



THE SECRETARY OF TRANSPORTATION
WASHINGTON, D.C. 20590

April 27, 2010

William E. Reukauf
Associate Special Counsel
U.S. Office of Special Counsel
1730 M Street, NW, Suite 218
Washington, DC 20036

Re: OSC File No. DI-09-1281

Dear Mr. Reukauf:

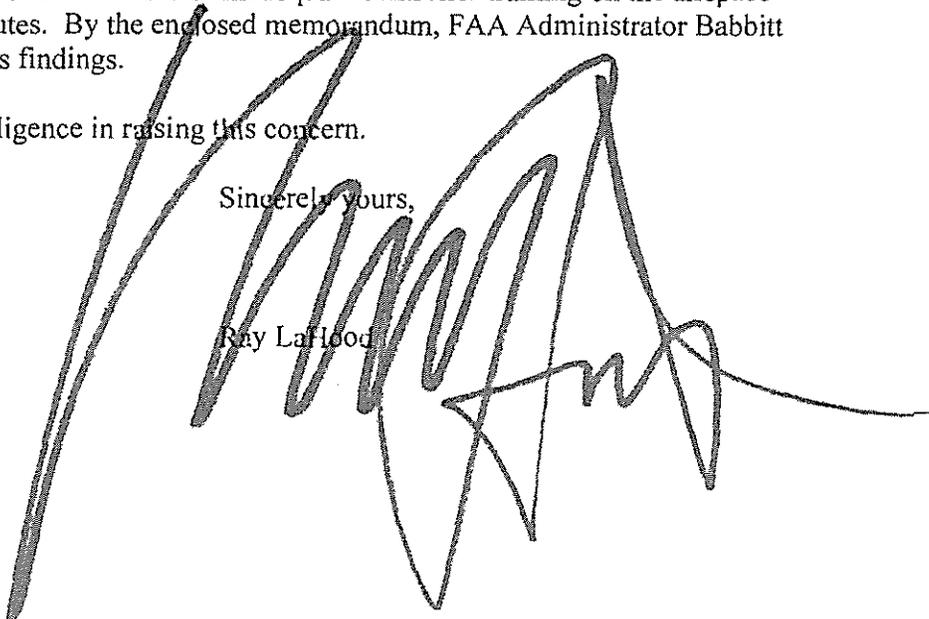
I am responding to your letter of May 1, 2009, which referred for investigation a safety concern raised by Miguel A. Perez, an air traffic controller from the Federal Aviation Administration's (FAA's) San Juan Combined En-Route Radar Approach Control (CERAP) facility in Carolina, Puerto Rico. Mr. Perez alleges that San Juan CERAP managers compromised aviation safety by implementing an airspace redesign and new flight routes without adequately training air traffic controllers. As evidence, he cites two near mid-air collisions where controllers lost separation between aircraft flying a new route. I delegated investigation of this matter jointly to the Department's Office of Inspector General (OIG) and FAA's Air Traffic Safety Oversight Office (AOV). Enclosed are the OIG's Report of Investigation and FAA Administrator Babbitt's response.

In summary, OIG/AOV found that the evidence does not support Mr. Perez's concern. The investigation found that each controller received verbal briefings (totaling three hours), map study time (four hours), and classroom training (eight hours for en-route controllers and four hours for approach controllers) on the airspace redesign and new flight routes. In addition, the investigation found that en-route controllers were given four hands-on training scenarios (totaling approximately six hours) in the Dynamic Simulation system. Further, OIG/AOV found that FAA quality assessment reviews did not attribute the two near mid-air collisions or any other operational error or deviation to inadequate controller training on the airspace redesign and new flight routes. By the enclosed memorandum, FAA Administrator Babbitt accepted the investigation's findings.

I appreciate Mr. Perez's diligence in raising this concern.

Sincerely yours,

Ray LaHood

A large, stylized handwritten signature in black ink, which appears to be "Ray LaHood", is written over the typed name and extends across the bottom right of the page.

