INTERNATIONAL CIVIL AVIATION ORGANIZATION

REGIONAL AVIATION SAFETY GROUP – PAN AMERICA

(RASG-PA)

FIRST MEETING OF THE RASG-PA
FLIGHT SAFETY TRAINING TEAM

(FSTT/ 01)

SUMMARY OF DISCUSSION

Mexico, Mexico City
29 to 30 March 2010

March 2010

## 1.	Historical

1.1	The first meeting of the RASG-PA Flight Safety Training Team (FSTT/01) was held at the ICAO NACC Office, Mexico City, Mexico, 29-30 March 2010. Mr. Augusto Herrera, ALTA representative was elected to serve as Rapporteur for the meeting. Mr. Eduardo Chacin, ICAO NACC supported by Mr. Adolfo Zavala, ICAO NACC, acted as Secretaries. The meeting was conducted in English.

1.2	The meeting was attended by eight participants from States, international organizations and airports. An attendance list is provided in **Appendix A**.

1.3	Mr. Adolfo Zavala, on behalf of the RASG-PA Secretary, welcomed the attendees and thanked them for their support of RASG-PA. He explained that the FSTT was established via the following RASG-PA/02 Meeting Decision:

> *"RASG-PA/02/05: That a working group be established to assess, identify and categorize available flight safety training, which will be available to all RASG-PA members through the RASG-PA website. Identify training will also be aligned to the three data-driven risk areas as identified by the RASG-PA ESC and catalogued by regional needs".*

1.4	The top three data-driven risk areas identified by RASG-PA for the Pan American Regions are: Runway Excursions (RE), Controlled Flight into Terrain (CFIT) and Loss of Control In-Flight (LOC-I).

## 2.	Agenda Items

### 2.1	Agenda Item 1: Review and Approval of the Draft Meeting Agenda

2.1.1	The FSTT reviewed the draft agenda and adopted it as follows:

Agenda Item 1:	Review and approval of the draft Meeting Agenda.

Agenda Item 2:	RASG-PA overview.

Agenda Item 3:	Review Terms of Reference (TOR) of the FSTT.

Agenda Item 4:	Identify sources of available flight safety training material.

Agenda Item 5:	Review and analyze available flight safety training material.

Agenda Item 6:	Other business.

2.2   **Agenda Item 2: RASG-PA Overview**

2.2.1   The Rapporteur provided a brief introduction on the Regional Aviation Safety Group – Pan America (RASG-PA) for the benefit of those FSTT members who had not been previously involved in RASG-PA activities. He highlighted that RASG-PA is 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 to promote the implementation of resulting safety initiatives by all stakeholders including ICAO, States, International Organizations and the industry.

2.2.2   The FSTT Secretary advised the participants that all RASG-PA documentation, reports, training and other useful safety related material may be found on the RASG-PA website: http://www.mexico.icao.int/RASGPA.html

2.3 Agenda Item 3: Review of FSTT Terms of Reference (TOR)

2.3.1   The FSTT reviewed the Terms of Reference and agreed to submit the following to the Executive Steering Committee (ESC) for approval:

   a) Purpose of the Flight Safety Training Team:

   1. Assess, identify and categorize available flight safety training.
   2. Make flight safety training available to the entire aviation community through the RASG-PA website.
   3. Ensure that the safety training that will be available is aligned with the top three data-driven risk areas as identified by the RASG-PA:
       a. Runway Excursion (RE)
       b. Controlled Flight Into Terrain (CFIT)
       c. Loss of Control In-Flight (LOC-I)
   4. Establish a methodology for reviewing and updating the RASG-PA catalogue of flight safety training material every six months.
   5. Coordinate in-kind contributions of training material and support regarding the top three data-driven risk areas as identified by the RASG-PA.
   6. Coordinate and implement the most efficient and effective method to disseminate training material through the use of current technology.
   7. Establish metrics to determine the effectiveness of the training material available.

   b) Membership:

   1. ICAO contracting States and Territories of the NACC Regions.
   2. ICAO contracting States of the SAM Region.
   3. International and regional Organizations.
   4. Aircraft manufacturers.

5. Other representative organizations or any entity directly involved in aviation safety may be invited to join the work group as a full member or observer as decided by ICAO RASG-PA Secretariat.

c) **Roles and Responsibilities:**

1. ICAO HQ: support.
2. ICAO NACC: support.
3. ICAO SAM: support.
4. Team Members: provide technical expertise and collaborate on the development and implementation of the task per RASG-PA mandate.

