PA-RAST/31 — WP/02
19/02/18

Thirty First Pan America — Regional Aviation Safety Team Meeting (PA-RAST/31) of the Regional Aviation Safety Group — Pan America (RASG-PA)
South Florida, United States, 20 to 22 February 2018

Agenda Item 2: **Review of PA-RAST Action Items**

REVIEW OF PA-RAST ACTION ITEMS AND OTHER RASG-PA RELATED CONCLUSIONS

(Presented by the Secretariat)

EXECUTIVE SUMMARY
This working paper presents the RASG-PA and ESC valid conclusions and decisions for the PA-RAST review, updates and actions.
The Regional Aviation Safety Group — Pan America (RASG-PA) and the Executive Steering Committee (ESC) record their activities as Conclusions and Decisions. Conclusions are RASG-PA actions requiring communication and action by ICAO, States/Territories, and/or international organizations/industry. Decisions are RASG-PA internal agreements.
Appendix A1 and A2 presents the valid conclusions and decisions from PA-RAST/30 Meetings.
Appendix B presents the valid conclusions and decisions from the RASG-PA/ESC/29 Meeting.

Action:	Take note of the valid conclusions and decisions of the RASG-PA Meetings.
Strategic Objectives:	• Safety
References:	• Thirtieth Pan America — Regional Aviation Safety Team Meeting, (PA-RAST/30), Port-of-Spain, Trinidad and Tobago, from 14 to 16 November 2017 • Twenty - Ninth Regional Aviation Safety Group — Pan America Executive Steering Committee Meeting (RASG-PA ESC/29) Summary of Discussions, ICAO NACC Regional Office, Mexico City, Mexico, 29 - 30 November 2017

— — — — — — — — — — —

APPENDIX A1

Pan America – Regional Aviation Safety Team (PA-RAST) Report

OVERVIEW

Reports from PA-RAST/29 Ft. Lauderdale and PA-RAST/30 Port-of-Spain, Trinidad and Tobago

Status of Detailed Implementation plans

PA-RAST Deliverables to the ESC

PA-RAST/29

Meeting with the US Commercial Aviation Safety Team and GA Joint Steering Committee

Ongoing work on Detailed Implementation Plans
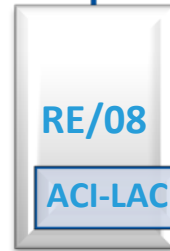
Discussions on ESC Deliverables

PA-RAST/30

Meeting with Trinidad and Tobago Industry Stakeholders and Regulators

Closeout of activities: LOC-I and CFIT DIPs

Final Discussions on ESC Deliverables

Pan America - Regional Aviation Safety Team
Completed DIPs 2008-2014

SUMMARY OF OUTPUTS

- **Distributed RERR Toolkit to Operators and States**
- **Conducted Surveys on Go-around policies and unstable approach mitigation**
- **Provided advanced maneuvers manual to all operators**
- **Developed RASG-PA Aviation Safety Workshop´s**
- **Developed and delivered Pilot Monitoring Toolkit**
- **Guidance for Runway Maintenance IAW Annex 14**
- **Compiled and Published aviation safety tools and materials**
- **Standardized CFIT Training across operators**
- **Developed Safety Recommendation (RSR) Process**
- **RSR on Mode Awareness and Energy State Management**
- **Runway Safety Team in Mexico City, MX**

Pan America - Regional Aviation Safety Team
Active DIPs 2014 - Present

PA-RAST

BRAZIL & AIRBUS

CFIT	LOC-I	RE	MAC
1	5	4	4

Detailed Implementation Status

LOSS OF CONTROL IN FLIGHT

LOC-I

Detailed Implementation Plan Status

DIP 196: Effective Upset Prevention and Recovery Training (UPRT), Including Approach-to-Stall.

Deliverable: Air Carriers conduct effective UPRT in realistic scenarios, and using qualified flight simulator training devices.

Status: Checklist developed and distributed.

