



**Cooperative Development of Operational Safety and  
Continuing Airworthiness Programme  
International Civil Aviation Organization**



**20<sup>th</sup> STEERING COMMITTEE MEETING  
05-08 APRIL 2011, COLOMBO, SRI LANKA**

**Executive Summary**

Attachment -4 to Discussion Paper (DP-20SCM-03) presents the record of discussion of the Fourth Asia Regional Aviation Safety Team (ARAST) meeting held from 21 to 24 February 2011 at the ICAO Asia Pacific Regional Office, Bangkok, Thailand.

**Record of Discussions**  
**4<sup>th</sup> Asian Regional Aviation Safety Team**  
**(ARAST)**



**Records of Discussions of the  
4<sup>th</sup> Meeting of the Asian Regional Aviation Safety Team (ARAST)  
Bangkok, Thailand  
21 to 24 February 2011**

## **1. Introduction**

The 4<sup>th</sup> Meeting of the Asia Regional Aviation Safety Team (ARAST) was conducted at the ICAO Regional Office in Bangkok Thailand during the period of 21 to 24 February 2011. The objective of the ARAST is to recommend safety enhancements to the COSCAP Steering Committees and implement the ICAO Global Aviation Safety Plan (GASP). The GASP endorses the concept of concentrating the safety-related activities of ICAO on those safety initiatives which offer the best safety dividends in terms of reducing the accident rate. Additionally, the GASP encourages States to foster regional and sub-regional safety groups for the purpose of furthering the global safety effort.

## **2. Opening Remarks**

*Mr. Mohktar Awan, ICAO Regional Director*, welcomed attendees and opened the meeting by providing remarks, recognizing the accomplishments of the ARAST and looking forward to the transition to the Regional Aviation Safety Group (See Annex I). With the concurrence of the CTA COSCAP-SA and CTA COSCAP-NA, the CTA COSCAP-SEA kindly facilitated the meeting which progressed in accordance with the Agenda with slight adjustments to the order. A copy of the Agenda (Programme) is attached at Annex II.

## **3. Present**

The 4<sup>th</sup> ARAST was attended by representatives from the Civil Aviation Authorities and service providers of the Member Administrations of COSCAP-NA, COSCAP-SEA and COSCAP-SA, International / Regional Experts attached to the Programmes including Programme Coordinators, representatives from AAPA, Airbus, Boeing, DGAC France, EASA, FAA, IATA, ICAO and COSCAP Gulf States. There were a total of 117 participants registered for the meeting. The list of participants is attached at Annex III.

## **4. Presentations**

A number of presentations were made by various organizations as outlined below, for which ARAST expressed its gratitude and thanked all the presenters.

Records below are identified by agenda number (see Annex II).

**Agenda Item 3. IATA Runway Excursion Workshop**

The 3<sup>rd</sup> ARAST identified runway safety as an area for support to members, and identified the following action:

*O09.02: COSCAPs are to seek Excursion prevention material from the Flight Safety Foundation*

*O09.03: COSCAPs are to seek Excursion prevention workshop from Flight Safety Foundation*

In response to these actions, IATA kindly offered to present its *Runway Excursion Workshop*.

The workshop was presented by Capt. Anthony Houston and Mr. Geof Sartorii over the full day of February 21<sup>st</sup> using an informative combination of lecture, group exercises and plenary discussion. Runway excursion accidents currently account for approximately 30% of all accidents, resulting in a high number of fatalities. The workshop served to identify that all stakeholders – flight crews, air operators, aerodromes and air traffic control – must contribute to reduce the risk of a runway excursion accident.

The workshop was well received by participants, who expressed their appreciation to IATA. A CD with workshop material was provided for the use of participants.

**Agenda Item 6. ARAST – Background and Terms of Reference**

*CTA COSCAP-NA (Capt. Kim Trethewey)* presented an overview of the current terms of reference for the three Asian COSCAPs. The terms of reference for each of the three safety teams were revised by their respective Steering Committees during 2008 / 2009 to more closely link the work of the safety teams to the metrics and best practices of the Global Aviation Safety Plan/Roadmap (GASP/R). The Safety Plan and Roadmap identify best practices and metrics to track performance and prioritize actions.

While the COSCAP programmes of Asia Pacific Region originally convened separate ARAST meetings, as the ARASTs matured and to better share best practices, the three COSCAP ARASTs were combined in the November 2008 meeting to form an Asia Regional Aviation Safety Team (ARAST). In addition, through invitation from the ICAO Regional Office, all States of the Asia Pacific Region are invited to participate.

To ensure that any sub-regional safety issues can be adequately addressed, the combined ARAST was followed on Friday 25 February 2011 by separate meetings of the original COSCAP safety teams (South Asia Regional Aviation Safety Team – SARAST; South East Asia Regional Aviation Safety Team – SEARAST; North Asia Regional Aviation Safety Team – NARAST).