2.4   Agenda Items 4: Identify sources of available flight safety training

2.4.1   The FSTT agreed to use the following methodology to search for and identify sources of available flight safety training material:

a) Focus the search for available flight safety training material according to the following list:
   1. States: North America, Central America, South America, Europe, Asia, Pacific.
   2. International and Regional Organizations: ACI, ACI-LAC, ALTA, COCESNA/ACSA, Flight Safety Foundation, IATA, ICAO, IFALPA, IFATCA, JAA Training Organization.
   3. Aircraft manufacturers: Airbus, Boeing, Bombardier, Embraer.
   4. Others: AENA, ALPA, AOPA, ASPA, ARINC, ATA, BEA, EASA, Eurocontrol, Honeywell, ISASI, Jeppesen, MITRE Corporation, NASA, SITA.
b) Categorize the available flight safety training material per the identified top three data-driven risk areas as follow:
   1. Runway excursion (RE)
   2. Controlled Flight into Terrain (CFIT)
   3. Loss of Control In-Flight (LOC-I)
c) Align and assess the available flight safety training material with the top three data-driven risk areas.

2.4.2   The FSTT agreed that the outcome of the FSTT/01 Meeting would also support the Regional Aviation Safety Team - RAST Meeting with the development of detailed safety enhancement implementation plans during the upcoming RAST/02 Meeting scheduled in Miami, Florida, U.S., 8-9 April 2010.

2.4.3   Prior to identifying the sources of available safety training material, the Secretary reviewed the outcome of RAST/01 in which safety enhancement actions for the top three risk areas were identified and prioritized for the NAM/CAR/SAM regions. It is noteworthy to mention that most of them fell into two general areas: Policy and Procedures, and Training.

2.4.4   The safety enhancement actions determined by the RAST/01 from the top data-driven risk areas are:

a) **Runway Excursions (RE):**

1. RAST-PA/RE/4: Promote pilot adherence to Standard Operating Procedures (SOPs) for approach procedures including the go-around decision-making process

2. RAST-PA/RE/9: Promote specific training for pilots and air traffic controllers to avoid unstable approaches

3. RAST-PA/RE/10: Promote specific training for aerodrome personnel regarding maintenance and operations of the runway

b) **Controlled Flight into Terrain (CFIT):**

1. RAST-PA/CFIT/02: Promote specific Approach and Landing Accident Reduction (ALAR/CFIT) training for pilots

2. RAST-PA/CFIT/04: Promote Crew Resource Management (CRM) / Situational Awareness training for pilots and air traffic controllers

c) **Loss of Control In-Flight (LOC-I):**

1. RAST-PA/LOC-I/7: Promote LOC training – Advanced maneuvers

2. RAST-PA/LOC-I/9: Promote LOC training – Pilot monitoring policies and procedures for the operator and training program for flight crews

2.4.5   As noted above, the FSTT systematically searched the listed sources for available flight safety training material. As sources of training material were identified, the FSTT discussed the findings and then assessed and categorized training material as mandated. Through this exercise, the working group visited numerous websites including those of many recognized worldwide aviation organizations. As a result of this comprehensive search, the working group made an interesting observation that there was a lack of diverse and freely available flight safety training specific to the top three data-driven risk areas.

2.5   Agenda Item 5: Review and analysis of available flight safety training material

2.5.1   The FSTT proceeded to review and analyze the available flight safety training that was identified, which is included in a list that is contained in **Appendix B**.

2.5.2   The FSTT agreed to identify the available flight safety material and catalogue them by risk area and by source.

2.5.3   The FSTT agreed to include all other available and pertinent flight safety documentation/data/reports related to the top three data-driven risk areas on the RASG-PA website in a virtual library collection available to the aviation community.

2.5.4   The Secretary briefed the working group members on previous coordination with the ICAO NACC Information Technology (IT) manager. The IT manager proposed that the most effective and efficient method to host training material would be to contract with an internet service provider and host the material on a separate server from the ICAO NACC office in order to provide higher capacity both in storage and in speed when uploading/downloading material. Based on this proposal, the IT manager will contract these services with the costs to be included in the 2010 RASG-PA budget, which will be presented to the ESC.

2.5.5   Until such time as a separate server is established to host training material, the working group agreed to use the RASG-PA website as the host.

2.6   Agenda Item 6: Other Business

2.6.1   The FSTT concluded that it was important to continue the task of searching, assessing, identifying and aligning available flight safety training with the evolving trends of aviation incidents and accidents in the Pan American Region.

2.6.2   The FSTT agreed that the need for future meetings will be determined by the Executive Steering Committee after reviewing the Terms of Reference of FSST in regard to the purpose of the Team and related tasks, and the results presented in the FSTT/01 summary of discussion.

