



THE SECRETARY OF TRANSPORTATION
WASHINGTON, D.C. 20590

September 30, 2011

The Honorable Carolyn Lerner
Special Counsel
U.S. Office of Special Counsel
1730 M Street, NW, Suite 218
Washington, DC 20036

Re: OSC File Nos. DI-08-2954 and DI-11-0747

Dear Ms. Lerner:

By letter dated May 10, 2011, Associate Special Counsel William Reukauf referred for investigation a disclosure from Edgar Diaz, an Air Traffic Control Support Specialist at the Federal Aviation Administration's (FAA) San Juan Center Radar Approach Control facility in Puerto Rico. Mr. Diaz alleged FAA's failure to effectively address Foreign Facility Deviations (FFDs) committed by aircraft departing a foreign facility and entering U.S. airspace without authorization from U.S. air traffic controllers creates a substantial and specific threat to public safety. I delegated investigation responsibility to the Office of Inspector General (OIG). Enclosed are the Report of Investigation (ROI) and FAA Administrator Babbitt's response.

In August 2009, OIG reported to OSC on a similar allegation made by Mr. Diaz. In that case, OIG substantiated Mr. Diaz's concern that FAA's Air Traffic Organization (ATO) failed to respond to the public safety risk associated with FFDs. The OIG reported its findings and made recommendations to address FFDs to ATO's Chief Operating Officer. FAA accepted two of OIG's recommendations: (1) schedule a meeting between the San Juan CERAP and the Santo Domingo, Dominican Republic air traffic facilities; and (2) develop a national database to track and analyze FFDs.

The enclosed ROI presents FAA's actions to address FFDs since OIG's 2009 report. In summary, while there has been increased cooperation between FAA and the Dominican Republic, OIG found that FFDs continued to occur in San Juan CERAP airspace. Nine FFDs, none of which resulted in a loss of separation, were reported during the first half of 2011. This represents a significant reduction in FFDs from the same period last year. Because of the significant reduction of reported FFDs and no loss of separation, OIG cannot conclude that FFDs in San Juan CERAP airspace present a substantial and significant threat to aviation safety. However, the continuation of any FFDs remains a safety concern for FAA.

FAA Administrator Babbitt concurs with OIG's findings and in his response sets forth a corrective action plan to address FFDs. As described in the Administrator's response, FAA has nearly finished its national tracking database and expects to complete installation of a "shout line" (a direct voice communication line) between Santo Domingo and San Juan in early 2012. Also, FAA expects State Department approval of a "radar sharing" agreement

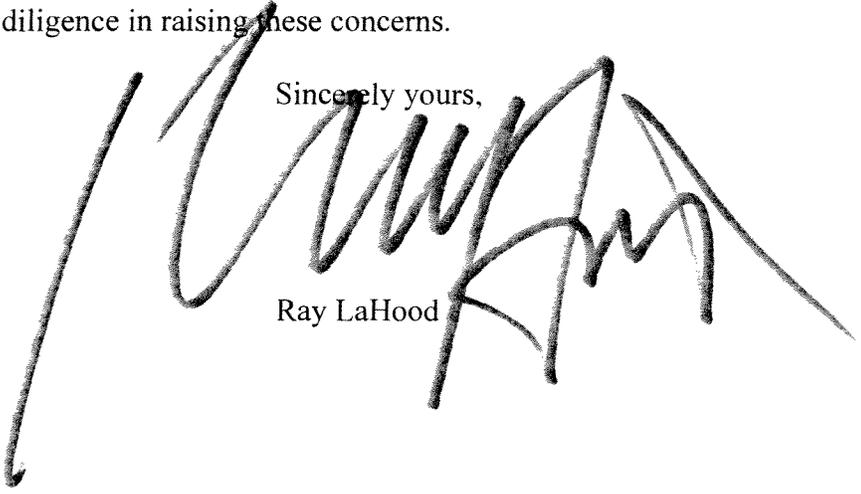
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Carolyn Lerner

between San Juan and Santo Domingo in November 2011, and is pursuing a similar agreement with the Netherlands island of St. Maarten.

I appreciate Mr. Diaz's diligence in raising these concerns.

Sincerely yours,

Ray LaHood

A large, stylized handwritten signature in black ink, appearing to read 'Ray LaHood', is written over the typed name. The signature is fluid and cursive, with a long, sweeping underline that extends to the left.

Enclosures



U.S. Department of Transportation
Office of Inspector General

REPORT OF INVESTIGATION	INVESTIGATION NUMBER I11A002SINV	DATE Aug. 25, 2011
TITLE Foreign Facility Deviations, San Juan Combined En-Route Radar Approach Control	PREPARED BY: Joseph Garcia Investigator, JI-3	STATUS FINAL
	DISTRIBUTION AJO-1, AAE-1	APPROVED BY: JI-3 <i>[Signature]</i>

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BACKGROUND

On May 10, 2011, the U.S. Office of Special Counsel (OSC) referred to U.S. Department of Transportation Secretary Ray LaHood a whistleblower disclosure for investigation. The Secretary delegated investigation of the disclosure to the Office of Inspector General (OIG). The whistleblower, a Federal Aviation Administration (FAA) air traffic control support specialist at the San Juan, Puerto Rico Combined En-Route Radar Approach Control (CERAP) facility, disclosed that FAA's failure to effectively address Foreign Facility Deviations (FFDs) creates a substantial and specific danger to public safety. **(Attachment 1)** As described below, OIG previously reported to OSC on a similar allegation made by the whistleblower. This report of investigation (ROI) presents FAA's action since our prior report. **Attachment 2** describes the methodology of our investigation.

In 2008, the whistleblower disclosed to OSC that FAA failed to adequately respond to the public safety risk associated with FFDs committed by aircraft departing a foreign facility and entering U.S. airspace without authorization from U.S. air traffic controllers. **(Attachment 3)** That disclosure was referred by OSC directly to OIG for investigation. OIG substantiated the whistleblower's allegation about the number of FFDs occurring within U.S. airspace near Puerto Rico.

OIG reported its findings and made recommendations to address FFDs to the Chief Operating Officer for FAA's Air Traffic Organization. OIG recommended FAA: (1) schedule a meeting between the San Juan CERAP and the Santo Domingo, Dominican Republic air traffic facilities to discuss the FFDs and develop corrective actions, (2) develop a national database to track FFDs and conduct a quarterly review and analysis to identify trends and potential safety risks, and (3) establish a formal protocol to allow managers of air traffic facilities to engage in dialogue with foreign facilities. FAA concurred with OIG's first two recommendations. FAA did not concur with the third recommendation on the ground that "protocols are already in place for managers of air traffic facilities to engage in dialogue with a foreign facility should safety concerns arise." In August 2009, OIG provided the ROI to OSC. **(Attachment 4)**

SYNOPSIS

We found evidence that FFDs continue to occur in San Juan CERAP airspace. FAA reported nine FFDs during the first half of 2011. This, however, is a significant reduction in FFDs from the same period last year. In addition, since the previous OIG report only one FFD may have resulted in a loss of aircraft separation. Because of the significant reduction in the number of reported FFDs and only one FFD may have resulted in a loss of separation, we cannot conclude FFDs in San Juan CERAP airspace present a substantial and significant threat to aviation safety. Given FFDs in San Juan CERAP

airspace continue to occur, the issue remains a safety concern for FAA. As discussed below, since OIG's August 2009 report and recommendations, FAA has taken, and continues to take, steps to address this issue.

Below are the details of our investigation.

DETAILS

Allegation: Despite FAA's promised actions, Foreign Flight Deviations into San Juan CERAP airspace continue to pose a substantial and specific danger to aviation safety.

FINDINGS

We were unable to substantiate the allegation that FFDs pose a substantial and specific danger to aviation safety. In 2009, there were 52 reported FFDs and, in 2010, there were 76 reported FFDs within San Juan CERAP airspace. Between January and June 2011, there have been nine reported FFDs. The nine FFDs in 2011 involved aircraft that either entered San Juan CERAP airspace on a heading not in accordance with a Letter of Agreement or, without prior coordination, utilized a different route, altitude or time than coordinated. (**Attachment 5:** Summary List of San Juan CERAP Foreign Facility Deviations) The nine FFDs for the first six months of 2011, compared to 52 reported FFDs for the first six months of 2010, represent a reduction of 83 percent. Moreover, San Juan CERAP officials reported that only one FFD, which occurred on May 23, 2010, may have resulted in the loss of minimum radar separation between aircraft. That event is still under review by FAA.

Because of the significant reduction in the number of reported FFDs and only one FFD may have resulted in a loss of separation, we cannot conclude FFDs in San Juan CERAP airspace present a substantial and significant threat to aviation safety. Given FFDs in San Juan CERAP airspace continue to occur, however, the issue remains a safety concern for FAA. As discussed below, since OIG's August 2009 report and recommendations, FAA has taken, and continues to take, steps to address this issue.

Cooperation between FAA and the Dominican Republic

In September 2009, San Juan CERAP's Air Traffic Manager met with representatives from the Dominican Republic to address FFDs originating from Dominican airspace. The Dominican Republic is the source of the greatest number of FFDs. On September 24, 2009, San Juan CERAP and Santo Domingo Area Control Center (ACC) officials signed a Letter of Agreement (LOA) that established coordination and routing of air traffic between the two facilities. (**Attachment 6**) Since then, when an FFD has occurred, San Juan CERAP officials have immediately notified the Santo Domingo ACC.

National Database to Track FFDs

FAA's promise to develop a national database to track FFDs and to publish a quarterly report of analysis and safety trends has not yet materialized. According to an official from FAA's Office of Safety and the Acting Quality Assurance Manager for the Eastern Service Center, FAA is in the process of adapting an existing database, the Comprehensive Electronic Data Analysis and Report (CEDAR) system, to capture all errors and deviations, including FFDs. The FAA's Eastern Service Center Quality Control Group will provide support to the San Juan CERAP to document events, analyze FFD causal factors for each of the foreign facilities within its area of responsibility, including the Santo Domingo ACC, and assist with hazard mitigation. The data also will be used to address FFDs during meetings between the San Juan CERAP and Santo Domingo air traffic representatives. However, there is no estimated time of completion for the national database. We will ask FAA's Office of Audit and Evaluation (AAE) to track completion of the national database and report back to OIG.

FAA is also developing new Quality Assurance, Quality Control and Occurrence Reporting policies which will form the foundation for reporting and tracking FFDs. The policies will require air traffic controllers to file a Mandatory Occurrence Report (MOR) in the CEDAR system when they encounter an FFD. FAA is consulting the National Air Traffic Controllers Association on these policies and expects to finalize them before the end of 2011. We will ask AAE to track completion of these policies and report back to OIG.

Additional Mitigations

We found that FAA is in the process of installing a "shout-line" between the San Juan CERAP and the Santo Domingo air traffic facilities. A shout-line is an open communication system that allows an air traffic controller at one facility to talk directly into a microphone and instantly be heard by air traffic controllers at a different facility without having to dial a telephone number and wait for a controller at the other facility to answer. The shout-line will be used by the two facilities when a FFD is encountered to quickly coordinate and mitigate the deviation. FAA estimates completion of the San Juan CERAP/Santo Domingo shout-line in early 2012. We will ask AAE to track completion of the shout-line and report back to OIG.

In addition to the shout-line, FAA has requested the U.S. State Department approve an agreement between the San Juan CERAP and Santo Domingo ACC to share radar data. FAA expects State Department approval by November 2011. Sharing radar data will allow each facility to view the other's radar contacts at a greater distance, thereby increasing the ability to identify a possible FFD before it reaches U.S. airspace. FAA is also finalizing a similar agreement with the Netherland's island of St. Maarten. We will

ask AAE to track approval of the sharing of radar data between the San Juan CERAP and Santo Domingo ACC and the San Juan CERAP and St. Maarten and report back to OIG.