**Agenda Item 7. Development of Regional Aviation Safety Groups**

*CTA COSCAP-NA* provided a briefing on the ICAO decision to create in each ICAO Region a *Regional Aviation Safety Group* (RASG). While the exact form of the RASG might vary from region to region, in the ICAO Asia-Pacific Region the creation of the RASG is viewed as a transition from the existing ARAST, conducted under the leadership of the three Asian COSCAP Steering Committees, to the RASG which will be comprised of the Directors General of Civil Aviation for the Asia-Pacific Region plus safety partner organizations.



It is anticipated that the 1<sup>st</sup> meeting of the RASG (coincident with the 48<sup>th</sup> DGCA Asia-Pacific Conference in October 2011) will establish terms of reference that include the formation of the Asia-Pacific Regional Aviation Safety Team (APRAST). The APRAST, like the current ARAST, would be comprised of technical experts from Asia-Pacific civil aviation administrations, service providers and international safety partners.

The role of the APRAST will be to identify proposed safety enhancements for the approval of the RASG. Once approved by the RASG, Asia-Pacific Administrations will undertake appropriate implementation action in concert with their respective COSCAP and safety partners. COSCAP Steering Committees would consider the decisions of the RASG as they establish priorities for their respective COSCAP work programme.

Discussion of the RASG emphasized member desires to maintain the benefits and participation of the ARAST, to avoid duplication, and to retain the support of COSCAPs for those Administrations currently a member of a COSCAP.

#### **Agenda Item 8. Commercial Aviation Safety Team (CAST) - Update**

*Capt. Glenn Michael, Manager, International Operations FAA*, presented an overview of the Commercial Aviation Safety Team (CAST). The ARAST is closely linked to the CAST so as to benefit from a broad base of experts from government agencies, airlines, manufacturers, aviation associations, labour unions, and other safety-related organizations. Coordination with the CAST safety efforts has reduced duplication and improved alignment within the region.

After completing a rigorous analysis of accidents worldwide, CAST identified and categorized factors contributing to the cause of these accidents, assigned priorities for the purpose of pursuing remedial actions and developed and prioritized specific Safety Enhancements (SE) and implementation plans. Once these SEs are implemented the risk of an accident or serious incident is greatly reduced.

CAST remains active in prioritizing contributing factors related to accidents to identify the most effective means of reducing risk. Now through the use of the Aviation Safety Information and Sharing System (ASIAS), future risk areas can be identified and mitigation strategies developed. Accident rate reduction is a combination of how effective the intervention (safety enhancement) is and how the intervention is applied across the fleet. Forty-five CAST Safety Enhancements have been accepted under the ARAST and are being implemented which, when completed, will provide for a 60% reduction in safety risk.

The following safety enhancements developed by the CAST are new to COSCAP Asia and will be reviewed as further information becomes available from the CAST:

*SE 120 TAWS Improved Functionality*

*SE 184 TAWS Minimum Vectoring Altitude Re-evaluation*

*SE 185 TAWS RNAV Visual or other procedures*

*SE 186 TCAS Sensitivity Command*

*SE 187 TCAS Alerting Parameters*

*SE 188 Airspace design to reduce TCAS alerts*

*SE 191 Next generation TCAS development*

#### **Agenda Item 9. Regional Safety Data / USOAP Data Analysis**

*CTA COSCAP-SEA (Capt. Len Cormier)* reviewed the Global Aviation Safety Plan (GASP) safety targets to be achieved by 2011:

*Target 1: Reduce the number of fatal accidents and related fatalities worldwide*

*Target 2: Achieve significant reductions in the global accident rate*

*Target 3: Ensure that no ICAO region has an accident rate more than double the world average*

The performance against those targets is:

*Target 1: Progress in reduction of fatal accidents and associated fatalities over the past 10 year period*

*Target 2: While the fatal accident rate has decreased, the overall accident rate remains unchanged*

*Target 3: Significant variances remain in regional accident rates. The APAC accident rate is near the global average, but trending upward*

The presentation further illustrated, based on the ICAO Comprehensive Systems Audit findings, that there is a direct relationship between the accident rate and a lack of effective implementation of the Critical Elements (CEs) of a State's oversight system. That is, those regions with a poorer the rate of implementation of the CEs have a higher accident rate.

Members discussed the importance of collecting and sharing safety data, and the challenges faced in accomplishing this.

