



*International Civil Aviation Organization*  
**Twelfth Meeting of the Regional Aviation Safety Group**  
**– Pan America (RASG-PA) Executive Steering Committee**  
**RASG-PA ESC/12**



Montego Bay, Jamaica, 14 to 15 March 2012

**Agenda Item 3: Status/update of RASG-PA Working Groups and Projects**  
**3.1 Pan America - Regional Aviation Safety Team (PA-RAST)**

**PA-RAST REPORT**

(Presented by the Secretariat)

<b>SUMMARY</b>	
<p>This working paper describes the activities of the PA-RAST since the RASG-PA/04 Meeting held in Miami, United States, from 19 to 21 October 2011.</p> <p>The PA-RAST is focused on the establishment of achievable projects based on prioritized mitigation measures with well defined deliverables (including metrics to assess the effectiveness of the proposed mitigation actions) and clear timeframes.</p>	
<b>References:</b>	
<ul style="list-style-type: none"> <li>• Resolution A 36-7 of the 36<sup>th</sup> Session of ICAO Assembly</li> <li>• Declaration of the Conference of Directors General of Civil Aviation on a Global Safety Strategy (Montreal, Canada, March 2006)</li> <li>• ICAO Global Aviation Safety Plan (GASP)</li> <li>• ISSG Global Aviation Safety Roadmap (GASR)</li> <li>• RASG-PA/04 Meeting Report</li> </ul>	
<b>Strategic Objective</b>	<i>This working paper is related to Strategic Objective A – Safety</i>

**1. Introduction**

1.1 The PA-RAST identified several Safety Enhancement Initiatives (SEIs) and associated mitigating actions for each of the top three risk areas in Pan America identified by RASG-PA: Runway Excursion (RE), Controlled Flight into Terrain (CFIT) and Loss of Control In-Flight (LOC-I).

1.2 Each safety enhancement mitigation action was prioritized, and a corresponding Detailed Implementation Plan (DIP) was developed, identified by a reference number and categorized by Global Safety Initiative (GSI), safety impact, changeability, indicator, time-frame for completion, identification of a respective champion and available references related to the DIP.

## **2. Detailed Implementation Plans (DIPs) Activities**

2.1 The PA-RAST has been following the progress of the 8 approved DIPs and providing support to the SEI champions.

2.2 The PA-RAST agreed that any new DIPs should only be developed if a new champion is identified so that current champions are not overwhelmed by their current responsibilities.

2.3 A progress and follow-up report of all DIPs in process is contained in **Appendices A and B** to this working paper.

## **3. Other DIP Related Activities**

3.1 In providing support for the DIPs, the RAST-PA overcame the following issues:

- a) DIPs in Spanish: The ESC tasked PA-RAST to translate approved DIPs into Spanish. All originally approved DIPs have now been translated into Spanish and can be consulted on the DIP database.
- b) RASG-PA Safety Recommendations (RSRs) in Spanish: PA-RAST prepared a proposal to establish a collaborative process with the Regional Cooperation System on Safety Oversight (SRVSOP) in Latin America to adapt RSRs into Spanish. The ESC/09 Meeting in Mexico City was presented with the proposed procedure to discuss with the SRVSOP Technical Committee.
- c) Letters of Support: as requested by the Champion of DIP PA-RAST/RE/09, PA-RAST coordinated the drafting of two letters with the ESC; one addressed to SENEAM (the Mexican ANSP) and the other to Aeromexico requesting the use of their ATC and aircraft simulators in order to develop a strategy for delivering safety seminars to pilots and controllers in Pan America that target recognition and avoidance of unstable approaches as part of Output 2 to the DIP.

## **4. Conclusion**

4.1 The PA-RAST will continue to work with DIP Champions to provide support and monitor DIP implementation progress.

4.2 PA-RAST meetings are scheduled in conjunction with regularly scheduled ESC meetings in order to make efficient use of travel and the resources available to RASG-PA.

## **5. Action by the Meeting**

5.1 The RASG-PA/ESC is invited to:

- a) review the activities of the PA-RAST, taking into consideration the scope of its objectives and resource requirements and limitations; and
- b) review and assess the progress and effectiveness of the DIPs as presented by their respective champions taking into consideration the resources requirement and limitations.