3.   Summary of Executive Steering Committee (ESC) Recommended Actions

3.1   The ESC is invited to note the progress of the FSTT as detailed in the summary of discussion and,

   a) approve the Terms of Reference, noting that the FSTT considered that the most efficient method for FSTT to complete its tasks would be to report directly to the ESC;
   b) note the identified and listed safety training material for each of the data driven risk areas as identified by RASG-PA;
   c) note the limited availability of freely available flight safety training material related to each of the data driven risk areas identified by RASG-PA;
   d) encourage RASG-PA members and other organizations that have developed flight safety training material aligned to the three top flight safety risk areas, as identified by RASG-PA, to provide them as in-kind support to share with the aviation community and fulfill the objective of enhancing safety in the Pan American Region.

LIST OF PARTICIPANTS

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AVAILABLE FLIGHT SAFETY TRAINING						
Data-driven Risk Area	**Safety Enhancement**	**Source**	**Material**	**Description**	**Link**	**Remarks**
Runway Excursion (RE)	**RAST-PA/RE/4:** Promote pilot adherence to Standard Operating Procedures (SOPs) for approach procedures including the go-around decision making process	FSF/IATA	Runway Excursion Risk Reduction Tool Kit	It was developed (CD) for the benefit of the airline industry. Experts from airlines, regulators, aircraft manufacturers, airports, air traffic control and safety organizations around the globe helped develop this important tool. It provides an in depth analysis of runway excursion accident data, a compilation of significant risk factors, and provides recommendations for operators, pilots, airports, ATM, ATC and regulators	https://www.iataonline.com/Store/ Products/Product+Detail.htm?cook ie%5Ftest=1&NRMODE=Publish ed&NRORIGINALURL=%2fStor e%2fProducts%2fProduct%2bDeta il%2ehtm%3fcs_id%3d8490%252 D00%26cs_catalog%3dPublicatio ns&NRNODEGUID=%7b16F558 7B-8B15-4B8B-8EB5- 498DFA3C1136%7d&NRCACHE HINT=NoModifyGuest&cs_id=97 37%2D09&parent=ALL&cs_catal og=Publications	Associated cost English
		Colegio de Pilotos Aviadores de México	Aeronautical Decision Management (ADM)		Not applicable	Spanish In-house IFALPA will check availability
	RAST-PA/RE/9: Promote specific training for pilots and	FSF	ALAR Tool Kit version 3.1	It is a multimedia resource on compact disc (CD) for safety	http://flightsafety.org/current- safety-initiatives/approach-and- landing-accident-reduction-	English

AVAILABLE FLIGHT SAFETY TRAINING						
Data-driven Risk Area	Safety Enhancement	Source	Material	Description	Link	Remarks
air traffic controllers to avoid unstable approaches				professionals and training organizations working to prevent the leading causes of fatalities in commercial aviation: approach-and-landing accidents (ALAs), including those involving controlled flight into terrain (CFIT).	alar/alar-tool-kit-cd	
		Colegio de Pilotos Aviadores de México	ALAR II		Not applicable	Spanish In-house IFALPA will check availability
	RAST-PA/RE/10: Promote specific training for aerodrome personnel regarding maintenance and operations of the runway	ACI	Courses	Airport personnel training courses	http://www.airports.org/cda/aci_common/display/main/aci_content07_banners.jsp?zn=aci&cp=1-4613-9213_725_2__	Associated cost
Control Flight Into Terrain (CFIT)	**RAST-PA/CFIT/02:** Promote specific Approach and Landing Accident Reduction (ALAR/CFIT) training	FSF	ALAR Tool Kit version 3.1	It is a multimedia resource on compact disc (CD) for safety professionals and training organizations	http://flightsafety.org/current-safety-initiatives/approach-and-landing-accident-reduction-alar/alar-tool-kit-cd	English

Data-driven Risk Area	Safety Enhancement	Source	Material	Description	Link	Remarks
	for pilots			working to prevent the leading causes of fatalities in commercial aviation: approach-and-landing accidents (ALAs), including those involving controlled flight into terrain (CFIT)		
			CFIT: Awareness and Prevention	A 32-minute video training aid, designed primarily for regional and business aircraft operators, presents CFIT statistics, examines three representative CFIT accidents and presents cockpit-voice-recorder (CVR) and data simulation to illustrate accident-reduction strategies.	http://flightsafety.org/current-safety-initiatives/controlled-flight-into-terrain-cfit/cfit-reduction-products	English
			CFIT Education and Training Aid	A two-volume package developed under the auspices of the FSF CFIT Task Force and produced by Boeing	http://flightsafety.org/current-safety-initiatives/controlled-flight-into-terrain-cfit/cfit-reduction-products	English