#### ***Proposed Actions:***

*A11.01 COSCAPs to explore with Asia States, FAA, EASA and other organizations, methods and policies related to data collection, analysis and sharing of data.*

*A11.02 COSCAPs to convene a workshop or seminar, concerning methods and policies related to data collection, analysis and sharing of data, possibly concurrent with the next ARAST (APRAST) Meeting.*

#### **Agenda Item 10. State Safety Programme (SSP) / Global Aviation Safety Plan (GASP)**

CTA COSCAP-NA presented on the relationship of the Global Aviation Safety Plan (GASP), including a proposed revision of the GASP, and the Global Aviation Safety Roadmap (GASR), and reviewed their importance to the work of the ARAST. The GASR prepared by the Industry Safety Strategy Group (ISSG) in close cooperation with ICAO is the basis from which the GASP was developed. GASR was developed to build on data-driven



regional initiatives such as the United States Commercial Aviation Safety Team (CAST) and Europe's ESSI (European Safety Strategy Initiative), highlighting key areas that governments and industry must act on.

He also reviewed the conclusion of the 3<sup>rd</sup> ARAST and provided a review of the matrix relating the GASP and GASR to the SSP Framework.

*A10.03 COSCAP to support SSP implementation as a means to implement the GASP / R.*

Members discussed the importance of training for States to support SSP implementation, and expressed concern that the current availability of ICAO SSP instructors in the region is inadequate to meet overall regional needs.<sup>1</sup> *Pakistan* emphasized that it is ready to assign personnel to become ICAO qualified SSP Instructors.

***Proposed Actions:***

*A11.03 COSCAP to communicate to ICAO headquarters the need to support training of SSP Instructors from the Asia Pacific Region*

*A11.04 Singapore Aviation Academy kindly offered to support the training of some SSP instructors*

**Agenda Item 11.1 ARAST Accident Investigation (ARAST-AIG) Sub-team**

*CTA COSCAP-SEA* reviewed the decisions of the 1<sup>st</sup> ARAST Accident and Incident Investigation Sub-team (ARAST-AIG) meeting that was held 23 and 24 November 2009. Although it has not yet been possible to hold the 2<sup>nd</sup> ARAST-AIG, members were informed that planning is underway for 2011 at a date and location to be determined.

***Proposed Action:***

*A11.05 COSCAP requested to determine the level of Accident Investigation training required by a State that has entered into an agreement to have its Annex 13 obligations met by another State.*

***Response kindly obtained from ICAO by CAAS:***

If, by formal and mutual agreement with another State or regional organization, a State has delegated the conduct of all accident and serious incident investigations which fall under its investigation responsibilities, the State would still need to train the relevant technical staff for the first actions following the occurrence. This includes the collection and preservation of evidence. In addition, the State must ensure that the staff in charge of sending and receiving/acting on initial notifications of accidents and incidents have received the proper training.

---

<sup>1</sup> Capt. Fareed Ali Shah, former ICAO Regional Safety Officer (retired); Mr. Nie Junjian, COSCAP-NA Regional Airworthiness Inspector; Kim Trethewey, CTA COSCAP-NA.

**Agenda Item 11.2 Sharing Data to Manage Safety Risk**

*CTA COSCAP-SEA* presented on the importance of sharing data to manage safety risk, providing an overview of the evolution of safety management practices, including State Safety Programmes (SSP) and Safety Management Systems (SMS). In order to achieve effective risk reduction, stakeholders must have effective data collection systems and utilize performance indicators. Sharing data on a national and global basis is important, especially for stakeholders which have limited aviation activity.

He also shared information on current efforts to establish the *Global Safety Information Exchange* (GSIE) as discussed at the ICAO High Level Safety Conference in March 2010. A memorandum of understanding to implement the GSIE was signed by ICAO, the European Community, FAA and IATA during the 37<sup>th</sup> ICAO Assembly.

**Agenda Item 12. AIG Update****Agenda Item 12.1 Amendments to Annex 13 – Singapore**

*Mr. Brian Siow Yao, Aircraft Accident Investigation Board (AAIB) of Singapore*, kindly provided an overview of the recent amendments to ICAO Annex 13 – Aircraft Accident and Incident Investigation.

- Definition of Accident/Serious Incident
- New examples of Serious Incidents
- Voluntary Incident Reporting
- Notification to ICAO and Investigation
- Attachment F Framework of State Safety Programme (SSP)
- Attachment G – Guidance for the Determination of Aircraft Damage

Discussion by members regarding emerging technologies led to a proposed action addressing cockpit image recorders.

***Proposed Action:***

*A11.06 COSCAPs to determine the ICAO position concerning cockpit image recorders and report back to the ARAST/APRAST.*

**Agenda Item 12.2 Planning for Sea Search and Recovery Operations – Singapore**

*Mr. Brian Siow Yao, Aircraft Accident Investigation Board (AAIB) of Singapore* kindly presented its experience in preparing for responding to an accident at sea that would involve sea search and rescue operations. The presentation was thorough, and clearly presented important information for the consideration of a State when making preparations to respond to an aircraft accident at sea. This is of particular importance for a small Accident and Incident Investigation agency.

AAIB Singapore will be hosting an *Accident Investigation Sea Search Workshop* (including a sea search exercise) in Singapore on 21 and 22 July 2011, and will kindly open this to COSCAP members.



