Progress Report of the Regional Aviation Safety Group - Pan America (RASG-PA)
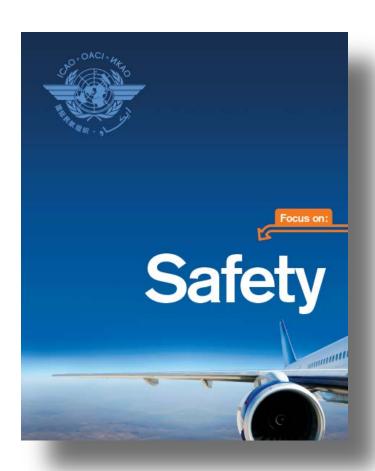
Runway Safety Team GO-TEAM

Tegucigalpa, Honduras, 10-14 March 2014

Eduardo Chacin

Flight Safety Regional Officer

ICAO NACC Regional Office

For ICAO Safety is paramount...

…and for all aviation stakeholders

RASG-PA shows that the number of accidents in Pan American Region is decreasing

PAN AMERICA Scheduled Commercial Air Transport Operations[2] Accidents Aircraft Maximum Take-off Mass above 27,000 kilograms Sources: Boeing - ICAO ADREP/ECCAIRS			
Year	Total Accidents[3]	Fatal accidents[4]	Total fatalities
2002-2011 avg.	23.9	1.2	59.9
2011	27	0	0
2012	4	0	0

RASG-PA shows that the number of accidents in Pan American Region is decreasing

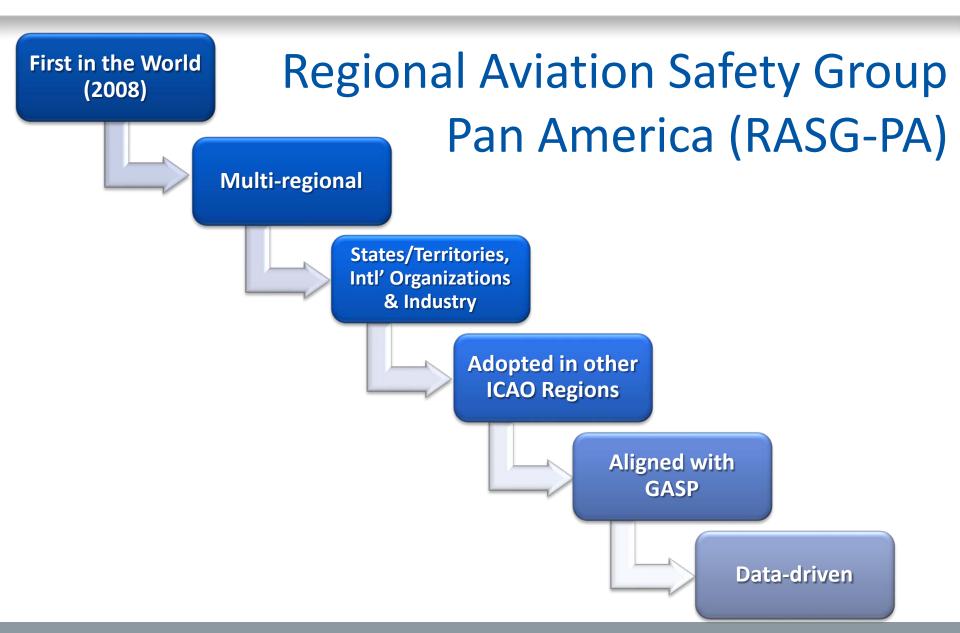| PAN AMERICA General Aviation Operations Accidents Aircraft Maximum Take-off Mass 2,250 to 27,000 kilograms Source: ICAO ADREP/ECCAIRS			
Year	Total Accidents	Fatal accidents	Total fatalities
2002-2011 avg.	219	57.4	137.4
2011	110	27	58
2012	18	5	16

[1]
General aviation: for this report, general aviation operation includes all civil aviation operations other than scheduled and non-scheduled commercial air transport operations.