Enclosures



Federal Aviation Administration

Memorandum

Date: MAR 24 2010

To: Mr. Robert Westbrook, Acting Assistant Inspector General for Special Investigations and Analysis

From: J. Randolph Babbitt, Administrator *JRB*

Subject: Response to OIG Report of Investigation I09Z000040SINV - Whistleblower Allegations at San Juan Combined En Route Radar Approach Control (CERAP) (ZSU); reference Office of Special Counsel (OSC) File DI-09-1281

We are pleased that your investigation found no evidence to substantiate that San Juan Combined En Route Radar Approach Control (CERAP) management compromised aviation safety as alleged by the whistleblower. Our own investigation found that although training prior to the implementation of the WATRS Plus airspace changes was adequate, training on new preferential aircraft arrival routes was insufficient prior to the original implementation in January 2009. Our investigation revealed that airspace changes and associated training did not contribute to operational errors reported shortly after the new airspace was implemented.

In your report, you noted that you did not investigate the whistleblower's allegation that on January 15, 2009, San Juan CERAP officials "established five to seven new preferential arrival routes" without proper training. As you correctly reported, San Juan CERAP management suspended use of all of the STARs shortly following their original implementation. Training was subsequently conducted in advance on implementing the revised STARs, after corrections were made to the original routes.

It is our judgment that the San Juan CERAP management has properly handled the training for both issues originally raised by the whistleblower.

If additional information is needed, please contact Bob Tarter, Vice President for the Office of Safety for the Air Traffic Organization at 202-267-3341.

cc: Senior Vice President, Operations, Air Traffic Operations (AJN)
Chief Counsel, Audits & Evaluations (AAE)



U.S. Department of Transportation
Office of Inspector General

REPORT OF INVESTIGATION	INVESTIGATION NUMBER #109Z000040SINV	DATE March 9, 2010
TITLE Re: Inadequate Controller Training at San Juan CERAP	PREPARED BY: Joseph Garcia Investigator Special Investigations and Analysis, JI-3 U.S. Department of Transportation Office of Inspector General	STATUS FINAL
	DISTRIBUTION	APPROVED BY: JI-3

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BACKGROUND

On May 1, 2009, the U.S. Office of Special Counsel (OSC) referred a safety concern raised by an air traffic controller from the FAA's San Juan Combined En-Route Radar Approach Control (CERAP) facility in Carolina, Puerto Rico. The whistleblower alleges that San Juan CERAP managers compromised aviation safety by implementing an airspace redesign and new flight routes without adequately training air traffic controllers. As evidence, he cited two near mid-air collisions where controllers lost separation between aircraft flying a new route.

On June 17, 2009, Secretary LaHood jointly delegated investigation of this matter to our office and the FAA's Air Traffic Safety Oversight Service (AOV). Attachment 1 describes the methodology of our joint investigation. Attachment 2 is a Timeline of Significant Events.

SYNOPSIS

The evidence does not support the whistleblower's allegation. Contrary to the whistleblower's claim that San Juan CERAP controllers received little or no training, we found that each controller received verbal briefings (totaling three hours), map study time (four hours), and classroom training (eight hours for en-route controllers and four hours for approach controllers) on the airspace redesign and new flight routes. In addition, we found that en-route controllers were given four hands-on training scenarios (totaling approximately six hours) in the Dynamic Simulation (DYSIM) system. Further, we found that quality assessment reviews did not attribute the two near mid-air collisions or any other operational error or deviation to inadequate controller training on the airspace redesign and new flight routes.

Below are the details of our investigation.

DETAILS:

Allegation: San Juan CERAP managers compromised aviation safety by implementing an airspace redesign and new flight routes without adequately training air traffic controllers.

FINDINGS

The evidence does not support the whistleblower's allegation.

We found that the FAA implemented an airspace redesign, *the West Atlantic Route System (WATRS) Plus Route Structure Redesign and Lateral Separation Reduction*, which, among other things, changed flight routes within the San Juan CERAP. To

implement this redesign, an FAA Safety Risk Management Panel of subject matter experts, including San Juan's Air Traffic Manager, created a Safety Risk Management Document (SRMD), which required that San Juan CERAP air traffic controllers receive training on the WATRS airspace redesign and new flight routes (Attachment 3). Under the San Juan CERAP training directive, the Air Traffic Manager is responsible for this training. The directive does not prescribe the type or number of training hours required.

