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# Regional Aviation Safety Group – Pan America (RASG-PA)

## Safety Management Summit – SMS Brazil 2017

Presented by the RASG-PA Co-Chair:  
Carlos Cirilo, IATA





# RASG-PA Introduction

- ✈ First in the World (2008)
- ✈ Multi-regional (NAM/CAR and SAM Regions)
- ✈ States/Territories, International Organizations and Industry
- ✈ Aligned with Global Aviation Safety Plan (GASP)
- ✈ Data-driven / Results oriented



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# VISION

- ✈ To remain ahead of any risks to commercial aviation, seeking to achieve the highest level of safety in the Pan American Region.



# MISSION

- ✈ To reduce fatality risk in commercial aviation by ensuring prioritization, coordination and implementation of data - driven safety enhancement initiatives in the Pan American Region through the active involvement of all civil aviation stakeholders.





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# MEMBERSHIP

34 NAM/CAR/SAM States, 19 Territories and...





# RASG-PA Chairmanship

- ✈ Composed by two Co-Chairpersons:
  - ✈ ESC member representing States/Territories
  - ✈ ESC member representing International Organizations/Industry
- ✈ ESC members representing States/Territories and International Organizations/Industry shall propose their respective representative as Co-Chairperson for ratification by the RASG-PA membership



## RASG-PA Co-chairs

State/Territories Co-  
Chair

**Juan Pedro Irigoien**

Argentina

Industry Co-Chair

**Carlos Cirilo**

IATA





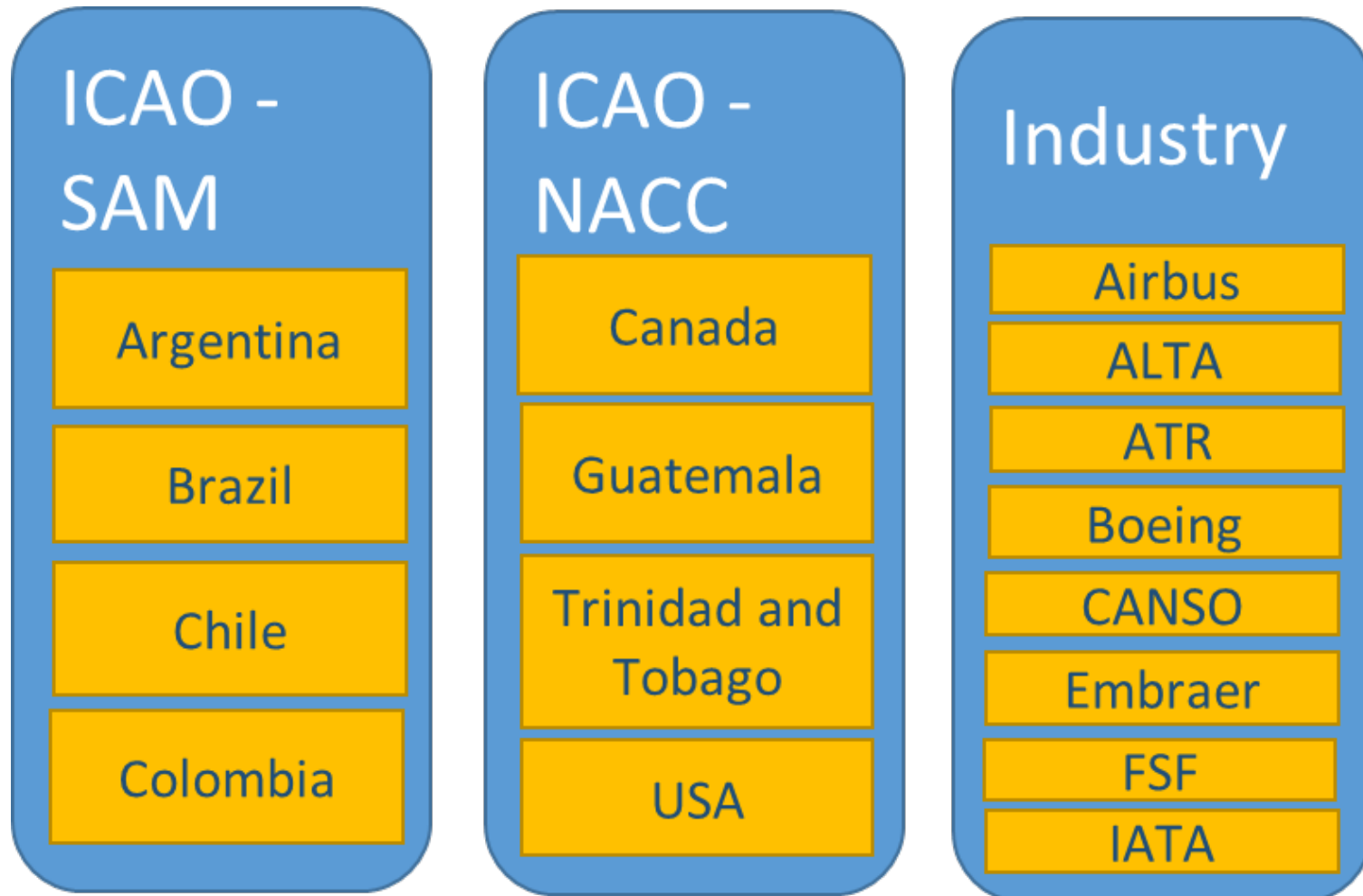
# ESC

Membership is based on:

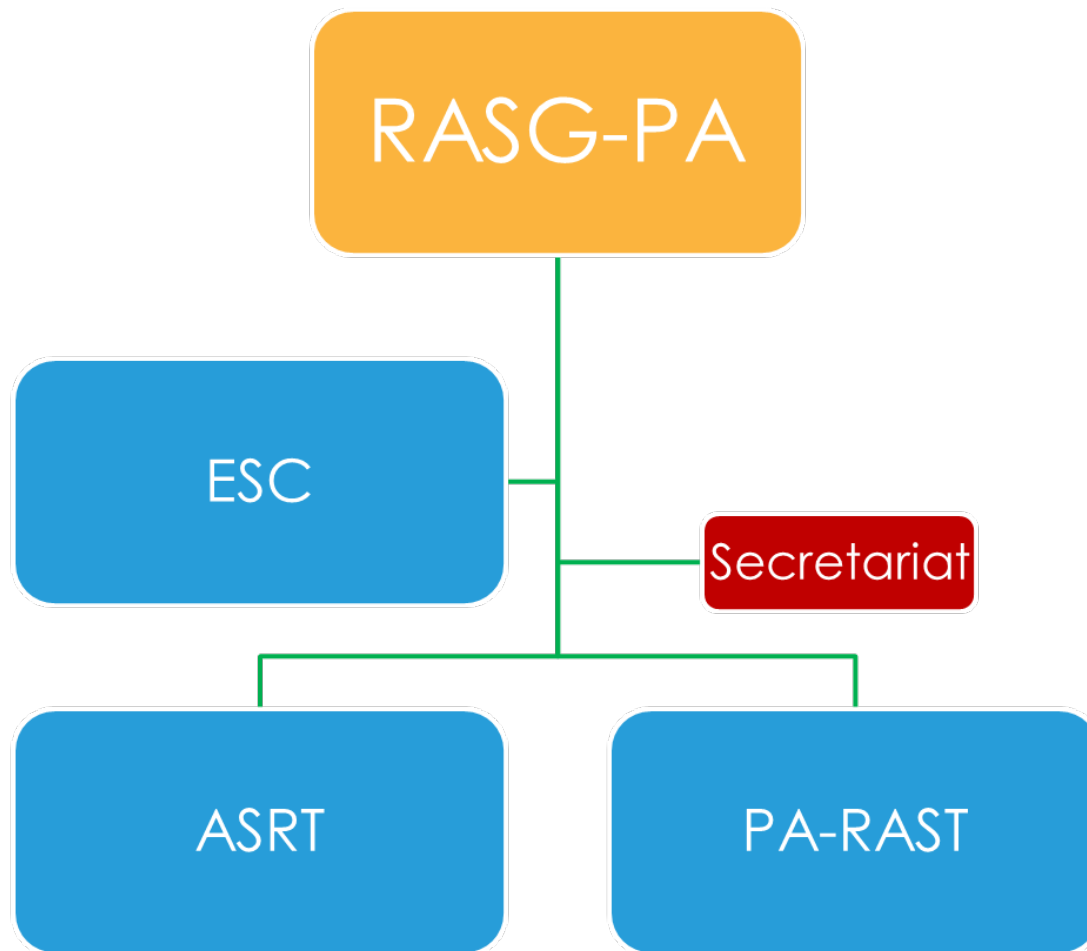
- ✈ Geographical balanced representation within and between the NAM/CAR and SAM Regions
- ✈ Balanced representation between States and international organizations/industry
- ✈ Balanced diversity of interests and areas of expertise in civil aviation
- ✈ A manageable number of members to function effectively as an executive body