One of the contributors for this record is the Regional Aviation Safety Group – Pan America (RASG-PA)

Regional Aviation Safety Group Pan America (RASG-PA)

First in the World (2008)

Multi-regional

States/Territories, Intl' Organizations & Industry

Adopted in other ICAO Regions

Aligned with GASP

Data-driven

RASG-PA Mission

To improve safety and efficiency in the Pan America Region

RASG-PA Vision

To involve all the stakeholders in a coordinated effort

RASG-PA is a data-driven, results oriented organization

Pan America Region

NAM Region
Bermuda
Canada
Saint Pierre Miquelon
United States

CAR Region

Anguilla	Guatemala
Antigua and Barbuda	Haiti
Aruba	Honduras
Bahamas	Jamaica
Barbados	Martinique
Belize	Mexico
British Virgin Islands	Montserrat
Cayman Islands	Nicaragua
Costa Rica	Puerto Rico
Cuba	Saint Kitts and Nevis
Curacao	Saint Lucia
Dominica	Saint Vincent and the
Dominican Republic	Granadines
El Salvador	Trinidad and Tobago
Grenada	Turks and Caicos Islands
Guadeloupe	Virgin Islands

SAM Region
Argentina
Bolivia
Brazil
Chile
Colombia
Ecuador
French Guiana
Guyana
Paraguay
Peru
Panama
Suriname
Uruguay
Venezuela

For BOEING, SAM plus CAR Regions are defined as Latin America & Caribbean.
For IATA, SAM plus CAR Regions equals to LATAM/CAR Region.

RASG-PA Membership

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

Executive Steering Committee (ESC)

Co-Chair Boeing (International organizations & Industry)

VP United States

VP Curacao and Co-Chair (States/Territories)

VP Costa Rica

VP Brazil

VP Chile

Organization cont.

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

Coordinator: ICAO NACC Co-chairpersons: Brazil (State) & IATA (International Organizations/Industry
Vice-chairpersons: pending and Airbus

[Detailed Implementation Plans (DIPs)]

IAT Information Analysis Team Rapporteur: Boeing

Controlled Flight Into Terrain (CFIT)

CFIT/02 DIP	CFIT/04 DIP
Champion: IATA	Champion: IFALPA/ IFATCA
Completed	Completed

Loss of Control In-Flight (LOC-I)

LOC-I/06 DIP	LOC-I/07 DIP	LOC-I/09 DIP	RE/04 DIP
Champion: PA-RAST	Champion: ALTA	Champion: IFALPA	Champion: ALTA
Completed	Completed	Completed	Completed

Runway Excursion (RE)

RE/08 DIP	RE/09 DIP	RE/11 DIP
Champion: ACI-LAC	Champion: ALTA	Champion: México
Completed		Completed

RE Total Occurrences Distribution per Year - Pan America

RE Total Ocurrences Distribution per Year - Pan America
Scheduled Commercial Air Transport Operations - MTOM > 27,000 kg
Source: ICAO ADREP/ECCAIRS

Top Contributing Factors for LATAM/CAR Runway Excursion Accidents - 2012

Latent conditions	19% Safety Management 13% Flight Operations: Training Systems 13% Regulatory Oversight	
Threats	Environmental	25%Contaminated runway/taxiway 19% Ground-based nav aid malfunction or not available 13% Wind/windshear/gusty wind
	Airline	19% Contained Engine Failure/Powerplant Malfunction 19% Other threats 13% Maintenance events
Errors	31% Manual handling/flight controls 19% SOP adherence/SOP Cross-verification 13% Failure to GOA after destabilization on approach	
Undesired Aircraft States	33% Controlled flight towards terrain 33% Vertical / lateral / speed deviation	
Countermeasures	67% Monitor / cross-check 50% Comunication Environment 50% Leadership	

RASG-PA develops SEIs (Safety Enhancement Initiatives) to tackle the main risk areas:

- Runway Excursions (RE)
- Control Flight Into Terrain (CFIT)
- Loss of Control Inflight (LOC-I)
- Mid Air Collision (MAC) **New**

Every SEI has Detailed Implementation Plans (DIPs)