Detailed Implementation Plan Status

DIP 197: Flight Crew Training for Non-Normal Situations

Deliverable: Air carriers clearly emphasize in policy and standard operating procedures (SOPs) and reinforce in training, the importance of establishing controlled and stabilized flight as the primary consideration during non-normal situations, prior to troubleshooting or execution of checklists

Status: Checklist completed and delivered

Detailed Implementation Plan Status

DIP 198: ASA-Training Scenario-Based Training for Go-Around Maneuvers

Deliverable: Air Carriers conduct effective, scenario-based go-around training that matches realistic situations

Status: Implementation checklist complete and delivered

Detailed Implementation Plan Status

DIP 199: Flight Crew Training ECRM

Deliverable: Air carriers and other training providers as well as regulators enhance
acceptance, utilization and effectiveness of crew resource management (CRM) principles on the flight deck by revising curriculum content and delivery. These principles should provide clear, unambiguous roles for the pilot flying (PF) and pilot monitoring (PM) in normal and non-normal operations.

Status: Implementation Checklist complete and delivered

Detailed Implementation Status

Controlled Flight Into Terrain (CFIT)

Detailed Implementation Plan Status

DIP: Survey States to know if GPWS is a Regulatory Requirement

Deliverable:

Status:

Detailed Implementation Plan Status

DIP: Produce a Checklist for CAA Inspectors to make sure Airlines comply with CFIT Regulations, training, SOPs and software and database updates

Deliverable:

Status:

Detailed Implementation Plan Status

DIP: Vertical Guidance to replace circle to land approaches

Deliverable:

Status:

Detailed Implementation Plan Status

DIP: Update Airport Obstacle Charts in accordance with WGS-84

Deliverable:

Status:

Detailed Implementation Plan Status

DIP: Survey States to know Obstacle and Terrain Implementation Area 1, 3 and 4 Status

Deliverable:

Status:

Detailed Implementation Status

Runway Excursion (RE)

Detailed Implementation Plan Status

DIP: RE Programme Session

Deliverable: A facilitated training session between Pilots and Controllers to fun simulated flight execution

Status: On-going activity for 2018

Detailed Implementation Status

Mid Air Collision (MAC)

Detailed Implementation Plan Status

DIP: Incorporate Eurocontrol's Level Bust Toolkit

Deliverable: Incorporate into flight crew and ATCO training programs

Status: Translated to Portuguese and need for validation/translation to Spanish. Publish to RASG-PA Web site and work on marketing strategy

Detailed Implementation Plan Status

DIP: Call Sign Designation Rules

Deliverable: Update designation rules according to regional best practices to prevent communication flaws

Status: On-going. Working to secure data on state level procedures for call sign designations