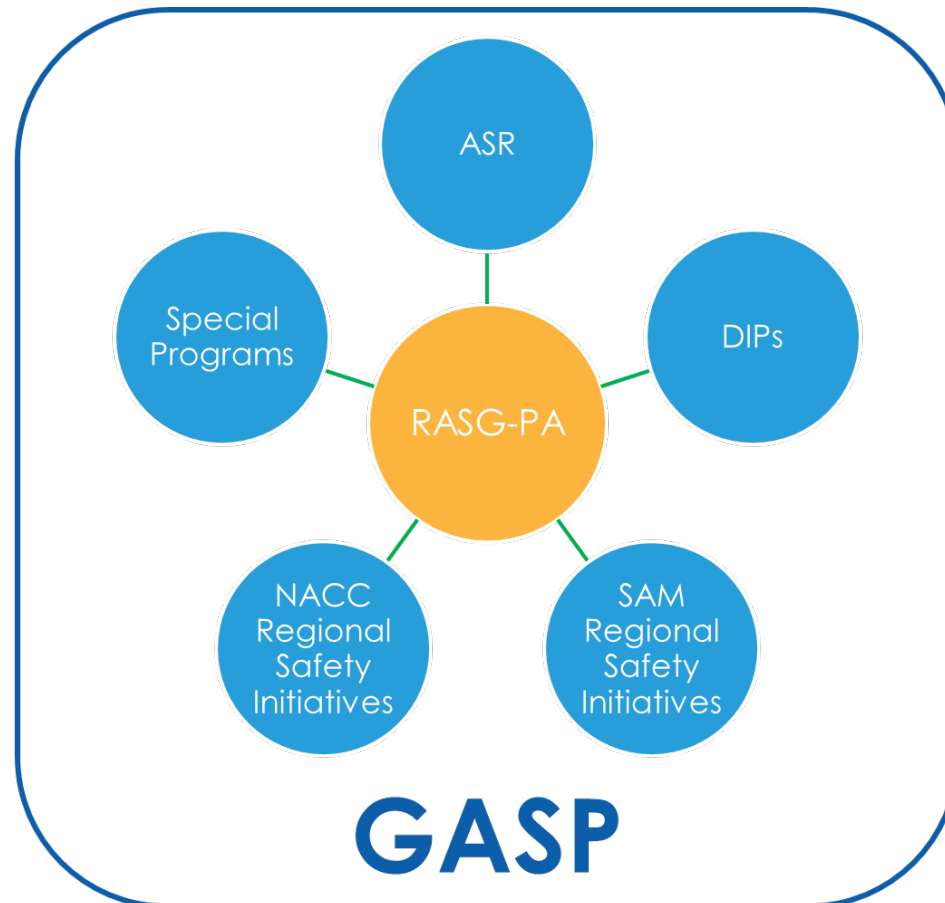
# New ESC Composition



# RASG-PA Structure

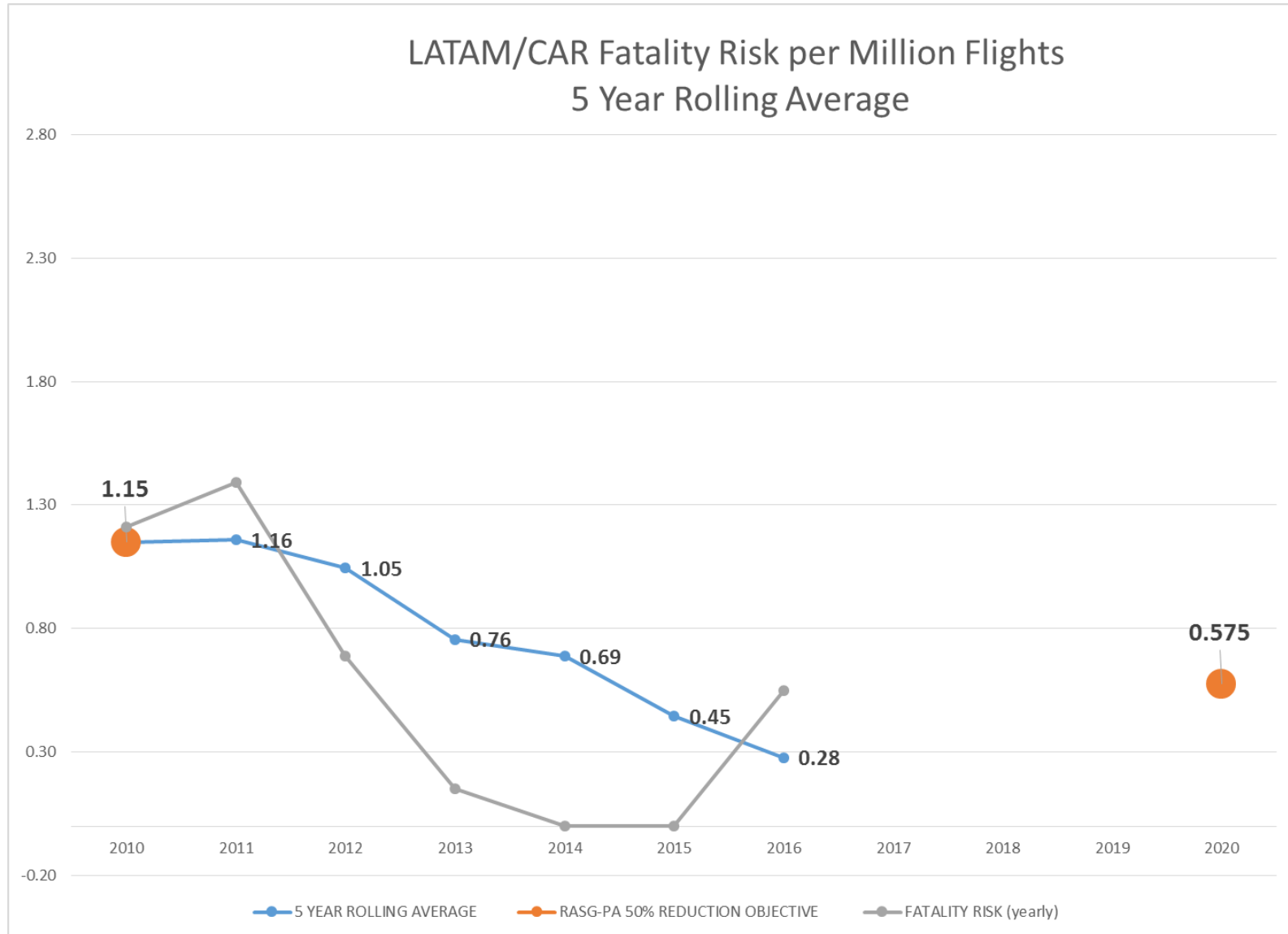


# RASG-PA Framework



# RASG-PA Objective

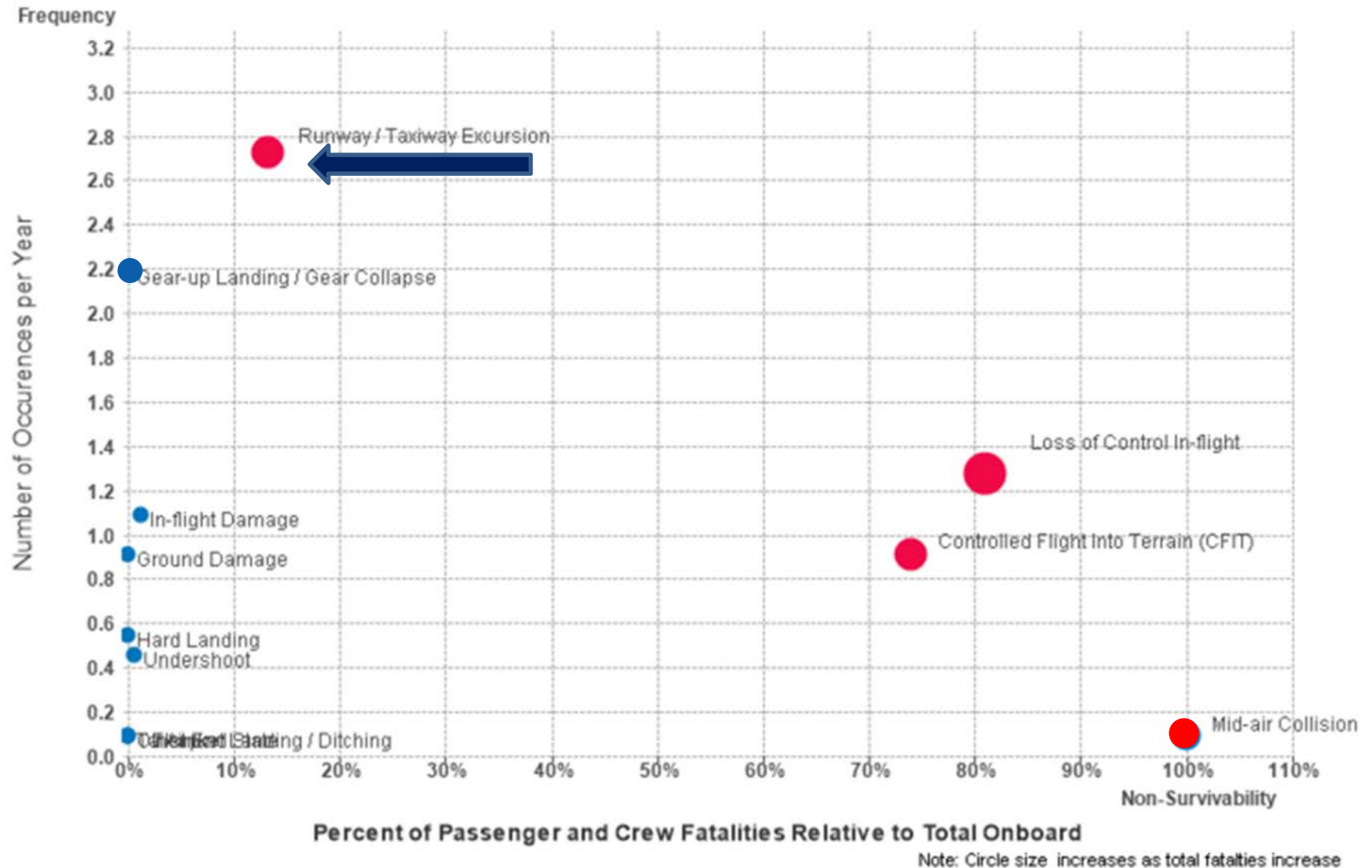
Reduce fatality risk for part 121 operators by 50% by 2020 based on 2010 numbers



# Safety Trends

## LATAM/CAR 2005-2015

### Accident Frequency and Survivability



# RASG-PA develops Safety Enhancement Initiatives (SEIs) and Detailed Implementation Plans (DIPs) for the top accident categories in Pan America



Runway Excursion (RE)



Controlled Flight Into Terrain (CFIT)

