International Civil Aviation Organization
Regional Aviation Safety Group - Pan America (RASG-PA)

WORKING PAPER

RASG-PA ESC/31— WP/07
07/11/18

Thirty First Regional Aviation Safety Group — Pan America Executive Steering Committee Meeting (RASG-PA ESC/31)
Buenos Aires, Argentina 8 to 9 November 2018

Agenda Item 3: **Safety Management processes/initiatives within RASG-PA**

PA-RAST Report

(Presented by PA-RAST)

EXECUTIVE SUMMARY

This paper briefly lists the achievements of the PA-RAST for the past meetings in 2018, discusses the planning activities status and seek guidance from the ESC on some of the topics of the working plan for the next years. The paper also discusses the agenda for 2019, considering that there will still be one PA-RAST meeting in 2018.

Action:	The ESC is invited to: a) Take note of the presented information; b) Take note on the progress of the PA-RAST planning activities, according to the attachment; and c) Discuss some of the indications of paragraphs 3.3 through 3.5 below
Strategic Objectives:	• Safety
References:	• PA-RAST valid Conclusions/Action Items[1]: o PA-RAST/26 (paragraph 8.3, no action item in report) o PA-RAST 31/05 Action Item: Safety Enhance Initiative - Detailed Implementation Plan (DIP) o PA-RAST 31/07 Action Item: MAC and GTE joint analysis o PA-RAST 31/08 Action Item: PA-RAST ToR o PA-RAST 31/09 Action Item: RASG-PA Website

1. Introduction

1.1 During the last ESC Meeting, that took place in Baltimore, United States, from 22 to 23 March 2018, a decision regarding the overall working structure of the PA-RAST was made. From the discussions initiated with the WP/17 of said meeting, the ESC pointed that the Group should:

[1] As shown in the Working Paper no. PA-RAST/32-WP/02.

a. Implement a Project management approach to RASG-PA and use the RASG-PA budget for studies
b. The PA-RAST to detail and make visible its outcomes
c. Improve RASG-PA/PA-RAST web information/reports and general documentation
d. PA-RAST Coordinator needs to ensure that the RASG-PA outcomes (hotspots/DIPs/etc.) are tracked and linked with other Regional Office efforts, such as: RSTs, Large Height Deviation (LHD), Performance-Based Navigation (PBN) implementation, etc.

1.2 As for the agenda, the meeting noted that 2019 will have a RASG-PA Plenary Meeting in June and two ESC Meetings, one in March (NACC) and the other in September (SAM), both also in time for the group's arrangements and coordination for the 40th ICAO General Assembly.

1.3 This year's PA-RAST agenda has seen three meetings, with a fourth set for the week after the 31th ESC Meeting. The main achievements of the meetings were:

- PA-RAST/31 (Miami, EUA):
  - Review of all activities and concluded CFIT and LOC-I efforts, while RE and MAC still had ongoing projects;
  - Discussion regarding the GASP SPI framework and what should the PA-RAST adopt;
  - Data summary from FDX and ASIAS showed progress on availability of data sources;
  - Brief on the challenges on how to integrate General Aviation data;
  - Beginning of integration between PA-RAST MAC SET and GTE from Grepecas.
- PA-RAST/32 (Ottawa, Canada):
  - ANS integration opportunities in the PA-RAST processes;
  - MAC evaluation of current efforts indicated underperformance of participation from the pilot community (survey);
  - Progress on the RASG-PA website revamp, to facilitate communication (among members and to the broader community);
  - Decision to dedicate the next meeting to the Team's planning for the next years;
  - Integration with Canada's CST efforts.
- PA-RAST/33 (Quito, Ecuador):
  - Two-day planning workshop, which resulted in several inputs to form a draft working plan for the PA-RAST;
  - Review of current MAC efforts and the decision to halt pending actions until the planning activities are finished;
  - Integration with Ecuador's CST efforts.

2. Discussion

2.1 As a result of this year's meetings, the PA-RAST made significant progress towards the four inputs given by the ESC (as outlined in paragraph 1.1 above), but there is more to be done until the objectives set by the ESC are achieved effectively.

2.2 To move to this important milestone, the PA-RAST will continue its planning activities in the next Meeting (34th) that will take place in Miami, at the IATA Regional Office. The document in the attachment contains the current draft of the PA-RAST working plan.

