International Civil Aviation Organization

Fourth Meeting of the Asia Pacific Regional Aviation Safety Team (APRAST/4)

(Manila, Philippines, 21 – 24 April 2014)

Agenda Item 6: Review of Regional Priorities and Targets

PROPOSED CHANGES TO THE APRAST STRUCTURE

(Presented by APRAST Co-chairs)

SUMMARY

This paper proposes some changes to the APRAST structure to address current issues faced by the meeting.

Action by the meeting is at Paragraph 4.

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1. **INTRODUCTION**

1.1   RASG-APAC, in its Decision 3/23, directed APRAST to review its meeting structures and mechanisms to better support the GASP and to fulfil the Regional Priorities and Targets. The APRAST co-chairs also propose to take this opportunity to further optimise the APRAST structure to provide for better delivery and monitoring of the region's Safety Enhancement Initiatives (SEIs).

2. **DISCUSSION**

2.1   The first meeting of the RASG-APAC, held in October 2011, adopted the organisational structure and terms-of-reference (TORs) of the RASG-APAC and its subsidiary bodies. These subsidiary bodies include the Asia Pacific Regional Aviation Safety Team (APRAST) sub-group and the two ad-hoc working groups i.e. – Accident Investigation Ad-hoc Working Group (AIG AWG) and the Asia Pacific Safety Reporting and Programme Ad-hoc Working Group (AP-SRP AWG). In addition, the third meeting of the RASG-APAC, held in June 2013, adopted the revised TORs for the AP-SRP AWG and approved the creation of an Information Analysis Team (IAT). The TORs for APRAST and its subsidiary groups are at **Attachment A** of this paper. The current structure of APRAST is shown in Figure 1 below.
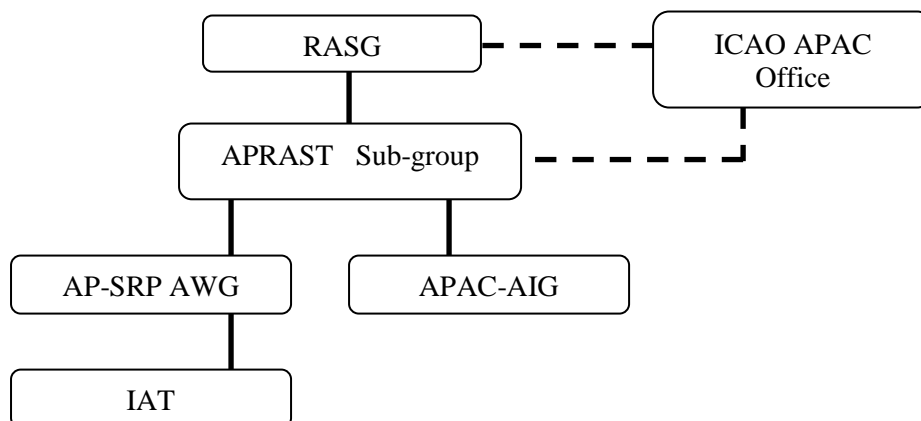

Figure 1 Current structure of APRAST

2.2   Since its establishment in 2011, APRAST has held three meetings during which key outcomes achieved thus far include:

   a) Developed the RASG-APAC Work Programmes

   b) Developed a set of Safety Enhancement Initiatives (SEIs) with some outputs completed

   c) Published the first APAC Safety Report by the AP-SRP AWG in 2013

   d) Developed a set of recommendations in the area of accident investigation by the APAC-AIG AWG

2.3   From the experiences gleaned over the past three years, some possible enhancements to improve the effectiveness of APRAST have been identified. These enhancements seek to address issues such as the level of implementation of developed SEIs by States and Industry, consistency in the attendance of members at APRAST and its subgroup meetings, quality assurance of the developed SEIs depending and the tracking of SEI implementation status.

2.4   It is therefore timely to review the structure of APRAST and its subgroups to enhance the delivery and monitoring of SEIs and to address RASG Decision 3/23.