Detailed Implementation Plan Status

DIP: FAA AC-980-48D

Deliverable: Incorporate into the flight crew training programs

Status: Review of survey to assess regional situation. Work with IATA to "spread the word". Initiate studies of mitigation strategies and analyze data.
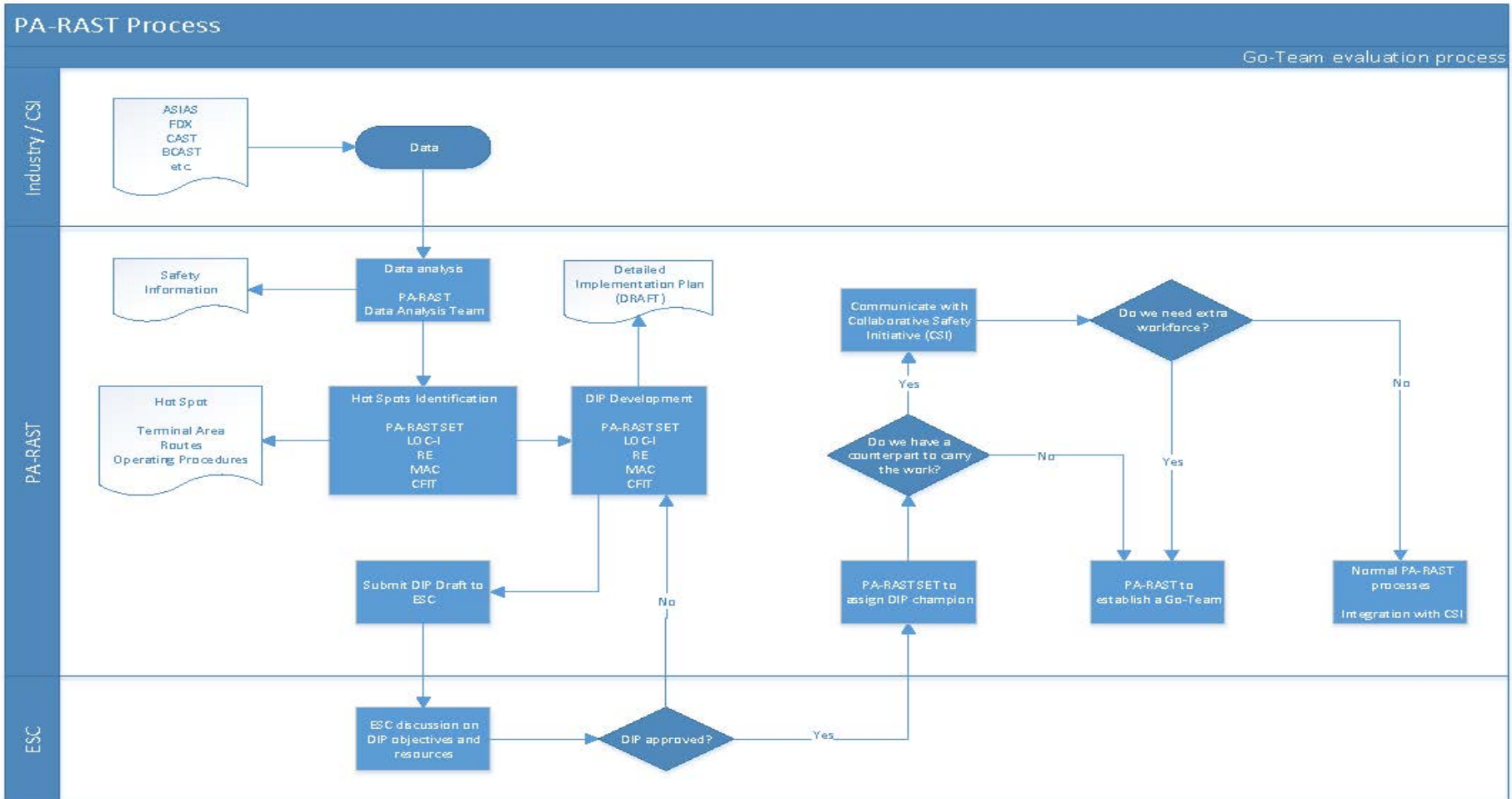
PA-RAST Deliverables to the ESC

1. RASG-PA Tactical Go-Team Concept
2. Assist CANSO with Strategic Review
3. Analyze Global and Regional Safety Targets
4. Coordination of RE Activity with the SRVSOP
5. Evaluation of Flight Safety Foundation Go-Around Decision Making and Execution Project

PA-RAST Deliverables to the ESC

1. **Tactical Go-Team Concept**
   - Should be strongly considered for implementation
   - Need for funding sources/deployment methods
   - RASG-PA Support for National Safety Teams

Flow/Design of Teams

PA-RAST Deliverables to the ESC

2. CANSO Strategic Review

- Brazil, Canada, USA, Embraer, IATA assisting
- Draft work initiated, however needs ESC input on long term strategic goals
- On-going Activity

PA-RAST Deliverables to the ESC

3. Global and Regional Safety Targets

- Can assist but PA-RAST not a implementing authority

- Need to retain strict analysis function

- Possibly expand use of the ARST for analysis on safety performance and included in future editions of the ASR

- IATA analyzing GASP-RASG programmes

PA-RAST Deliverables to the ESC

4. RE Activity with the SRVSOP

- On-going activity with between RE Team and the SRVSOP

- Work currently focused on…….

PA-RAST Deliverables to the ESC

5. FSF Go-Around Project

- Noted that many organizations providing separate input

- A timely project and raised interesting questions

- Outcomes and conclusions raised in the report may not be acceptable to industry and operators