Development of SEI

Step 1
Select the Subregion for Analysis

Step 2
Identify the Key Stakeholders

Step 3
Determine the Safety Strength and Enablers

Step 4
Identify the Risks
- Existing
- Emerging

Step 5
Perform a Gap Analysis with the Roadmap Best Practices

Recommended Actions

Step 6
Develop Prioritized Recommended Actions

-Impact
-Changeability

Step 7
Develop the Detailed Implementation Plan (DIP) and Associated Outputs

- Safety Actions
- Industry Actions
- Determine champion

Monitor the Implementation

RE DIPs & Outputs (RASG-PA/06)

DIP	Description	Champion	Output	Deadline	Status	Comments
RE/04	**Promote pilot adherence to Standard Operating Procedures (SOPs) for approach procedures including go-around decision making process**	ALTA	1) Distribution	18/01/11	Completed	
			2) Training		Completed	
RE/09	**Specific Training for pilots and air traffic controllers to avoid unstabilized approaches**	ALTA	1) ALTA will conduct a survey within its operators regarding the actions taken to mitigate unstable approaches.	20/02/11	Completed	
			2) Develop a strategy to deliver safety seminars for pilots and controllers in Pan America that targets recognition and avoidance of unstable approaches.	31/12/12	In process	Funding for developing the video granted by RASG-PA.
RE/8	**Guidance in maintaining runway in accordance with Annex 14**	ACI-LAC	1) Create a guide that collects best practices for runway maintenance	18/04/12	Completed	The document was renamed as: High level guide in maintaining runways in accordance with ICAO Annex 14.
			2) Promote and encourage the use of the guide		Completed	
			3) Airports implement their maintenance plans according to the runway maintenance guide.		Completed	
RE/11	**Develop guidance material and training programs to create action plans for runway safety teams**	DGAC Mexico	1) Gather and publish in the RASG-PA website available material that may be used in to mitigate hazards related to runway safety.		Completed	ICAO published the Runway Safety Team Handbook (draft) April 2013
			2) Electronic checklist development.		Completed	ICAO published the Runway Safety Team Handbook (draft) April 2013
			3) Develop a roll out plan.	25/08/12	Completed	ICAO HQ in coordination with ICAO NACC and SAM Regional Offices and the sponsorship and support of ACI-LAC, IFALPA, IFATCA, ECCAA, FAA, and other organizations delivered Regional Runway Safety Seminars in Miami, United States, Quito, Ecuador and St. John's, Antigua. Two original Outputs were merged, resulting in three.

LOC-I DIPs & Outputs (RASG-PA/06)

DIP	Description	Champion	Output	Deadline	Status	Comments
LOC-I/06	**LOC Training – Human factors and automation**	PA-RAST	1) Review and evaluate the advisory circular created by the ICAO COSCAP's in Asia	20/02/11	Completed	
			2) ICAO will distribute a copy of the developed generic advisory circular to each State in the region.	20/03/11	Completed	
			3) Each State in the region will use the generic advisory circular as a template to prepare a State Advisory Circular on mode awareness and energy state management aspects of flight deck automation.	20/09/11	Completed	
			4) Mode awareness and energy state management aspects of flight deck automation guidance is provided by operators to all their pilots.	20/09/12	Completed	
LOC-I/07	**LOC Training – Advanced maneuvers**	ALTA	1) Listing of training materials available from regulators, industry, operators, academia and other resources.	18/01/11	Completed	
			2) Advanced Maneuvers Training provided to all operators.	18/04/11	Completed	
			3) Advanced Maneuvers Training provided by all operators. The expectation is that this training will be accomplish during initial training and as part of the recurrent training program via ground and simulator instruction within the certified flight envelope, with enphasis on recognition, prevention and recovery technique.	18/08/13	Superseded	
LOC-I/09	**Loc Training - Pilot monitoring policies and procedure for the operator and training program for crews**	IFALPA	1) Listing of training materials available from industry, operators and other resources.	20/02/11	Completed	
			2) Raise awareness of availability and need of Pilot Monitoring Training.	20/03/11	Completed	
			3) Pilot Monitoring Training material provided to all operators.	20/03/11	Completed	
			4) Pilot Monitoring Training provided by operators to all their pilots.	20/09/12	Completed	