***Proposed Action:***

- A11.07 In coordination with AAIB Singapore, COSCAPs to extend an invitation on behalf of AAIB to Member Administrations to attend the AAIB Sea Search for Flight Recorder Workshop. Alternatively the ICAO Regional Office may be invited to extend an invitation on behalf of AAIB.*

**Agenda Item 12.3 Incident Investigation Report – Fuel Contamination, Cathay Pacific Airlines**

**CTA COSCAP-SEA** presented a summary of an Investigation report completed by the Civil Aviation Department of Hong Kong following the landing at Hong Kong of a wide body twin engine jet transport aircraft that had experienced loss of control over both engines while on approach to land. The investigation determined that the source of the problem was a fuel supply system at a foreign airport that had been inadequately cleaned following maintenance. This investigation identified that:

- the Fuel industry has established various specifications and guidelines for fuel supply and quality control at airports;
- Air operators have a quality system but are largely dependent on aviation fuel suppliers; and,
- there is largely self regulation and no international civil aviation requirements for oversight, training, etc.

Although the investigation is ongoing, it has led to the issuance by the CAD Hong Kong of a recommendation to ICAO regarding the need to establish requirements for oversight and quality control on aviation fuel supply at airports.

**Agenda Item 12.4 Accidents and Serious Incidents Database – Republic of Korea**

**Korea Aircraft and Railway Accident and Incident Bureau (KARAIB), Mr. Ok-sig Shin**, presented on the promotion of accident prevention through the collection and analysis of the accident and serious incident data, and on the importance of promoting the exchange of safety information. He shared the experience of the KARAIB to implement the ECCAIRS system, and to consolidate historical paper-based records into the accident investigation database. While this was extremely labour-intensive, having ready access to the data will support future safety actions.

The KARAIB stated that it will be holding an ECCAIRS training programme in May or June 2011, and kindly undertook to explore the possibility of sponsoring a second ECCAIRS training programme to be delivered at the Bangkok Regional office.

***Proposed Action:***

- A11.08 COSCAPs to explore with KARAIB the possibility of providing a second ECCAIRS training programme in the region for APAC administrations.*





**Agenda Item 13. Performance Based Navigation Implementation****Agenda Item 13.1 Implementation of NextGEN — FAA**

*Ms. Jeri Alles, Director, FAA Asia-Pacific Region*, provided a briefing on the FAA's commitment to support aviation safety nationally and internationally, and introduced the FAA's new draft strategic plan *Destination 2025* (replacement for the *FAA Flight Plan*). This was followed by a video *Gate to Gate* demonstrating the implementation of NextGEN.

Members expressed their appreciation to the FAA for its long-standing and continuing commitment to support aviation safety in the region, particularly through the participation of *Capt. Glenn Michael*. A special acknowledgement was provided for the assistance and contributions of *Mr. Kyle Olsen*, FAA (retired) who has been instrumental in supporting ARAST work for the implementation of CAST safety enhancements in the Asia-Pacific region.

**Agenda Item 13.2 ICAO Flight Procedure Programme (FPP)**

*CTA COSCAP-NA* presented, *on behalf of Capt. David Van Ness*, Manager of the ICAO Flight Procedures Programme office, an update on FPP membership and planned training over 2011 and 2012. The FPP is working closely with the COSCAPs to support PBN implementation.

**Agenda Item 13.3 COSCAP Implementation of Performance Based Navigation (PBN)**

*CTA COSCAP-SEA* presented on the actions undertaken by the Asian COSCAPs to support PBN implementation. PBN is a high priority undertaking for ICAO in order to both reduce the risk of a landing accident while conducting a non-precision approach and to improve efficiency. COSCAP support is focussed on the implementation of PBN in the areas of greatest safety need.

With the support of international donors and a contracted expert, the COSCAPs have developed model regulations, a model PBN Operational Approval Handbook and an associated PBN Operational Approval course (8 days). In 2010 COSCAP delivered 7 courses, with another scheduled for the ICAO Regional Office on 15 to 19 August 2011. In addition to training, the COSCAPs in cooperation with the FPP and IATA have conducted PBN Implementation Workshops. The workshops examine the State PBN Implementation plan, assess impediments to PBN Implementation in the State and identify next steps for each stakeholder. To date in 2011 six workshops have been completed and six more are being planned. The participants expressed their appreciation for the generous support of *Boeing* for the training and workshops throughout the region.

*IATA* expressed appreciation for COSCAP and FPP support for PBN implementation to improved safety, and stated that PBN Implementation is in the early stages and there remains considerable work to complete in the Asia Pacific Region. IATA committed its continuing support for PBN implementation.

*Airbus* indicated that it is undertaking major support for PBN implementation and referred to their efforts in India. Airbus expressed its desire for future coordination with COSCAP / FPP.