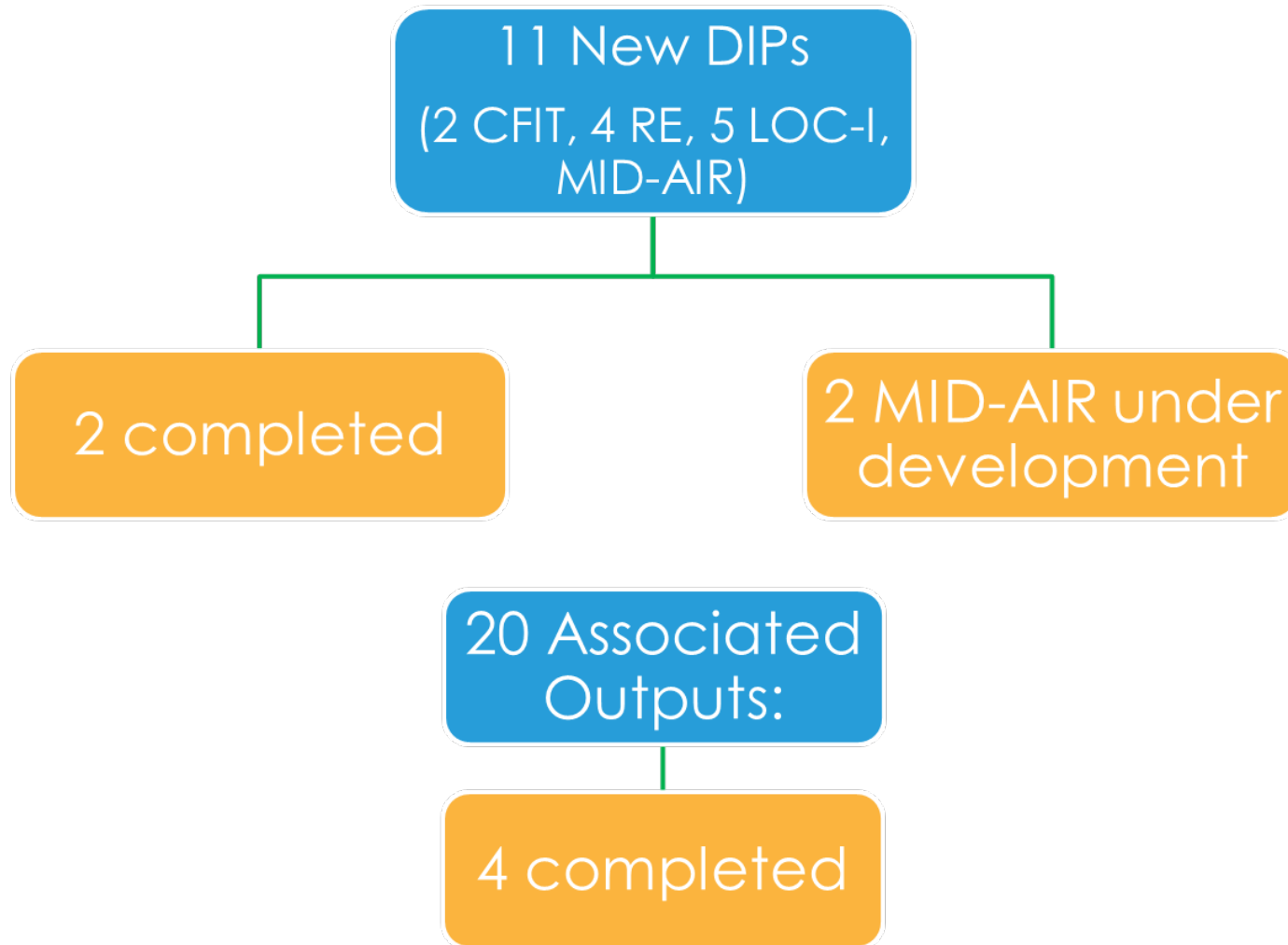


Loss of Control-Inflight (LOC-I)



Mid-Air Collision (MAC)

## 2014 – Current Work







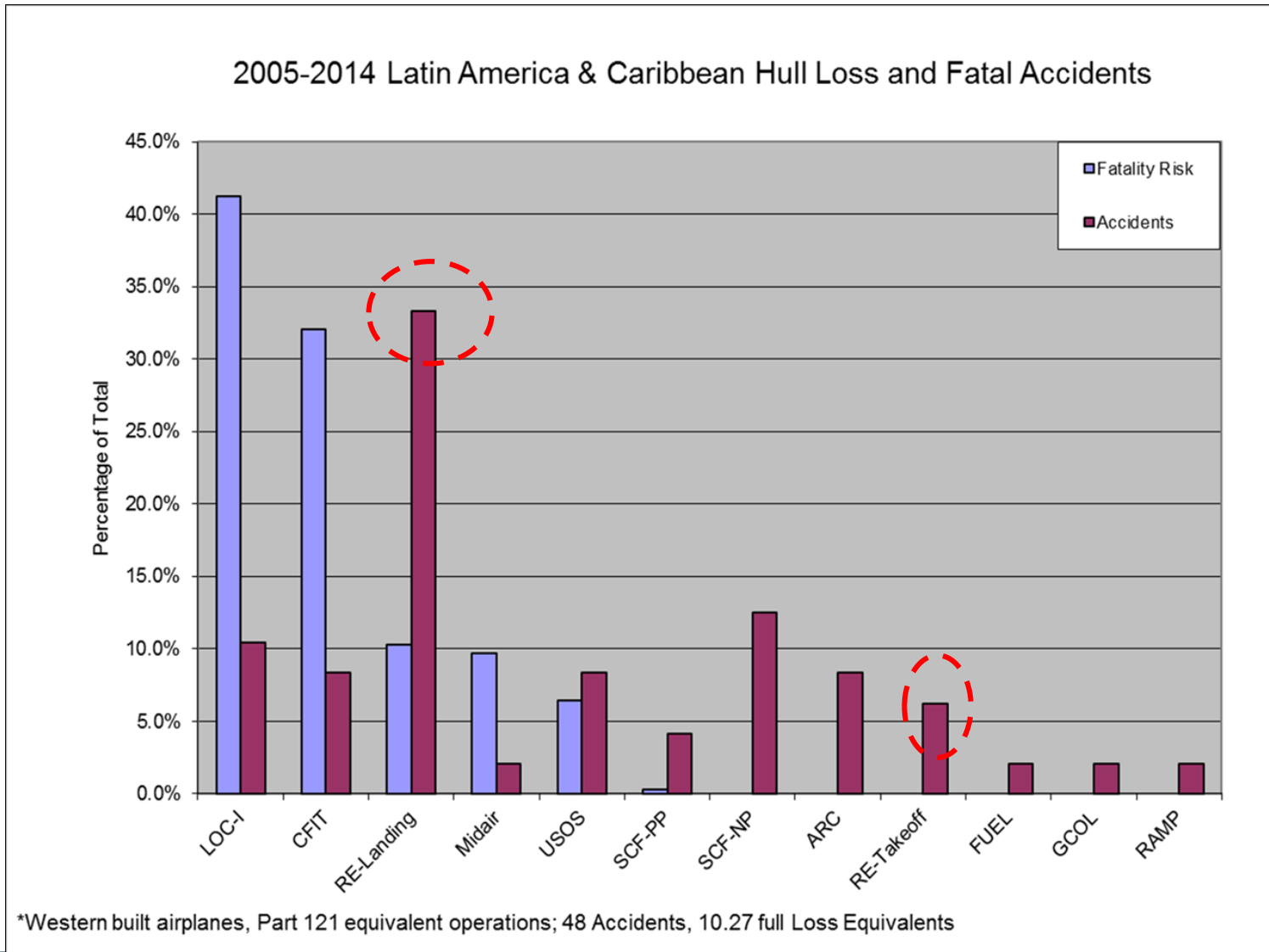