The SRMD addressed the minimum baseline training requirements and the "core information and briefing package" for the WATRS redesign. The Panel determined that the worst credible outcome of the redesign would be "a slight increase in controller workload with no derogation to safety." It identified the following strategies for San Juan CERAP managers to mitigate the low risk associated with the redesign:

1. Specified minimum training requirements that include, but are not limited to, at least one simulated traffic scenario problem for employees directly responsible for WATRS airspace and briefings for all affected employees. Each facility will expand this as appropriate and tailor the training according to its needs utilizing computer based instruction, observation of dynamic simulations and briefings.
2. WATRS Plus core briefing package to include airspace/route depiction, new sectorizations, new separation standards, aircraft requirements, non-RNP 10 aircraft accommodation procedures, new facility boundaries, modified Letters of Agreement and Standard Operating Procedures, weather deviation procedures, adjacent facility procedures.

San Juan CERAP established a working group to address the WATRS redesign. The group consisted of Felipe Fraticelli, Air Traffic Manager; Sam Mestre, Operations Manager; Edwin Purcell, Quality Assurance (QA) and Training Support Manager; Jose Arcadia, Plans and Programs Support Manager; Teresita Tanner, Plans and Program Support Specialist; John Figueroa, Air Traffic Controller; Jerry Cearly, Washington Contracting Group Lead Contractor; Decio Rabanal, Automation Specialist; and Vicente Nieves, QA Support Specialist. Tanner and Nieves previously worked as Certified Professional Controllers at the San Juan CERAP. The group adopted the SRMD mitigation strategies by requiring that each air traffic controller receive verbal briefings, map study time, and classroom and simulator training.

In his original disclosure to the OSC, the whistleblower alleged that controllers were only given "a matter of hours, even minutes" to learn a new air traffic pattern in violation of Training Directive ZSU 3120.13(7)(a)(2). The whistleblower also alleged that, on January 15, 2009, San Juan CERAP officials "established five to seven new preferential arrival routes" and, although controllers were briefed on the routes, they did not receive "formal training" and "consequently do not have a clear understanding" of the routes.

We found that, shortly after these routes were established, the San Juan CERAP discontinued their use. Therefore, we did not investigate whether the controllers were properly trained on them.

In his OIG interviews on December 9, 2009, and January 27, 2010, the whistleblower stated that FAA did not adequately train San Juan CERAP controllers on the WATRS redesign prior to its June 5, 2008, implementation, given the controllers received only four hours of training – two hours for map drawing and two hours to read Letters of Agreement.

Based on interviews and our review of documents, we found that each San Juan CERAP controller received multiple verbal briefings (totaling three hours), map study time (four hours, with additional time provided upon controller request), and classroom training (eight hours for en-route controllers and four hours for approach controllers). (Attachment 4) We also found that en-route controllers were given four hands-on training scenarios (totaling approximately six hours) in the DYSIM. Approach controllers received less classroom training and did not receive DYSIM training because, unlike en-route controllers, they are not certified to work the en-route radar or radar associate positions. Finally, after the WATRS redesign was implemented, San Juan CERAP management assigned training personnel to work alongside the controllers for approximately one week.

The whistleblower contends that the above training was inadequate. As evidence, he cites two near mid-air collisions (FAA Incidents ZSU-C-08-E-005 and ZSU-C-08-E-006) where controllers lost separation between aircraft flying a new route through the WATRS airspace. However, these operational errors were investigated by QA Support Specialist Nieves, who determined the errors were not related to controller training on the WATRS redesign. Instead, he found error number 005 occurred because a controller knowingly failed to post some of the required flight progress strips showing the location and direction of an aircraft. Error number 006 was the result of a controller's failure to activate a flight plan and conduct a proper air traffic search. Moreover, none of the QA investigations into San Juan CERAP operational errors and deviations that occurred since implementation of the WATRS redesign concluded that a lack of controller training was a contributing factor.

ADDITIONAL INFORMATION

During our interview of the whistleblower, he made other allegations not presented in the OSC referral:

- Foreign air traffic control facilities are uncooperative in addressing pilot deviations and other air traffic events.

- San Juan CERAP lacks a contingency plan if both en-route and approach control radars lose power.
- San Juan CERAP approach control Letters of Agreement violate FAA Order 7110.65, *Air Traffic Control*.