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ATTACHMENT 1:**OSC Referral for Investigation, May 10, 2011**



U.S. OFFICE OF SPECIAL COUNSEL
1730 M Street, N.W., Suite 218
Washington, D.C. 20036-4505
202-254-3600

May 10, 2011

The Honorable Ray LaHood
Secretary
U.S. Department of Transportation
1200 New Jersey Avenue, S.E.
Washington, D.C. 20590

Re: OSC File Nos. DI-08-2954 and DI-11-0747

Dear Mr. Secretary:

Pursuant to my responsibilities as Associate Special Counsel, I am referring to you for investigation a whistleblower disclosure alleging that employees at the Department of Transportation (DOT), Federal Aviation Administration (FAA), San Juan Center Radar Approach Control, San Juan, Puerto Rico (FAA San Juan), FAA's Miami Flight Data facility, Miami, Florida, and FAA Headquarters, Washington, D.C., have failed to respond adequately to the public safety risks associated with systematic and regular foreign facility deviations (FFDs) committed by foreign aircraft entering U.S. airspace without authorization from U.S. Air Traffic Controllers.¹ The Office of Special Counsel (OSC) received this allegation from Mr. Edgar Diaz, Air Traffic Control Support Specialist, who consented to the release of his name. He disclosed that the failure of FAA to effectively address FFDs and the inability to share foreign flight plans efficiently with FAA San Juan Air Traffic Controllers create a substantial and specific danger to public safety.

OSC is authorized by law to receive disclosures of information from federal employees alleging violations of law, rule, or regulation, gross mismanagement, a gross waste of funds, an abuse of authority, or a substantial and specific danger to public health or safety. 5 U.S.C. § 1213(a) and (b). If OSC finds, on the basis of the information disclosed, that there is a substantial likelihood that one of these conditions exists, we are required to advise the appropriate agency head of our findings, and the agency head is required to conduct an investigation of the allegations and prepare a report. 5 U.S.C. § 1213(c) and (g).

Mr. Diaz previously filed a disclosure about FFDs in 2008. In August 2009, in response to an informal referral from OSC to the Office of Inspector General (OIG), OIG substantiated Mr. Diaz's concerns about the significant number of FFDs occurring within U.S. airspace near Puerto Rico. In July 2009, after an agency investigation into FFDs, OIG issued a report

¹A foreign facility deviation can occur when an aircraft is flying at an altitude or position different than the one coordinated, or when a foreign aircraft appears on air traffic control radar and flies into U.S. airspace without any prior clearance or authorization.

containing findings and recommendations to FAA's Air Traffic Organization (ATO).² The report reflected that ATO concurred with OIG's recommendation to initiate a dialogue between FAA officials and foreign counterparts in order to address a significant number of FFDs, particularly related to aircraft departing the Dominican Republic. ATO also reported that a national database to track FFDs would be created by the end of 2009. In the interim, ATO pledged to issue guidance by August 31, 2009, that would direct facilities to maintain FFD records in order to allow ATO to monitor any increased safety risks.

As a result of Mr. Diaz's current disclosure that FFDs continue to pose a substantial and specific danger to public safety, as explained in detail below, on March 16, 2011, OSC sent an inquiry to OIG about the status of FAA's actions regarding FFDs, including FAA's efforts to initiate discussions about FFDs with foreign facilities, if any, and whether any changes were implemented as a result of those discussions. In addition, OSC also requested the status of the FFD tracking database at both FAA San Juan and nationally, and how FAA has utilized the national data on FFDs. We also inquired about the agency's assessment of the safety risks associated with FFDs since it concluded the investigation and initiated action plans to ameliorate the associated safety risks. Finally, we asked OIG whether ATO proposed any specific changes or amendments to existing protocols to address FFDs and to explain what those proposed changes were. To date, we have not received a substantive response.

Despite the agency's promised effort to strengthen international communications, including retaining copies of voice recordings and radar data of FFDs, FFDs occur regularly. Thus, Mr. Diaz discloses that FFDs continue to create a danger to the flying public near San Juan. To support his allegation, Mr. Diaz provided a chart that reflects the number of FFDs officially logged by FAA San Juan. According to Mr. Diaz, the enclosed chart represents twenty-three FFDs for 2007, twenty-seven for 2008, fifty-three for 2009, and eighty-three for 2010. From Mr. Diaz's perspective, employees working at FAA San Juan and FAA Headquarters have not focused adequately on the ongoing FFDs and aviation safety concerns caused by Air Traffic Controllers in foreign countries, in particular the Dominican Republic. Mr. Diaz reports that Air Traffic Controllers in the Dominican Republic often fail to seek authorization and coordination with their U.S. air traffic controller counterparts. Mr. Diaz said the actual number of FFDs is much higher than the official numbers because not all FFDs are recorded. He estimated that there were over 100 FFDs in 2010. Mr. Diaz acknowledges, however, that the increase in the official FFD numbers likely can be attributed to the agency's previous investigation.

Mr. Diaz explained that a FFD occurs when a foreign aircraft enters U.S. airspace without prior coordination with U.S. air traffic control. Mr. Diaz said that foreign facilities are required to contact FAA San Juan in order to seek authorization before aircraft depart from their airports and fly into airspace controlled by FAA San Juan. The foreign facility specifically must coordinate the time and altitude of its flights when its aircraft intersect certain points on the flight path. FAA San Juan then informs the foreign facility of whether its aircraft have been approved or approved with restrictions that alter the times and altitudes.

² Enclosed are copies of the informal referral letter and the OIG reports dated August 9, 2009.

FAA San Juan coordinates points on flight routes under its control, even when foreign aircraft are simply passing through U.S. airspace without any intention of landing in Puerto Rico. If there is a FFD, FAA San Juan will communicate with the pilot directly. Mr. Diaz emphasized that it is, nonetheless, unsafe to have aircraft flying into FAA San Juan airspace without prior coordination because it distracts Air Traffic Controllers having to manage the FFDs and it presents a danger to the flying public because it raises the possibility of a mid-air collision due to aircraft arriving unexpectedly at, or near, certain prearranged flight points with other aircraft.

When an FFD occurs, U.S. Air Traffic Controllers then must try to determine the status of the foreign aircraft and its flight plan, usually by having to contact the FAA in Miami, Florida, to retrieve information from the FAA's Flight Data Processor, a computer system that contains flight plans provided by pilots. FAA San Juan does not have independent access to the Flight Data Processor, which Mr. Diaz states causes delays in indentifying the foreign aircraft for the purpose of coordinating the aircraft's travel through U.S. airspace and confirming the pilot's flight plan. Mr. Diaz explained further that FAA San Juan also does not have a "shout line" connected to other foreign facilities which would allow FAA San Juan the ability to communicate more efficiently with foreign counterparts in the region. "Shout lines" act as an intercom between facilities. Although FAA San Juan can telephone these foreign facilities, making contact with these facilities is sometimes delayed until someone answers the telephone line. A "shout line" quickly informs the foreign facility that immediate attention is required by U.S. air traffic control to identify and manage a flight route.

On December 4, 2010, at 7:00 a.m., for example, a Venezuelan aircraft (coded as CLX761) entered U.S. airspace without prior authorization or coordination by the foreign facility. At that time, Mr. Diaz was working next to Miguel Cordero, the Non-Radar Air Traffic Controller, and Miguel Perez, the Radar Air Traffic Controller. When the pilot of the Venezuelan aircraft contacted FAA San Juan, Mr. Cordero asked the pilot for his call sign and Mr. Diaz confirmed that FAA San Juan did not have the required flight plan information. Mr. Perez then called FAA's Miami Flight Data facility to request information regarding the aircraft from Venezuela (CLX761). A flight plan was confirmed, however, FAA Miami had not transmitted the information to FAA San Juan. Consequently, FAA San Juan employees were distracted from other air traffic control duties trying to contact FAA's Miami Flight Data facility to secure relevant information about the foreign flight in order to manage the flight through U.S. airspace. Therefore, Mr. Diaz alleges that the occurrences of FFDs over U.S. airspace, and the consequential distraction of Air Traffic Controllers as a result of FFDs, create a substantial and specific danger to public safety.

Given Mr. Diaz's first-hand experience and the details he has provided regarding FFDs, we have concluded that there is a substantial likelihood that the information he provided to OSC discloses a substantial and specific danger to public safety. Thus, we are referring this information to you for an investigation of Mr. Diaz's allegations and a report of your findings within 60 days of your receipt of this letter. Under the applicable law, this report should be reviewed and signed by you personally. Nevertheless, agency heads often delegate the responsibility to investigate and report on disclosures such as those set forth in this letter to the Inspector General or other agency officials. Should you delegate your authority to review and

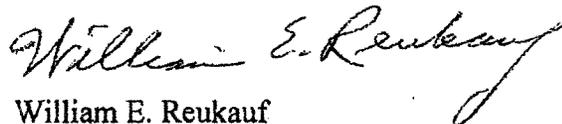
sign the report to the Inspector General, or any other official, the delegation should be specifically stated and should include the authority to take the actions necessary under 5 U.S.C. § 1213(d)(5). The requirements of the report are set forth at 5 U.S.C. § 1213(c) and (d). A summary of § 1213(d) is enclosed. Please note that where specific violations of law, rule, or regulation are identified, these specific references are not intended to be exclusive.

In the event it is not possible to investigate and report on the matter within the 60-day time limit under the statute, you may request in writing an extension of time not to exceed 60 days. Extensions are generally granted when the written request sets forth the basis for the extension and contains a brief summary of the status of the investigation. Extension requests should be addressed to Catherine A. McMullen, Chief, Disclosure Unit at 1730 M Street, N.W., Washington, D.C. 20036.

After making the determinations required by 5 U.S.C. § 1213(e)(2), copies of the report, along with any comments on the report from the whistleblower and any comments or recommendations by this office, will be sent to the President and the appropriate oversight committees in the Senate and House of Representatives. 5 U.S.C. § 1213(e)(3). Unless classified or prohibited from release by law or by Executive Order requiring that information be kept secret in the interest of the national defense or the conduct of foreign affairs, a copy of the report and any comments will be placed in a public file in accordance with 5 U.S.C. § 1219(a). To prevent public disclosure of personally identifiable information (PII), OSC requests that you ensure that the report does not contain any PII, such as Social Security numbers, home addresses and phone numbers, dates and places of birth, and personal financial information.

Please refer to our file number in any correspondence on this matter. If you need further information, please contact Ms. McMullen at (202) 254-3604. I am also available for any questions you may have.

Sincerely,



William E. Reukauf
Associate Special Counsel

Enclosures

ATTACHMENT 2:

Methodology of Investigation

We reviewed OIG historical case records and FAA records, and analyzed FAA statistical data. In addition, we interviewed and obtained information from the following San Juan CERAP and FAA headquarters officials:

San Juan CERAP

- Manager Air Traffic, San Juan, PR CERAP
- Manager, Quality Assurance
- Air Traffic Control Support Specialist, San Juan CERAP
- Air Traffic Control Specialist, San Juan CERAP

FAA Headquarters Washington, DC

- Manager, Technical Performance Support Group (En Route & Oceanic Service Unit)
- Air Traffic Control Specialist (En Route & Oceanic Services Unit)
- Manager, Americas and ICAO Group, ATO International
- Senior Analyst, Office of Safety, AJS-0 (Contractor)
- Acting Manager, Quality Assurance, Eastern Service Area

ATTACHMENT 3:

OSC Referral for Investigation, November 24, 2008

**U.S. OFFICE OF SPECIAL COUNSEL**

730 M Street, N.W., Suite 300
Washington, D.C. 20036-4505

November 24, 2008

The Honorable Calvin L. Scovel, III
Inspector General
United States Department of Transportation
400 Seventh Street, S.W., Room 9210
Washington, D.C. 20590

Re: OSC File No. DI-08-2954

Dear Inspector General Scovel:

I am forwarding the following information from Edgar Diaz, Air Traffic Control Support Specialist, Federal Aviation Administration (FAA), San Juan, Puerto Rico (FAA San Juan), who consented to the release of his name. Mr. Diaz has disclosed to the Office of Special Counsel that FAA San Juan and FAA in Washington, D.C. (FAA Headquarters) have failed respond appropriately to problems created by air traffic controllers in the Dominican Republic who routinely fail to coordinate aircraft entering U.S. airspace and, consequently, creates a substantial and specific danger to public safety.