CFIT DIPs & Outputs (RASG-PA/06)

DIP	Description	Champion	Output	Deadline	Status	Comments
CFIT/02	**Specific ALAR/CFIT Training for Pilots**	IATA	1)CAA conducts a review of all operators to ascertain which operators have CFIT prevention training and procedures in their approval training manual.	20/02/11	Completed	
			2) If an operator does not have a CFIT training, it will be encourage to incorporate CFIT training into the airline training program.	20/12/11	Completed	
CFIT/04	**CRM/Situational Awareness for pilots and air traffic controllers**	IFALPA & IFATCA	1)Incorporate and/or update CRM/situational awareness training programs for all flight crew members of air transport operators emphasizing aircraft position with relation to terrain and reviewing past occurrences.	20/02/12	Completed	
			2) Incorporate CRM/situational awareness training programs for all air traffic controllers and air navigation service providers (ANSP) emphasizing aircraft position with relation to minimum allowable altitude.	20/08/12	Completed	

Detailed Implementation Plans (DIPs)

- 1 in-progress
- 8 completed
- 25 Associated Outputs:
  - 24 completed
  - 1 in-progress

New SEIs are under development by the Safety Enhancement Teams (SETs)
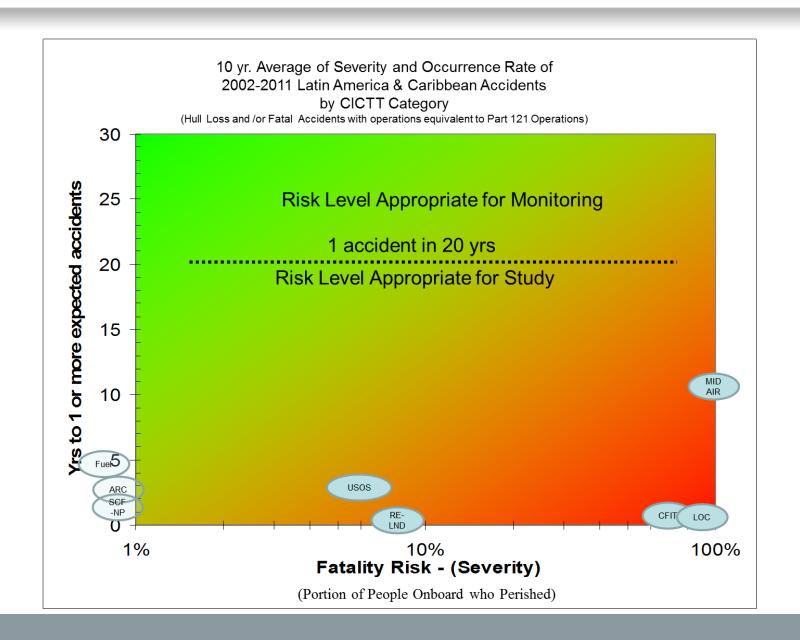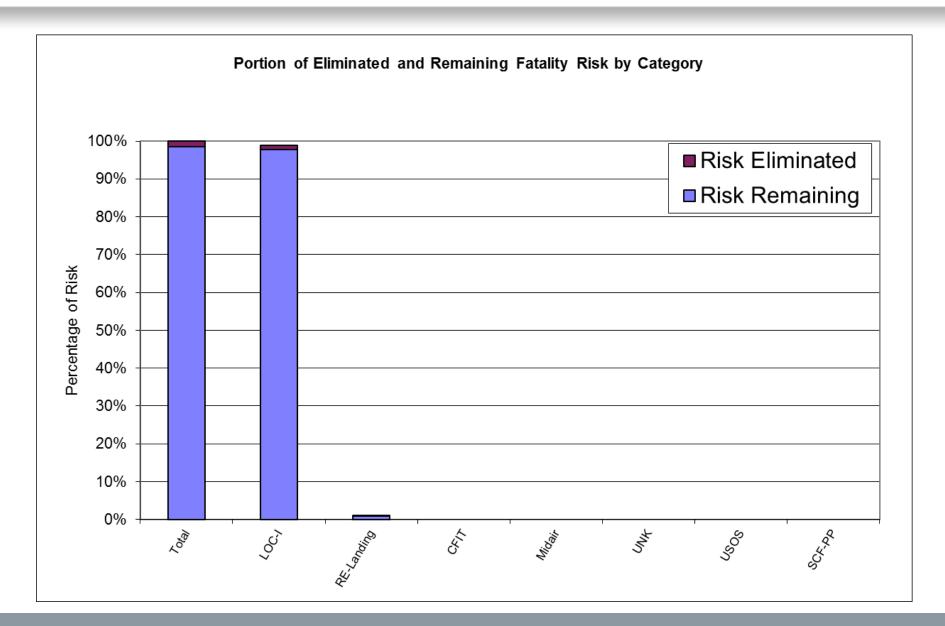
RASG-PA Risk Reduction Goal