AVAILABLE FLIGHT SAFETY TRAINING						
Data-driven Risk Area	Safety Enhancement	Source	Material	Description	Link	Remarks
				Commercial Airplanes Group, presents an in-depth examination of CFIT hazards, specific educational material, a model training program and effective CFIT-avoidance strategies.		
		FAA	CFIT Education and Training Aid	The training aid includes a document (two volumes) and a video. They are stored on a CD-ROM to provide a readily available source of information and to easily enable the user to develop a program to prevent CFIT accidents.	http://www.faa.gov/training_testing/training/media/cfit/volume1/titlepg.pdf	English
		Transport Canada	Situational Awareness - Preventing Controlled Flight Into	A video (CD) designed to alert to the conditions and risks specific to controlled flight into terrain in order to	http://shop.tc.gc.ca/TChtml/ibeCCtpItmDspRte.jsp?JServSessionIdrootncras84=jypzm5a261.pAbMmlaSb2TOmMTBmMTxmhDYcx4Qa30K&item=40385	English

Data-driven Risk Area	Safety Enhancement	Source	Material	Description	Link	Remarks
			Terrain	improve the awareness of exactly where the pilot is and what is going on around the pilot during flight		
		ICAO	CFIT Education and Training	Preventing CFIT accidents is the major goal of this training aid. The CD-ROM consists primarily of a document in five sections developed by an international CFIT Task Force.	http://www.icao.int/icao/en/cd_pub_list.htm#CFIT	English
			CFIT: An encounter avoided	This video examines the cause of controlled flight into terrain (CFIT) and ways to mitigate the risk. It is intended to assist operators in creating or improving CFIT prevention training programmes.	http://www.icao.int/cgi/ISBN_txt.pl?755	English
	RAST-PA/CFIT/04: Promote Crew Resource Management (CRM) / Situational Awareness training for	CAA United Kingdom	CRM Training	The purpose of this publication is to provide a comprehensive guidance document	http://www.caa.co.uk/docs/33/CAP737.PDF	English

	AVAILABLE FLIGHT SAFETY TRAINING					
Data-driven Risk Area	**Safety Enhancement**	**Source**	**Material**	**Description**	**Link**	**Remarks**
	pilots and air traffic controllers			on Crew Resource Management (CRM), from a UK perspective.		
		FAA	CRM 101	Video	Not applicable	English
Loss of Control In-Flight (LOC-I)	**RAST-PA/LOC-I/7:** Promote LOC training – Advanced maneuvers	FAA	Airplane Upset Recovery Revision 1 August 2004	CD-ROM The training package consists of this document and a supporting video. It is dedicated to reducing the number of accidents caused by the loss of control of large, swept-wing airplanes that results from airplane upset.	http://www.faa.gov/other_visit/aviation_industry/airline_operators/training/media/AP_UpsetRecovery_Book.pdf	English
		FSF	Airplane Upset Recovery Training Aid and High Altitude Operations:	They present high altitude aerodynamics and safe flight techniques for almost all jet airplanes that routinely operate in	http://flightsafety.org/current-safety-initiatives/airplane-upset-recovery-training-aid	English

Data-driven Risk Area	Safety Enhancement	Source	Material	Description	Link	Remarks
			Supplement #1	the high altitude environment above Flight Level 250		
	RAST-PA/LOC-I/9: Promote LOC training – Pilot monitoring policies and procedures for the operator and training program for flight crews	IFALPA	Pilot´s Monitoring Course		Not available	English IFALPA will check availability
		FAA	Upset Recovery Training Aid Revision 2 Recovery	This document is intended to supplement the Airplane Upset Recovery Training Aid Rev 1 that was released in August 2004. It addresses the issues associated with operations, unintentional slowdowns, and recoveries in the high altitude environment	http://www.faa.gov/other_visit/aviation_industry/airline_operators/training/media/AP_UpsetRecovery_Book.pdf	English

VIRTUAL LIBRARY						
Data-driven Risk Area	**Safety Enhance-ment**	**Source**	**Material**	**Description**	**Link**	**Remarks**
All	All	IFATCA	The Controller	Quarterly magazine dedicated to ATC training	http://www.the-controller.net/2009_03.htm	English
		EASA/FSF	Reducing the Risk of Runway Excursions – Report of the Runway Safety Initiative	Flight Safety Foundation initiated a project entitled Runway Safety Initiative (RSI) to address the challenge of runway safety	http://www.easa.europa.eu/essi/documents/R3Efinal.pdf	English
		Airbus	Briefing Notes	Briefing Notes have been developed to constitute a safety-awareness reference for all aviation actors, regardless of their role, type of equipment and operation.	http://www.airbus.com/en/corporate/ethics/safety_lib/	English
		Australian Transport Safety Bureau	Runway excursions Part 1:A worldwide review of commercial jet aircraft runway excursions	The purpose of this study was to provide an overview of runway excursion accidents from both an international and Australian perspective.	http://www.atsb.gov.au/media/27370/ar2008018_1.pdf	English