requested. (*Attachment II*)

5. Review of 9th APRAST Decision Record

5.1 Discussion was deferred to Item 7.

6. Review of NARAST Implementation Status

6.1 The CTA led a review of the NARAST implementation status of priority items recorded as OPEN as of April 1, 2017.

6.2 The following actions arose from the review of the NARAST records:

China (CAAC)

S/N 76.0501 - Runway Safety Action Teams

Update: AP-140-CA-2011-3 *Surface Management of Vehicles* has been published and is monitored for implementation by Regional Offices. AC-93-TM-2009-05 *Runway Incursion Prevention* issued to ATC Units.



Update: CAAC confirmed that there are 80 International airports with established Runway Safety Teams in China.

Action: CAAC requested that this item be assessed as completed.

ROK (KOCA)

S/N 41.0102 - ICAO Global Aviation Safety Plan

NARAST to identify GASP/Roadmap objectives/best practices that are applicable to NARAST safety enhancement.

Update: ROK is in favor of reviewing whether the items in the GASP/R are appropriate for the North Asia region.

Action: The CTA is to obtain and circulate a copy of the GASP/R to Members. The GASP Roadmap will be discussed in detail at the next NARAST meeting to identify opportunities for implementation in the COSCAP-NA.

S/N 15.0203 - Runway Incursion - Air Traffic Control Training

Update: The CTA is to obtain additional details of the Nat Pro programme with the assistance of Mr. Chris Collins from the FAA and report to the Steering Committee Meeting as part of the Safety Team update.

Action: The CTA confirmed with Mr. Chris Collins FAA Representative Beijing that the air traffic controller Nat Pro programme is now a commercial product. As such it is not feasible for the COSCAP-NA to purchase individual members. In addition, the Nat Pro training has been augmented by other more advanced safety tools. It is recommended that this item be marked completed for ALL. If Members wish to learn of other runway incursion training tools for air traffic controllers they should contact the CTA.

7. Review of the Regional Aviation Safety Priorities and Targets

7.1 The CTA led a brief discussion on the Regional Aviation Safety Priorities and Targets explaining that while COSCAP-NA can assist in implementation in some areas, other areas are the responsibility of external agencies. It is important that Members identify those areas in the Safety Priorities and Targets document where they need assistance and notify the CTA. The CTA is to monitor progress of implementation of priorities and targets.

8. COSCAP Sub Region Safety Issues to be submitted to APRAST10

8.1 No issues were raised by participants for submission to the APRAST10.

9. Other Business

9.1 Captain Jiang Rui delivered a very informative presentation on the collection and analysis of data related to TCAS events (RA and TA) collected through the CAAC FOQA Station project. While the information contained in the study is localized (specific airport) the presentation demonstrated the critical value of collection, analysis and the sharing of "big data" in identifying opportunities to better understand aviation safety issues.

9.2 There being no further business the meeting was concluded at 1030.

10. Date and Venue of the 22nd NARAST Meeting

10.1 A meeting date for the 22nd NARAST will be set based on the tentative date of the 11th APRAST meeting date to be held at the ICAO Regional Sub-Office.



21st Meeting of the North Asia Regional Aviation Safety Team (NARAST) 4 April 2017 ICAO Regional Sub-Office Beijing, China Programme	
0900-0910	1. Welcome and self-introduction
0910-1000	2. Review of agenda 3. Review of Conclusions/Actions of 20th NARAST Meeting 4. Review of 9th APRAST Final Report
1000-1015	Tea Break
1015-1200	5. Review of the Implementation Status Report OPEN List items
1200-1315	Lunch
1315-1500	6. Review of the Implementation Status Report OPEN List items 7. Review of Regional Priorities and Targets
1500-1515	Tea Break
1515-1600	8. COSCAP-NA Sub-Regional Aviation Safety Issues for APRAST10 9. Any other business 10. Next meeting date/place 11. Review of Conclusions of the 21 st NARAST 12. Close of the Meeting
End of Meeting	