***Proposed Action:***

*A11.09 States that require support to implement and/or develop their PBN Implementation Plan are to advise COSCAP/FPP.*

**Agenda Item 14. Review of ARAST Action Items**

*CTA COSCAP-SEA* completed a review of outstanding actions following the 3<sup>rd</sup> ARAST. See Annex IV for a summary of actions and their status at the end of the 4<sup>th</sup> ARAST. Updates including a specific presentation or new proposed action are provided in the following paragraphs.

**Agenda Item 14.1 CAST SE-18, Evaluation and Surveillance of Sub-Contractor maintenance providers*****Previous Action***

*M09.02: COSCAPs to provide a draft Advisory Circular for consideration by Member Administrations/States*

***Update:***

*Mr. Nie Junjian, Regional Airworthiness Inspector, COSCAP-NA*, presented a draft Advisory Circular 021 — *Maintenance Contracting* for the consideration of members

***Proposed Action***

*A11.10 Comments are to be provided to Mr. Nie<sup>1</sup> by 31 May 2011 after which Advisory Circular 021 — Maintenance Contracting will be finalized.*

**Agenda Item 14.2 CAST SE-169R1, Policy & Procedures related to Work Cards and Shift Changes*****Previous Action***

*M09.05: COSCAP to develop a draft Advisory Circular for consideration by Member Administrations/States to heighten the awareness and risk*

***Update:***

*Mr. Nie Junjian, Regional Airworthiness Inspector, COSCAP-NA*, presented a draft Advisory Circular 022 — *Guidance for Task and Shift Handovers* for the consideration of members.

***Proposed Action***

*A11.11 Comments are to be provided to Mr. Nie by 31 May 2011 after which the Advisory Circular 022 — Guidance for Task and Shift Handovers will be finalized.*

---

<sup>1</sup> Nie Junjian [nie.junjian@coscap-icao.org](mailto:nie.junjian@coscap-icao.org)



**Agenda Item 14.3 BP 2a-3 – State applies the principles of risk management to its safety related activities.**

***Previous Action***

- A10.13 COSCAP to explore the possibility of conducting a training audit exercise on an Air Operator SMS and to provide de-identified feedback to the next ARAST meeting.*

***Update:***

CTA COSCAP-NA, briefed the meeting on the results of a trial assessment of an air operator safety management system (SMS) conducted with the cooperation of a volunteer CAA and a volunteer air operator and the kind support of SMS experts from the Airbus, AAPA, Boeing, IATA, SR Technics, CAA China, CAA Singapore, Korean Air Lines and the State of the Operator.

The trial assessment protocol will be revised and used in a second trial and thereafter made available to Members as guidance for the refinement of their own safety oversight programmes intended to assess the effectiveness of SMS.

Further, discussion of member needs regarding the acceptance of SMS led to a conclusion that further guidance is desirable.

***Proposed Actions***

- A11.12 COSCAP to finalize the SMS assessment guidelines and forward to member Administrations/States for their consideration:*
- A11.13 COSCAP to develop guidance for the acceptance of service provider's SMS.*

***Previous Action***

- A10.19 States to conduct a preliminary gap analysis and provide data to their respective COSCAP CTA to establish regional SSP implementation base-line. Data provided by States to be kept confidential by COSCAP*

***Update***

At Agenda Item 15 CTA COSCAP-NA briefed the meeting on the summary of the SSP Gap Analysis submitted by Member States.

**Agenda Item 14.4 CAST SE-176 – Runway Safety Action Teams**

**CAST SE-182 Air Traffic Control Clearance Procedure Review**

***Previous Action***

- A10.24 COSCAP to examine ICAO requirements (Manual on Prevention of Runway Incursions) and ICAO Runway Safety Toolkit related to establishment of runway safety teams.*
- A10.25 COSCAP-SA to examine the FAA material related to SE 176 and Wrong Runway Departure report*

*A10.26 COSCAPs to survey member States on the existence of Runway Safety teams, and how these have been established (Note: USOAP data indicates 70% of States had not established runway safety teams).*

*A10.27 COSCAP to provide a report and recommendations for next ARAST meeting*

#### **Update**

**Mr. Zahid Khan, ATC Officer, COSCAP-SA**, briefed on the review of SE-176 and SE-182.

The 3<sup>rd</sup> ARSAT considered ICAO requirements and CAST SE-176, related to the creation of Runway Safety Action Teams, and the FAA's Wrong Runway Departure Study in order to identify applicability of risk mitigation in the Asia-Pacific region. These were examined by COSCAP-SA in detail and a report included on the CD of the 4<sup>th</sup> ARAST [file name: COSCAPSA input on 3rd ARAST Action Items 8, 9 & 10.pdf].