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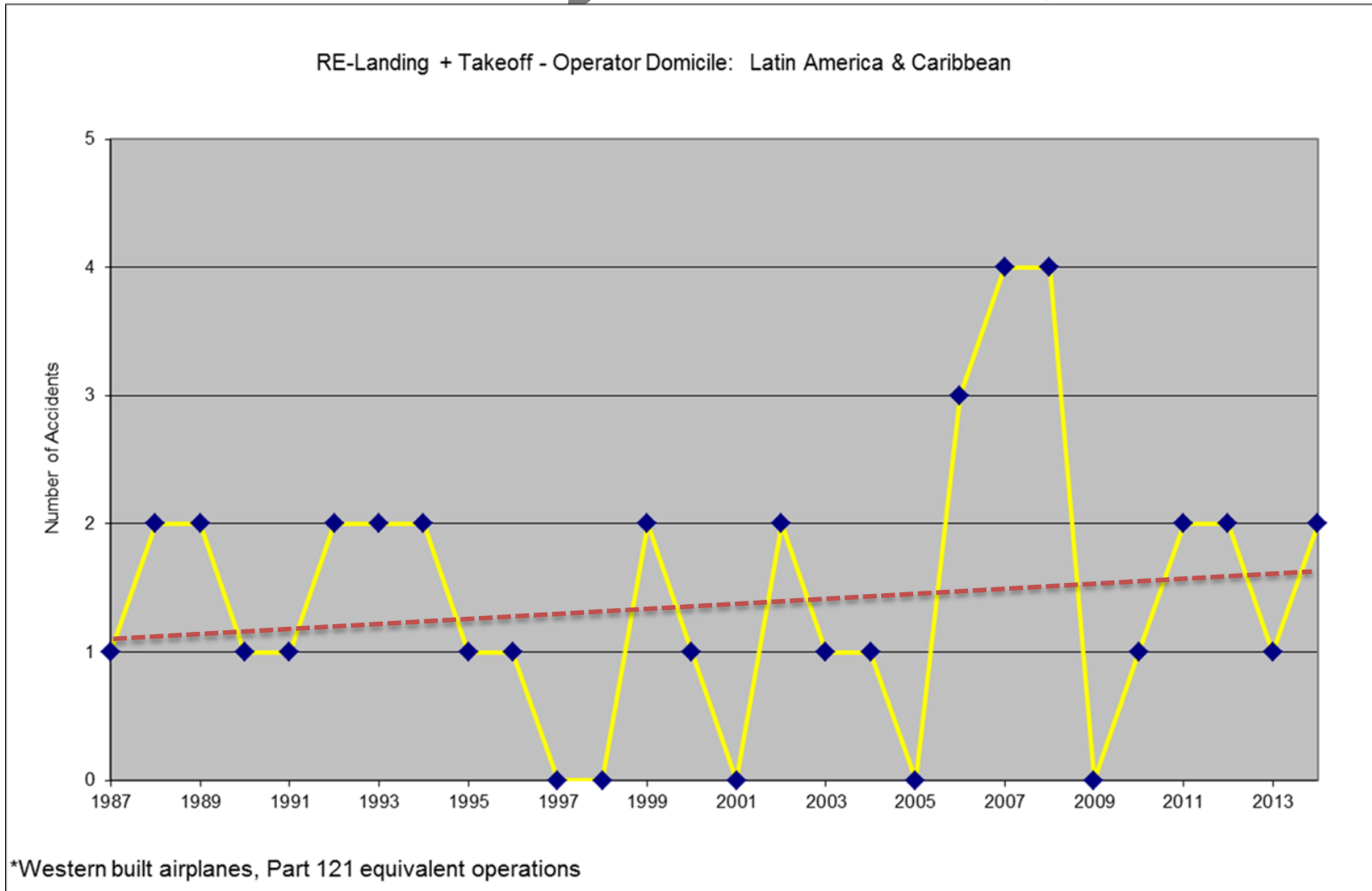
# RASG-PA Runway Excursion Team Study & Mitigations