New Framework for ASIAS and FDX Data

LOC – Loss of Control ALL ASIAS Part 121

Includes Stall Warnings and Overbanks

ALAR – Unstable Approach – Part 121 RASG-PA

Severity Levels: 1000 – 500 ft., <500 ft. HAT, Egregious

CFIT – TAWS - Part 121 RASG-PA

Available in Mode 1, Mode 2 and EGPWS

Midair Collision – TCAS - Part 121 RASG-PA

Compares FOQA and Simulation data

Define

| Overbank Classification for > 45⁰	
All Overbanks	Roll Altitude > 45⁰ for 2 seconds or more
Subthreshold Roll	Max Roll Rate from 35⁰ to Max Roll Angle < 5⁰ per second
	Max roll command into roll < max normal load factor into the roll (35⁰ to M ~ Max to 35⁰).
	Max Normal Load Factor: out of the roll > into the roll.
	Vertical speed decreases > 1,000 fpm between entry bank angle of 30⁰ to end of overbank at 45⁰
	Max Roll Rate: out of the roll > into the roll.
	Max Normal Load Factor from 35⁰ to max roll angle < 1.2g.
	Roll angle is within 2⁰ of max roll angle for < 5 seconds.
	TCAS RA alert is not present within 15 seconds.
	GPWS alert is not present within 15 seconds.
Not Subthreshold Roll	Roll Altitude > 45⁰ when at least 1 of the Subthreshold Roll criteria is not met. (This is All Overbanks – Subthreshold Rolls.)
Roll Command into the Bank	Roll Command > 5⁰ in the direction of bank when bank angle > 45⁰ resulting in bank angle of 50⁰ or more.

Must exceed at least 3 criteria

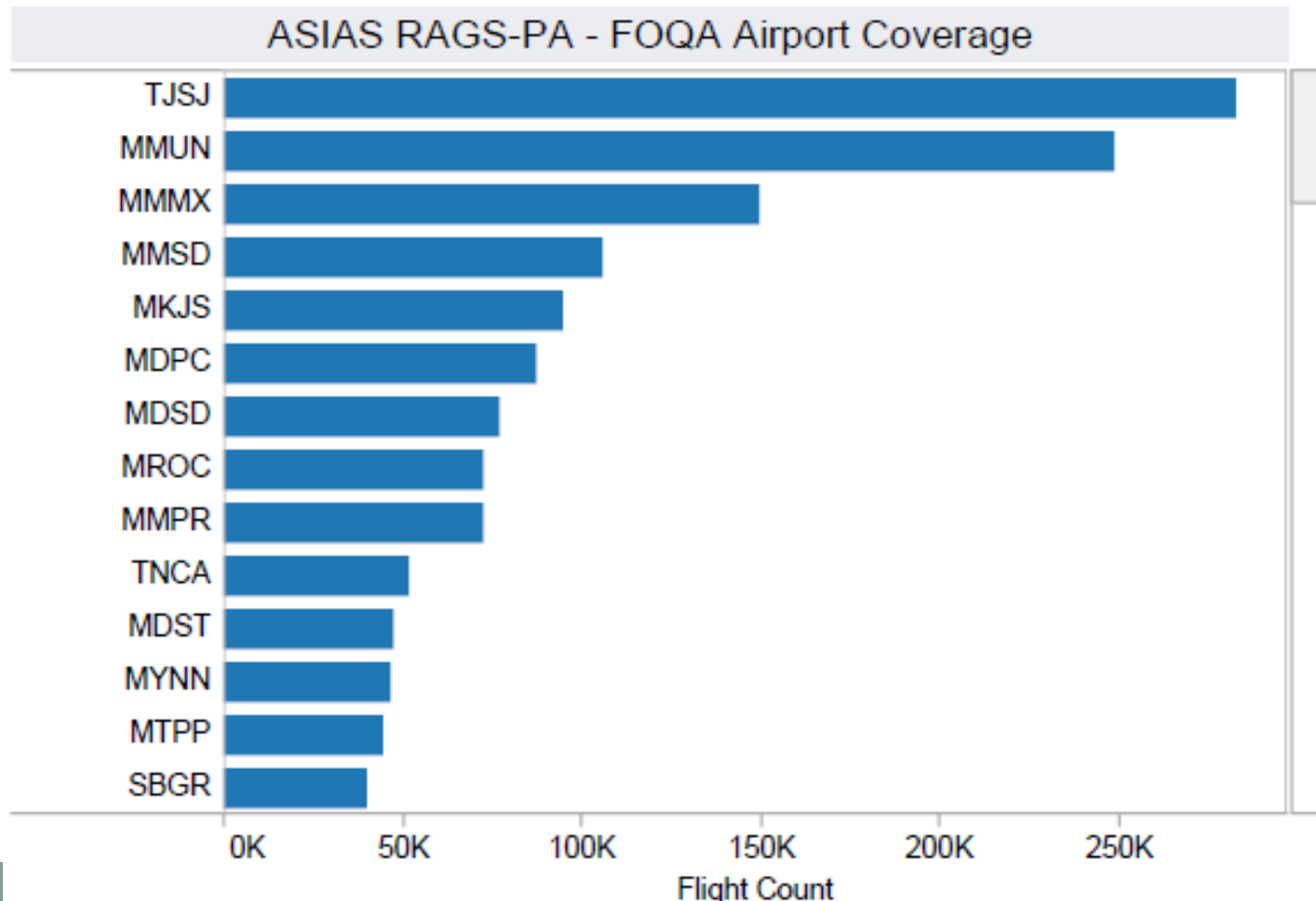$$\text{UA rate} = \frac{\#\ of\ Unstable\ Approaches}{\#\ of\ all\ Approaches}$$