2.3 In summary, the Team has tried to keep the "core business" of the data-driven approach untouched, while trying not to limit the SETs scope to the current definitions of precursors (and simply following up the trend analysis), but also enhancing the focus on diversifying the sources of data and, as a consequence, reassuring the importance of the CST fostering role of the PA-RAST.

2.4 At the current stage of development of the planning activities, there is indication that the PA-RAST will have three basic activities:

i. Monitoring the effective implementation of past efforts, through concise metrics and its relative impact on the past and current safety trends;
ii. Prospection new activities, with the evaluation of safety data, especially by means of aggregating new data sources, coordinating with other groups (such as RSOO and PIRG); and
iii. Execution and deployment of DIP objectives, according to established goals (from the metrics) and target completion dates (using a project-management approach).

2.5 The PA-RAST will also monitor emerging issues and evaluate the Group's adherence to the ICAO Global Plans, so as to guarantee that the RASG-PA retains its role in safety management: that the RASG-PA can be a suitable forum to coordinate all CST efforts, for those countries that implement such a team, or be the *de-facto* collaborative safety initiative for a State whose SSP indicates that the RASG-PA structure satisfies their needs for proactive safety management.

3. Workforce and resources considerations

3.1 To effectively tackle all of the aforementioned goals, the RASG-PA has to allocate its resources, especially the available (and somewhat limited) workforce, so that objectives are reached in a reasonable timeframe.

3.2 Moving to a solution to the problem of resources allocation, an ESC discussion is paramount. Accordingly, the present working paper is intended to open such a discussion during the meeting, in a way to prioritize the efforts of the Team.

3.3 As long as the PA-RAST has concluded most of its DIP actions, and halted the "under development" MAC SET activities, the PA-RAST considers that there is no need to further the discussion on the implementation of DIPs at the moment. But there is a need for the ESC to discuss the balance of resources of the PA-RAST so as to optimize deliverables on monitoring the past efforts and to prospect and develop new activities.

3.4 The PA-RAST planning is still in progress and it is expected that the next PA-RAST meeting will produce a usable version of the working plan, so as to drive the Team's agenda for 2019 and on. As incorporating ESC observations is central to the effectiveness of said plan, the ESC should consider a discussion on adopting a *fast-track* approval by electronic communication, in a timeframe that the ESC finds suitable, or wait for the next ESC Meeting in March 2019.

3.5 It is also expected that the ESC take into consideration the Meeting's agenda for 2019, and the objectives or allocation of resources could be directed to some Meetings (e.g. dedicate some agenda for preparing to the ICAO General Assembly, to the RASG-PA Plenary, the continuity of CST fostering initiatives by the PA-RAST, etc.).

4. Required action

4.1 The ESC is invited to:

a) Take note of the presented information;

b) take note on the progress of the PA-RAST planning activities, according to the attachment; and

c) discuss some of the indications of paragraphs 3.3 through 3.5, regarding:

a. Balancing of resources / efforts;
b. Process for ESC considerations on the PA-RAST Planning; and
c. The 2019 meetings agenda.

— END —

PA-RAST Working Program
2019-2028

A) General
B) Data Analysis
C) Safety Enhancement Teams

A) General

A1) Standard Methodology

All strategies the PA-RAST must consider must be proposed and approved by the Executive Steering Committee (ESC). Such strategies must include objectives and proposed deliverables in the following manner:

- Establishment of a clear scope (problem/solution relation): which translates to a Safety Enhancement Initiative (SEI), which should be comprised by:
  - Statement of Problem/Solution
  - Implementers
  - Statement of Work
  - Total Financial Resources
  - Relation to Current Aviation Community Initiatives
  - Performance Indicators
  - Key Milestones / Specific objectives
  - Potential Obstacles
- Each SEI should contain detailed plans of implementation (DIP), comprised by:
  - Specific Objective Description
  - Lead Organization
  - Supporting Organizations
  - Implementers
  - Detailed Actions (for each implementer)
  - Financial Resources
  - Itemized Resource
  - Time Line (for each detailed action)
  - Target Completion Date

A2) Overall Performance Indicators

The PA-RAST should collect its own performance data and compile the indicators in the following manner:

- Number of active/completed SEI
- Number of active/completed DIP
- Specific DIP performance (Gantt Charts)
- Number of deployed/active/completed Go-Teams
- Number of proposed/approved RASG-PA Safety Advisories
- Number of Collaborative Safety Teams (implemented, in development, stalled)

A3) Safety Performance Indicators

From the completed DIPs and related outputs, the PA-RAST should compile data to follow up the aviation system reaction to those outputs:

- Fatality risk (overall)
- Specific events trend evaluation and following:
    - Runway Safety (RE and RI) trends
    - TCAS-RA/TA trends
    - CFIT precursors trends
    - LOC-I precursors trends

- There is a need to integrate the guidance material with one specific SPI (safety advisories, etc.)