# RASG-PA RE Team: All Accident Categories, 2005-2014



# PanAmerica Runway Excursions, 1987-2014





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## CAST RE Study: *Source Reports Reviewed*

### TALPA ARC

Airport/Part 139 WG  
Part 25 WG

### European Action Plan

EAPPRE Condensed & Full  
Report

### NLR

(National Aerospace Laboratory  
Netherlands)

NLR-CR-2010-259

### EuroControl

International RE Report

### IFALPA

(International Federation of Air  
Line Pilots' Associations)

Runway Safety Report

### CAA

Sig 7 Task Force RPT  
RE Task Force Update

### FSF

(Flight Safety Foundation)

Reducing Risk of RE

### ATSB

(Australian Gov.Safety Bureau)

RE Reports Part 1 & 2

### ACRP

(Airport Cooperative Research  
Program)

Reports 3 & 50

### FAA – Accident Investigation

RE Report  
Recommendations

### Boeing

RE Accident Summary



## CAST RE Study

### *Recommendations Refinement*

#### Review of 15 Industry Runway Excursion Reports:

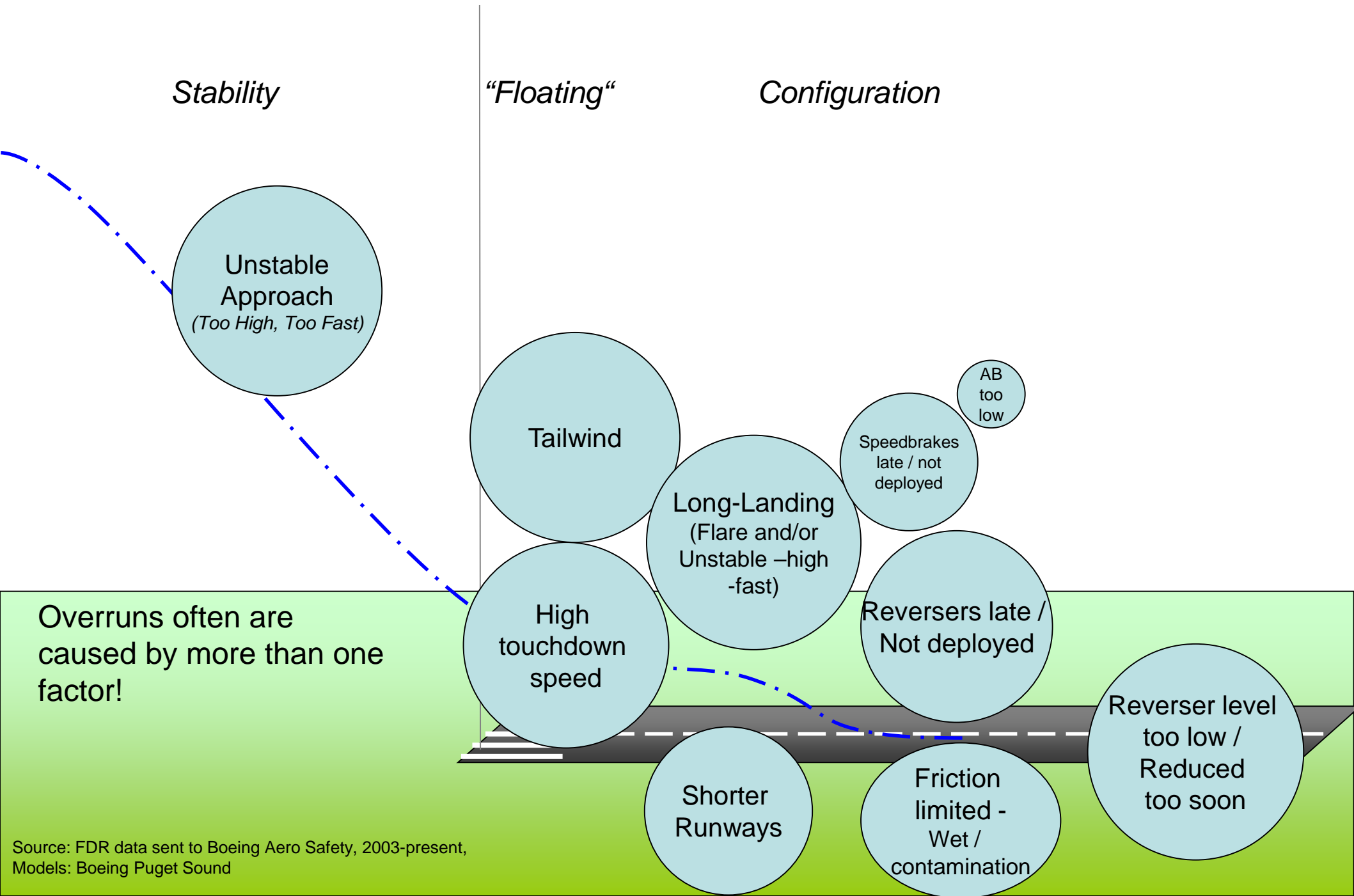
→ 273 Recommended Actions

→ 75 Intervention Strategies

→ 16 SE Concepts

→ 7 Final SEs + 1 R&D Plan

# Landing Overrun Factors from FOQA DATA





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# RASG – PA RECOMMENDED RE SAFETY ENHANCEMENTS





# **RASG – PA Recommendations Refinement from CAST RE Study**

Review of 15 Industry Runway Excursion Reports:

→ 273 Recommended Actions

→ 75 Intervention Strategies

→ 16 SE Concepts

→ 4 Final DIPs



- CAST SE 215
- CAST SE 216
- CAST SE 217
- CAST SE 218
- CAST SE 219
- CAST SE 220
- CAST SE 221

TALPA ARC – Manufactures (completed by CAST)

Landing Distance Assessment

Landing Training for Pilots

Takeoff Performance Procedures and Training for Pilots, RTO Decision

Design features to prevent RE

- Manufacturers – completed by CAST
- Airlines install as Feasible

Air Traffic Controller Training

Tailwind limits at airports – Difficult to implement

Runway distance remaining signs – Difficult to implement

Policies and procedures to mitigate runway excursion consequences & severity – Difficult to implement

RASG-PA SE 215/216

RASG-PA SE 217

RASG-PA SE 218

RASG-PA SE 219

RASG-PA Not Implemented

# Recommended Safety Enhancements

## *SE 216 and SE 217 Flight Crew Procedures and Training*



### ✈ Landing Training

- ✈ Landing Distance Assessment
- ✈ Focus on stable approach, flare, and touchdown
- ✈ Tailwind, crosswind, and contaminate runway scenarios

### ✈ Takeoff Performance

- ✈ Ensuring correct data communication from dispatch to flight crew
- ✈ Special precautions when using EFBs



### ✈ Training for the RTO Decision

- ✈ Scenario-Based
- ✈ When and when NOT to RTO

# Recommended Safety Enhancements

## *SE 219 Air Traffic and Airport Operations Procedures*



### ✈ Changes to ATC Procedures

- ✈ Training for controllers on factors that contribute to RE
- ✈ Runway selection and arrival/departure configuration based on tailwind levels
- ✈ Reporting of wind and runway condition on arrival or departure runway



# Recommended Safety Enhancements

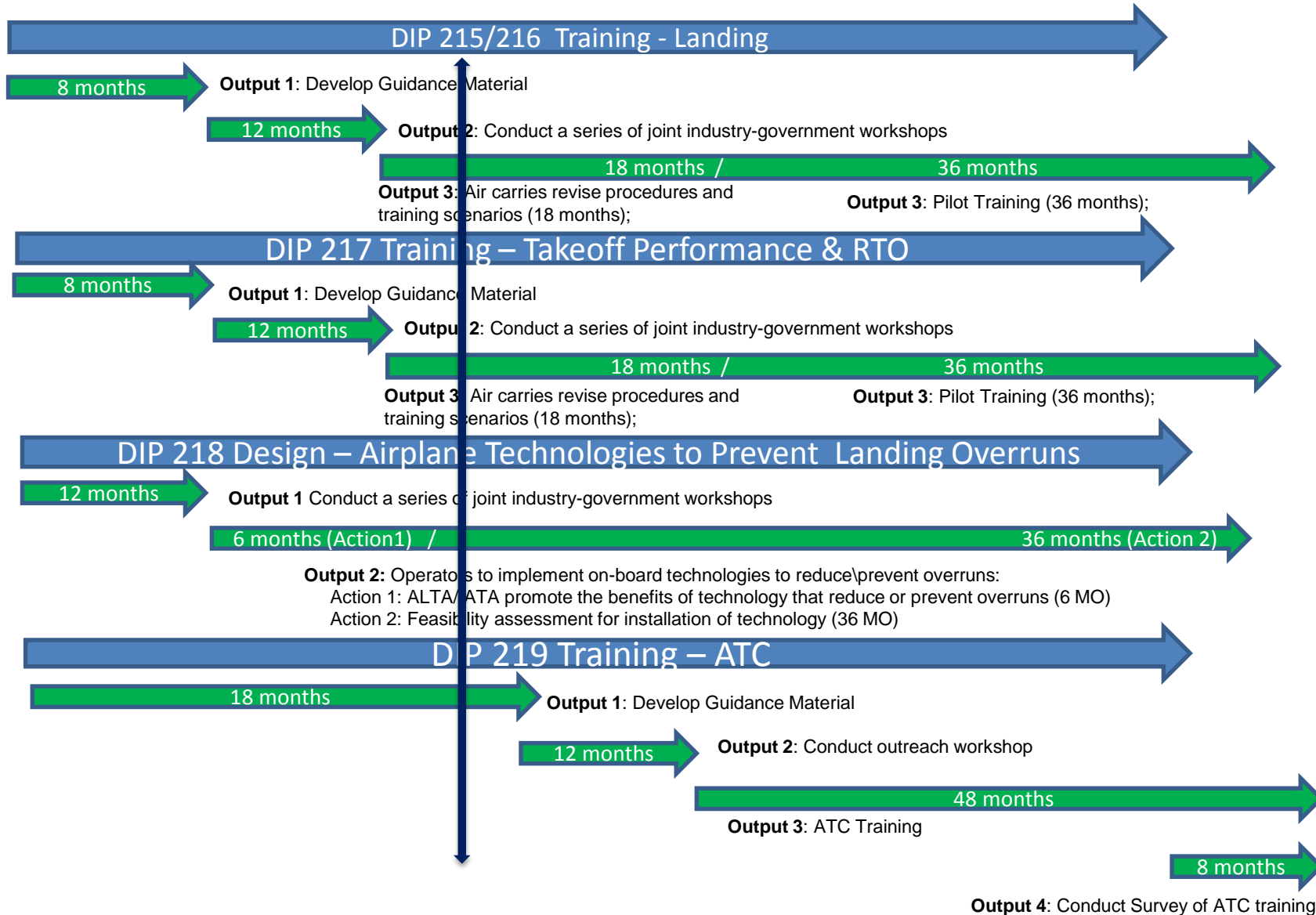
## *SE 218 Airplane Design*

- ✈ Runway Overrun Awareness and Alerting Systems
  - ✈ Manufacturer development on new and existing designs
  - ✈ Air carrier implementation as feasible and cost-beneficial