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## RAST-PA DIP Progress

8 March 2012

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### **RAST-PA/RE/04**

Output	Due Date	Champion	Description	Actions	Time line	
2	<a href="#">20-Nov-11</a>	ALTA	Training	Operators to include material in training programs.	ESC/6	+15

#### Progress:

17-Oct-2011 : RAST-PA/07

17-Oct-2011 : The RAST-PA suggested to amend the due date for this Output to 20 November.

17-Oct-2011 : ALTA is currently working on the process of completing the training Material for this DIP. This would be prepared for October 31st. In the meantime, ALTA

has promoted to the SOP's procedures such as go around is safe.-2011 : ALTA is currently working on the process of completing the training Material for this DIP. This would be prepared for October 31st. In the meantime, ALTA has promoted to the SOP's procedures such as go around is safe.

18-Jan-2011 : Material presentation Telecon

18-Jan-2011 : It was agreed that when the same information goes out to non ALTA members, it would include the IATA information related to RAST-PA/CFIT/02.

18-Jan-2011 : ALTA presented to the RAST-PA the Survey and letter which was to be sent to ALTA Members.

11-Jan-2011 : Telecon 11-1

11-Jan-2011 : This Material will be distributed together with the Material for RAST-PA/LOC-I/7

11-Jan-2011 : Change of due date because of Holidays

**RAST-PA/CFIT/04**

Output	Due Date	Champion	Description	Actions	Time line
1	<a href="#">20-Feb-12</a>	IFALPA/IFATCA	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.	Reduce the CFIT accident rate by incorporating CFIT prevention in CRM training programs. Situational awareness will be emphasized as an integral part of the CRM training required of flight crewmembers of all air transport operators.	ESC/6 +18
2	<a href="#">20-Aug-12</a>	IFALPA/IFATCA	Incorporate CRM/situational awareness training programs for all air traffic controllers of air navigation service providers (ANSP) emphasizing aircraft position with relation to minimum allowable altitudes.	Reduce the CFIT accident rate by incorporating CFIT prevention in CRM training programs. Situational awareness will be emphasized as an integral part of the CRM training required of air traffic controllers of all ANSPs.	ESC/6 +24

**Progress:**

23-Aug-2011 : RASG-PA/6

23-Aug-2011 : No contact with the other Champion (IFATCA) so we might need to go through it alone, that means we'll need help and will get back to the RAST in the future with a proposal to comply with the whole DIP

14-Jun-2011 : RASG-PA/5

14-Jun-2011 : The ESC is going to be made aware of the loss of contact with IFATCA and support will be requested to re-establish contact.

14-Jun-2011 : RAST-PA suggested that IFALPA begin to develop Output 1

14-Jun-2011 : IFALPA informed the meeting that implementation plans had not begun for this DIP because of the loss of contact with the IFATCA Rep.

## RAST-PA/CFIT/02

Output	Due Date	Champion	Description	Actions	Time line
2	<a href="#">20-Dec-11</a>	IATA	If an operator does not have CFIT training, he will be encouraged to incorporate CFIT training into the airline training program.	Operators will incorporate CFIT prevention training and procedures into their training programs.	ESC/6 +16

### Progress:

17-Oct-2011 : RAST-PA/07

17-Oct-2011 : The RAST-PA suggested to move the due date of Output 2 to Dec. 2011

17-Oct-2011 : 1. Output 1 of this DIP was shared with the IATA LATAM RCG (Regional Coordination Group) airlines that meet in MIA on MAY 31st 2011. Its results were

well received, and it was agreed that IATA will contact the airlines that were found on the survey to not comply with FSF/ICAO/IATA recommendations of performing CFIT

recurrent training at least every year to help them comply.

17-Oct-2011 : 2. This will make sure all IATA and ALTA airlines comply with this recommendation as required but CFIT 02 Output 02.

17-Oct-2011 : 3. Out of 42 Airlines in the Region, only one is not complying 100% with this recommendation. We expect them to be 100% complying by December 2011.