$$\text{Go - Around rate} = \frac{\#\ of\ Go\text{-}Arounds\ proceeding\ an\ Unstable\ Approach}{\#\ of\ Unstable\ Approaches}$$

Category	Criteria	Standard	Egregious
ILS	Above Glideslope	> 1 dot	> 2 dot
	Below Glideslope	< -1 dot	< -2 dot
	Localizer Deviation	> 1 dot L/R	> 2 dot L/R
Airspeed	High Speed	Vref + 20 kts	Vref + 35 kts
	Low Speed	Below Vref	-3 below Vref
Descent Rate	High Decent Rate	1000 ft./min	1500 ft./min
Thrust	Low Thrust Decent	N1 35%	Below approach power limit
GPWS	GPWS Alert	Any Alert	< 1000 ft.
Configuration	Late Flaps	> 2 degrees	< 300 ft.
	Late Gear	Any	< 1000 ft.
	Speed Brakes	Any	-
Attitude	Unstable Pitch	On	-
	Unstable Roll	On	-
	Unstable Yaw	On	-

1000 to 500 ft. HAT

<500 ft. HAT

Descent Rate

Airspeed

Attitude

Thrust

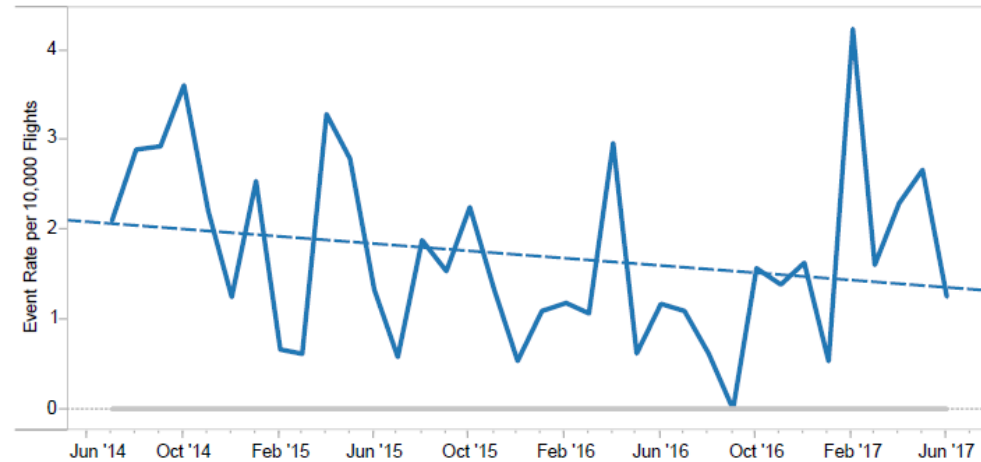*Configuration*

ILS

GPWS
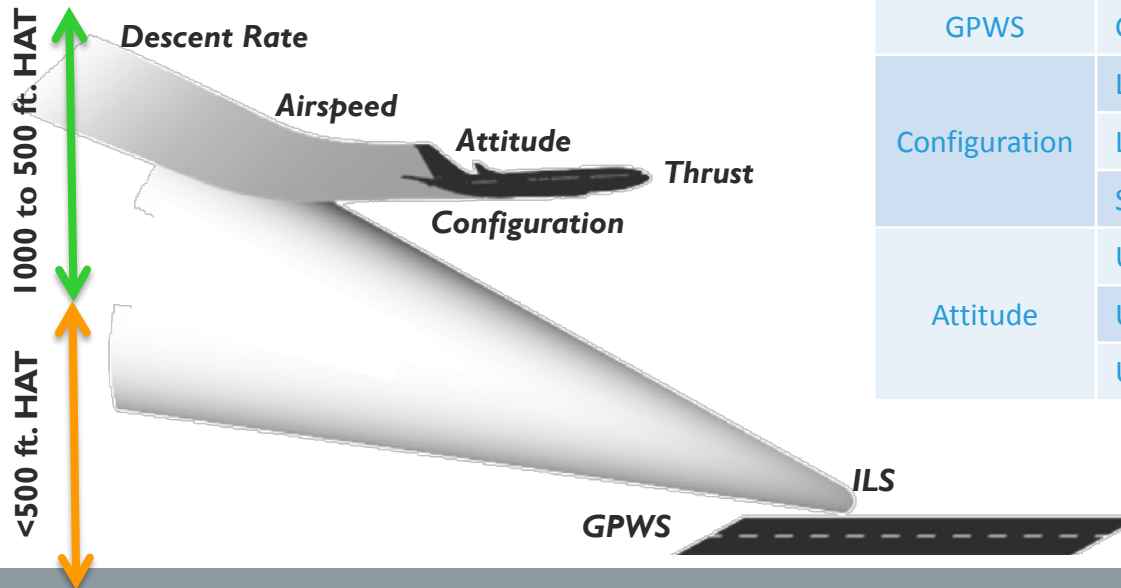
ASIAS RASG-PA Airport coverage

ASIAS RAGS-PA - FOQA Airport Coverage
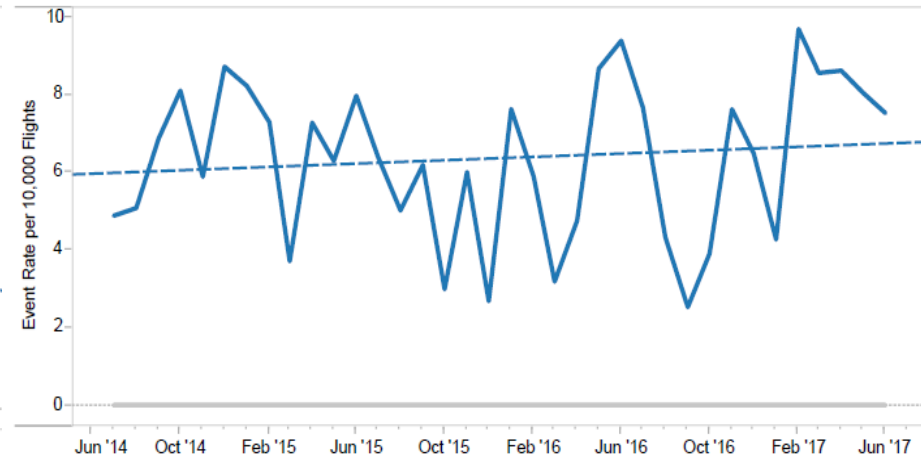
All Takeoff TCAS Event Trend Rate per 10,000 Flights

All Landing TCAS Event Trend Rate per 10,000 Flights

PA-RAST Plan

2018-2019

Assist RASG-PA to align work programme with GASP

Mitigate RE and MAC

Monitor/proactive to Regional safety issues

Coordinate work with RSOOs

Increase participation of States and Stakeholders

Collect safety information for ICAO

Summary

- Committed to improving aviation safety and enabling seamless Technical co-operation and communication between States and Stakeholders

- The PA-RAST shall continue to expand its collaboration with safety organizations to expand its data analysis reach, in order to promote aviation safety and support activities necessary to address emerging safety issues

RASG-PA

Thank you!

APPENDIX A2

REVIEW OF ALL PA-RAST DECISIONS CONCLUSION ACTION ITEMS

✈ PA-RAST OUTREACH EFFORTS:

That, for promoting recognized safety standards/management practices, the PA-RAST:

a) Discuss with the ASRT the issue of expanding data analysis for Part 129 and Part 91 carriers for inclusion into the 2018 RASG-PA Annual Safety Report;

b) promote the benefits of ISSAs; and c) begin outreach efforts aimed at Part 129 and Part 91 carriers to participate in RASG activities and at implementing continuous training activities

✈ CREATION OF ANALYSIS TEAM

That the PA-RAST consider dedicating a team to "hot spot" analysis. IATA will develop new analysis tools to assist in this effort and report its findings at the August 2017 PA-RAST meeting.