The briefing to the 4<sup>th</sup> ARAST concluded that the establishment of Runway Safety Action Teams is viewed as an important measure by both ICAO and CAST, and that there are excellent references available from ICAO and the CAST (DOC 9870 Manual on the Prevention of Runway Incursion; ICAO Runway Safety Toolkit, CAST SE-176; CAST Wrong Runway Departure report). USOAP data for Asia-Pacific indicate that 70% have not established runway safety teams.

Discussion supported the establishment of runway safety teams, and a request to seek information from ICAO regarding the definitions for runway confusion, runway incursion and runway excursion. Members also identified the action regarding the provision of take-off clearance to an aircraft that must cross another runway prior to take-off. (See also notes below at Agenda Item 14.8 — CAST SE-180 Scenario Based Training for Tower Controllers)

#### **Proposed Action:**

*A11.14 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.*

*A11.15 COSCAP to explore with ICAO the need for a definition concerning Runway Confusion, Incursion and Excursion*

*A11.16 COSCAP-SA to determine if there is an ICAO standard regarding the provision of a take off clearance to an aircraft that must taxi across other runways prior to take off.*

### **Agenda Item 14.5 CAST SE- 178 – Enhanced Surface Marking and Lighting**

#### **Previous Action**

*A10. 28 COSCAP-SEA to review with ICAO Aerodrome Expert to identify ICAO Standards and the related guidance material that is available*

*A10.29 FAA to provide detailed information related to this Safety Enhancement for review by COSCAP to determine its applicability to Asia Pacific Region.*



**Update**

**Mr. N.C. Sekhar, ICAO Regional Aerodrome Officer**, reviewed ICAO Standards and briefed the participants. It was concluded that SE-178 does not have general applicability in the Asia-Pacific region.

Participants were informed of the *ICAO Global Runway Safety Symposium* to take place in Montreal from 24 to 26 May 2011.

**Proposed Actions:**

- A11.17 COSCAP to provide to the ARAST Meeting regular updates on future developments in the area of Runway Safety*
- A11.18 Member Administrations to encourage participation at the Global Runway Safety Symposium.*
- A11.19 COSCAP to provide a briefing to ARAST/APRAST on the outputs of the Global Runway Safety Symposium.*
- A11.20 COSCAP to determine the availability of training concerning the development of Type A charts and electronic charts (Type A and Type B).*

**Agenda Item 14.6 CAST SE-179 Scenario Based Training for Pilots****CAST SE-180 Scenario Based Training for Tower Controllers****Previous Action**

- A10.31 FAA to provide full report related to SE-179 to COSCAP for review.*
- A10.32 COSCAP to report back to the next ARAST on the results of this review.*
- A10.33 (SE-180) Update to be provided by the FAA at the next ARAST Meeting to determine possible action in Asia Pacific.*

**Update**

**Capt. Glenn Michael, Manager, International Operations FAA**, kindly reviewed these SEs which would improve safety by providing scenario-based training for controllers and pilots highlighting the factors that have contributed to wrong runway departures. The training would focus on operations in complex airports, airport geometry, communications, taxi/departure clearances, understanding and managing fatigue and time pressures, Taxi Into Position and Hold (TIPH), and situational awareness as described in the Wrong Runway Departures report.

Discussions recognized the importance of using ICAO phraseology (e.g., Line up and Wait) and of providing training material to support improved situational awareness.

**Proposed Action**

- A11.21 COSCAP to review SAFO 06013 Takeoff Safety, SAFO 07003 Confirming Takeoff Runway and InFO 08049 Preventing Wrong Runway Takeoffs developed by FAA, discuss with ICAO to determine the applicability in Asia Pacific and report back to the next ARAST/APRAST*

*A11.22 FAA to provide Tower Controller Runway Training CD to the COSCAP programmes for review and consideration.*

*A11.23 COSCAP to provide a briefing at the next ARAST/APRAST Meeting*

#### **Agenda Item 14.7 CAST SE-185 TAWS and RNAV Visual or other procedures**

##### ***Previous Action***

*A10.40 IATA kindly offered to search STEADES for data on TAWS alerts for the region.*

##### ***Update***

*Capt. Anthony Houston, IATA*, briefed the meeting on the TAWS alerts data extracted from the IATA STEADES database.

##### ***Proposed Action***

*A11.24 IATA was requested to kindly acquire TAWS data by region.*

#### **Agenda Item 15. Review of SSP and GASP/R Implementation**

*CTA COSCAP-NA* expressed his appreciation to administrations that had submitted an SSP gap analysis, and briefed the meeting on the findings of the baseline SSP gap analysis for the region. The objective of reviewing the baseline gap analysis was for the meeting to determine priorities for COSCAP support to member administrations.

##### ***Proposed Actions***

*A11.25 COSCAP to provide a workshop on methods and indicators to be utilize in development of State safety measurement and service provider safety performance measurement.*

*A11.26 COSCAPs to invite other Member Administration to provide presentations on the challenges and solutions related to SSP Implementation.*

*A11.27 Member Administrations requested COSCAPs support for the implementation of SSP Framework elements 1.4, 2.2, 3.1 and 3.2.*

#### **Agenda Item 16.1 Regional Safety Concerns**

Members did not identify new Regional safety concerns.