14-Jun-2011 : RASG-PA/5

14-Jun-2011 : Telecons will be coordinated to produce the suggested RSR.

14-Jun-2011 : Therefore we recommend an RSR is issue to all RASG-PA states recommending the adoption of this recommendation as part of their regulation.

14-Jun-2011 : This will make sure all IATA and ALTA airlines comply with this recommendation as required but CFIT 02 Output 02. But there are many small carriers that have we have not been able to reach during the implementation of this DIP.

14-Jun-2011 : Output 1 of this DIP was shared with the IATA LATAM RCG (Regional Coordination Group) airlines that meet in MIA on MAY 31st 2011. Its results were well

received, and it was agreed that IATA will contact the airlines that were found on the survey to not comply with FSF/ICAO/IATA recommendations of performing CFIT recurrent training at least every year to help them comply.

28-Feb-2011 : Telecon 11-2

28-Feb-2011 : Output 1 has been concluded.

28-Feb-2011 : The results show that most operators have CFIT training but some still do not.

28-Feb-2011 : The summary of results are added to the data base.

28-Feb-2011 : A survey was circulated amongst IATA member airlines requesting information on the CFIT training if any that pilots receive.

18-Jan-2011 : Material presentation Telecon

18-Jan-2011 : It was agreed that when the same information goes out to non ALTA members, it would include the IATA information related to RAST-PA/CFIT/02.

**RAST-PA/LOC-I/07**

Output	Due Date	Champion	Description	Actions	Time line
3	<a href="#">18-Aug-13</a>	ALTA	Advanced Maneuvers Training provided by all operators. The expectation is that this training will be accomplished during initial training and as part of the recurrent training, program via ground and simulator instruction within the certified flight envelope, with emphasis on recognition, prevention and recovery techniques.	ALTA and IATA should promote a high level of commitment to advanced maneuvers training (AMT) by operator flight operations and training departments. Advanced maneuvers training will be conducted emphasizing energy state management and early recognition and recovery from flight outside the certified aircraft-operating envelope. Flight conditions outside of the certified flight envelope include in flight upsets, stalls, ground proximity and wind shear escape maneuvers, and inappropriate energy state management conditions. The training will be accomplished via ground and simulator instruction within the certified flight envelope, with emphasis on recognition, prevention and recovery techniques. The simulator instruction will be within the limitation of the training device being utilized.	LOC-I/7 - O2 +28

**Progress:**

23-Aug-2011 : RAST-PA/6

23-Aug-2011 : We have received the positive response from Copa Colombia of the use that the Advanced Maneuvers Training (AMT) has had since they have implemented

in their operation. So far this has been really positive and we expect to have the results of the rest of the airlines.

18-Jan-2011 : Material presentation Telecon

18-Jan-2011 : It was agreed that when the same information goes out to non ALTA members, it would include the IATA information related to RAST-PA/CFIT/02.

18-Jan-2011 : ALTA presented to the RAST-PA the Survey and letter which was to be sent to ALTA Members.

11-Jan-2011 : Telecon 11-1

11-Jan-2011 : Ready to be sent this week (Awaiting approved by Alex de Gunten).

Expect feedback from Operators in three weeks.

11-Jan-2011 : Survey ALTA Members Operators, for Runway Excursions and Loss of Control.

Coordinate with IATA to send one package.

Pointers to Guidance Material (ICAO Web Site)

## RAST-PA/LOC-I/06

Output	Due Date	Champion	Description	Actions	Time line
3	<a href="#">20-Dec-11</a>	RASG-PA (RAST-PA)	•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.	States in the Region to issue their own advisory circular on mode awareness and energy state management aspects of flight deck automation.	LOC-I/6 - O2 +9
4	<a href="#">20-Mar-13</a>	RASG-PA (RAST-PA)	Mode awareness and energy state management aspects of flight deck automation guidance is provided by operators to all of their pilots.	Each operator should carefully developed procedures and guidelines that support the proper use of mode awareness and energy state management aspects of flight deck automation in their training programs. Each transport airplane pilot should be trained to the flight deck automation procedures and guidelines developed by their organization.	LOC-I/6 - O3 +18

### Progress:

17-Oct-2011 : RAST-PA/07

17-Oct-2011 : RAST-PA/07 was informed that the RSR Spanish adaptaion coordination process with the SRVSOP was approved by the ESC and SRVSOP. The meeting suggested to amend the due date of this RSR to provide enough time for both versions to be ready at the same time.