Mr. Diaz, who consented to the release of his name, explained that the U.S. and the Dominican Republic share a common airspace boundary with four specific entry points. Both countries are required to coordinate airspace when aircraft leave the Dominican Republic and enter U.S. airspace, and vice versa, in order to maintain separation. From Mr. Diaz's perspective, as an Air Traffic Control Support Specialist, employees working at FAA San Juan and FAA Headquarters have not adequately focused on the ongoing aviation safety concerns caused by air traffic control in the Dominican Republic. Specifically, air traffic controllers need to coordinate aircraft flying from one country's controlled airspace into the other's airspace in order to avoid two aircraft flying at the same altitude which could, ultimately, cause a mid-air collision.

Mr. Diaz reported that the Dominican Republic's lack of coordination with American air traffic controllers has been an ongoing safety concern for the past three years. Mr. Diaz reports that FAA San Juan air traffic controllers have been forced on many occasions to redirect aircraft in order to avoid a loss of separation. For example, in 2008, thus far, FAA San Juan has experienced approximately six deviations; in 2007, eight deviations were reported and, in 2006, 16 deviations.¹ Mr. Diaz stated that FAA San Juan coordinates

¹ A deviation can occur when an aircraft is flying at an altitude or position different than the one coordinated, or when an aircraft appears on air traffic control radar without any clearance or coordination into U.S. airspace.

The Honorable Calvin L. Scovel, II
Page 2

flights entering and leaving U.S. airspace reasonably well with other foreign countries, such as Venezuela, Antigua, Trinidad, Curacao, to name a few. By comparison, these other countries might have 1 or 2 deviations each year, whereas the Dominican Republic might have 8 to 12 deviations each year.

For your review, enclosed is a list of operational deviations in 2007 and 2008 that occurred between the Dominican Republic's controlled airspace and the U.S., along with the specific coordinates, to illustrate that these deviations appear to be an ongoing safety issue. Mr. Diaz alleges that these errors in lack of coordination caused by the Dominican Republic require the immediate attention of officials at FAA San Juan and FAA Headquarters in order to prevent a more serious error or collision.

The Special Counsel is authorized by law to receive information about alleged violations of any law, rule, or regulation, or gross mismanagement, a gross waste of funds, an abuse of authority, or a substantial and specific danger to public health or safety in federal agencies. 5 U.S.C. §§ 1213(a) and (b). If the Special Counsel finds a substantial likelihood that the allegations are true, he is required to transmit the disclosures to the agency head for an investigation and report pursuant to 5 U.S.C. § 1213.

In order to determine whether the substantial likelihood requirement is met in this case, we are requesting your assistance. It would be greatly appreciated if you would bring to our attention any information that you have or obtain about these allegations, as well as any actions that have been taken or are planned as a result of these allegations. We will then be in a better position to assess the necessity of formally transmitting the matter to the agency head. We would request your response within 60 days of your receipt of this letter.

Please refer to our file number in any correspondence on this matter. If you need further information, please contact me, at (202) 254-3600. Thank you for your assistance in this matter.

Sincerely,


Catherine A. McMullen
Chief, Disclosure Unit

CAM:EFF:eff

Mr. Edgar Diaz provided the information below: The following is a summary of Operational Deviations between Dominican Republic controlled airspace (MDSO) and San Juan CERAP (ZSU) controlled airspace. There is a boundary between the airspace. There are 4 common fixes where coordination is needed between facilities. Those fixes are BETIR, KATOK, ANTEX, and MELLA. The type of coordination used is nonradar coordination. Without coordination aircraft are not supposed to enter any of the facilities airspace.

2008:

- AFR3943 entered ZSU airspace over ANTEX at FL350 when it was previously been coordinated over MELLA at FL370.
- N719JP entered ZSU airspace over ANTEX when it was previously been coordinated over MELLA.
- AAL1549 entered ZSU airspace over MELLA at FL310 when it was previously been coordinated over MELLA at FL270.
- N903DP entered ZSU airspace over MELLA at FL110 when it was previously been coordinated over MELLA at FL090.
- SBG201 entered ZSU airspace over MELLA at FL190 when it was previously been coordinated over MELLA at FL130.
- Four (4) aircraft entered ZSU airspace (ZSU could only observe their beacon codes) and then re-entered MDSO airspace.

2007:

- EGF5103 entered ZSU airspace over ANTEX at FL110 when it was previously been coordinated over MELLA.
- N844TM entered ZSU airspace over KATOK at FL170 without coordination.
- N604HJ entered ZSU airspace over MELLA at FL370 without coordination.
- EGF5117 entered ZSU airspace over MELLA at FL130 without coordination.
- EGF5101 entered ZSU airspace over ANTEX at FL110 when it was previously been coordinated over KATOK.
- IWD9802 entered ZSU airspace over ANTEX at FL170 when it was previously been coordinated over BETIR at FL370.
- MTN7108 entered ZSU airspace over MELLA at FL090 when it was previously been coordinated over MELLA at FL090.
- N1131G entered ZSU airspace over KATOK at FL110 when it was previously been coordinated at FL150.
- N252BR entered ZSU airspace over KATOK at FL170 when it was previously been coordinated at FL130.
- N391BC entered ZSU airspace over MELLA at FL150 when it was previously been coordinated at FL090.
- N901SA entered ZSU airspace over MELLA at FL090 when it was previously been coordinated at FL110.

ATTACHMENT 4:

**OIG Report of Investigation, August 6, 2009
(Includes Response by FAA)**

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**U.S. Department of
Transportation**

Office of the Secretary
of Transportation

The Inspector General

Office of Inspector General
Washington, DC 20590

August 6, 2009

Mr. 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-08-2954

Dear Mr. Reukauf:

This responds to a November 24, 2008, letter, from Catherine McMullen, Chief of the Office of Special Counsel's Disclosure Unit, referring whistleblower concerns raised by Mr. Edgar Diaz, an Air Traffic Control Support Specialist at the Federal Aviation Administration's (FAA's) San Juan Center Radar Approach Control (CERAP) facility, in San Juan, Puerto Rico. Specifically, Mr. Diaz expressed concern that managers at the San Juan CERAP, and unnamed officials within FAA's Air Traffic Organization (ATO) in Washington, DC, failed to respond appropriately to ongoing safety concerns created as a result of air traffic controllers at the Santo Domingo, Dominican Republic, Area Control Center routinely failing to coordinate with U.S. controllers when Santo Domingo-controlled aircraft enter U.S. airspace. According to Mr. Diaz, such lack of coordination could result in two aircraft flying at the same altitude without adequate separation, and, ultimately, could lead to a mid-air collision.

With technical expertise and assistance from FAA's Office of Air Traffic Safety Oversight (AOV)¹, we directed an inquiry into Mr. Diaz's concerns, including his

¹ AOV was established on March 14, 2005, by the FAA Administrator in response to recommendations made by the National Civil Aviation Review Commission and the International Civil Aviation Organization that air traffic service providers be subject to safety policies of a separate part of the FAA, in order to provide independent safety oversight. AOV has the full range of authority to develop or adopt safety standards and

list of 17 separate Foreign Facility Deviations (FFD)², during the first half of 2009. Our detailed findings, including our recommendations to FAA, and FAA's response, are contained below.

Results in Brief

In brief, our investigation substantiated Mr. Diaz's concerns. We found documentation to reflect that from June 2007 to April 9, 2009, at least 35 FFDs occurred between the San Juan CERAP and the Dominican Republic. In each instance, the San Juan CERAP documented the event in the facility log, notified the Dominican Republic facility, and filed an FFD with FAA's Eastern Service Center and the Safety Assurance Group within ATO's Office of Oceanic and En-Route Services (ATO-E) in Washington, DC. The evidence indicates that San Juan CERAP management was aware of the events and took steps to notify FAA Headquarters officials. However, we found no evidence that San Juan CERAP management pursued any corrective actions with Dominican Republic air traffic control officials to preclude recurrence. Additionally, we found that FAA Headquarters officials, despite having been notified of these safety concerns by San Juan CERAP personnel and an internal safety assurance manager, failed to develop and implement appropriate corrective measures.

First, we found that FAA failed to examine the FFDs between the San Juan CERAP and Dominican Republic until April 2009, well after we initiated our inquiry and FAA was made aware of Mr. Diaz's concerns. Second, we found no evidence that FAA Headquarters personnel discussed the FFDs or any form of corrective action with the facility managers at either San Juan CERAP or the Dominican Republic, despite San Juan CERAP officials having expressed concern to the FAA ATO's Office of En-Route and Oceanic Services (ATO-E). Third, we had only FAA's verbal assurance that these concerns were discussed during an October 8, 2008, aviation summit-type meeting in Rio de Janeiro, Brazil. Specifically, FAA officials were unable to provide any evidence to support their

to ensure that the Air Traffic Organization (ATO) complies with those standards. AOV is part of FAA's Aviation Safety organization, and provides independent oversight of the ATO in a manner similar to the Office of Flight Standards' oversight of the airlines.

² An *Operational Deviation*, attributable to the action/inaction of one or more air traffic controllers, occurs when an aircraft is flying at an altitude or position different than the one coordinated between controllers. When such a deviation occurs between two different countries, it is identified as a *Foreign Facility Deviation (FFD)*.

assertion that this concern was discussed, such as emails, memoranda, minutes, notes, or other forms of documentation to reflect any substantive discussion.

In addition, FAA could not identify any specific action plan or corrective measures which were implemented, or any follow-up meetings scheduled as a result of the October 2008 meeting. Lastly, without sufficient explanation, FAA's International Office declined to request assistance or to engage in dialogue with the Dominican Republic's counterpart to the FAA Administrator regarding this issue.

Based on these findings, on July 2, 2009, we issued a report containing our findings and recommendations for corrective action to Hank Krakowski, Chief Operating Officer of FAA's Air Traffic Organization. In his July 22, 2009, memorandum of response, Mr. Krakowski concurred with two of our three recommendations. In particular, he committed the ATO to immediately initiate dialogue between FAA officials and their Dominican Republic counterparts regarding the increase in FFDs. Further, he committed that the ATO would develop a national database for tracking FFDs by the end of 2009.

Mr. Krakowski's memorandum did not concur with our third recommendation, that FAA establish formal protocols which would allow managers at facilities to engage in dialogue with a foreign facility should safety concerns arise. Mr. Krakowski asserted that sufficient protocols presently exist. In its oversight capacity independent of the ATO, AOV has committed to ensure that the ATO keeps the commitments it made in response to our recommendations, and AOV will assess the sufficiency of ATO's current international coordination protocols. As part of its national oversight of the ATO, AOV will also engage in random audits of facilities with events classified as FFDs. We are confident that AOV's continued oversight will ensure that these corrective actions are implemented and completed within the scheduled timeframe.

Methodology

At our direction, investigation of Mr. Diaz's concerns was principally carried out by technical experts from AOV. AOV spoke with and obtained information from Mr. Diaz, as well as supervisors at the San Juan CERAP, personnel at FAA's En-Route Quality Assurance and Safety Group, and at FAA's ATO Planning/International Office. In addition, AOV investigators identified and reviewed Foreign Facility Deviations (FFDs) reported by the San Juan CERAP from June 2007 to April 2009. We supplemented AOV's work by interviewing Mr. Diaz, conducting additional interviews with FAA Headquarters personnel, and reviewing additional records, including emails and internal FAA memoranda. Finally, we reviewed and analyzed AOV's investigative findings to ensure the sufficiency of its work.

Findings

- 1. We concluded that FAA was slow to identify and take appropriate action for a steady increase in Foreign Facility Deviations (FFD) between San Juan CERAP and Santo Domingo, Dominican Republic.***

The United States and Dominican Republic share a common airspace boundary with four specific entry points. In order to maintain required safety spacing or separation between aircraft, air traffic controllers from the U.S. are required to coordinate with Dominican Republic air traffic controllers when aircraft intend to enter the Dominican Republic's airspace, and controllers from the Dominican Republic are likewise required to coordinate with U.S. controllers. An operational deviation occurs when a controller fails to comply with this rule and allows an aircraft to enter into another controller's airspace without coordination or "permission," or the aircraft enters at an altitude or position different than what was coordinated between the controllers. When such an operational deviation occurs between two countries, it is termed a Foreign Facility Deviation (FFD).