## RE DIPs - Work Timelines

RE DIPs Timelines



# Collaborative Safety Teams

✈ Updated: August 2017

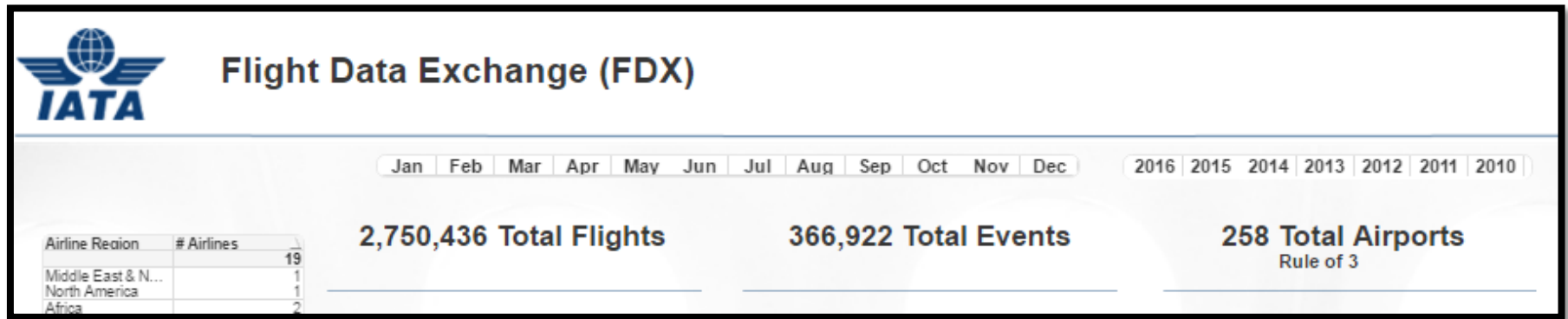
Active	Green
In Progress	Yellow
Stand By	Red
Pending	Blue







# FDX Dashboard



## 258 Rule of 3 Compliant Airports



Misconfigured Takeoff



TCAS



LOC-I



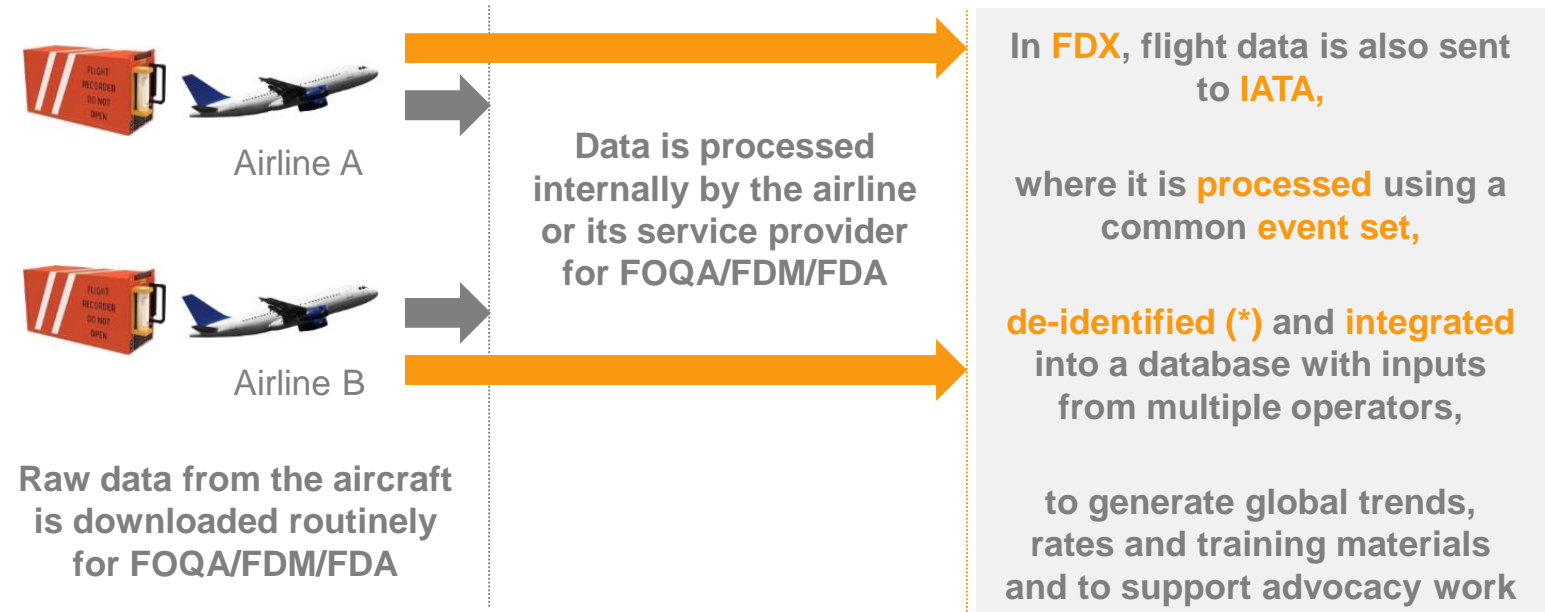
TAWS



Runway Approach & Landing

**FDX**

**How does it work?**



Raw data from the aircraft is downloaded routinely for FOQA/FDM/FDA

(\*) Data is displayed only when there are at least 3 operators with the same aircraft type. De-identification includes: no airline information is available, the tail numbers and the flight numbers are written off, the flight date is set to the first day of the month.

# FDX Report Content



## ➤ Global FDX Category Analysis

- Observations
- Analysis Notes
- Arrival airport region
- Event category
- Aircraft category

## ➤ In-depth FDX Analysis

- Overview and Definitions
- Airport(s) of focus per event analysis
- Event distribution key findings per Runway

## ➤ Conclusion





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# RASG-PA publishes Annual Safety Reports





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RASG-PA has a dedicated website:

www.icao.int/RASGPA



The screenshot shows the official website for the Regional Aviation Safety Group - Pan America (RASG-PA). At the top, the ICAO logo and name are displayed, along with the text "INTERNATIONAL CIVIL AVIATION ORGANIZATION" and "A United Nations Specialized Agency". There are navigation links for "About ICAO", "Strategic Objectives", "Aviation Development", "Events", "Publications", "Training", "Store", and "Careers". A search bar and social media icons (YouTube, Twitter, RSS) are also present.