16-Mar-2011 : RAST-PA/4

16-Mar-2011 : Supporting documentation needs to be uploaded to the web page

16-Mar-2011 : Circular needs to be translated.

16-Mar-2011 : RSR template created

16-Mar-2011 : COSCAP Circular reviewed and adapted for RSGA-PA

28-Feb-2011 : Telecon 11-2

28-Feb-2011 : Output 1 has been concluded.

28-Feb-2011 : The review of all available material is on the agenda for RAST-PA/4.

28-Feb-2011 : The RAST-PA Telecon considered that the material would better be reviewed in a face to face meeting.

28-Feb-2011 : The advisory material created by the ICAO COSCAP's in Asia as well as other material was identified.

**RAST-PA/LOC-I/09**

Output	Due Date	Champion	Description	Actions	Time line
4	<a href="#">20-Sep-12</a>	IFALPA	Pilot Monitoring Training provided by operators to all of their pilots.	Each operator should carefully developed procedures and guidelines that support pilot monitoring in their training programs. Each transport airplane pilot should be trained to the Pilot Monitoring procedures and guidelines developed by their organization.	LOC-I/9 - O3 +18

**Progress:**

23-Aug-2011 : RAST-PA/6

23-Aug-2011 : ESC has to mandate or develop a Procedure to comply with this output, perhaps an RSR.

16-Mar-2011 : RAST-PA/4

16-Mar-2011 : The material was approved by RAST-PA to be uploaded on the RASG Web page and begin a dissemination campaign

28-Feb-2011 : Telecon 11-2

28-Feb-2011 : Output 2 has been concluded.

28-Feb-2011 : The formatted material will be presented at RAST-PA/4 in Lima.

28-Feb-2011 : As an outcome of the FSTT review the material format is being amended.

28-Feb-2011 : The material was presented to the FSTT.

18-Jan-2011 : Material presentation Telecon

18-Jan-2011 : It was suggested that the material be presented to the FSTT Group at the next meeting 22-23 Feb 2011

18-Jan-2011 : IFALPA presented the material and presentation they have gathered.

11-Jan-2011 : Telecon 11-1

11-Jan-2011 : Adjust Due date of Output 1 to Next telecon

11-Jan-2011 : Material will be ready and presented at the next telecon.



## RAST-PA/RE/09

Output	Due Date	Champion	Description	Actions	Time line
2	<a href="#">20-Feb-13</a>	ALTA	Develop a strategy to deliver safety seminars for pilots and controllers in Pan America that targets recognition and avoidance of unstable approaches.	<p>Develop a strategy and timeline to deliver safety seminars for pilots and controllers.</p> <p>At a minimum the following topics should be covered:</p> <ul style="list-style-type: none"> <li>• Stabilized Approaches</li> <li>• Go Around Gates and Missed Approach Criteria</li> <li>• Approach Procedures and Briefings</li> <li>• Non Normal Aircraft Conditions</li> <li>• Transfer of Aircraft Control</li> <li>• CRM/TRM and human factors</li> <li>• Weather conditions and information dissemination including tail wind landings</li> </ul> <p>During the safety seminars participant will be asked to provide additional mitigation measures that will be compiled and used as the basis of future safety enhancements for runway excursions.</p>	RE/9 - O1 +24

### Progress:

23-Aug-2011 : RAST-PA/6

23-Aug-2011 : A letter requesting the use of the AMX simulator is requested.

23-Aug-2011 : IFALPA and ALTA had a meeting with SENEAM in Mexico City, we agreed to ask Aeromexico for a donation of B737NG Simulator time and SENEAM for their

ATC Sim.

The idea would be to have Pilots/Controllers go through Line Oriented Scenarios of Stabilized/Unstabilized Approaches in order to create awareness in both Groups and develop Output 2.