3.   **PROPOSED ENHANCEMENTS TO THE APRAST STRUCTURE**

Current framework of APRAST

3.1   The conceptual framework that guides APRAST's work is as shown in Figure 2 below. The work of APRAST follows a dynamic cycle of first collecting data and information, followed by the analysis and reporting of this data for the development and review of SEIs. The implementation of these developed SEIs is then supported through regional and State efforts. This cycle repeats as new information is gathered on new risks and on the effectiveness of the SEIs.

3.2   The AP-SRP AWG is responsible for gathering safety information from different available sources to analyse and determine aviation safety risks in the APAC region and to make
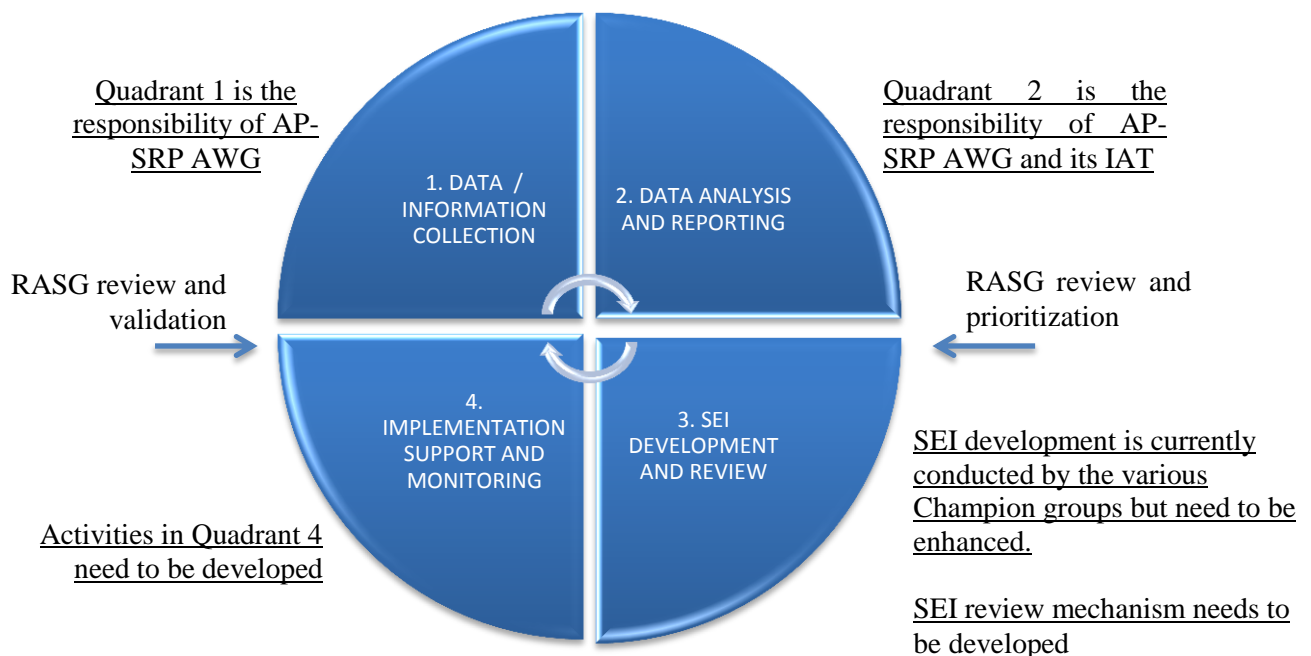

Figure 2 Conceptual framework that guides APRAST's work

recommendations for SEIs based on the risks identified. The AP-SRP AWG produced the first Annual Safety Report in 2013, which concluded that APRAST should continue its work on SEIs on the Controlled Flight Into Terrain (CFIT), Runway Safety (RS) and Loss of Control In-flight (LOC-I) categories in the APAC region. As the IAT is set up in the near future, the meeting can expect the data and information collection, analysis and reporting portions (Quadrants 1 and 2) to be strengthened.