A4) Resources

The PA-RAST counts on all its participating organizations (industry and states) to:

- Analyse data
- Develop Safety Enhancement Initiatives and the corresponding Detailed Implementation Plans
- Assign teams, task forces or identify the most adequate party to execute the plans, according to timeframes, costs, etc.

B) Data Analysis

B1) Sources of Information

The basic PA-RAST Data Analysis process should rely on the following data sources: (aggregate data, specific analysis from working groups, accident/incident/event data)

- Operational data (FDX, ASIAS, etc.)
- ANSP reports information (not raw data)
- Pilot reports information (not raw data)
- Inspectors reports information (not raw data)
- Consolidated trends (iStars, SIMS, etc.)

Such data is provided by the following stakeholders:

- IATA
- CAA
- Collaborative Safety Teams (CAST, BCAST, etc.)
- ICAO (iStars, SIMS, SSP implementation)
- RSOO (IDISR)
- PIRG/RMA (Grepecas / Carsamma)
- International reports
- ETC. (non-exhaustive list)

Data analysis is directly linked to SEI development and should point to:

- Current taxonomy of events;
- Trends variations;
- Integration of different operational criteria (commercial, non-scheduled, RPA, etc.) – what is and what is not seen on current data.

The Data Analysis process will be done by specific teams

C) Safety Enhancement Teams

C1) Commercial Aviation:

Continuing the basic mandate of the group, to focus on the main areas of aviation safety risk management, the PA-RAST shall maintain the following basic SET structure:

- LOC-I SET: Loss of Control – In Flight

  - Go-Around
  - Spatial Disorientation
  - Stall/Spin
  - Weather
- CFIT SET: Controlled Flight Into Terrain
  - Undershoot/Overshoot
  - Glideslope
  - Weather/windshear
  - Terrain
  - Unstable approaches
- RS SET: Runway Safety (Excursions and Incursions)
  - Unstable approaches
  - Hard landings
  - Runway incursions/excursions
  - Misconfiguration
  - Aborted takeoff
  - Go-Arounds
  - Taxiway deviations
  - Wrong surface events
  - Glideslope
- MAC SET: Mid Air Collision
  - Large height deviations
  - TCAS RAs

The following perspectives are incorporated in the SET working plan:

- The RS SET is responsible for coordinating efforts with RSOO Inspectors indicators, ground ops.
- The CFIT and LOC-I SET are responsible for coordinating with the RSOO with regards to pilot training and proficiency, airline operating procedures and new technology requirements.
- The MAC SET is responsible for coordinating efforts with the Grepecas/GTE and Carsamma.

C2) Other / Specific areas:

These should include emerging issues, new areas of interest and new challenges for the PA-RAST, such as:

- Integration of Business Aviation (Commercial Non-Scheduled above 5.700 kg) and relevant General Aviation Data into the PA-RAST processes
- Remotely Piloted Aircraft integration in the airspace
- Looming balloons
- Language proficiency
- Psychological/medical certification
- Decision making
- Supersonic transport
- Lasers

C3) Expected outputs

Report to ESC:

The PA-RAST is expected to report risk areas, precursors and emerging issues to the ESC, either for information of for guidance on mandate for the PA-RAST. The PA-RAST “Report to ESC Checklist” is:

1. PA-RAST responsibilities – Develop DIPS, Implementation, Monitor Effectiveness, Develop metrics to monitor effectiveness, DIPS must define: resources, methodology, plan of action, etc. Also, check with other RASGs to look at existing DIPS
2. Delegate – Prepare information, share safety intelligence, monitor work execution by designated representative
3. Monitor – Monitor status of risk area, upgrade if status changes

The PA-RAST report to the ESC must focus on:

a) Data and information trends evolution over time;
    a. Report on progress of DIPs and any metrics, utilize existing format;
    b. Status of active and completed DIPs, including delegated tasks;
    c. Report on status of monitoring, and possible changes in risk areas;
b) The need for coordination with other groups (such as other RASGs, RSOOs and PIRGs);
c) Resources allocation for specific tasks (e.g. who and how to integrate business aviation data into the PA-RAST process)
d) Regional position towards ICAO Resolutions and Global Plans