We confirmed that from at least June 24, 2007, to April 9, 2009, multiple FFDs occurred when air traffic controllers from Santo Domingo, Dominican Republic, instructed aircraft to follow routes into U.S. airspace without coordinating with FAA controllers, or they instructed the pilots to enter U.S. airspace in a manner contrary to what was previously coordinated. In sum, we found at least 35 FFDs occurred during this period, including 16 of the 17 incidents identified by Mr. Diaz.

In addition to the events identified by Mr. Diaz, we identified 9 other FFDs occurring in 2007; 5 additional FFDs occurring in 2008; and 5 more FFDs

occurring from January 1, 2009, to April 9, 2009, in which controllers at the Santo Domingo air traffic facility in the Dominican Republic failed to properly coordinate with San Juan CERAP prior to aircraft entering U.S. airspace.

Mr. Diaz reported that the above-referenced Dominican Republic FFDs were much higher than FFDs with other foreign countries, and that by comparison, the San Juan CERAP coordinates flights reasonably well with other foreign countries such as Venezuela, Antigua, Trinidad, and Curacao. These countries, he reported, generally have only one or two annual FFDs with the San Juan CERAP. Our investigation confirmed this information. In addition to the 35 FFDs discussed above, we only found one FFD occurring from each of the following locations during the period June 2007 to April 2009: Trinidad, St. Maarten, Guadeloupe, Curacao, the British Virgin Islands, and Cuba.

According to Mr. Diaz, San Juan CERAP officials had not briefed controllers or staff of this increase in deviations, or issued any type of alert, crew briefing item or other internal document cautioning controllers about this increase in FFDs or reminding controllers of their need to maintain vigilance and situational awareness. Mr. Diaz said the events were not limited to one specific sector of San Juan CERAP or any air traffic operation; rather, they occur sporadically and without warning.

While none of the events identified during our investigation (including the FFDs reported by Mr. Diaz) resulted in a loss of separation (known as an operational error³), such incidents should have alerted FAA officials that a potential safety risk was developing. We found memoranda from San Juan CERAP to FAA's Eastern Region Service Center Safety Offices, as well as ATO-E's Safety and Operations Support Office, indicating that numerous FFDs had occurred from June 2007 to August 2008.

On August 25, 2008, Mr. Diaz, with the knowledge of San Juan CERAP officials, reported several additional FFDs via memoranda to Ken Myers, Manager of FAA's ATO-E Quality Assurance and Safety Office. Mr. Myers, in turn, emailed Mike Hawthorne, Program Manager of ATO-International's Americas/ICAO Group, forwarding Mr. Diaz's FFD memoranda and expressing concern that the non-compliance with the coordinated altitude, "introduces safety risk into the operation" between San Juan CERAP and Santo Domingo, Dominican Republic.

³ An *Operational Error* occurs when an air traffic controller allows aircraft to come too close together, in violation of established FAA separation standards.

Mr. Myers requested feedback regarding actions being taken by the Dominican Republic to mitigate situations such as the one he had referred.

When interviewed, Mr. Myers told us that that the ATO-E Quality Assurance and Safety Office took action in response to his email; however, neither he, nor Mr. Hawthorne, nor other FAA personnel were able to produce documents, emails, meeting minutes, or other evidence that such activity occurred. Mr. Myers also told us it was his expectation that the Eastern Region Service Center Safety Assurance personnel would have identified this increasing trend and brought it to his attention, but he told us this did not occur.

Further, on October 2, 2008, Mr. Myers emailed additional FFD reports to Mr. Hawthorne. In an email response, Mr. Hawthorne indicated that he was adding the FFDs to the “ones sent last month.” He wrote, “API (FAA’s International Office) is not comfortable taking these to the DG⁴ level and we’re not comfortable with the responsiveness we’re getting from the DR [Dominican Republic] facility.” He further advised that he was requesting that API identify the Dominican Republic counterpart to FAA’s Director for Safety and Operations Support (Luis Ramirez for FAA), and discuss the events in Rio de Janeiro, Brazil, on October 20, 2008, during an international aviation summit-type meeting. However, FAA was unable to provide corrective action plans or other documentation resulting from this meeting in Brazil, and we had only verbal assurances that this matter was discussed at the meeting.

2. FAA did not implement corrective actions it committed to undertake.

In February 2009, well after OSC’s referral of Mr. Diaz’s concerns, ATO-E reported to AOV that it intended to take the following series of corrective actions:

1. San Juan CERAP officials and representatives from the Dominican Republic’s Santo Domingo Area Control Center will meet on or before April 30, 2009, to determine if coordination procedures between the two facilities may be contributing to the increase in FFDs. FAA anticipated that follow-on meetings would occur quarterly from then on.
2. FAA’s Eastern Service Center will provide support to the San Juan CERAP, to include acting as a liaison, documenting events, and assisting in resolving further issues.

⁴ Director General – the Dominican Republic’s equivalent to the FAA Administrator.

3. Semi-annually, FAA's Director of Safety and Operations Support from FAA Headquarters (ATO-E) will meet with International Civil Aviation Organization (ICAO) representatives from Santo Domingo to exchange information regarding any deviations occurring within the past quarter, and discuss methods of reducing further deviations.

However, we found no evidence that FAA's above-identified corrective actions had been implemented. On May 8, 2009, we requested that FAA provide an update on its corrective actions, to include the specific action taken and the date it was implemented. In a June 6, 2009, memorandum, Luis Ramirez, ATO-E's Director of Safety and Operations Support, informed AOV that, regarding Corrective Action #1 above, a meeting to discuss these issues was scheduled for the week of May 10, 2009, in Mexico City, Mexico, during a meeting of the Central Caribbean Working Group. However, due to the H1N1 "swine flu" outbreak in Mexico, the meeting was rescheduled for June 1-4, 2009, possibly in Trinidad, to coincide with the meeting of the Eastern Caribbean Working Group, of which FAA is a member. However, the meeting of the Eastern Caribbean Working Group was also subsequently canceled due to the H1N1 "swine flu" outbreak, and all such working group meetings have been postponed indefinitely.

Moreover, Mr. Ramirez's June 6, 2009, memorandum states that if these working group meetings were not rescheduled in a timely manner (not further defined in his memorandum), he would consider a direct meeting between the facilities. Given that FAA committed to engage in dialogue between these two countries in February 2009, and that such communication had not occurred, we recommended that this expeditiously occur.

Regarding Corrective Action #2, Mr. Ramirez's June 6, 2009, memorandum indicates that in April 2009, FAA's Eastern Service Center Safety Assurance Group reviewed 100 FFDs between the San Juan CERAP and the Dominican Republic, identifying that 75 of the FFDs occurred as a result of the Dominican Republic controller's failure to coordinate flight information with San Juan CERAP controllers. This information, along with the emails from Mr. Myers in August 2008, expressing concern for safety, should have prompted FAA to engage in some form of dialogue with the Dominican Republic to develop and implement corrective action.

Given that FAA was aware of the FFD problem and the potential safety implications, at least since August 2008, we questioned why it took so long for FAA to conduct a review of this type. Moreover, given that the issue appears to

be occurring with increasing frequency, we questioned why FAA's international liaison appears reluctant to engage in dialogue.

Regarding Corrective Action #3, FAA indicated that the ICAO meetings had also not been scheduled, and provided no additional information. Thus, we concluded that there did not appear to be imminent discussion of these concerns at any upcoming ICAO Meeting.

As a result of the October 8, 2008, meeting in Brazil, FAA indicated it was working to develop a protocol for discussions of this type (increases in FFDs); however, FAA was unable to provide information or details regarding any protocols for this type of process. In addition, FAA could not provide any evidence, other than verbal assurances, that the situation between the Dominican Republic and San Juan CERAP was even discussed during this international meeting. Specifically, FAA could provide no supporting documentation, emails, memoranda, corrective action items, etc.

Finally, our investigation found no formal mechanism for the tracking and recording of FFDs. For instance, in addition to the FFDs occurring between San Juan CERAP and the Dominican Republic, we found that an increase in FFDs was occurring between the Dominican Republic and FAA's Miami Air Route Traffic Control Center (ARTCC) controlled airspace. While Miami ARTCC appears to have taken swift corrective action of its own accord, such information, when compiled with San Juan CERAP data, could more accurately identify specific data reflecting the root cause of these recurring deviations.

Recommendations

Given that FAA committed to AOV that it would implement a series of meetings to initiate corrective action by April 30, 2009, and that such meetings had not occurred, we recommended to Hank Krakowski, ATO's Chief Operating Officer, by memorandum dated July 2, 2009, that ATO undertake the following:

1. Expeditiously schedule a meeting, video-conference, or telephone conference call between the San Juan CERAP and Santo Domingo, Dominican Republic facilities to discuss the identified concerns and to develop corrective actions.
2. Develop a national database for tracking Foreign Facility Deviations, and all three Service Centers should require that their safety assurance office conducts a quarterly review and analysis to identify trends and potential safety risks. Such review would be published quarterly and provided to

AOV, ATO-Safety, and the Safety Assurance groups in ATO-Terminal (ATO-T) and ATO-E.

3. In conjunction with FAA's International Office, the ATO establish a formal protocol which would allow managers of air traffic facilities to engage in dialogue with a foreign facility should safety concerns arise. In addition, should such dialogue be ineffective, the protocol should include additional avenues or resources available, and should clearly define the parameters for the implementation of such additional measures.

By memorandum dated July 22, 2009, (enclosed), Mr. Krakowski concurred with Recommendations 1 & 2. Specifically, he reported that Mark Rios, Assistant Air Traffic Manager, Miami Air Route Traffic Control Center (ARTCC), attended the ICAO Central Caribbean (CCAR) meeting in Mexico City, Mexico, the week of July 13, 2009. Mr. Rios initiated discussions with counterparts from Santo Domingo concerning FFDs between both Miami ARTCC and San Juan CERAP at this meeting.

In addition, FAA advised that Felipe Fraticelli, Air Traffic Manager of San Juan CERAP, will follow up with Santo Domingo to identify and develop mitigation plans for issues associated with occurrence of FFDs between the facilities. The results from this contact are to be documented and provided to the Eastern Service Area and the En Route and Oceanic Safety and Operations Support Directorate by August 7, 2009.

Mr. Krakowski also committed to have the Office of Safety develop a national database to log and track FFDs, in collaboration with the affected service centers. They expect to complete the database design and implementation by December 31, 2009. In the interim, ATO pledged to issue direction and guidance by August 31, 2009, requiring that facilities maintain appropriate FFD records and specific information and data relevant to such events, to allow ATO to monitor and identify any increasing safety risk trends.

Mr. Krakowski's response memorandum did not concur with our third recommendation, that FAA establish formal protocols which would allow managers at facilities to engage in dialogue with a foreign facility should safety concerns arise. Mr. Krakowski asserted that sufficient protocols presently exist. In its oversight capacity independent of the ATO, AOV has committed to ensure that the ATO keeps the commitments it made in response to our recommendations, and AOV will assess the sufficiency of ATO's current international coordination protocols. As part of its national oversight of the ATO, AOV will also engage in random audits of facilities with events classified as FFDs. We are confident that

AOV's continued oversight will ensure that these corrective actions are implemented and completed within the scheduled timeframe.

If I can answer any questions or be of further assistance, please contact me at 202-366-1959, or my Deputy, David Dobbs, at 202-366-6767.

Sincerely,

A handwritten signature in black ink that reads "Calvin L. Scovel III". The signature is written in a cursive style with a large, sweeping initial "C".