3.3   For the work cycle to be more effective in its other areas (Quadrants 3 and 4), this paper proposes enhancements to the APRAST structure to address issues that have surfaced in (i) Quadrant 3, the SEI development and review and (ii) Quadrant 4, the implementation support and monitoring components.

3.4   SEI development naturally follows after the identification of aviation safety risks in the region as it addresses the need for actions and measures to mitigate these identified risks. APRAST, through the individual SEI Champions and facilitators, has delivered on the first batch of SEI outputs, which were approved in 2013 by RASG. Nonetheless, the work of APRAST, which is only in its third year, can be further improved through a more structured development and quality assurance process with active reviews of the developed SEIs.

3.5   Implementation support and monitoring is an important component of the work cycle with the objective of helping States and Industry in the implementation of the developed SEIs. However, APRAST currently lacks mechanisms to deliver on this. Acknowledging the need for such mechanisms, the third meeting of the Regional Aviation Safety Group Asia and Pacific (RASG-APAC) agreed to the following decisions:

(a)   RASG Decision 3/12: That, as part of SEI development, APRAST will include generic implementation guidance to support the implementation efforts of States/Industry.

(b)   RASG Decision 3/13: That, APRAST will organise assistance programmes such as workshops/seminars to further supplement direct implementation support provided by COSCAPs and other agencies.

(c)   RASG Decision 3/14: That, APRAST schedule workshops/seminars in conjunction with regularly scheduled APRAST meetings, facilitated by ICAO personnel, relevant APRAST Champions and subject matter experts or volunteer external sources as available.

Proposed setup of the SEI AWG

3.6   To address the issues discussed in the work cycle, this paper proposes the setup of an SEI Ad-hoc Working Group (SEI AWG) that will, subsume the breakout sessions for the three areas of CFIT, LOC and RS. Co-chaired by a State representative and an Industry representative, and supported by the COSCAP facilitators, the SEI AWG will assist in the development and review of the SEIs to reduce aviation safety risk in line with regional priorities and targets. The SEI AWG will also ensure that there is appropriate quality control of the work developed. In addition, the SEI AWG will assist in the provision of generic implementation guidance and the organisation of assistance programmes (i.e. implementation support – part of Quadrant 4), with the support of the APRAST secretariat, to improve the level of implementation of developed SEIs. The draft TORs of the SEI AWG are at **Attachment B** of this paper. The proposed APRAST structure is shown below in Figure 3.
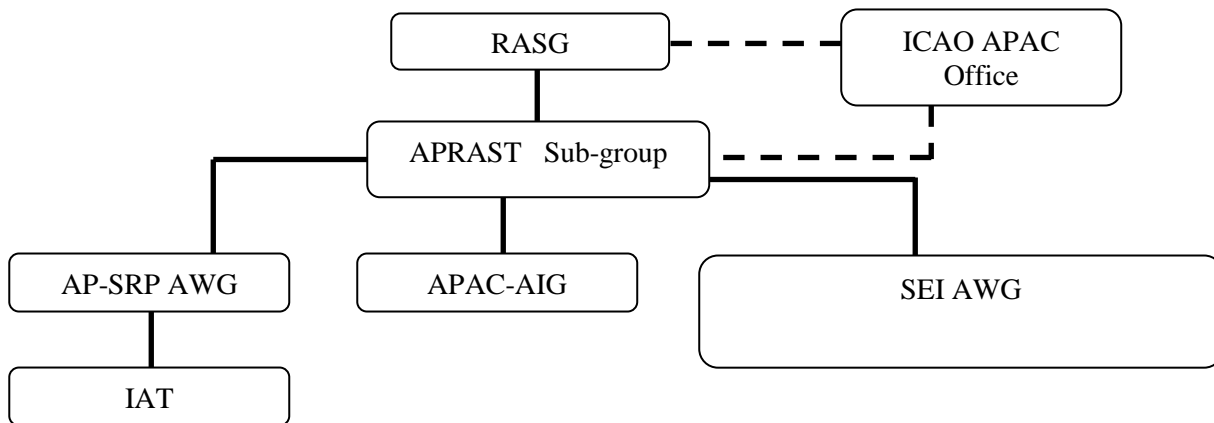
Figure 3 Proposed APRAST structure