16-Mar-2011: RAST-PA/4

16-Mar-2011: Establish a meeting at Mexico with Pilots and controllers (Review Lesson Learned of the ALTA's survey)

16-Mar-2011: Analysis the Runway Excursion Reduction Tool Kit Version. 02 | Output Global Safety Symposium

16-Mar-2011: Aviation Safety Summit on June, 2011 | Monday or Tuesday | Meeting to deliver results regarding the Analysis Runway Excursion and Mexico's meeting

16-Mar-2011: Runway Safety Workshop on October

16-Mar-2011: In 2012, duplicate the Mexico's meeting (Pilot project) with the pilots and controllers in others states of the region

28-Feb-2011 : Telecon 11-2

28-Feb-2011 : Output 1 has been concluded.

28-Feb-2011 : The Champion informed that a survey was conducted and a report with the results was being prepared for RASG-PA/4.

RAST-PA DIP Follow-up (Date)

8 March 2012

Due Date	Champion	DIP No.	Output	Description	Actions	Time line
<a href="#"><u>20-Nov-11</u></a>	ALTA	RE/04	2	Training	Operators to include material in training programs.	ESC/6 +15
<a href="#"><u>20-Dec-11</u></a> ESC/6	IATA +16	CFIT/02	2	If an operator does not have CFIT training, he will be encouraged to incorporate CFIT training into the airline training program.	Operators will incorporate CFIT prevention training and procedures into their training programs.	
<a href="#"><u>20-Dec-11</u></a> circular on mode awareness	RASG-PA (RAST-PA)	LOC-I/06 LOC-I/6 - O2	3 +9	• advisory circular as a template to prepare a State advisory circular on mode awareness and energy state management aspects of flight deck automation.	Each State in the region will use the generic States in the Region to issue their own advisory and energy state management aspects of flight deck automation.	
<a href="#"><u>20-Feb-12</u></a>	IFALPA/IFATCA	CFIT/04	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.	Reduce the CFIT accident rate by incorporating CFIT prevention in CRM training programs. Situational awareness will be emphasized as an integral part of the CRM training required of flight crewmembers of all air transport operators.	ESC/6 +18
<a href="#"><u>25-Feb-12</u></a>	Mexico	RE/11	1	Gather and publish in the RASG-PA website available material that may be used to mitigate hazards related to runway safety.	Publish or make links available to websites such as FSF, CAST, FAA, EURCONTROL and IFALPA which RST may use to proposed mitigation actions for identified hazards related to runway safety.	ESC/10 +6
<a href="#"><u>25-Feb-12</u></a>	Mexico	RE/11	3	Establishment of a regional Runway Safety Database	Create a Regional database that will house the data from the checklists (Output 2) with at least the following considerations: - Option to de-identify the source of the information - Where possible responses should be selectable (rather than free text) - Contain appropriate level(s) of data entry - Consider the legal aspects of data sharing - Capture the resulting mitigation actions and their end result - Before releasing final versions of the checklists/database interface, field test in a pilot project - Spanish version	ESC/10 +6
<a href="#"><u>25-Feb-12</u></a>	Mexico	RE/11	2	Electronic checklist development	Develop an electronic checklist based on best practices and threat and error management that RST may use to identify hazards and propose mitigation actions. The checklists should address the following areas: - ATM/CNS - Air operators - Airport - Before releasing final versions of the checklists, field test in a pilot project - Translate Checklists into Spanish	ESC/10 +6
<a href="#"><u>18-Apr-12</u></a>	ACI-LAC	RE/08	1	Create a guide that collects best practices for runway maintenance.	Establish a team who will compile and develop, if necessary, runway maintenance guidance for airports in the Pan American region. The team should be composed of at least; an ICAO Annex 14 expert, a representative from aerodromes and Aerodrome cognizant CAA representative. Once available the guidance should be translated into Spanish.	ESC/11 +6