PROPOSED RASG-APAC 2016/2017 YEARLY AND STANDING WORK PROGRAMME

Note: Proposed new items are in shaded rows

RASG-APAC YEARLY WORK PROGRAMME (2016-2017)					
S/N	Decision RASG-APAC	APRAST Ref	Subject Ref (if any)	Champion	Brief Description
1	4/10	Conclusion APRAST 5/13 Decisions APRAST 7/35, 8/12	LOC 6	COSCAP-NA	Upset Prevention Recovery Training (UPRT)
2	2/2	Conclusion APRAST 2/51 Decision APRAST 8/10	LOC 2	AAPA	Hazard Identification and Risk Management. The implementation of safety management practices (hazard identification and risk management) into operational processes & decision making. (Paragraph 3.2 of LOC working group report refers.)
3	2/2	Conclusion APRAST 2/53 Decision APRAST 8/11	LOC 4	DCA Malaysia	LOC 4 -- Flight Crew Proficiency. The appropriate use of trend information from Safety Management Systems (SMS) in the training and qualification processes to mitigate risk that could lead to a LOC event. (LOSA, non-punitive reporting systems, FDA, etc). (Paragraph 3.4 of LOC working group report refers.)
4	5/7	Decision APRAST 7/29 Conclusion APRAST 8/10	RI 2	Bangladesh	Runway Incursion Standard Operating Procedures (SOP) and Pilot Training Reduce the risk of Runway Incursions (RI) by incorporating RI training into pilot qualification and training programmes and by developing SOP on RI.

S/N	Decision RASG-APAC	APRAST Ref	Subject Ref (if any)	Champion	Brief Description
5	4/23	<p>Conclusions APRAST 5/17, 7/6</p> <p>Decisions APRAST 6/23, 7/24, 8/19</p>	-	<p>Australia, Macao China, Papua New Guinea, AAPA, Biman Bangladesh</p>	<p>Implementation of Go-Teams Implementation of Go-Teams particularly in the area of establishment of runway safety teams and implementation of SMS in air operators. APRAST will work out the modalities of the Go-Team implementation.</p>
6		<p>Decisions APRAST 7/12</p> <p>Conclusions APRAST 7/4, 8/8</p>	-	APRAST Co-Chairs	<p>Action plan for Capacity Building Develop an action plan for capacity building to strengthen responses to the ICAO USOAP Critical Element 4 "Technical personnel qualification and training", in relation to the APAC Regional Priority on "Improvements to safety oversight and compliance"</p>
7	4/4, 4/23	<p>Decisions APRAST 5/9, 6/28 and 7/23</p> <p>Conclusion APRAST 5/4</p>	-	APRAST Co-Chairs	<p>Coordination with APANPIRG and its sub-groups</p> <p>Pursue the development of the coordination mechanism between APANPIRG and RASG-APAC at the next APANPIRG – RASG-APAC coordination meeting in 2015. The coordination mechanism should address issues such as:</p> <ul style="list-style-type: none"> a. the attendance of RASG-APAC /APRAST representatives at relevant APANPIRG bodies and vice versa; b. the development of an analysis body (similar to the RMA/EMA models that report to RASMAG for vertical and horizontal safety analysis) that manages ATS safety concerns/occurrences for onward reporting to APRAST/RASG-APAC; and c. the review and endorsement of subsequent versions of the APAC Seamless ATM Plan by APANPIRG and RASG-APAC.

S/N	Decision RASG-APAC	APRAST Ref	Subject Ref (if any)	Champion	Brief Description
8	2/3, 4/23	Conclusions APRAST 2/2 and 5/2	-	Secretariat	Nomination of a point of contact (PoC) for RASG-APAC/APRAST activities
9		Decisions APRAST 7/9, 8/5, 8/6, 8/20 Conclusion APRAST 8/2	-	Secretariat	Online survey tool for responses to the monitoring of State implementation of safety tools Explore an online survey tool to allow States/Administrations to complete and submit information on the level of implementation of safety tools developed by APRAST/RASG more efficiently. The monitored information enables RASG-APAC to know the usefulness of its endorsed safety tools and the compliance of States/ Administrations to ICAO SARPs.
10		Decisions APRAST 7/3, 8/24	-	Secretariat	Dedicated web portal for RASG-APAC/APRAST Develop a two-tier online access to RASG-APAC website to allow for: a. A documents management system for public view; and b. A protected workspace to allow APRAST members to collaborate and exchange working information. This item aims to enhance access and visibility of RASG-APAC/ APRAST work and for more efficient collaboration among its members.
11	-	Decisions APRAST 5/10, 8/6, 8/17 Conclusion APRAST 8/1	-	Secretariat	RASG-APAC Procedural Handbook Develop a Procedural Handbook for RASG-APAC, which will among other things, document the APANPIRG – RASG-APAC coordination mechanisms and framework.