Calvin L. Scovel III
Inspector General

Enclosure



Federal Aviation Administration

Memorandum

Date: JUL 22 2009

To: Mr. Rick Beitel; Assistant Inspector General for Special Investigations
and Analysis

From: ^{V. C. P.} Hank P. Krakowski, Chief Operating Officer, Air Traffic Organization

Prepared by: Luis A. Ramirez, Director, Safety and Operations Support, AJE-3

Subject: Office of the Inspector General (OIG) Investigation #9IHA63I000,
San Juan Center Radar Approach Control; Your memo of 7/2/2009

The Air Traffic Organization has reviewed the subject memorandum concerning Foreign Facility Deviations (FFDs) reported by the San Juan CERAP. As indicated in your letter the majority of these FFDs involve the Santo Domingo Area Control Center (ACC). In response to the specific recommendations contained in your letter:

a. Recommendation #1: Expeditiously schedule a meeting, video-conference, or telephone conference call between the San Juan CERAP and Santo Domingo, Dominican Republic (DR) facilities to discuss the identified concerns and to develop corrective actions. Should the FAA decline to hold such a discussion and identify and implement specific corrective actions, we request your response provide a detailed explanation as to why the meeting did not occur, and why corrective actions can not be implemented:

ATO RESPONSE: CONCUR. Mr. Mark Rios, Assistant Air Traffic Manager, Miami Air Route Traffic Control Center (ARTCC) attended the ICAO Central Caribbean (CCAR) meeting in Mexico City, Mexico, the week of July 13, 2009. Mr. Rios initiated discussions with counterparts from Santo Domingo ACC (MDCS) concerning FFDs between both Miami ARTCC and San Juan CERAP at this meeting.

Mr. Felipe Fraticelli, Air Traffic Manager of San Juan CERAP, will follow up with Santo Domingo ACC to identify and develop mitigation plans for issues associated with occurrence of FFDs between the facilities. The results from this contact are to be documented and provided to the Eastern Service Area and the En Route and Oceanic Safety and Operations Support Directorate no later than August 7, 2009.

Mr. Luis A. Ramirez, Director, Safety and Operations Support, will participate in the CCAR Director of Civil Aviation (DCA) meeting scheduled the week of August 17, 2009, in Grand Cayman, Cayman Islands. This meeting is being coordinated by ATO International. Mr. Ramirez has requested a meeting with representatives from the Dominican Republic to discuss the FFDs that have occurred and obtain commitment from Dominican Republic officials to resolve the identified issues. This will be a working meeting to present analysis of reported FFDs and develop appropriate plans to resolve the issues identified. We will advise of the date of this meeting when coordination is accomplished.

B. Recommendation #2: Develop a national database for tracking Foreign Facility Deviations, and all three Service Centers should require that their safety assurance office conducts a quarterly review and analysis to identify trends and potential safety risks. Such review would be published quarterly and provided to AOV, ATO-Safety, and the Safety Assurance groups in ATO-Terminal (AJT) and ATO-En Route (AJE).

ATO RESPONSE: CONCUR. The Office of Safety (AJS) will develop the database in collaboration with the affected Service Units. We expect action to complete the database design/implementation to be completed no later than December 31, 2009.

In the interim, direction will be issued no later than August 31, 2009, to ATO Terminal and En Route and Oceanic Service Delivery Points (SDPs) requiring the maintenance of facility records to contain, at a minimum, the following information:

- a. UTC Date and Time of the Incident
- b. The responsible foreign facility
- c. The US facility that was deviated
- d. Callsign(s) of the aircraft involved
- e. Description of the FFD
- f. Causal factor, e.g., non-compliance with Letter of Agreement, airspace boundary, etc.
- g. Follow-up actions and anticipated date of completion.
- h. Persons notified including UTC date and time

c. Recommendation #3: In conjunction with FAA's International Office, the ATO should establish a formal protocol which would allow managers of air traffic facilities to engage in dialogue with a foreign facility should safety concerns arise. In addition, should such dialogue be ineffective, the protocol should include additional avenues or resources available, and should clearly define the parameters for the implementation of such additional measures.

ATO RESPONSE: NON-CONCUR. Protocols are already in place for managers of air traffic facilities to engage in dialogue with a foreign facility should safety concerns arise. A review of FFDs filed by the San Juan CERAP indicates that proper notification is being made to Santo Domingo ACC management when these events occur. The expectation that this dialogue occurs when safety issues are identified has also been communicated to managers of air traffic facilities.

In addition to these actions the AJE Office of Safety and Operations Support has provided training to San Juan CERAP on completing ICAO Large Height Deviation (LHD) deviations. We have received confirmation from ICAO's Caribbean and South American Monitoring Agency (CARSAMMA) of report receipts.

If additional information is needed, please contact Ken Myers, Manager, Quality Assurance and Safety at 202-267-9157.

cc: Robert Tarter, Vice President, Safety Services
Charles Oxford, Senior Advisor, Eastern En Route and Oceanic Service Unit

ATTACHMENT 5:**Summary List of San Juan CERAP Foreign Facility Deviations**

Summary of San Juan CERAP Reported Foreign Facility Deviations CYs 2009 and 2010 and January 2011 through July 2011

British Virgin Island

2010 (2)	05/23/10	Tortola, BVI	Entered ZSU on a heading not in accordance with TUPJ/ZSU LOA
	09/01/10	Tortola, BVI	Departed airport without coordination from the R7 controller
Total - 2			

Trinidad & Tobago

2009 (8)	10/30/09	Trinidad & Tobago	Entered ZSU airspace without prior coordination.
	11/19/09	Trinidad & Tobago	Entered ZSU airspace without prior coordination.
	12/10/09	Trinidad & Tobago	Entered ZSU on a route other than coordinated
	12/16/09	Tobago	Entered ZSU at altitude other than coordinated
	12/16/09	Trinidad & Tobago	Entered ZSU at altitude other than coordinated
	12/16/09	Trinidad & Tobago	Entered ZSU airspace at a time other than coordinated
	12/17/09	Trinidad & Tobago	Entered ZSU at altitude other than coordinated
	12/26/09	Trinidad & Tobago	Entered ZSU at altitude other than coordinated
2010 (8)	01/24/10	Trinidad & Tobago	Entered ZSU at altitude other than coordinated
	01/24/10	Trinidad & Tobago	Entered ZSU at altitude other than coordinated
	02/27/10	Trinidad & Tobago	Entered ZSU at altitude other than coordinated
	06/01/10	Trinidad & Tobago	Entered ZSU airspace at a time other than coordinated
	07/18/10	Trinidad & Tobago	Entered ZSU at altitude other than coordinated
	08/27/10	Trinidad & Tobago	Entered ZSU on a route other than coordinated
	10/04/10	Trinidad & Tobago	Entered ZSU at altitude other than coordinated
	10/07/10	Trinidad & Tobago	Entered ZSU airspace without prior coordination.
Total - 16			

St. Maarten, Kingdom of the Netherlands

2009 (3)	05/18/09	St. Maarten, Kingdom of the Netherlands	Entered ZSU at altitude other than coordinated
	10/30/09	St. Maarten, Kingdom of the Netherlands	Assumed control within ZSU airspace without coordination
	12/12/09	St. Maarten, Kingdom of the Netherlands	Entered ZSU at altitude other than coordinated
2010 (3)	01/02/10	St. Maarten, Kingdom of the Netherlands	Entered ZSU airspace without prior coordination.
	04/14/10	St. Maarten, Kingdom of the Netherlands	Entered ZSU at altitude other than coordinated
	05/31/10	St. Maarten, Kingdom of the Netherlands	Assumed control within ZSU airspace without coordination
Total - 6			

Curacao, Kingdom of the Netherlands

2009 (8)	04/06/09	Curacao, Kingdom of the Netherlands	Entered ZSU at altitude other than coordinated
	06/26/09	Curacao, Kingdom of the Netherlands	Entered ZSU at altitude other than coordinated
	07/14/09	Curacao, Kingdom of the Netherlands	Entered ZSU airspace without prior coordination.
	07/17/09	Curacao, Kingdom of the Netherlands	Entered ZSU airspace without prior coordination.

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		Netherlands	
	08/08/09	Curacao, Kingdom of the Netherlands	Entered ZSU airspace without prior coordination.
	10/06/09	Curacao, Kingdom of the Netherlands	Assumed control within ZSU airspace without coordination
	10/12/09	Curacao, Kingdom of the Netherlands	Entered ZSU airspace without prior coordination.
	11/24/09	Curacao, Kingdom of the Netherlands	Entered ZSU airspace without prior coordination.
2010 (7)	01/22/10	Curacao, Kingdom of the Netherlands	Entered ZSU at altitude other than coordinated
	03/12/10	Curacao, Kingdom of the Netherlands	Did not issue route if flight assigned by ZSU
	03/12/10	Curacao, Kingdom of the Netherlands	Entered ZSU at altitude other than coordinated
	08/16/10	Curacao, Kingdom of the Netherlands	Entered ZSU airspace without prior coordination.
	10/22/10	Curacao, Kingdom of the Netherlands	Entered ZSU airspace without prior coordination.
	10/29/10	Curacao, Kingdom of the Netherlands	Entered ZSU airspace at a fix other than the one coordinated
	12/28/10	Curacao, Kingdom of the Netherlands	Entered ZSU airspace without prior coordination.
2011 (3)	04/16/11	Curacao, Kingdom of the Netherlands	Assumed control within ZSU airspace without coordination
	05/13/11	Curacao, Kingdom of the Netherlands	Entered ZSU airspace without prior coordination.
	05/31/11	Curacao, Kingdom of the Netherlands	Entered ZSU airspace without prior coordination.
Total - 18			
St. Kitts & Nevis			
2009 (3)	01/29/09	St. Kitts & Nevis	Entered ZSU at altitude other than coordinated
	11/15/09	St. Kitts & Nevis	Assumed control within ZSU airspace without coordination
	12/14/09	St. Kitts & Nevis	Assumed control within ZSU airspace without coordination
Total - 3			
Guadeloupe, France			
2009 (1)	06/19/09	Guadeloupe, France	Entered ZSU at altitude other than coordinated
2010 (7)	02/27/10	Guadeloupe, France	Entered ZSU airspace without prior coordination.
	02/28/10	Guadeloupe, France	Entered ZSU airspace without prior coordination.
	03/26/10	Guadeloupe, France	Entered ZSU airspace without prior coordination.
	04/18/10	Guadeloupe, France	Entered ZSU airspace without prior coordination.
	04/18/10	Guadeloupe, France	Entered ZSU airspace without prior coordination.
	05/31/10	Guadeloupe, France	Entered ZSU airspace without prior coordination.
	07/21/10	Guadeloupe, France	Entered ZSU at altitude other than coordinated
2011 (1)	05/04/11	Guadeloupe, France	Entered ZSU airspace without prior coordination.
Total - 9			
Antigua & Barbuda			
2009 (1)	12/11/09	Antigua & Barbuda	Assumed control within ZSU airspace without coordination
2010 (8)	02/09/10	Antigua & Barbuda	Entered ZSU airspace at a time other than coordinated
	04/11/10	Antigua & Barbuda	Entered ZSU at altitude other than coordinated