Due Date	Champion	DIP No.	Output	Description	Actions	Time line
<a href="#"><u>20-Aug-12</u></a> ESC/6	IFALPA/IFATCA +24	CFIT/04	2	Incorporate CRM/situational awareness training programs for all air traffic controllers of air navigation service providers (ANSP) emphasizing aircraft position with relation to minimum allowable altitudes.	Reduce the CFIT accident rate by incorporating CFIT prevention in CRM training programs. Situational awareness will be emphasized as an integral part of the CRM training required of air traffic controllers of all ANSPs.	
<a href="#"><u>25-Aug-12</u></a>	Mexico	RE/11	4	Develop a roll out plan	Organize workshops in Pan America to disseminate the information and train on: - Establishment of RST - The use of the DB - The use of the checklist - Finding Material related to runway safety.	RE/11-O3 +6
<a href="#"><u>20-Sep-12</u></a> procedures and guidelines that	IFALPA	LOC-I/09 LOC-I/9 - O3	4 +18	• to all of their pilots.	Pilot Monitoring Training provided by operators Each operator should carefully developed support pilot monitoring in their training programs. Each transport airplane pilot should be trained to the Pilot Monitoring procedures and guidelines developed by their organization.	
<a href="#"><u>20-Feb-13</u></a> RE/9 - O1	ALTA +24	RE/09	2	Develop a strategy to deliver safety seminars for pilots and controllers in Pan America that targets recognition and avoidance of unstable approaches.	Develop a strategy and timeline to deliver safety seminars for pilots and controllers.  At a minimum the following topics should be covered: • Stabilized Approaches • Go Around Gates and Missed Approach Criteria • Approach Procedures and Briefings • Non Normal Aircraft Conditions • Transfer of Aircraft Control • CRM/TRM and human factors • Weather conditions and information dissemination including tail wind landings During the safety seminars participant will be asked to provide additional mitigation measures that will be compiled and used as the basis of future safety enhancements for runway excursions.	
<a href="#"><u>25-Feb-13</u></a> RE/11-O4	Mexico +6	RE/11	5	Review and Update of the Runway Safety Teams	Develop a process to review on a two times a year basis the number of RSTs established and ensure that all relevant runway safety material is maintained updated.	
<a href="#"><u>20-Mar-13</u></a> LOC-I/6 - O3	RASG-PA (RAST-PA) +18	LOC-I/06	4	Mode awareness and energy state management aspects of flight deck automation guidance is provided by operators to all of their pilots.	Each operator should carefully developed procedures and guidelines that support the proper use of mode awareness and energy state management aspects of flight deck automation in their training programs. Each transport airplane pilot should be trained to the flight deck automation procedures and guidelines developed by their organization.	
<a href="#"><u>18-Apr-13</u></a>	ACI-LAC	RE/08	2	Promote and encourage the use of the guide.	Produce information material that may be disseminated at events throughout the Region. Call on RASG-PA Members to disseminate the information.	RE/8 - O1 +12

Due Date	Champion	DIP No.	Output	Description	Actions	Time line
<a href="#">18-Aug-13</a>	ALTA	LOC-I/07	3	Advanced Maneuvers Training provided by all operators. The expectation is that this training will be accomplished during initial training and as part of the recurrent training program, via ground and simulator instruction within the certified flight envelope, with emphasis on recognition, prevention and recovery techniques.	ALTA and IATA should promote a high level of commitment to advanced maneuvers training (AMT) by operator flight operations and training departments. Advanced maneuvers training will be conducted emphasizing energy state management and early recognition and recovery from flight outside the certified aircraft-operating envelope. Flight conditions outside of the certified flight envelope include inflight upsets, stalls, ground proximity and wind shear escape maneuvers, and inappropriate energy state management conditions. The training will be accomplished via ground and simulator instruction within the certified flight envelope, with emphasis on recognition, prevention and recovery techniques. The simulator instruction will be within the limitation of the training device being utilized.	LOC-I/7 - O2 +28
<a href="#">18-Oct-13</a>	ACI-LAC	RE/08	3	Airports implement their maintenance plans according to the runway maintenance guide.	Use a data-driven approach to identify aerodromes that could benefit from improved runway maintenance. Encourage RST at Airports to use the runway maintenance guide and track outcomes through their action plans. Track aerodrome action plans to determine the number of aerodromes that are using the guide.	RE/8 - O1 +18