SEI monitoring mechanism

3.7   In addition, it is proposed that the ICAO APAC Office, as the APRAST secretariat, provides implementation monitoring (part of Quadrant 4). The APRAST secretariat could monitor SEI implementation by tracking the implementation status of the SEIs in States and Industry, and collect feedback on how to further improve the implementation of SEIs and the types of assistance States and Industry find most useful in helping them implement SEIs. :

3.8   This information collected by the APRAST Secretariat will be shared with the SEI AWG to aid them in their quality review of SEIs and to help shape their recommendations for implementation support.

3.9   The APRAST, through the SRP AWG, could also review the effective implementation of USOAP CEs in the region and other key risk areas. The review would provide APRAST with information for the development of new SEIs necessary to improve aviation safety within the region and to support the GASP.

Improving attendance at APRAST meetings

3.10   Given that APRAST is a working body that requires contribution from its members, the consistent attendance of experts from States and Industry partners is essential to achieving RASG-AP objectives. In order to avoid negative impact on work progress of APRAST, States and Industry are therefore urged to appoint permanent representatives to attend these meetings and act as point of contacts for liaison on RASG-APAC and APRAST matters. To facilitate this process, the ICAO Secretariat will distribute a questionnaire for all attendees at the meeting. The purpose of the questionnaire will be to identify the permanent representative from the respective State or Industry organization, their type and level of expertise, and the area they would like to contribute to the APRAST agenda.

4.   **ACTION BY THE MEETING**

4.1   The meeting is invited to review and approve the proposed enhancements to the APRAST structure and the TORs of the SEI AWG in this paper before submission to RASG-APAC.

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**TERMS-OF-REFERENCE FOR
ASIA PACIFIC REGIONAL AVIATION SAFETY TEAM
[APRAST (Sub-Group)]**

1.0 Background

1.1 These terms-of-reference outline the concept of operations and modalities for the Asia Pacific Regional Aviation Safety Team [APRAST (Sub-Group)] under the Regional Aviation Safety Group – Asia Pacific (RASG-APAC).

1.2 The ICAO Global Aviation Safety Plan (GASP), which was endorsed by the 33rd Session of the ICAO Assembly in 2001, stressed the need for a reduction in the rate of fatal accidents in air transport operations. The GASP endorses the concept of concentrating the safety-related activities of ICAO on those safety initiatives - planned or currently underway - 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.

1.3 Two major safety initiatives have been established which are in keeping with the broad objectives of the GASP. The United States, as part of the Federal Aviation Administration's (FAA) Safer Skies agenda, established the Commercial Aviation Safety Team (CAST) in June 1998. Similarly, in 1998 the States represented by the Joint Aviation Authorities (JAA) formed the Joint Strategic Safety Initiative (JSSI). Both initiatives draw upon a broad base of experts from government agencies, airlines, manufacturers, aviation associations, labour unions, and other safety-related organizations. The focus of their efforts resulted from a rigorous analysis of accidents, which occurred over the most recent ten-year period for which significant data was available. Major causes of accidents were identified and categorized, and priorities were assigned to, for the purpose of pursuing remedial actions. Top accident categories being examined by these groups are:

- controlled flight into terrain;
- approach and landing accidents;
- loss of Control;
- uncontained engine failures;
- runway incursions; and
- weather.