I11A002SINV: Attachment 5

	04/16/10	Antigua & Barbuda	Entered ZSU at altitude other than coordinated
	07/10/10	Antigua & Barbuda	Entered ZSU at altitude other than coordinated
	08/26/10	Antigua & Barbuda	Entered ZSU on a route other than coordinated
	08/26/10	Antigua & Barbuda	Entered ZSU airspace without prior coordination.
	11/10/10	Antigua & Barbuda	Entered ZSU at altitude other than coordinated
	12/22/10	Antigua & Barbuda	Entered ZSU on a route other than coordinated
2011 (1)	02/12/11	Antigua & Barbuda	Entered ZSU at altitude other than coordinated
Total - 10			
Venezuela			
2009 (15)	05/29/09	Venezuela	Entered ZSU at altitude other than coordinated
	05/30/09	Venezuela	Assumed control within ZSU airspace without coordination
	07/01/09	Venezuela	Entered ZSU at altitude other than coordinated
	07/09/09	Venezuela	Entered ZSU at altitude other than coordinated
	07/13/09	Venezuela	Entered ZSU at altitude other than coordinated
	07/13/09	Venezuela	Entered ZSU at altitude other than coordinated
	07/13/09	Venezuela	Entered ZSU at altitude other than coordinated
	08/06/09	Venezuela	Entered ZSU at altitude other than coordinated
	09/04/09	Venezuela	Entered ZSU at altitude other than coordinated
	09/27/09	Venezuela	Entered ZSU at altitude other than coordinated
	09/28/09	Venezuela	Entered ZSU at altitude other than coordinated
	10/18/09	Venezuela	Entered ZSU at altitude other than coordinated
	10/21/09	Venezuela	Entered ZSU at altitude other than coordinated
	11/29/09	Venezuela	Entered ZSU on a route other than coordinated
	12/18/09	Venezuela	Entered ZSU at altitude other than coordinated
2010 (15)	01/06/10	Venezuela	Entered ZSU at altitude other than coordinated
	01/19/10	Venezuela	Entered ZSU at altitude other than coordinated
	01/19/10	Venezuela	Entered ZSU at altitude other than coordinated
	01/24/10	Venezuela	Entered ZSU at altitude other than coordinated
	03/11/10	Venezuela	Entered ZSU at altitude other than coordinated
	03/11/10	Venezuela	Entered ZSU at altitude other than coordinated
	04/11/10	Venezuela	Entered ZSU at altitude other than coordinated
	05/13/10	Venezuela	Entered ZSU at altitude other than coordinated
	06/02/10	Venezuela	Entered ZSU at altitude other than coordinated
	07/30/10	Venezuela	Entered ZSU at altitude other than coordinated
	08/25/10	Venezuela	Entered ZSU at altitude other than coordinated
	08/30/10	Venezuela	Entered ZSU at altitude other than coordinated
	11/06/10	Venezuela	Entered ZSU at altitude other than coordinated
	11/18/10	Venezuela	Entered ZSU at altitude other than coordinated
	12/03/10	Venezuela	Entered ZSU at altitude other than coordinated
2011 (1)	01/08/11	Venezuela	Entered ZSU at altitude other than coordinated
Total - 31			
Dominican Republic			
2009 (13)	02/23/09	Dominican Republic	Entered ZSU at altitude other than coordinated
	04/09/09	Dominican Republic	Assumed control within ZSU airspace without coordination
	06/13/09	Dominican Republic	Entered ZSU at altitude other than coordinated
	06/21/09	Dominican Republic	Entered ZSU at altitude other than coordinated
	07/11/09	Dominican Republic	Entered ZSU at altitude other than coordinated
	07/17/09	Dominican Republic	Entered ZSU at altitude other than coordinated

I11A002SINV: Attachment 5

	11/29/09	Dominican Republic	Entered ZSU at altitude other than coordinated
	11/29/09	Dominican Republic	Entered ZSU at altitude other than coordinated
	12/04/09	Dominican Republic	Entered ZSU at altitude other than coordinated
	12/21/09	Dominican Republic	Entered ZSU at altitude other than coordinated
	12/25/09	Dominican Republic	Entered ZSU on a route other than coordinated
	12/26/09	Dominican Republic	Entered ZSU at altitude other than coordinated
	12/30/09	Dominican Republic	Entered ZSU airspace at a time other than coordinated
2010 (26)	01/16/10	Dominican Republic	
	01/16/10	Dominican Republic	Entered ZSU airspace without prior coordination
	01/16/10	Dominican Republic	Entered ZSU airspace without prior coordination
	01/16/10	Dominican Republic	Entered ZSU at altitude other than coordinated
	01/18/10	Dominican Republic	Entered ZSU at altitude other than coordinated
	01/23/10	Dominican Republic	Entered ZSU on a route other than coordinated
	01/24/10	Dominican Republic	Entered ZSU at altitude other than coordinated
	01/24/10	Dominican Republic	Entered ZSU airspace without prior coordination
	02/01/10	Dominican Republic	Entered ZSU at altitude other than coordinated
	02/08/10	Dominican Republic	Entered ZSU airspace without prior coordination
	02/12/10	Dominican Republic	Entered ZSU at altitude other than coordinated
	02/14/10	Dominican Republic	Entered ZSU at altitude other than coordinated
	02/20/10	Dominican Republic	Entered ZSU at altitude other than coordinated
	02/27/10	Dominican Republic	Entered ZSU airspace without prior coordination
	03/01/10	Dominican Republic	Entered ZSU at altitude other than coordinated
	03/13/10	Dominican Republic	Entered ZSU at altitude other than coordinated
	03/28/10	Dominican Republic	Entered ZSU airspace without prior coordination
	04/04/10	Dominican Republic	Entered ZSU airspace at a time other than coordinated
	05/23/10	Dominican Republic	Entered ZSU airspace without prior coordination
	05/28/10	Dominican Republic	Entered ZSU at altitude other than coordinated
	05/29/10	Dominican Republic	Entered ZSU at altitude other than coordinated
	06/01/10	Dominican Republic	Entered ZSU airspace without prior coordination
	06/19/10	Dominican Republic	Assumed control within ZSU airspace without coordination
	07/24/10	Dominican Republic	Entered ZSU at altitude other than coordinated
	08/31/10	Dominican Republic	Entered ZSU airspace without prior coordination
	11/26/10	Dominican Republic	Entered ZSU at altitude other than coordinated
2011 (3)	01/08/11	Dominican Republic	Entered ZSU airspace without prior coordination
	03/20/11	Dominican Republic	Entered ZSU at altitude other than coordinated
	05/13/11	Dominican Republic	Entered ZSU on a route other than coordinated
Total - 42			

- Summary of Incident Involving Possible Loss of Separation

On May 23, 2010, San Juan CERAP released Eagle Flight 4879 (AT72/A) from the Tortola, British Virgin Island airport (TUPJ ARPT) RWY 25 Via Heading 180 degrees climbing to 4,000 ft. 3 Minutes later ZSU released N3400S H25B/G from the TUPJ ARPT RWY 25 Via Heading 180 degrees climbing to 4,000 ft.

Aircraft, N3400S, departed TUPJ ARPT, the TUPJ controller issued N3400S a heading of 210 degrees instead of 180 degrees as previously coordinated. Since EGF4879 had already departed 3 minutes earlier than N3400S, the flight (EGF4879) had already been

turned to a westbound heading by the San Juan CERAP controller. Afterwards N3400S checked on frequency heading 210 degrees directly towards and behind EGF4879. The flight path of N3400S crossed behind EGF4879 with less than the minimum radar separation. Instead of 180 degrees as previously coordinated. Since EGF4879 had already departed 3 minutes earlier than N3400S, the flight (EGF4879) had already been turned to a westbound heading by the San Juan CERAP controller. Afterwards N3400S checked on frequency heading 210 degrees directly towards and behind EGF4879. The flight path of N3400S crossed behind EGF4879 with less than the minimum radar separation.

ATTACHMENT 6:

Letter of Agreement, September 24, 2009

OPERATIONAL LETTER OF AGREEMENT BETWEEN
THE SANTO DOMINGO AREA CONTROL CENTER (ACC) AND
THE SAN JUAN COMBINED CENTER/RADAR APPROACH CONTROL (CERAP)

SUBJECT: Procedures Relating to the Coordination and Routing of IFR Air Traffic Between the Santo Domingo ACC and the San Juan CERAP.

1. **Purpose:** This document establishes the coordination and operational procedures to be applied by Santo Domingo ACC and San Juan CERAP with respect to aircraft crossing the common FIR/CTA boundary as described in the Enroute Section of the appropriate Aeronautical Information Publications. These procedures are complementary to the ICAO Standards and Recommended Practices and to the FAA Air Traffic Control Procedures Order.
2. **Effective Date:** November 2, 2009
3. **Distribution:** Santo Domingo ACC, Punta Cana Approach, San Juan CERAP, ICAO Regional Office, FAA International Office.
4. **General Procedures**
 - 4.1 Air traffic between the Santo Domingo ACC and the San Juan CERAP must be routed along ATS routes as outlined in the Register of ATS Routes and Reporting Points - Caribbean Region. All air traffic off ATS routes or headings to join an ATS routes must be coordinated individually prior to the FIR boundary.
 - 4.2 Transfer of control point (TCP) is the common FIR boundary unless otherwise coordinated.
 - 4.3 Santo Domingo ACC must inform San Juan CERAP when Punta Cana Approach (PNA APP) is open or closed. PNA APP Airspace description is depicted on Annex 1.
 - 4.4 When PNA APP is operating, San Juan CERAP must coordinate all IFR Traffic operating at or below FL155 with PNA APP using MEVA 2605 line. Transfer of communication shall be to frequency 119.75 MHZ.
 - 4.5 All aircraft not transitioning the common control area boundary must be kept at least 5 NM from the boundary, unless otherwise coordinated.
 - 4.6 The San Juan CERAP and Santo Domingo ACC must notify each other when RVSM cannot be provided.
 - 4.7 All airways can be flown on both directions with the exception of:
 - i. B520 at or below FL260 – Westbound
 - ii. G633 at or below FL260 – Eastbound

Handwritten initials "JC" in a circle.

- 4.8** In the event of a PNA Radar failure the traffic between San Juan CERAP and Punta Cana Approach must be routed as follows:
- i. Traffic departing Punta Cana Airport;
PNA-W12-KATOK or PNA-W17-BETIR
 - ii. Traffic landing Punta Cana or La Romana Airports:
ANTEX-B892-PNA or MELLA-W9-LRN

5. Coordination Procedures

- 5.1** KATOK, ANTEX, MELLA, BETIR and NEGON must be used as the primary coordination points for all IFR traffic.
- 5.2** The point of coordination for aircraft crossing the common boundary on direct routes are the coordinates of the boundary crossing point.

6 Coordination Methods

- 6.1** The Santo Domingo MEVA Voice Circuit must be used as the primary means of coordinating. In case of failure see par. 10.3.
- 6.2** The coordination must be effected in accordance with the standards, recommended practices, and procedures prescribed by ICAO.
- 6.2.1** IFR traffic must be coordinated with the receiving facility at least ten (10) minutes prior to the TCP, except as follows:
- 6.2.1.1** Traffic departing MDPC and MDLR transitioning oceanic airspace must be coordinated prior to departure. Missing flight plan information must be forwarded to the CERAP via FAX (787) 253-8685.
 - 6.2.1.2** Turbojet aircraft departing TJBQ or TJMZ must be coordinated prior to departure. Missing flight plan information must be forwarded to the MDSD ACC via FAX (809) 549-0770.
- 6.2.2** Coordination of Non-RVSM aircraft must include the phrase "Negative-RVSM" and the reason for exemption, i.e. state aircraft, Lifeguard flight.
- 6.2.3** San Juan CERAP must inform Santo Domingo ACC when W-371 is active.

7 Longitudinal Separation

- 7.1** Longitudinal separation at or above FL240 is ten (10) minutes constant or increasing at the same altitude utilizing Mach Number Technique.
- 7.2** Longitudinal separation at or above FL200 is fifteen (15) minutes.
- 7.3** Longitudinal separation below FL200 is twenty (20) minutes.
- 7.4** In the event of complete communications failure between Santo Domingo ACC and San Juan CERAP longitudinal separation shall be twenty (20) minutes in all cases.

8 Assignment of SSR Codes

8.1 The transferring facility must, as part of the required coordination for Mode 3A equipped aircraft, forward the assigned beacon code (squawk). Beacon code assignments must not be changed until the aircraft is within the receiving facility's area of jurisdiction.

9 Communications

9.1 Transfer of Air/Ground communications of an aircraft from the transferring facility to the receiving facility must be made prior to the TCP.

10 Circuit Utilization

10.1 San Juan MEVA dial codes:

- i. San Juan Sector 8, for traffic crossing
KATOK, ANTEX, MELLA and NEGON.....dial: 1802
- ii. San Juan Sector 6, for traffic crossing
BETIR.....dial: 1804

10.2 Santo Domingo MEVA dial codes::

- i. Santo Domingo ACC North Sector, for traffic crossing
BETIR, KATOK, ANTEX AND MELLA..... dial: 2603
- ii. Santo Domingo ACC South Sector, for traffic crossing
The 68W boundary south of parallel 17° 30'N.....dial: 2601
- iii. When PNA APP is operatingdial: 2605

10.3 In the event of failure of the MEVA Voice circuit. Ground/Ground communication must be as follows:

10.3.1 Via commercial telephone at 787-253-8732 or.

10.3.2 Transmittal and acknowledgement of receipt through:

- i. Miami ARTCC or
- ii. Curacao ACC; if unable
- iii. Aircraft coordination:
 - a) Aircraft must be kept completely within the transferring controller's airspace and be instructed to inform the receiving unit of the communication failure and provide the boundary estimate and flight level/altitude for approval.
 - b) The receiving unit must, if able, approve the aircraft into its area and instruct the aircraft to contact the transferring facility for further clearance.
 - c) The air/ground communications must be transferred to the receiving unit as soon as possible.