#### **Agenda Item 16.2 Review of Conclusions**

The Actions arrived at on various subjects discussed at the meeting were reviewed and further inputs solicited. All conclusions and proposed actions were accepted and the ARAST members requested that they be presented to the three COSCAP Steering Committees at their next meetings or the 1<sup>st</sup> Meeting of the Regional Aviation Safety Group, whichever occurs first.

See Annex IV for a summary of actions and their status as at the end of the 4<sup>th</sup> ARAST.



**Agenda Item 17. Close of Meeting**

Recognising that safety risk reduction can be achieved only through the effective implementation of Safety Enhancements, Member Administrations are encouraged to lead implementation efforts of ARAST action items once approved by their respective Steering Committee.

Subject to the determination of the 1<sup>st</sup> Meeting of the Regional Aviation Safety Group, the next meeting of the ARAST / APRAST will take place during February 2012 at the ICAO Regional office in Bangkok.

~~ End ~~





**Opening Remarks by Mr. Mokhtar A. Awan**  
**ICAO Regional Director, Asia & Pacific Region**  
**4<sup>th</sup> Asian Regional Aviation Safety Team Meeting**  
**21 February 2011**

Member Administrations of COSCAP South Asia, COSCAP South East Asia and COSCAP North Asia, FAA, [Australia, EASA]

Valued service providers

Distinguished Donors and Partners of the Asian Region COSCAPs

Ladies and Gentlemen

I am pleased to have the honour of welcoming you to Bangkok to this, fourth combined Asian Regional Aviation Safety Team meeting.

It is particularly noteworthy to mention today this being the last meeting of ARAST about its achievement since it was established two years ago as ARAST will see a transition to Regional Aviation Safety Group [RASG]. Before that I wish to recall the good work done by the three COSCAPs for furthering the global safety effort and achieve its goal as a cooperative arrangement to enhance the safety and efficiency of air transportation in the region. To this end the three COSCAPs have established regional aviation safety teams which encouraged states to foster regional and sub regional safety groups. Furthermore in 2008 the 3 COSCAPs joined to form the Asia Regional Aviation Safety Team (ARAST) to improve efficiency and effectiveness and in the following year the ICAO Regional Office invited all the Asia/Pacific states to participate and benefit from the ARAST activities. In a nut shell since its establishment the ARAST has provided immense benefits of improved efficiency and encouraged wider participation among States to share safety information. I wish to highlight here a few key achievements:

- The Safety Team work to reduce the risk of approach and landing accidents led to workshops on continuous descent final approach technique.
- Discussions among the safety team seeking to support effective implementation of safety management systems contributed to development of guidance to strengthen reporting systems and Guidance on Acceptable and Unacceptable Behaviours
- Overall work of the Safety Team has led to the adoption of 45 specific safety enhancements, which when fully implemented will reduce the risk of a fatal accident by 60%
- Work from 2009 **Mode Awareness and Energy State Management Aspects of Flight Deck Automation** was recommended as a model for a European advisory circular

As you might be aware that there was a long time need for a forum like APANPIRG to address the Flight safety issues and finally on 25 May 2010, the ICAO Council approved the establishment of RASGs. This ICAO Council decision mandated the ICAO secretariat to establish a Regional Aviation safety Group with the aim of supporting a regional performance framework for the management of safety on the basis of GASP and GASR, nurture its development and guide the Group's activities considering the related resources of COSCAPs and avoid duplication of efforts. The RASG-APAC, similar to Planning and implementation Regional Groups (PIRGs), would allow the reports of RASGs to be reviewed by the Commission on a regular basis, and by Council as deemed necessary, thus providing interregional harmonization related to flight safety issues and a means to monitor implementation of Global Aviation Safety Plan / Global Aviation Safety Roadmap



(GASP/GASR). RASG-APAC members would include all Administrations in the Asia Pacific Region and other stakeholders as determined by APAC administrations.

DGCA/47 took note of the proposal on establishment of RASG and generally supported the initiative with a concern regarding the need to avoid the duplication in the ToR of COSCAP and RASG. I wish to add here that while considering the proposal on the establishment of RASG, the ICAO Council fully recognized the need to avoid duplication in efforts and to benefit from established practices. Accordingly the establishment of RASG in the APAC region has been approached as a transition from the ARAST to RASG. Furthermore as directed by DGCA/47 the ToRs of RASG and COSCAPs are being reviewed by the COSCAP steering Committee and in order to avoid creating a separate forum for the RASG, the meeting will be convened concurrent with the DGCA Conference.