The JSSI and the CAST work in close co-operation to analyze significant worldwide accidents/incidents, develop recommendations for improvement actions, and monitor implementation completion. In addition, some members from each group actively participate in the other group on a regular basis. Subsequently the European Aviation Safety Agency (EASA) replaced the JAA and it has established the ESSI to continue the work commenced by the JAA/JSSI.

1.4 The ICAO Global Aviation Safety Plan (GASP) was extensively revised in 2007 and subsequently endorsed by States at the 36th Session of the Assembly (Resolution 36-7). It provides a common frame of reference for all stakeholders in order to allow a more proactive approach to aviation safety and to help coordinate and guide safety policies and initiatives worldwide to reduce the accident risk for civil aviation. The GASP is to be used in conjunction with the Global Aviation Safety Roadmap (GASR) developed by aviation industry for ICAO and at its request.

1.5 The objective of the Global Aviation Safety Plan provides a common frame of reference for all stakeholders that support a proactive and systematic approach to aviation safety, and helps coordinate and guide the establishment of safety policies and initiatives worldwide. It will help prioritizing and planning safety initiatives and measuring their impact.

1.6 The GASP is based on the following four principles:

- **Participation of all stakeholders:** to ensure consistency of objectives and to avoid duplication of effort;

- **Defining (twelve) Global Safety Initiatives:** setting best practices, metrics and maturity levels which are defined in the Global Aviation Safety Roadmap to ensure that implementation makes full use of the collective experience of the aviation community and that progress is measured in a transparent and consistent way;

- **Planning process:** for collaborative development of action plans that define the specific activities that should take place in order to improve safety;

- **Consistency with the ICAO Global Planning Process:** GASP follows an approach and philosophy which is consistent with the *Global Air Navigation Plan for CNS/ATM Systems* (Doc 9750). Both were developed with close coordination and participation of industry, and both provide a common framework to ensure that regional, sub-regional, national and individual initiatives are coordinated to deliver a harmonized, safe and efficient international civil aviation system.

2.0 Objective

2.1 The objective of the APRAST is to recommend interventions to the RASG-APAC which will reduce aviation risks. The recommendations, once approved by the RASG-APAC, may be implemented through the harmonized efforts of the regulatory authorities, in coordination with service providers, airlines and aircraft manufacturers. When such actions are endorsed by the RASG-APAC, the Team Members will serve as focal points for introducing the interventions within their respective States and for coordinating their government's efforts with industry.

2.2 To accomplish the objectives, the APRAST will:

2.2.1   Review, for application within the Asia and Pacific regions, existing safety interventions which have already been developed through the efforts of well-established, multinational safety initiatives;

2.2.2   Review, for application within the Asia and Pacific regions, the best practices and metrics defined in the GASP/GASR, and

2.2.3   Review regional accidents, significant incident trends and other areas of local concern to determine unique issues which may warrant locally-developed interventions. The focus and priority for APRAST will be to introduce, support, and develop actions, which have the potential to effectively and economically reduce the regional aviation risk.

3.0 APRAST Modalities

3.1 The Regional Officer, Flight Safety, ICAO Asia Pacific Office will serve as the Secretary. Membership of the APRAST includes the regulatory authority (flight operations, airworthiness and ATM representatives), air operators, service providers, manufactures and industry organizations. Others may be invited to participate as appropriate to the subjects under consideration. Co-chairs will be elected from the nominated members. One Co-chair will be elected from a Contracting State and the other Co-chair will be elected from industry. The term of office will be for two years.

3.2 The APRAST will accomplish the following:

- review safety interventions which have already been developed by existing safety groups such as ICAO, CAST and ESSI and advise the RASG-APAC which of these are appropriate for implementation within the Asia and Pacific regions;

- review the global safety initiatives as defined in the GASP; and the focus areas, best practices, metrics and maturity levels defined in the GASR; and advise the RASG-APAC which of these are appropriate for implementation in the Asia and Pacific regions;

- identify areas of concern to flight safety that may be unique to the region or require emphasis within the region, and develop data and interventions to address those concerns;

- support implementation of data driven action plans developed using risk analysis by performance-based safety systems; and

- work closely with service providers, airlines, manufacturers, industry and labor associations, and other appropriate organizations to ensure that interventions are implemented through a coordinated effort.