Using 2010 as a baseline, is to reduce fatality risk for Part 121 or equivalent operations by 50% by the year 2020 in Latin America and the Caribbean
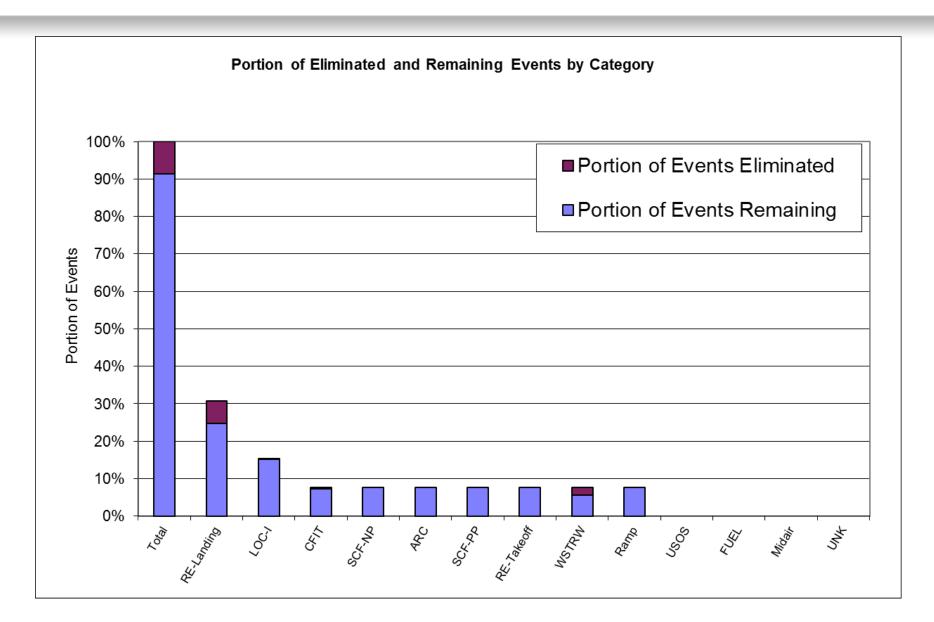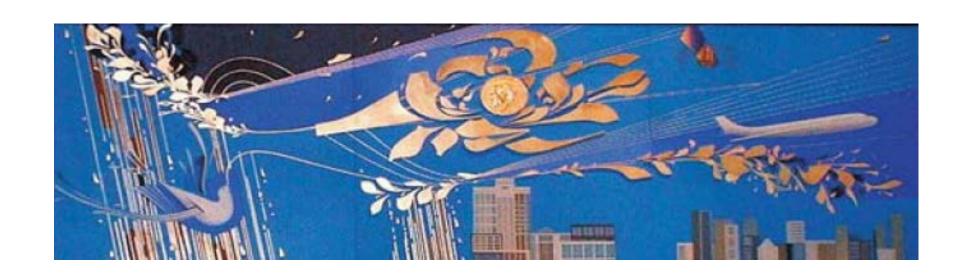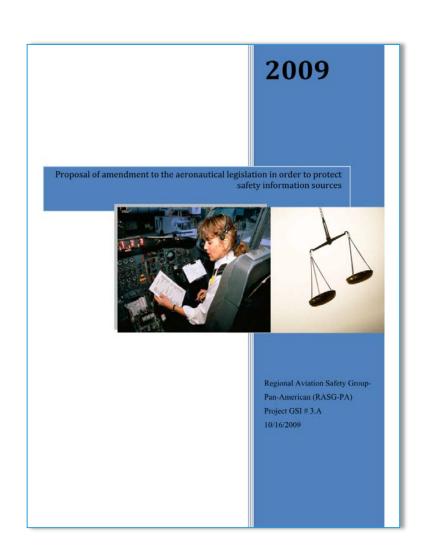
10 yr. Average of Severity and Occurrence Rate of
2002-2011 Latin America & Caribbean Accidents
by CICTT Category
(Hull Loss and /or Fatal Accidents with operations equivalent to Part 121 Operations)