10.3.3 Non-critical coordination or general information phone numbers and fax are as follows:

San Juan CERAP

Sector 8	787-253-8732
Supervisor	787-253-8665
Operations Manager/Watch Desk	787-253-8664/787-253-4642
Fax	787-253-8685
Flight Data	787-253-8639

Santo Domingo ACC

Supervisor	809-549-1310	ext. 349
ACC	809-549-1310	ext. 350 thru 355
	809-549-0706	
	809-549-1628	
ACC FAX	809-549-0770	

Punta Cana APP

Punta Cana APP	809-689-7317
FAX	809-688-5779
ATC Tower	809-686-2312

11 Flight Plan Information

- 11.1 Flight plans for all proposed air traffic must be transmitted via AFTN to reach the receiving facility at least thirty (30) minutes prior to the aircraft's boundary estimate.
- 11.2 In the event of failure of the AFTN circuit, when the flight plan has not been transmitted previously, the transferring facility will forward to the receiving facility, via voice circuit, the flight plan at least 20 minutes prior to the time the aircraft is expected to cross the Transfer of Control Point.
- 11.3 The transferring facility must be notified whenever an estimate varies by 3 minutes or more from the previously notified estimate.

11 Miscellaneous

- 11.1 There will be no deviations from the procedures specified in this document unless prior coordination is effected which completely defines the responsibilities in each case.

12 Revisions

- 12.1** This document will be subject to revision whenever Standards, Recommended Practices or Supplementary Regional Procedures contained in it are modified and when new communications facilities or new air traffic services, which might affect these procedures, are commissioned. For any other matter, which might make it advisable to change this document, the interested facility will propose the pertinent revision.
- 12.2** The dissemination of the Letter of Agreement and of its subsequent modifications will be made in full no less than 30 days prior to the effective date, and furthermore, the facilities will be included in their respective Manuals and AIPs, ENR Section, those parts of interest to air operations.
- 12.3** As soon as this present Letter of Agreement becomes effective, it will supersede the existing one dated January 20 2005, and will therefore constitute the official document, which governs the relations between the respective facilities.

SIGNATURES

Representing San Juan CERAP

Representing Santo Domingo ACC



Felipe Fraticelli
Air Traffic Manager
San Juan CERAP

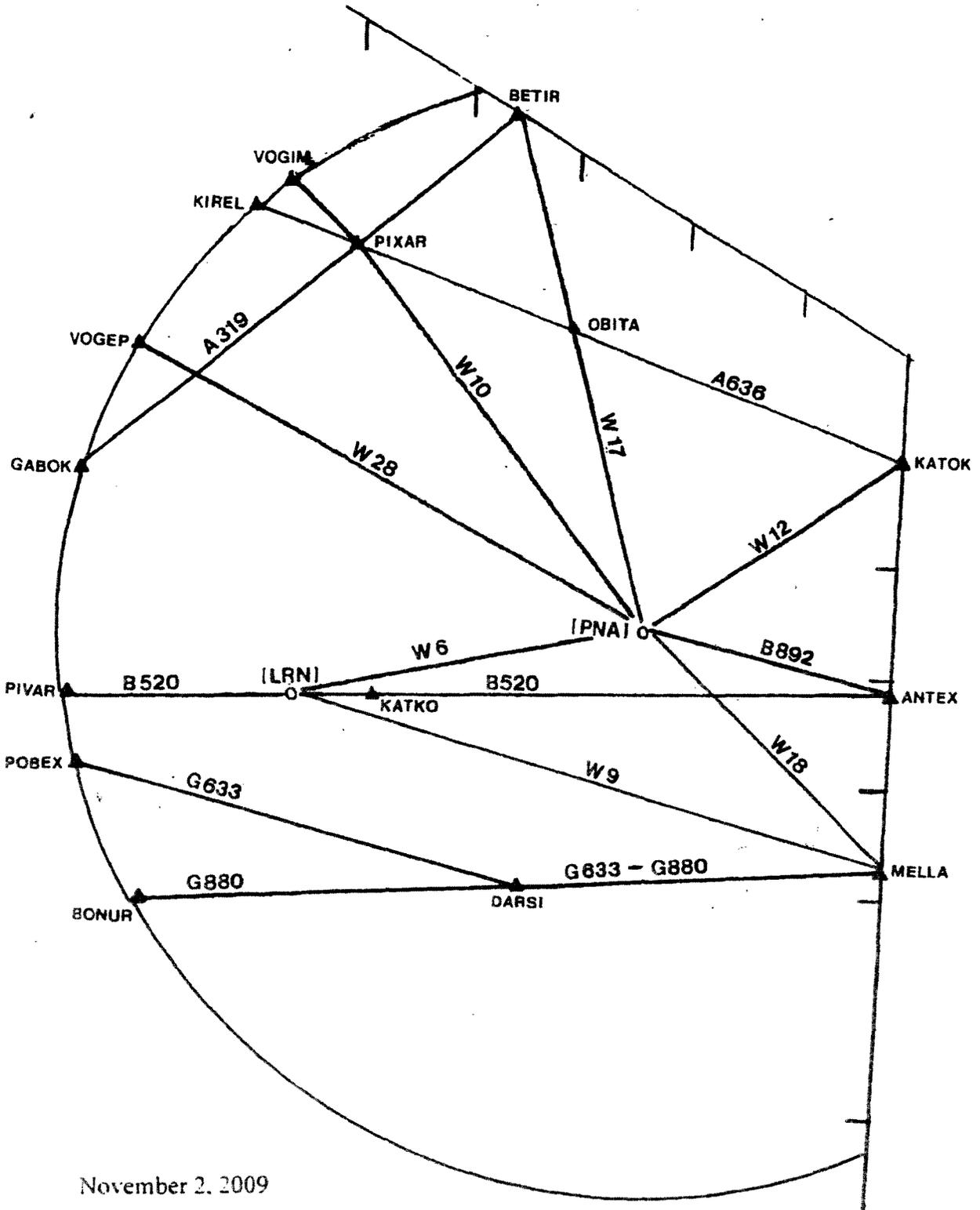


Julio C. Mejia Alcántara
ATM Division Manager
Santo Domingo ACC

Date: 9/24/2009

Date: 24-9-2009

ANNEX 1
 PUNTA CANA APPROACH
 AT OR BELOW
 FL155



November 2, 2009

FAA RESPONSE TO OIG INVESTIGATIONS

NUMBER I11A002SINV - San Juan CERAP

Dated September 9, 2011

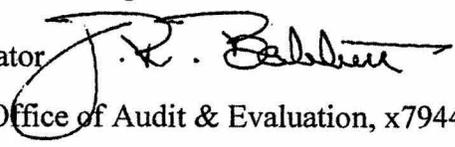


Federal Aviation Administration

Memorandum

Date: SEP 9 2011

To: Robert Westbrook, Deputy Assistant Inspector General for Investigations

From: J. Randolph Babbitt, Administrator 

Prepared by: H. Clayton Foushee, Director, Office of Audit & Evaluation, x79440

Subject: Response to Office of the Inspector General (OIG) Investigation Case No. # I11A002SINV at San Juan CERAP (ZSU) – ref: your report Aug. 25, 2011

This memo responds to your Report of Investigation regarding San Juan CERAP (ZSU), dated August 25, 2011. Our response complements the information submitted by the Director, Office of Audit & Evaluation on August 29, 2011, in response to your investigator's questions.

Allegation:

"Despite FAA's promised actions, Foreign Facility Deviations into San Juan CERAP airspace continue to pose a substantial and specific danger to aviation safety."

Response: While the Federal Aviation Administration (FAA) considers foreign facility deviations (FFD) a potential safety risk, we do not consider FFDs a substantial or specific danger to public safety and are taking steps to promote a safer environment.

We are committed to improving the reporting and analysis of FFDs. Comprehensive Electronic Data Analysis and Reporting (CEDAR) will be the tool used to report FFDs in the future, and data recording and tracking will commence prior to December 31, 2011. This capability will provide a central database for all FFDs and will permit reliable and consistent analysis by operational staff. Although local tracking of FFDs has occurred, the addition of CEDAR provides greater awareness and management attention to this important matter. New policies governing reporting and responsibilities to analyze and report on FFDs are nearing completion and expected to be published shortly.

We are nearing completion of a "shout line" (direct voice communications line) between Santo Domingo Flight Information Region (MDCS) and ZSU. This capability will facilitate communications and help to mitigate FFDs. We are anticipating the shout line will be available by early 2012.

Finally, a "radar sharing" agreement between ZSU and MDCS is pending diplomatic approval from the U.S. Department of State. This agreement will permit technical discussions to allow for

the sharing of electronic radar signals being passed between ZSU and MDCS. With this capability, controllers will be able to identify and track aircraft passing into and from the ZSU airspace with increased confidence and reduced risk. In parallel, the FAA is pursuing a similar agreement with the Netherlands island of St. Maarten to add greater information fidelity with another flight information region adjacent to ZSU.

We are committed to the actions described above, and will provide quarterly updates to your office until all of the above actions are completed, beginning with our next update December 2011.

If additional information is needed, please contact Mr. Clay Foushee, Director, Office of Audit & Evaluation, at (202) 267-9440.

Attachment

AAE memo to OIG dated August 29, 2011

cc: Chief Operating Officer (AJO)
Vice President, ATO Safety (AJS)
Vice President, ATO Strategy & Performance (AJG)
Vice President, ATO En Route & Oceanic Services (AJE)



Federal Aviation Administration

Memorandum

Date: AUG 29 2011

To: Ronald Engler, Director of Special Investigations
Office of Inspector General

From: Clay Foushee, Director, Office of Audit & Evaluation

Subject: San Juan CERAP (ZSU) and Foreign Facility Deviations (FFD); ref:
Office of Special Counsel Case No. DI-08-2954

This memo is in response to the meeting with Department of Transportation's Office of Inspector General (OIG) Investigator Joseph Garcia on July 25, 2011. Mr. Garcia asked for additional information on the corrective actions taken in response to the whistleblower's complaints (OSC File No. DI-08-2954) regarding Foreign Facility Deviations (FFD) at ZSU and other facilities.

We understand the supplemental information will be used by your office to update the Office of Special Council (OSC) on the FAA's progress since the last report, dated Jul. 22, 2009.

The following recommendations are from an OIG memo to FAA dated July 2, 2009:

Recommendation 1: *Expediently schedule a meeting, video-conference, or telephone conference call between the San Juan CERAP and Santo Domingo, Dominican Republic facilities to discuss the identified concerns and to develop corrective actions. Should FAA decline to hold such a discussion and identify and implement specific corrective actions, we request that your response provide a detailed explanation as to why the meeting did not occur, and why corrective measures cannot be implemented.*

Response:

- Luis Ramirez, Director, En Route and Oceanic Safety and Operations Support (SOS), attended a meeting of the International Civil Aviation Organization (ICAO) Caribbean/South American Planning and Implementation Regional Group (GREPECAS) in Rio de Janeiro, Brazil, in October 2009. He engaged representatives from the member states in a dialogue on FFDs and committed that the U.S. would be an active partner in addressing causal factors in these occurrences.
- The FAA conducted an Oceanic and Offshore Managers conference in September of 2009 where the issues of Large Height Deviations between foreign facilities were addressed.