3.3 The APRAST Co-chairs will facilitate the sharing of safety information and experiences among all stakeholders in the region and will develop methods that minimize duplication of safety activities at the regional and sub-regional level.

3.4 The APRAST Co-chairs will maintain close contact with ICAO to benefit from its advice on the subject and to this effect they will provide regular feedback to ICAO on the activities of APRAST through the RASG-APAC and on the emerging intervention proposals. In addition, they will liaise as required with other regional safety teams to benefit from their efforts.

3.5 The APRAST Co-chairs/Secretary will conduct follow-up activities as required.

3.6 APRAST will make recommendations to the RASG-APAC for their review and approval.

3.7 The RASG-APAC will monitor activities of APRAST and promote the implementation of those interventions that are deemed appropriate for the Asia and Pacific regions.

3.8 The APRAST will include representatives of appropriate regulatory agencies, industry organizations and other organizations. The on-going work/coordination may be accomplished through electronic communications and regular teleconferences. The team will normally meet twice each year. Additional meetings may be organized when needed to address pressing safety issues.

TERMS-OF-REFERENCE

**ASIA PACIFIC REGIONAL AVIATION SAFETY TEAM –
ACCIDENT INVESTIGATION AD HOC WORKING GROUP (APRAST-AIG AWG)
UNDER
REGIONAL AVIATION SAFETY GROUP - ASIA PACIFIC (RASG-APAC)**

1.0 Background

1.1 These terms-of-reference outline the concept and modalities for the Asia Pacific Regional Aviation Safety Team - Accident Investigation ad hoc Working Group (APRAST-AIG AWG) working under direction of the RASG-APAC/APRAST.

1.2 The ICAO Global Aviation Safety Plan (GASP), which was endorsed by the 33rd Session of the ICAO Assembly in 2001, stressed the need for a reduction in the rate of fatal accidents in air transport operations. The GASP endorses the concept of concentrating the safety-related activities of ICAO on those safety initiatives - planned or currently underway - 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.

1.3 The ICAO GASP was extensively revised in 2007 and subsequently endorsed by States at the 36th Session of the Assembly (Resolution 36-7). It provides a common frame of reference for all stakeholders in order to allow a more proactive approach to aviation safety and to help coordinate and guide safety policies and initiatives worldwide to reduce the accident risk for civil aviation. The GASP is to be used in conjunction with the Global Aviation Safety Roadmap (GASR) developed by aviation industry for ICAO and at its request.

1.4 The objective of the Global Aviation Safety Plan provides a common frame of reference for all stakeholders that support a proactive and systematic approach to aviation safety, and helps coordinate and guide the establishment of safety policies and initiatives worldwide. It will help prioritizing and planning safety initiatives and measuring their impact.

1.5 The GASP is based on the following four principles:

- **Participation of all stakeholders:** to ensure consistency of objectives and to avoid duplication of effort;

- **Defining (twelve) Global Safety Initiatives:** setting best practices, metrics and maturity levels which are defined in the Global Aviation Safety Roadmap to ensure that implementation makes full use of the collective experience of the aviation community and that progress is measured in a transparent and consistent way;

- **Planning process:** for collaborative development of action plans that define the specific activities that should take place in order to improve safety;

- **Consistency with the ICAO Global Planning Process:** GASP follows an approach and philosophy which is consistent with the *Global Air Navigation Plan for CNS/ATM Systems* (Doc 9750). Both were developed with close coordination and participation of industry, and both provide a common framework to ensure that regional, sub-regional, national and individual initiatives are coordinated to deliver a harmonized, safe and efficient international civil aviation system.