✈ PRESENTATION OF ASIAS DATA

That, in order to increase the quality of the data to be presented at PA-RAST meetings:

a) the ASIAS and FDX data be presented twice a year at PA-RAST Meetings. Preferably, it will be combined with development and review of safety enhancements at each of the three-day sessions (every six months); and

b) ongoing review of this data allows previewing precursors (predictive information) in the CAR and SAM Regions for Runway Excursion (RE), Loss of Control-Inflight (LOC-I), Controlled Flight Into Terrain (CFIT), and Mid-Air Collision (MAC) occurrences

✈ DEVELOPMENT OF KEY PERFORMANCE INDICATORS (KPIs)

That, in order to assist the Data Analysis Team with its activities

a) the Safety Enhancement Teams discuss and develop Key Performance Indicators (KPI's) for each of the groups in order to assist the Data Analysis Team in focusing its analysis; and
b) The newly created safety analysis team provide feedback to the PA-RAST by the August 2017 meeting

✈ PA-RAST SAFETY DATA

That the PA-RAST, intercessionally, shall form a small working group via web conferences to discuss and propose possible solutions on the use of more harmonized data sets, with streamlined analysis, for use by the PA-RAST and Member States, for future PA-RAST meetings

✈ RE Training Session

Programme session with the assistance of a facilitator between pilots and air traffic controllers, in order to discuss the simulated flight execution presented in the RASG-PA Runway Excursion (RE) Prevention Video (RREPV)

✈ The need for the PA-RAST to create a small Ad hoc group to provide recommendations and possible proposals on a RASG-PA Tactical Go-Team Concept at the next RASG-PA ESC Meeting to be held in October 2017

> ✈ Collaborative Safety Teams should continue to be considered
>
> ✈ Consider other funding sources/deployment methods
>
> ✈ RASG support of National Safety Teams
>
> ✈ Thorough Project Management type review
>
> ✈ Create a product for States use
>
> ✈ Design a flow chart to design concept

✈ Meeting's Secretariat to call for volunteers to form a group led by CANSO, to discuss and review RASG-PA strategic documents, safety targets and other relevant information.

- ✈ IATA
- ✈ Brazil
- ✈ Canada
- ✈ Embraer
- ✈ Secretariat

✈ The need for the PA-RAST to discuss, review and analyze the global and regional Safety target information contained in RASG-PA/ESC/28 WP12, Regional Safety Targets. (Ref: Decision RASG-PA ESC/28/2 - *Review of Corresponding Regional Safety Targets*).

   ✈ Stay the course

   ✈ Use ASRT for data on Safety Performance

✈ The PA-RAST RE SET should coordinate with the SRVSOP working group regarding the stabilized approach initiatives.

   ✈ Ongoing

✈ The PA-RAST RE SET should coordinate with the SRVSOP working group regarding the stabilized approach initiatives.

    ✈ Ongoing

✈ The PA-RAST should discuss the issues concerning the Flight Safety Foundation (FSF) Go-Around Decision Making and Execution project, provide feedback, and coordinate its analysis with GREPECAS regarding any AGA and ATM issues raised.

✈ Organizations may/may not provide their own recommendations to FSF

✈ Good report/some outcomes not acceptable

✈ Discussions ongoing outside of the RASG

✈ Comments from meeting minutes of PA-RAST 28 and 29

✈ RASG-PIRG

✈ Map out objectives

✈ What the GASP does – What the PA-RAST does

Program Management
For
PA-RAST Activities

- ✈ Add clear timelines/deliverables when able
- ✈ Quick turn of meeting minutes
  - ✈ With assistance!!!
- ✈ Share the load!
- ✈ Revamp the Website
- ✈ Create a safety calendar

Thank You!
Gracias!
Obrigado!

CONCLUSION
RASG-PA-ESC/29/1   **ENHANCEMENT OF SAFETY DATA ANALYSIS BY GREPECAS AND RASG-PA**

That, in order to enhance the safety performance analysis in the CAR/SAM Regions, and considering the existing work conducted by the PA-RAST MAC Group and the GREPECAS GTE; and to strengthen the coordination between RASG-PA and GREPECAS:

a)   the Secretariat coordinate with both groups to ensure a review of the data analysis work being conducted by each of them, identifying synergies and strengthening their work programme and outcomes; and

b)   report the results and findings to the RASG-PA ESC/30 Meeting.