As these matters were outside the scope of the original OSC referral, we referred these allegations to the OIG Complaints Analysis Center, and the three issues were officially referred to FAA's Air Traffic Organization on February 23, 2010, for investigation and response to OIG. In accordance with OIG procedures, the Complaints Analysis Center will review FAA's response to determine whether it is sufficiently comprehensive.

#

ATTACHMENT 1: METHODOLOGY OF INVESTIGATION

We reviewed and analyzed documents, including FAA training orders, maps, and operational error and deviation records. We also interviewed FAA managers and air traffic controllers at the San Juan CERAP. These witnesses included:

- Miguel Perez, Air Traffic Control Specialist (ATCS)
- Vicente A. Nieves, QA Support Specialist
- Teresita Tanner, Plans and Program Support Specialist
- Orlando Alvarado, ATCS
- Leopoldo Negrón, ATCS
- Felipe Fraticelli, Air Traffic Manager

ATTACHMENT 2: TIMELINE OF SIGNIFICANT EVENTS

December 17, 2007	SRMD issued addressing implementation and training requirements for WATRS airspace changes
January - June 2008	San Juan CERAP controllers received WATRS airspace training
June 5, 2008	FAA implemented WATRS airspace changes
June 26, 2008	FAA Incident ZSU-C-08-E-005
August 28, 2008	FAA Incident ZSU-C-08-E-006

ATTACHMENT 3: SAFETY RISK MANAGEMENT DOCUMENT

**SAFETY RISK MANAGEMENT DOCUMENT
(SRMD)**

For

**West Atlantic Route System (WATRS) Plus
Route Structure Redesign
And
Lateral Separation Reduction**

Version 1.0

December 17, 2007

Table 2 – SRM Panel

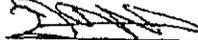
SRM Panel Members	Organization	Role
Scott Luka	ATO-E	International Procedures Specialist
Madison Walton	AFS-430	Aviation Safety -- Flight Standards Pilot
Richard Prosek	AFS-470	Flight Technology Requirements Pilot
Robert M. Tegeder	AFS-430	Flight Technology Requirements
Felipe Fraticelli	ZSU	Air Traffic Manager
Jose Arcadia	ZSU Support Manager	Subject Matter Expert
Pete Hruz	ZNY-530 Support Manager	Subject Matter Expert
Pete Ehrelein	ZNY-530 Staff Specialist	Subject Matter Expert
Greg Meyer	ZNY Front Line Manager	Subject Matter Expert
Vince Gerry	ZNY Oceanic Controller	Subject Matter Expert
Jim Pellechi	ZNY	Automation Manager
Terry Culbertson	ZMA	Acting System Support/Planning and Requirements Manager
Jim McGrath	ZMA Systems Support/Planning and Requirements Specialist	Subject Matter Expert
Steve Lynch	ZMA Systems Support/Planning and Requirements Specialist	Subject Matter Expert
Roy Grimes	CSSI	FAA Separation Standards Program Support Aviation Navigator
Curt Zimmerman	CSSI	SRM Facilitator

Signature Page

Title: West Atlantic Route System (WATRS) Plus Route Structure Redesign and Lateral Separation Reduction

Initiator: Scott Luka
Initiator's Organization: ATO-E
Initiator's Phone Number: 202-493-5495
Submission Date: December 17, 2007
SRMD #: Version 1.0

Reviewed by:



David M. Maynard
Manager, Oceanic and Offshore Operations
Safety and Operations Support
Date: 12/18/07

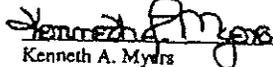


Kathy D. Smith
ATO-E Safety Engineer
Safety and Operations Support
Date: 12/18/07

SRMD Approval Signature(s):



Walter Cochran
Director, En Route and Oceanic Operations
Eastern Service Area
Date: 1/4/08



Kenneth A. Myers
Manager, National Quality Assurance and Safety
Safety and Operations Support
Date: 1/11/2008

Huan Nguyen
Director, Safety Management System
Safety Services
Date: _____

Risk Acceptance Signature(s):



Luis A. Ramirez
Director, Safety and Operations Support
En Route and Oceanic Services
Date: 1/4/07

WATRS7 – Increase in workload as result of Inconsistent controller training

The implementation of a NAS change includes the requirement for all impacted personnel to be briefed and/or trained. The WATRS Plus project has a multi-facility impact. Each facility will affect the necessary briefing and training specific to its particular needs; however, the panel identified the potential for inconsistent training without a minimum baseline requirement. The panel also identified the need for a core information and briefing package to facilitate all affected facilities in the development of the associated training.