2.0 Objective

2.1 An APRAST-AIG Ad hoc Working Group will be established under the RASG-APAC/APRAST to review the Global Aviation Safety Plan/Roadmap (GASP/R) Global Safety Initiative 3/Focus Area 3 – Impediments to Reporting of Errors and Incidents and GSI 4/Focus Area 4 – Ineffective Incident and Accident Investigation. The appraisal will include a review of the best practices and metrics and the APRAST-AIG AWG will propose recommendations to complete implementation as prescribed by the metrics.

2.2 To accomplish the objectives, the APRAST-AIG AWG will:

2.2.1   review, for application within Asia and Pacific regions, existing policies and procedures related to the reporting of errors and incidents; and accident investigation, which have already been developed;

2.2.2   review, for application within Asia and Pacific regions, the best practices and metrics defined in Global Safety Initiative/Focus Area 3 and 4 of the GASP/GASR; and

2.2.3   review, regional accidents and significant incident trends and other areas of local concern to determine unique issues that may warrant locally developed policies and procedures to effectively capture information for study and for the development of recommendations. The focus and priority for APRAST-AIG AWG will be to introduce, support, and develop actions, which have the potential to effectively and economically reduce the regional aviation accident risk.

3.0 APRAST-AIG AWG Modalities

3.1 The Regional Officer, Flight Safety, ICAO APAC Office will be the Secretary to the APRAST-AIG AWG. The Air Accident Investigation Board of Singapore will provide technical support. Membership of the APRAST-AIG AWG will come from participating accident investigating organizations in the Region. Others may be invited to participate as appropriate. A Chairperson and Vice Chairperson will be elected from the nominated members from the participating States' accident investigation organizations.

3.2 The APRAST-AIG AWG will accomplish the following:

- Review and/or prepare policies and procedures that can be used in the region to establish an voluntary incident reporting system as envisioned by Global Safety Initiative 3;

- Review and/or prepare policies and procedures that can be used in the region to establish an accident investigation capability as envisioned by Global Safety Initiative 4;

- Identify areas of concern that may be unique to the region or require emphasis within the region, and develop and/or review policies and procedures to address those concerns;

- Work closely with the APRAST, service providers, airlines, manufacturers, industry and labor associations, and other appropriate organizations to ensure that the policies and procedures are developed through a coordinated effort.

3.3 The Chairperson/Secretary will maintain close contact with ICAO to benefit from its advice on the subject and to this effect they/he will provide regular feedback to ICAO on the activities of APRAST-AIG AWG through APRAST/RASG-APAC. In addition, they/he will liaise as required with other regional safety teams to benefit from their efforts.

3.4 The APRAST-AIG AWG will normally meet twice each year. The on-going work/coordination may be accomplished through electronic communications.

3.5 The RASG-APAC/APRAST will monitor activities of APRAST-AIG AWG and promote the implementation of those policies and procedures that are deemed appropriate for Asia and Pacific regions.

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REVISED TERMS-OF-REFERENCE
ASIA PACIFIC – SAFETY REPORTING AND PROGRAMME AD HOC WORKING
GROUP (AP-SRP AWG)

A) Purposes of the AP - SRP AWG:

- Gather safety information from different available sources to determine the main aviation safety risks in the Asia and Pacific Regions;

- Develop and organize an Annual Safety Report in three main Sections, one for each safety information category:
a) Reactive Information;
b) Proactive Information; and
c) Predictive Information.

-Based on the risk areas identified in the annual report, make recommendations to the RASG-APAC, through the APRAST, for safety enhancement initiatives.

B) Membership:

- RASG-APAC Partners which includes States and Industry.

C) Roles and Responsibilities:

- ICAO HQ – Support;
- ICAO APAC Regional Office – Support; and
- Working group Partners – Provide technical expertise and collaborate in the development of materials as requested by APRAST.