CONCLUSION
RASG-PA-ESC/29/2   **FLIGHT DATA ANALYSIS PROGRAMME (FDMP)/ FLIGHT DATA ANALYSIS PROGRAMME FDAP IMPLEMENTATION IN THE NACC AND SAM REGIONS**

That, in order to broaden FDMP/FDAP throughout the NACC and SAM Regions:

a)   States take note of the results of the CBA developed by RASG-PA FDAP Ad hoc working group for the implementation of FDAP on airplanes over 5 700 kg;

b)   States and RSOOs encourage operator's review of the CBA document for them to decide their own implementation

c)   States and RSOOs analyze the aviation safety benefits if an amendment to the aviation regulations is incorporated to request FDAP on aeroplanes above 5,700 Mass Take-off Weight (MTOW); and

d)   RASG-PA request the ICAO ANC to take note of the results of the CBA document and consider an amendment to Annex 6 Part I, FDAP Recommendation 3.3.1 and Standard 3.3.2 of Section 3.3, as follows:

3.3.1   *Recommendation — All aeroplanes of a maximum certificated take-off mass over 5 700 kg should be equipped with a Quick Access Recorder (QAR). This QAR should record at a minimum the parameters recorded by the Flight Data Recorder and the operator should establish and maintain a flight data analysis programme as part of its safety management system.*

3.3.2   *All aeroplanes of a maximum certificated take-off mass over 5 700kg for which the individual certificate of airworthiness has been first issued on or after 1 January 2005 shall be equipped with a Quick Access Recorder (QAR). This QAR shall record at a minimum the parameters recorded by the Flight Data Recorder and the operator shall establish and maintain a flight data analysis programme as part of its safety management system.*

CONCLUSION
RASG-PA/ESC/29/3   **ENHANCEMENT OF DATA COLLECTION**

That, in order to enhance data collection, the Flight Safety Foundation:

a)   work with the PA-RAST co-chairs to determine the gaps in data collection that will serve the PA-RAST processes,

b)   identify and prioritize desired information to be shared for effective safety improvements, and

c)   report the results of this task to the RASG-PA/ESC/31 Meeting.

CONCLUSION
RASG-PA ESC/29/4   **PA-RAST DELIVERABLES**

That, in order to make available and visible the deliverables accomplished by the RASG-PA PA-RAST:

a)   the PA-RAST shall prepare information packages on the accomplishments of PA-RAST DIPs for States awareness, as well as for DCA Meetings and Safety Directors Meetings;

b)   the PA-RAST to follow-up on the actions agreed by the ESC, as detailed in paragraph 5.6;

c)   the Secretariat shall publish all PA-RAST deliverables and DIP information in the RASG-PA website, and

d)   PA-RAST and Secretariat to report the results of these tasks to the RASG-PA/ESC/30 meeting.

CONCLUSION
RASG-PA/ESC/29/05   **FEEDBACK ON THE IMPLEMENTATION OF GLOBAL AVIATION SAFETY PLAN GASP AND RASG-PA**

That, in order to seek feedback from States and Industry to identify actionable gaps in the implementation of ICAO Global Plans, following a more client-oriented and performance-based approach by the RASG-PA, the RASG-PA Secretariat (NACC and SAM Regional ICAO Offices):

a)   conduct a survey on the level of satisfaction and the performance results provided by RASG-PA;

b)   in consultation and agreement with the ESC Members, develop an action plan based on the survey results; and

c)   present the survey results and respective action plan to the RASG-PA Members by 30 June 2018 and inform them to the ICAO ANC.

CONCLUSION
RASG-PA ESC/29/6   **RASG-PA PREPARATION FOR PIRG-RASG MEETING**

That, in order to organize a common position and ideas for the RASG-PIRG coordination Meeting on 13 December, the PIRG-RASG Preparation Ad-hoc Group (Brazil, Canada, United States, IATA and ICAO (NACC and SVRSOP) prepare a paper to include RASG-PA's achievements, evolution/strengths and Coordination with GREPECAS, for the RASG-PA representative to present at the meeting by 7 December 2017.

— END —