Specified minimum training requirements were agreed-upon by the affected facilities and a briefing guide will be prepared by ZNY, with input from all affected facilities and organizations/offices, to be forwarded to FAA AJE-34 for validation and dissemination.

Existing control for this hazard is identified as:
Local training procedures

The panel identified the following strategies that will further mitigate the risk of the hazard's effect on the system:

1. Specified minimum training requirements that include, but are not limited to, at least one simulated traffic scenario problem for employees directly responsible for WATRS airspace and briefings for all affected employees. Each facility will expand this as appropriate and tailor the training according to its needs utilizing computer based instruction, observation of dynamic simulations and briefings.
2. WATRS Plus core briefing package to include airspace/route depiction, new sectorizations, new separation standards, aircraft requirements, non-RNP 10 aircraft accommodation procedures, new facility boundaries, modified Letters of Agreement and Standard Operating Procedures, weather deviation procedures, adjacent facility procedures.

The worst credible outcome of this hazard would be a slight increase in controller workload with no derogation to safety. This hazard is classified as low risk.

*****Added by Atlanta AOV*****

Findings from ZSU interviews for the above mentioned minimums:

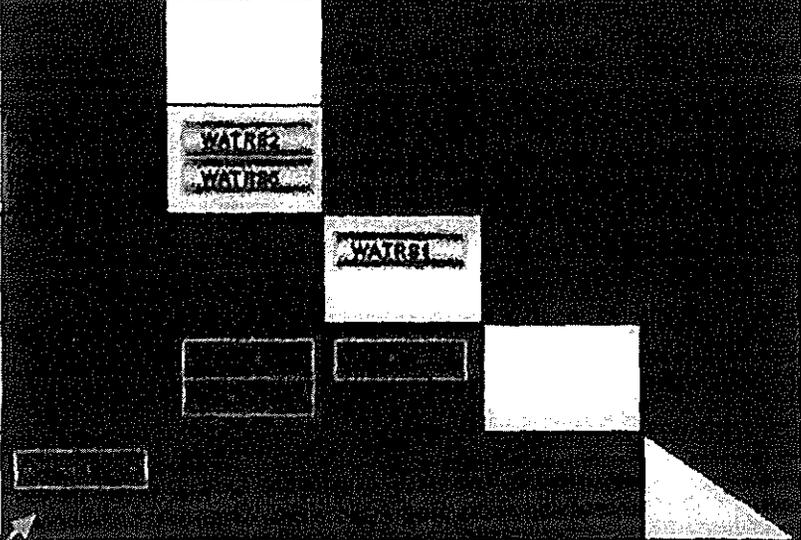
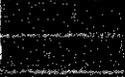
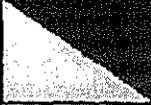
1. There were four, possibly five, simulated traffic scenario problems. ZSU conducted classroom, self study time, and briefings to learn new the new map, LOA's, and SOP's pertinent to WATRS airspace.
2. The WATRS briefing included all of the above mentioned items.

Findings from ZSU interviews for the above mentioned minimums:

1. There were four, possibly five, simulated traffic scenario problems. ZSU conducted classroom, self study time, and briefings to learn new the new map, LOA's, and SOP's pertinent to WATRS airspace.
2. The WATRS briefing included all of the above mentioned items.

Hazard Number	Hazard Description	Cause	System State	Possible Effect	Existing Controls	Severity/Rationale	Likelihood/Rationale	Current Risk	Recommended Safety Requirements	Residual Risk
WATRS 7	Increase in workload as result of inconsistent controller training	The implementation of a NAS change includes the requirements for personnel to be briefed and/or trained. The WATRS Plus project has a multi-facility impact with the potential for inconsistent training without a maximum exercise requirement	Oceanic and offshore procedural airspace	Slight increase in ATC workload	Local training procedures	No Safety Effect SRM Panel report judgment Quantitative data Evaluation of recent multi-facility NAS changes User Request Evaluation (Tool TURET)	Extremely Unprobable/Expected to occur less than once every 100 years	3E Low Risk	Specified minimum training requirements including at least one simulated traffic scenario problem for employees directly responsible for WATRS airspace and briefings for all affected employees WATRS Plus core briefing package	5E Low Risk