The main content area is titled "Regional Aviation Safety Group - Pan America" and includes a navigation menu with links such as "RASG-PA Home", "General Information", "Programme 2016", "RASG-PA Safety Advisory", "RASG-PA Plenary Meetings", "Executive Steering Committee (ESC)", "Pan America - Regional Aviation Safety Team (PA-RAST)", "Safety Enhancement Team", "Information Analysis Team (IAT)", "Annual Safety Report Team (ASRT)", "Aviation Safety Training Team (ASTT)", "Meeting Reports", "Training Material", "Pan American Aviation Safety Summit", "RASG-PA Procedural Hand Book", "Proposal for Amendment to Aeronautical Legislation to Protect Safety Information Sources", "Fatality Risk Documents", "Guide for maintaining runways in accordance to Annex 14 of ICAO", "News", and "Links".

An "Introduction" section states: "The Regional Aviation Safety Group - Pan America (RASG-PA) was established in November 2008 to be the focal point to ensure harmonization and coordination of safety efforts aimed at reducing aviation risks in the North American, Central American, Caribbean (NAM/CAR), and South American (SAM) Regions, and promote the implementation of resulting safety initiatives by all stakeholders. This will be achieved through the involvement of all stakeholders including ICAO, States/Territories, International Organizations and industry." It also provides the contact email [RASG-PA@icao.int](mailto:RASG-PA@icao.int).

A Spanish version of the text is provided: "El Grupo Regional de seguridad operacional de la aviación - Panamérica (RASG-PA) fue establecido como el punto focal para asegurar la armonización y coordinación de los esfuerzos de seguridad operacional dirigidos a reducir los riesgos de la aviación en las Regiones de Norteamérica, Centroamérica, el Caribe (NAM/CAR), y Sudamérica (SAM) y promover, por parte de todos los interesados, la implantación de las iniciativas de la seguridad operacional resultantes. Esto se logrará mediante la participación de todos los interesados incluyendo la OACI, los Estados/Territorios, las Organizaciones Internacionales y la industria." It also provides the contact email [RASG-PA@icao.int](mailto:RASG-PA@icao.int).

At the bottom, there are sections for "Help" (Terms & Conditions, Site Index, Links, FAQ, Web Support), "Contact Us" (Headquarters, Regional Offices), and "Regional Office Websites" (Asia and Pacific (APAC) Office, Bangkok; Eastern and Southern African (ESAF) Office, Nairobi; European and North Atlantic (EUR/NAT) Office, Paris; Middle East (MID) Office, Cairo; North American, Central American and Caribbean (NACC) Office, Mexico City; South American (SAM) Office, Lima; Western and Central African (WACAF) Office, Dakar).

The footer includes the ICAO logo and the text "© International Civil Aviation Organization - ICAO".

RASG-PA created the  
Guide for maintaining  
runways in  
accordance to Annex  
14 (English, Spanish  
and Portuguese)



**Guide for maintaining  
runways in accordance  
to Annex 14 of ICAO**



Edited: 28/06/2013

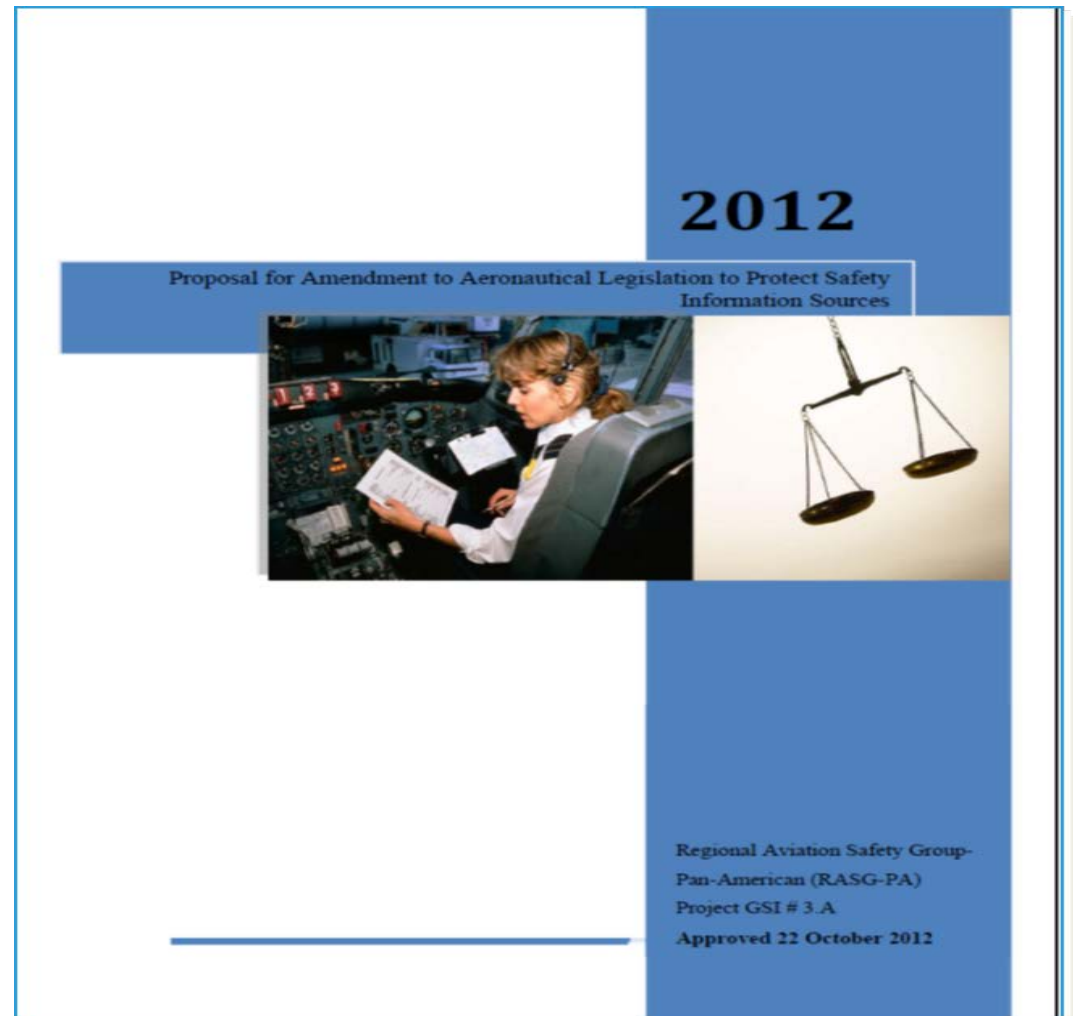




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# RASG-PA created the Proposal for Amendment to Aeronautical Legislation to Protect Safety Information Sources







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# Undergoing RASG-PA Special Projects

- ✈ **QAR:** FDAP - Flight Data Analysis Program (Annex 6 FDM requirements review)



# Challenges and Opportunities

- ✈ RASG-PA scope
  - ✈ Increase coordination – ICAO Safety initiatives
  - ✈ Cross coordination with air navigation implementation activities
- ✈ Aviation forecasted growth - Safety impact



# Conclusions

- ✈ RASG-PA has established a solid data-driven process.
- ✈ Since its establishment the group has developed several initiatives primarily through PA-RAST work
- ✈ Safety is the **number one priority** for the aviation community
- ✈ **Collaboration** is the key to improve even further RASG-PA work
- ✈ There is still room for improvement
- ✈ We need **commitment** from all stakeholders



Thank You!  
Gracias!  
Obrigado!