

Port Resiliency Program (PReP)

Final Report of Pilot Project at Juan Santamaria International Airport

San Jose, Costa Rica

24-25 August 2015

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Mr. James F. Smith, PhD, P.E.
Capt USNR (Ret)
President
Smith-Woolwine Associates Inc
Virginia, USA

Dear Mr. Smith:

We have the pleasure to manifest our satisfaction with PReP, for the interaction held on August 24 and 25 of this year, when we participated in the training offered by the AmericasRelief Team (ART), which aims to provide logistical support humanitarian and educational programs for victims of disasters in the Americas and develop sustainable programs that provide long-term benefits for the needy.

The table top exercise consisted of the analysis of a series of natural events that affect larger scale in airports, roads, hospitals and buildings in the metropolitan area, among others. Therefore, the participation of the governmental entities that make up the Emergency Committee of this International Airport, was essential to get valuable feedback and coaching, with international aid based approach, and in order that the Airport and institutions first emergency response strengthen their resilience.

The information received helped us a lot, and the comments of our national authorities were very satisfactory. In fact, we can say that our Emergency Plan included important information to be taken into account in a future emergency case.

Once more, thank you so much for your time, your resources and the expertise given. We would like to take this opportunity to ask that in a near future, our Juan Santamaria International Airport will be considered for another future training.

Best regards.

Atentamente,



Juan Belliard
Director de Operaciones y Seguridad

Port Resiliency Program (PReP 2.0)

Final Report for Juan Santamaria International Airport

San Jose, Costa Rica

Introduction

Purpose

The Port Resiliency Program (PReP) prepares airports in Caribbean and Latin America to be more resilient in face of natural disasters by applying lessons learned in Hurricane Katrina and the Haiti earthquake. PReP's focus is on support for essential employees and their families, rapid damage assessment and repair, interagency cooperation, and mutual aid. AmericasRelief Team, a nongovernmental organization, is the program's initiator.

PReP 2.0 as delivered in San Jose, Costa Rica, incorporates the changes and enhancements made to PReP as a result of the pilot project performed at Las Americas International Airport, Santo Domingo, Dominican Republic, in February 2013.

Approach

PReP 2.0 uses a three-step process:

- (1) Initial self-assessment by the airport using materials provided by PReP
- (2) Site visit to present targeted training to enhance the preparedness of the airport
- (3) Table top exercise based on airport's hazard assessment to assess learning outcomes

Commitment to Continuous Improvement

AERIS (the operator of Juan Santamaria International Airport), PReP, AmericasRelief Team, and the sponsors are fully committed to the continuous improvement process. Every step will be subjected to self-evaluation and external evaluation, and the findings will be used to improve the program.

Sponsors

FedEx is the primary sponsor of PReP with Miami-Dade Aviation Department (Miami International Airport) and Smith-Woolwine Associates as additional sponsors.

Selection of Site

AERIS requested PReP for 2015. Merida International Airport in Mexico will be the second airport served in 2015.

Participants

The participants in the training and table top exercise on 24-25 August 2015 are listed in Appendix A. Altogether, 74 individuals representing ___ organizations participated.

AERIS participants were Mr. Juan Belliard (Director of Operations), Ms. Adriana Boza (Operations Analyst and liaison for PReP), Mr. César Tello (Operations and Security Manager),

Ms. Yeseny Méndez (Terminal Services Supervisor), Ms. Kattia Boza (Cargo Facilities Chief), Mr. Yader Montenegro (Badging Office Coordinator), Mr. Luis Torres (Certification & Safety Management System Coordinator), and Mr. José Arias (Signage & Administrative Support).

The PReP Team consisted of Ms. Ms. Dulce Boza (ART), Dr. Jim Smith (Smith-Woolwine Associates), Capt. Ricardo Garcia (Miami-Dade Fire Rescue – retired), and Mr. Nelson Mejias (Miami-Dade Aviation Department).

Process

Self-Evaluation

Working together, the airport’s liaison to PReP and the PReP technical director did the self-evaluation of the airport’s plans and procedures for dealing with emergencies and disasters. The tool was an Excel-based PReP 2.0 Self-Assessment Packet. The packet contained seven checklists and worksheets:

1. Existing Plans Checklist
2. Hazard Inventory Checklist
3. Vulnerability Analysis (Risk Analysis) Worksheet
4. Airport Emergency Plan (AEP) outline
5. Partner and Stakeholder Identification Worksheet
6. Inventory of Emergency Equipment for Response and Recovery
7. Airport Emergency Post-event Recovery Practices Checklist (from Smith, Kenville & Sawyer, 2015, ACRP Synthesis 60)

Analysis of the completed checklists and worksheets was done by the airport managers and staff. Questions, which were few, were directed to the PReP technical director.

Training

Ten and a half hours of training were presented by the PReP Team. One topic of great interest to the participants—the airport’s volcanic ash contingency plan was presented by Mr. Belliard. Topics presented were

1. Meaning of “resilience”
2. Command and control during emergency response and recovery
3. Local mutual aid arrangements
4. Airport-to-airport mutual aid
5. Alternative communications in emergencies
6. Post-event recovery procedures
7. Pre-contracting for response and recovery services
8. Rapid engineering assessment/damage assessment
9. Prioritizing services to recovering airport
10. Coordinating commercial recovery and humanitarian operations
11. Support for essential employees and their families
12. Stranded passenger procedures
13. Juan Santamaria International Airport’s Volcanic Ash Contingency Plan (Mr. Belliard, PowerPoint available from AERIS)

The training materials are available from Dr. Smith.