S/N	Decision RASG-APAC	APRAST Ref	Subject Ref (if any)	Champion	Brief Description
12		Decision APRAST 8/8	-	APAC-AIG	Initiatives to improve accident investigation capabilities Identify potential initiatives to help improve accident investigation capabilities and USOAP AIG EI rates of States/ Administrations
13		Decisions APRAST 7/31, 8/13	RE 1	FSF and IFALPA	Causal factors with pilot decision to not go-around Promote pilot adherence to SOPs for approaches including go-around decision making
14		Decision APRAST 8/21 Conclusions APRAST 8/11, 8/12	-	AP-SRP WG	Production of APAC Annual Safety Report Produce the 2016 APAC Annual Safety Report by the APRAST/9 meeting; and Produce the 2017 APAC Annual Safety Report for submission to RASG-APAC/7 for approval.
15		Decision APRAST 8/18	-	SEI WG	Work Processes on the creation of SEIs Review work processes for the creation of SEIs, to take into account the need to address both operational and organizational risks in the region

RASG APAC STANDING WORK PROGRAMME

S/N	Decision RASG-APAC	APRAST Ref	Subject Ref	Champion	Brief Description
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Nil

ASIA AND PACIFIC REGIONAL AVIATION SAFETY PRIORITIES AND TARGETS

Regional Aviation Safety Priorities		Action	Regional Aviation Safety Targets
1.	<p>Reduction of operational risks</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><i>Metric:</i></p> <ul style="list-style-type: none"> Number of fatal accidents irrespective of the volume of air traffic in the APAC region. 	<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 priority areas of LOC-I, CFIT and Runway Safety. RASG-APAC should continue to provide implementation support to States and industry. States and industry should likewise accord priority to the implementation of these SEIs. 	<ul style="list-style-type: none"> RASG-APAC to complete the development of currently identified priority SEIs by end 2016. States and industry to complete the implementation of all priority SEIs in RASG-APAC work programme by 2018. [RPD] Reduction in the number of fatal accidents in 2018 compared to 2014 irrespective of the volume of air traffic in the APAC region.
2.	<p>Improvements to safety oversight and compliance</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"> APAC States' ICAO USOAP CMA effective implementation rate. 	<p>Enhance safety oversight systems through capacity building</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>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</p>	<ul style="list-style-type: none"> Task force (to be formed by APRAST) to develop an action plan on capacity building by June 2016. [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.

	Regional Aviation Safety Priorities	Action	Regional Aviation Safety Targets
		<p>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> <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 achieve at least 60% EI in USOAP CMA by 2017. • Maintain at least 60% of applicable APAC airlines to be IOSA certified by the end of 2017. • Achieve at least 15% of applicable APAC airlines to be ISSA certified by the end of 2017. • Pursue at least a 50% increase in ISAGO registrations by end of 2017.

	Regional Aviation Safety Priorities	Action	Regional Aviation Safety Targets
3.	<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. 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><i>Metrics:</i></p> <ul style="list-style-type: none"> Number of organizations that have implemented SMS as a percentage of the number of organizations required to implement SMS. 	<p>Support robust implementation of SMS and SSP</p> <ul style="list-style-type: none"> RASG–APAC should facilitate the sharing of best practices amongst States in the region on SMS and SSP. States should accord priority to the implementation of SMS and SSP to achieve an acceptable level of safety in aviation operations. APAC COSCAPs should focus on assisting States in the implementation of SMS and SSP. 	<ul style="list-style-type: none"> [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. [RPD] States to implement the full ICAO SSP by 2022
4.	<p>Predictive risk management and advanced 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>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</p>	<p>Implementation of AIG AWG recommendations to address Annex 13 requirements</p> <p>States should consider it a priority to implement the APAC AIG’s recommendations.</p> <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</p>	<ul style="list-style-type: none"> [RPD] States to achieve at least 60% EI in AIG of USOAP CMA by 2017. To develop regional mechanism for data collection, analysis and sharing by 2017.

Regional Aviation Safety Priorities	Action	Regional Aviation Safety Targets
<p>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>Metrics:</p> <ul style="list-style-type: none"> States’ ICAO USOAP CMA EI rate for AIG module 	<p>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>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>Enhanced 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"> 50% of APAC air operators with aircraft of mass 27,000kg and above participating in flight data sharing initiative by 2016. APAC States to provide assurance that predictive risk management is fully effective by 2027.
<p>5. 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 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>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). Jointly develop the proper structures to sustain the collection and sharing of regional ATM data. 	<ul style="list-style-type: none"> Implement structures between RASG and APANPIRG to facilitate collection and sharing of ATM data by mid-2017.

Regional Aviation Safety Priorities	Action	Regional Aviation Safety Targets
<p>Aerodrome Facilities</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><i>Metrics:</i></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 aerodromes with RSTs in APAC region that are used for international operations. 	<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. • Decision Making schemes. 	<ul style="list-style-type: none"> • [RPD] States to achieve at least 60% EI in AGA of USOAP CMA by 2017. • Promote runway safety through workshops and seminars at least yearly. • All aerodromes in APAC region that are used for international operations to have RSTs by 2017.