Recognising that the RSAG meeting will be high level attended by DGs, there will still exist a need to have working level arrangements composed of technical specialists who would review the safety issues and develop safety enhancements. To achieve this COSCAP ARAST would be replaced by the APRAST. The outputs from the APRAST would be presented to the RASG APAC for approval. This will provide for wider participation of talented personnel and broader sharing of safety information. In addition an APRAST-AIG Adhoc working group will also be established under RASG with defined terms of Reference. During the course of the meeting you will receive further updates from the COSCAP CTA's.

The meeting this week builds again, on the best practices of the ICAO Global Aviation Safety Plan and Global Aviation Safety Roadmap into the established safety team process. Runway related accidents and serious incidents continue to be a serious safety concern. While runway incursions remain a significant problem, runway excursion are shown to greatly exceed all other occurrence categories in the ICAO ADREP system. I am pleased that IATA will conduct a workshop on runway excursion today. This should provide increased focus to an already effective programme for safety enhancement.

ICAO works to achieve its vision of safe, secure and sustainable development of civil aviation through cooperation amongst its member States and Administrations. As concerned Stakeholders we must together work to Enhance global civil aviation safety and Enhance the efficiency of aviation operations. I wish to take this opportunity to thank our donors and safety partners whose active support is vital to achieving our safety objectives.

ICAO as part of its efforts to improve and create awareness has organised a 3 days global runway safety conference in Montreal, Canada from 24<sup>th</sup> to 26 May 2011 with an objective to strengthen the implementation of ICAO provisions for the prevention and mitigation of RE, RI and other runway related occurrences. This will also assist in the initiation of the regional safety summits.

I note that you have a challenging and demanding Agenda set out for the next four days. New ideas are being introduced which I am sure will generate fruitful and quality discussions.

I wish the Meeting all success.

Thank you.





**4<sup>th</sup> Meeting of the Asia Regional Aviation Safety Team (ARAST)****21 to 24 February 2011 Bangkok, Thailand****Agenda****Monday 21 February 2011**

- |               |  |
|---------------|--|
| 08:00 – 08:30 | 1. Registration                            |
| 08:30 – 09:00 | 2. Opening remarks                         |
| 09:00 – 10:00 | 3. IATA Runway Excursion Workshop          |
| 10:00 – 10:30 | Tea Break                                  |
| 10:30 – 12:00 | IATA Runway Excursion Workshop (continued) |
| 12:00 – 13:00 | Lunch                                      |
| 13:00 – 14:45 | IATA Runway Excursion Workshop (continued) |
| 14:45 – 15:15 | Tea Break                                  |
| 15:15 – 16:30 | IATA Runway Excursion Workshop Conclusions |

**Tuesday 22 February 2011**

- |               |  |
|---------------|--|
| 08:00 – 08:30 | 4. Late Registration   |
| 08:30 – 09:00 | 5. Self-introduction of Participants   |
| 09:00 – 09:30 | 6. ARAST – Background and Terms of Reference – Captain Kim Trethewey                           |
| 09:30 – 10:00 | 7. Presentation. Development of Regional Aviation Safety Groups (RASG) – Captain Kim Trethewey |
| 10:00 – 10:30 | Tea Break  |
| 10:30 – 11:00 | 8. Presentation: Update on Commercial Aviation Safety Team (CAST) – FAA                        |
| 11:00 – 11:30 | 9. Presentation. Regional Safety/USOAP Data – Update Captain Len Cormier                       |
| 11:30 – 12:00 | 10. State Safety Programme / Global Aviation Safety Plan (GASP)                                |
| 12:00 – 13:00 | Lunch  |
| 13:00 – 13:45 | 11. ARAST-AIG Update Captain Len Cormier   |
| 13:45 – 14:30 | 12. AIG Update – AIB Singapore   |
| 14:30 – 15:00 | 13. COSCAP Support of PBN Implementation   |
| 15:00 – 15:30 | Tea Break  |
| 15:30 – 16:30 | 14. Review – ARAST Safety Interventions  |

**Wednesday 23 February 2011**

08:30 – 10:00	14. Review – ARAST Safety Interventions (cont)
10:00 – 10:30	Tea Break
10:30 – 12:00	14. Review – ARAST Safety Interventions (cont)
12:00 – 13:00	Lunch
13:00 – 14:45	15. Review of SSP and GASP/R Implementation
14:45 – 15:15	Tea Break
15:15 – 16:30	15. Review of SSP and GASP/R Implementation (cont)

**Thursday 24 February 2011**

08:30 – 10:00	15. Review of SSP and GASP/R Implementation (cont)
10:00 – 10:30	Tea Break
10:30 – 12:00	15. Review of SSP and GASP/R Implementation (cont)
12:00 – 13:00	Lunch
13:00 – 14:00	15. Review of SSP and GASP/R Implementation (cont)
14:00 – 14:30	Tea Break
14:30 – 15:30	16. Review of Conclusions
15:30 – 16:00	17. Close of the Meeting