Table top exercise (TTX)

Captain Garcia designed and led the table top exercise. Mr. Belliard and Ms. Boza of AERIS requested that the scenario include volcanic ash and an earthquake. They also passed on the wishes of national agencies for the TTX to include surface traffic disruptions and other features of a major national disaster. Captain Garcia's PowerPoint with the entire TTX appears as Appendix B.

For the exercise, the group was divided into groups at separate tables:

- Administracion de Aeropuerto (Airport Administration)
- Operaciones de Aeropuerto (Airport Operations)
- Aerolíneas (Airlines)
- Comisión Nacional de Emergencias (National Emergency Management Comision)
- Grupos de Primera Respuesta (First Responder Groups)
- Recursos 1 (Resources 1)
- Recursos 2 (Resources 2)

The level of interactions among the participants was very high. The TTX lasted about five hours.

Outcomes

The Preparedness of the Airport and Its Partners

The self-evaluation, discussions during the training, and the results of the TTX indicate that Juan Santamaria International Airport is overall very well prepared for natural disasters. Furthermore, the relationships between the airport and Costa Rican national agencies are strong and productive, as are relations with the airlines and cargo carriers at the airport. The informal agreement between Juan Santamaria International Airport and Liberia International Airport is promising, especially should a major regional disaster befall either the west coast (e.g., a Pacific hurricane) or the central and eastern region of Costa Rica (e.g., a Caribbean hurricane, volcanic eruption, flood, or earthquake).

Many unanticipated questions arose during the TTX discussions. The triggers for these questions and the issues raised as well as possible solutions are presented in Appendix C – Lessons Learned from the TTX.

The primary conclusion is that Juan Santamaria International Airport is very well prepared to respond to and recover from natural disasters. The airport appears to be highly resilient. The major challenges involve surface traffic access during emergencies and criteria for saying that the runway can be reopened after volcanic ash removal.

Evaluation of Training and TTX

The training and the table top exercise were evaluated by the participants themselves. In general, the evaluations ranged from good to outstanding, with the median rating as highly valuable/very good. The intensity of the training and TTX were viewed favorably as was the nature of training

topics presented. The participants liked the informal nature of the sessions, especially the free-flowing discussions.

Overall PReP 2.0 Program

The changes made to PReP as a result of the pilot project were verified as being practical and effective. PReP 2.0 is ready to deliver to Merida International Airport in December 2015 and at other airports in the Caribbean and Latin America in 2016 and beyond.

Cost data for delivering PReP in Costa Rica are given in Appendix D. The in-kind match by AERIS and Juan Santamaria International Airport was 15 percent of the total cost.

Acknowledgments

AmericasRelief Team and the PReP Team wish to thank the ART Board of Directors and FedEx Corporation for their unstinting support as PReP has been developed over the past three years. Credit also goes to the other organizations that have given financial or in-kind assistance: AERIS, Miami-Dade Aviation Department and Miami International Airport, and Smith-Woolwine Associates. The ART staff made the arrangements and did the translations. Ms. Adriana Boza handled coordination with Juan Santamaria International Airport. AERIS, especially Mr. Belliard and Ms. Méndez extended wonderful fellowship and hospitality during the site visit to San Jose.

Appendix A – Participants during Training and Table Top Exercise, San Jose, Costa Rica, 24-25 August 2015

Organization	Number of Participants
Aduanas	1
AERIS	7
ART/PReP	4
Avianca	3
Bomberos	2
CCSS	1
Comisión Nacional de Emergencias (CNE)	5
CORIPORT Aeropuerto Liberia	2
Cruz Roja Costarricense	3
Dirección General de Aviación Civil (DGAC) Accidentes e Incidentes	2
DGAC Aeropuerto Daniel Oduber Quirós	1
DGAC Aeropuerto Tobías Bolaños	1
DGAC ATC AIJS	1
DGAC ATC Liberia	1
DGAC AVSEC-FAL	1
DGAC Coordinación Aeropuertos	2
DGAC Dirección	1
DGAC Navegación Aérea	4
DGAC Navegacion Aérea	1
DGAC Navegación Aérea - ATC AIJS	1
DGAC Navegacion Aérea - Gestor CNS	1
DGAC Navegación Aérea - Gestora Calidad	1
DGAC Navegación Aérea - Radar AIJS	1
DHL	2
DIS	2
DUE K-9	1

Organization	Number of Participants
Juzgado Penal Alajuela	1
Ministerio de Agricultura (MAG)	1
OFGI	1
Organismo de Investigación Judicial (OIJ)	1
Observatorio Vulcanológico y Sismológico de Costa Rica (OVSICORI)	1
Recope (Fuel Provider)	1
Salud Area Rectora de Salud de Alajuela 1	1
Servicio de Vigilancia Aérea (Policía Aeroportuaria)	10
Tampa Carguera	1
Tránsito	1
UEI	1
Unidades Especiales DUE	1
United Airlines	1
Grand Total	74

Appendix B – Table Top Exercise