Risk Level Appropriate for Monitoring

1 accident in 20 yrs

Risk Level Appropriate for Study

Yrs to 1 or more expected accidents

Fatality Risk - (Severity)

(Portion of People Onboard who Perished)

Portion of Eliminated and Remaining Fatality Risk by Category

Portion of Eliminated and Remaining Events by Category

RASG-PA deliverables

RASG-PA Annual Safety Reports Pan America 2009, 2010, 2011, 2012

Model Legislation for the Protection of Safety Information
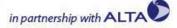## (English and Spanish)

Pan American Aviation Safety Summits

Upcoming 5th Pan American Aviation Safety Summit in partnership with ALTA and RASG-PA 7th Annual Plenary Meeting, hosting State Curaçao

Annual Plenary Meetings

Aviation Safety Seminars and Workshops

Projects

RASG-PA Safety Advisories - RSA

Training Tools

Dedicated Website

...

Managing Aviation Safety Risks Faces Many Challenges

- Traffic growth
- New air transport operators
- Significant number of new aircraft orders
- Demand for skilled aviation personnel
- Training capacity
- Attractiveness of aviation
- Attrition related impact
- Infrastructure deficiencies
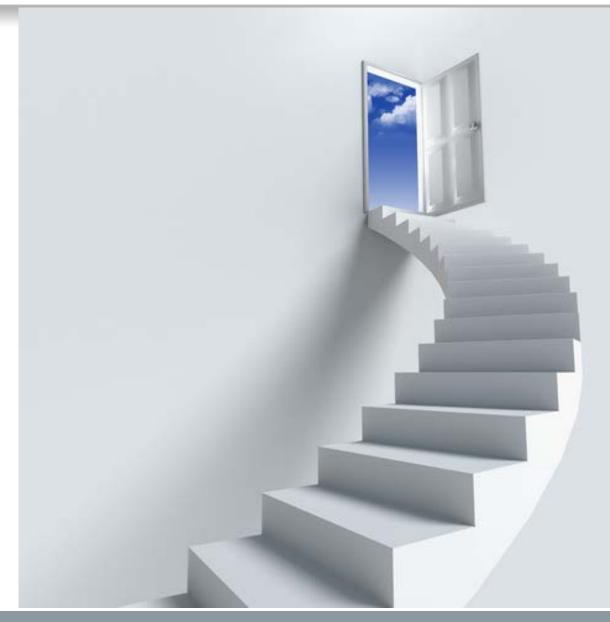- Resources
- Political will

RASG-PA Main Plans 2014 - 2016

- Align RASG-PA work programme with GASP
- Support roll-out of GASP & Annex 19
- Improve RASG-PA processes and procedures
- Mitigate RE, CFIT, LOC-I & MAC risks
- Monitor/act regarding regional safety issues
- Improve coordination with GREPECAS
- Establish contact with other RASGs
- Improve participation of stakeholders
- Positioning as the strategic regional safety forum
- Support ICAO with data collection for safety dashboard

We are very ambitious setting our safety targets…

…but we are confident that with everybody's commitment and continuous support it will be achieved.

Thank you!

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