Figure 3: WATRS Plus Risk Matrix

Severity \ Likelihood	No Safety Effect 5	Minor 4	Major 3	Hazardous 2	Catastrophic 1	
Frequent A						
Probable B						
Remote C						
Extremely Remote D						
Extremely Improbable E						

* Unacceptable with Single Point and Common Cause Failures



ATTACHMENT 4: WATRS 2008 TRAINING DOCUMENT

ZSU WATRS 2008 Training

Almenas, Michael	1/28/2008	3/30/2008	3/23/2008	4/10/2008	4/25/2008	4/25/2008	6/8/2008
Alvarado, Orlando	1/29/2008	3/11/2008	3/3/2008	4/14/2008	4/8/2008	4/21/2008	6/5/2008
Borrero, Michaab	1/28/2008	3/27/2008	3/10/2008	4/14/2008	4/11/2008	5/5/2008	6/6/2008
Catton, Sandra M.	1/28/2008	3/9/2008	3/3/2008	4/13/2008	4/8/2008	4/28/2008	6/5/2008
Cordero, Miguel	1/31/2008	4/5/2008	4/2/2008	4/19/2008	4/11/2008	4/24/2008	6/5/2008
Crespo, Guido	1/29/2009	3/21/2008	3/21/2008	4/13/2008	4/25/2008	4/13/2008	6/6/2008
Cruz, Wilfredo	1/29/2008	3/11/2008	3/8/2008	4/15/2008	4/8/2008	4/28/2008	6/5/2008
Dorman, Kenny	1/28/2008	3/26/2008	3/3/2008	4/9/2008	4/7/2008	4/23/2008	6/5/2008
Figueroa, Javier	1/28/2008	3/28/2008	3/7/2008	4/20/2008	4/7/2008	4/28/2008	6/6/2008
Figueroa, John	1/29/2008	03/09/2008	3/8/2008	4/9/2008	4/15/2008	4/22/2008	6/5/2008
González, José	1/30/2008	3/11/2008	3/4/2008	4/10/2008	4/9/2008	4/30/2008	6/5/2008
González, William	1/30/2008	4/22/2008	3/5/2008	4/10/2008	4/7/2008	4/23/2008	6/5/2008
Jimenez, Ricardo	1/29/2008	3/9/2008	3/5/2008	4/19/2008	4/22/2008	4/21/2008	6/8/2008
Lucherini, Seth F.	1/31/2008	3/3/2008	3/7/2008	4/17/2008	4/10/2008	4/21/2008	6/12/2008
Meléndez, Marcos	2/5/2008	4/22/2008	3/18/2008	4/16/2008	4/9/2008	4/24/2008	6/8/2008
Negrón, Leopoldo	1/31/2008	3/11/2008	3/5/2008	4/10/2008	4/9/2008	4/30/2008	6/5/2008
Olivo, Miguel A.	2/1/2008	3/3/2008	3/17/2008	4/20/2008	4/11/2008	5/8/2008	6/5/2008
Otero, José	2/1/2008	3/20/2008	3/20/2008	4/20/2008	4/7/2008	5/5/2008	6/5/2008
Pérez, Miguel	2/8/2008	4/3/2008	3/5/2008	4/11/2008	4/10/2008	5/2/2008	6/11/2008
Peterson, Cody	1/31/2008	4/14/2008	3/20/2008	4/23/2008	4/13/2008	5/1/2008	6/5/2008
Preston, Alvin	2/8/2008	4/29/2008	3/5/2008	4/17/2008	4/9/2008	5/1/2008	6/5/2008
Santiago, Edwin	1/30/2008	4/22/2008	3/5/2008	4/10/2008	4/9/2008	5/1/2008	6/5/2008
Tamargo, Enrique	1/28/2008	3/1/2008	3/8/2008	4/19/2008	5/2/2008	5/30/2008	6/27/2008
Wilkinson, Errol	1/31/2008	4/25/2008	4/4/2008	4/23/2008	4/25/2008	5/2/2008	6/5/2008