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Asia-Pacific – SRP AWG Information Analysis Team (APAC-IAT)
Terms of Reference (TORs)

A. Purposes of the Asia-Pacific – Information Analysis Team:

1) The IAT will utilize appropriate available data sources to identify and analyse safety information, particularly predictive data relevant to the Asia Pacific Region.
2) The IAT will provide results of data analysis to APRAST through the SRP AWG to support the development of future Safety Enhancement Initiatives (SEIs) and future Annual Safety Reports.

B. Membership

1) The IAT will consist of subject matter experts from RASG-APAC member States/Administrations and Industry Partners.
2) At a minimum, members will be drawn from stakeholders representing ICAO APAC Regional Office, Member States/Administrations, Industry, and pilot and air traffic control organizations.

C. Roles and Responsibilities

1) Roles and responsibilities of the IAT include, but are not limited to:
    a. Determine appropriate data to be used.
    b. Develop, implement, and monitor metrics.
    c. Prepare status reports for stakeholders.
2) The IAT will be lead jointly by representatives from Member States/Administrations, Industry, and International Organizations.

D. Data Protection

1) All safety data utilized by the IAT or safety analysis and information developed by the IAT will be protected from public disclosure.
2) All data contributors will execute and be bound by the provisions of the Memorandum of Understanding between that data contributor and RASG-APAC
3) Any outputs from the IAT will be in a de-identified format.

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PROPOSED TERMS-OF-REFERENCE FOR THE
SAFETY ENHANCEMENT INITIATIVES AD-HOC WORKING GROUP (SEI AWG)

1. Background

1.1. These terms-of-reference outline the concept and modalities for the Safety Enhancement
Initiatives Ad-hoc Working Group (SEI AWG) working under direction of the RASG-
APAC/APRAST.

2. Objectives of the SEI AWG

2.1. The objective of the SEI AWG, which will be established under the RASG-APAC/APRAST, is
to assist in the development, implementation and review of SEIs to reduce aviation risks. These
SEIs could be established based on the analysis of regional data, based on ICAO initiatives or the
initiatives of other relevant organisations or regions or based on the risks and issues identified
through the USOAP CMA process. The identified SEIs should be prioritised to ensure that those
that have the greatest potential for reducing safety risk are examined first.

2.2. To accomplish the objectives, the SEI AWG will:

2.2.1. Assist APRAST in the identification and development of SEIs, for application within
the Asia and Pacific regions, which are aligned with the regional priorities and targets.
The focus of these SEIs is to effectively and economically mitigate regional safety risks
identified by the Asia Pacific Safety Reporting and Programme Ad-hoc Working Group.

2.2.2. Assist APRAST in the provision of generic implementation guidance related to the SEIs
to guide members through the SEI implementation process

2.2.3. Assist APRAST in the identification of assistance programmes such as, but not limited
to, workshops and seminars to improve the level of implementation of developed SEIs,
with the support of the Secretariat.

2.2.4. Develop and conduct a process to review existing SEIs and provide recommendations
to improve the effectiveness and level of implementation.

3. SEI AWG Modalities

3.1. The SEI AWG will work with the ICAO APAC Office to obtain information on the state of
implementation of the SEIs. This information is useful for the review of the developed SEIs and
the identification of relevant assistance programmes to improve SEI implementation levels.

3.2. Co-chairs will be elected from the nominated members. One Co-chair may be elected from a
Contracting State and the other Co-chair may be elected from industry.

3.3. The Regional Officer, Flight Safety, ICAO Asia Pacific Office will serve as the Secretary to the
SEI AWG. The COSCAP facilitators will support the SEI AWG in its activities.

3.4. Membership of the SEI AWG includes the regulatory authorities (flight operations, airworthiness
and ATM representatives), air operators, service providers, manufacturers and industry
organizations. Others may be invited to participate as appropriate to the subjects under
consideration.

3.5. The SEI AWG will normally meet twice each year in conjunction with APRAST meetings. Additional meetings may be organized when needed to address pressing safety issues. The on-going work/coordination may be accomplished through electronic communications and regular teleconferences.

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