- ATO representatives from San Juan CERAP (ZSU), Miami Air Route Traffic Control Center (ZMA) and the Eastern Service Area (ESA) met with representatives from the Dominican Republic (MDCS) in September 2009 to discuss FFDs, safety implications and assign action items.
 - There was a follow up telcon February 25, 2010 with the same parties.
 - The group had an additional follow up meeting the week of April 4, 2011 in the Dominican Republic.
- Susan Horn, Oceanic and Offshore Operations Specialist, attended the Eastern Caribbean Working Group meeting in October 2009. She presented a working paper addressing the issues of FFDs and asked member states to initiate programs to address these issues.
- In order to keep the focus on FFD at the highest level Ms. Horn presented a working paper on FFDs to the Eastern Caribbean Directors at their meeting in December of 2009.
- To continue to keep this focus at a high level, Steve Stooksberry, Oceanic and Offshore Operations Manager, presented this same working paper at the Eastern Caribbean Working Group meeting in June of 2010.

Recommendation 2: *Develop a national database for tracking Foreign Facility Deviations, and all three Service Centers should require that their safety assurance office conduct a quarterly review and analysis for to identify trends and potential safety risks. Such review would be published quarterly and provided to AOV, ATO Safety, and the Safety Assurance groups in ATO Terminal (ATO-T) and ATO-E.*

Response:

- The ATO's En Route & Oceanic Service Unit tracks and analyzes ZSU FFDs, however, we have determined the database response that commenced in 2009 is not adequate. The development of our new Quality Assurance (QA), Quality Control (QC), and Occurrence Reporting policies (segments attached) will form the foundation for reporting and tracking FFDs. Comprehensive Electronic Data Analysis and Reporting (CEDAR) will be the tool used to report FFDs in the future, and we are prepared to demonstrate our data recording and tracking capability. Planning and process development for the national database has continued, and we are now within weeks of publishing the policies that improve the reporting and analysis capabilities. National training and communications to all employees will occur, and data collection in the database will commence during CY11.
- ICAO does not maintain a separate database of FFD reports, but they are tracking large height deviations (LHD), gross navigation errors (GNE), and time errors (TE). Monitoring agencies operate in all ICAO regions, and the Caribbean region does have such a group, the Caribbean and South American Monitoring Agency (CARSAMMA) for LHDs.

Recommendation 3: *In conjunction with FAA's International Office, the ATO should establish a formal protocol which would allow managers of air traffic facilities to engage in dialogue with a foreign facility should safety concerns arise. In addition, should such dialogue be ineffective, the protocol should include additional avenues or resources available, and should clearly define the parameters for the implementation of such additional measures.*

Response:

- ZSU has been diligent about immediately notifying the adjacent FIRs when they receive a FFD. ZSU has regular communications with Santo Domingo (MDCS) immediately following any reported FFD. ZSU has periodic meetings with MDCS primarily to discuss Letter-of-Agreement (LOA) matters. These meetings also include discussions about FFDs.
- Review of the ZSU Facility Log, (Form 7230-4; using CEDAR), for the time period Jul. 1, 2010 through Jun. 30, 2011 indicated that ZSU processed 34 FFDs from adjacent flight information regions (FIR):
- **No FFD received by ZSU was the cause of a loss of separation.**

<i>12-Month Rolling Average (FFD/year)</i>			
Aug. 2010	Nov. 2010	Feb. 2011	May 2011
94	88	53	37

The trend over the past eighteen months demonstrates improvement, with fewer FFDs reported at ZSU, and a reduction in FFDs originating from MDCS. The common denominator in nearly all of these FFDs is "coordination." This has been our focus and we are pursuing radar, data, and voice connections with adjacent FIRs where feasible. FFD reports at ZSU since Jan. 2009 (including the past 12-months) are attached.

Additional Risk Mitigation Measures Underway

1. ATO Safety personnel located in our Eastern Service Center office, completed a desk audit of the ZSU, focused on FFD records reported during the period Jan. 2010 – Jun. 2011.
2. Work is almost complete for installation of a "shout line" (direct voice communications line) between MDCS and ZSU to mitigate these errors. Installation of the shout-line between ZSU and Santo Domingo (MDCS) will be established using the Caribbean MEVA (Majoras al Enlace de Vox del ATS) network. Our best estimate has completion early during CY12.
3. The FAA is moving forward with a "radar sharing" agreement between ZSU and Santo Domingo (MDCS). The diplomatic agreement between parties is currently at the U.S. Department of State (DOS), and we expected their approval by Nov. 2011. We will be finalizing a similar agreement with the Netherlands island of St Maarten.

While the FAA considers Foreign Facility Deviations a potential safety risk, we do not consider FFDs to be a substantial or specific danger to public safety.

If additional information is needed, please contact William M. Alexander, Acting Director, ATO Safety Quality Assurance at (202) 385-4777.

Atch: ZSU NAP for radar-feed
ZSU memo requesting shout-line
Portions of Order JO 7210.632 & JO 7210.633
MOR/EOR web-based form
CARSAMMA report form
FFD listing
ZSU FIR boundary chart

cc: Vice President, En Route & Oceanic Service
Vice President, Strategy & Performance
Chief Operating Officer

**Attachment 1:
ZSU NAP for Radar-feed**

ATO Needs Assessment Program (NAP_II)

Log Number: 2005-2253

Current Status: SU Pending

PROJECT TITLE:

FACILITY SPECIFICATIONS:

Loc.ID: ZSU

Region: SO

Funding:

Fac. Type: CERAP

Service Area: ESA

Review Path: FULL

City: SAN JUAN, PR

Local Ops. Funding: No

District Office:

JCN:

Airport:

Runway:

Service Delivery Point:

CC Code: 086LB

Need Category:

System Support Center: San Juan SSC

CIP DETAILS:

CIP Number: A01.07-01

Year(s) Funded: From 2004 Thru 2015

CIP Program Title: En Route Automation Program

CIP Project Title: En Route Enhancements

CIP Program Office: AJE-1200

Responsible Service Unit: ER

CIP Project Type: En Route Enhancements

USER DETAILS:

Originator: RICHARD W HASTINGS
Phone: 404-389-8233

Originator Cost Est: \$
Email: richard.w.hastings@faa.gov

Date: 30-SEP-05

DO Validator: RICHARD W HASTINGS
Phone: 404-389-8233

Disposition: SA Pending
Email: richard.w.hastings@faa.gov

Date: 30-SEP-05

SA Validator: RICHARD W HASTINGS
Phone: 404-389-8233

Disposition: SU Pending
Email: richard.w.hastings@faa.gov

Date: 24-OCT-05

SU Approver:
Phone:

Disposition:
Email:

Date:

SC PIM:

Phone:

Email:

PROJECT DESCRIPTION:

San Juan Cerap/Santo Domingo Connectivity

PROBLEM STATEMENT:

Santo Domingo (MDSD) ACC established RADAR operations around 1996. On August 3, 2001, MDSD ACC stratified their airspace to create a Terminal Control Area (TCA). ZSU CERAP has been trying to establish RADAR operations with MDSD ACC. However, this

connectivity requires two MEVA Circuits (RADAR Handoff Lines) to conduct such operations. With the increase in traffic volume over the years, operation efficiency is impacted. Without the RADAR handoff lines, controller workload is increased due to the non-RADAR operations.

PROPOSED SOLUTION:

Establish two MEVA circuits between MDSD ACC and San Juan CERAP to accomplish RADAR operations with both sectors in MDSC and at the same time improve system efficiency. This project includes the 2 MEVA lines as well as all necessary hardware, software and equipment required to receive RADAR data from Santo Domingo. The implementation of RADAR operations will ensure operational safety.

SPECIFIC BENEFIT(S):

This project will eliminate non-RADAR operations and provide for expeditious handling of aircraft transitioning between the two facilities. The implementation of RADAR operations will ensure operational safety.

IMPACT (If not addressed):

The Director of Civil Aviation in Santo Domingo sent a letter to the FAA dated October 19, 2000 requesting the implementation of the new MEVA circuits between San Juan CERAP and MSD for RADAR operations. Research was completed and a single source submission was processed on March 16, 2001 and went to ASO-510 for action. On March 26, 2001 a letter was sent to Mr. Godfrey Bain (FAA) and Mr. Curt Meslang (SCSI). The letter included installation costs and recurring costs of the two MEVA circuits.

LOCAL ADMIN. REMARKS:

The operation between San Juan CERAP and Santo Domingo will remain a non-RADAR operation.
The operation between San Juan CERAP and Santo Domingo will remain a non-RADAR operation.

SC PIM COMMENTS:

Safety and Increased Capacity

DO COMMENTS:

SA COMMENTS:

SU COMMENTS:

**Attachment 2:
ZSU Memo Requesting Shout-line**



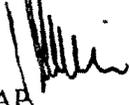
Federal Aviation Administration

San Juan CERAP

5000 Carr. 190

Carolina, P.R. 00979-7430

Memorandum

Date: September 27, 2010
To: Dulce Maria Roses, International Telecommunications, AJW-536
From: Felipe Fraticelli, Air Traffic Manager, San Juan CERAP 
Prepared by: Jose M. Arcadia, Support Manager P&P, San Juan CERAP
Subject: Request for dedicated shout line between San Juan CERAP and Santo Domingo ACC

The San Juan CERAP Enroute controllers constantly coordinate departure, arrival and overflight traffic information with the Santo Domingo ACC and Punta Cana Approach via a shared MEVA circuit. With the MEVA line the controllers have to dial, wait until the connection is established, and the controller on the other end answers the phone. We find that this type of communication procedure could be more safe and efficient with the establishment of a shout line between both facilities.

With the establishment and installation of a dedicated shout line, and the radar data from the Punta Cana Long Range Radar, it will allow us to transition, from non-radar coordination to radar handoff procedures in the same manner that Miami ARTCC does with their dedicated shout line with Santo Domingo ACC. Additionally, communication between both facilities will be conducted safely and efficiently allowing for coordination to be completed promptly.

**Attachment 3:
Portions of Order JO 7210.632
& JO 7210.633**

Occurrence Reporting Order (JO 7210.632)

Chapter 1 of the ATO's Occurrence Reporting Order (JO 7210.632), outlines organizational and employee responsibilities. These two sections explain individual employee responsibilities and what must be reported:

1-3. Responsibilities.

a. ATO Organizational Responsibilities.

(1) AJS is responsible for all policies and procedures related to air traffic incident and occurrence reporting and data collection IAW this directive and FAAO 7210.633, Air Traffic Organization Quality Assurance Program. Only AJS may approve extensions of timeframes, exemptions from specific requirements, and other specific waivers to the provisions of this directive.

(2) The Mission Support, Litigation Liaison Office (AJV-4) is responsible for all policies and procedures related to aircraft accidents, aircraft incidents, and litigation support for enforcement and accidents.

(3) Service Units are responsible for ensuring that their employees report all occurrences and support the data collection and analysis processes required by this directive or requested by AJS.

b. Employee Responsibilities.

(1) Employees must ensure that all occurrences of which they are aware, through either direct involvement or observation are reported. All personnel with knowledge of an occurrence are encouraged to report even if multiple submissions of the same occurrence result.

(2) Non-management employees eligible to participate in a voluntary safety reporting program (VSRP) such as Air Traffic Safety Action Program (ATSAP) may satisfy the reporting requirements of this directive by reporting occurrences through those programs, except as specified in FAAO 7200.20, VSRP and this Order.

REFERENCE – FAAO 7200.20, 1-10-2. Non-management employees acting in a management role.

REFERENCE – FAAO 7200.20, 1-10-3. Non-management employees.

(3) Management employees must report occurrences IAW this directive. In addition, if eligible to participate they may also file a VSRP report.

1-4. What to Report. All observed or suspected occurrences which meet the MOR criteria as defined in Appendix A.

Quality Assurance Program Order (JO 7210.633)

Our draft Quality Assurance Program Order (JO 7210.633) prescribes AJS' responsibility to identify Foreign Facility Deviations and forward this data to the appropriate state or organization. I have included the associated reference below (highlighted).

Chapter 2. Analysis

2-1. Office of Safety Responsibilities.

a. Providing trend analysis, statistical data, recommendations, and other pertinent information to assist field facilities with their risk mitigation efforts. Analysis of policy and procedures as established will be conducted periodically for compliance and effectiveness.

b. Analyzing safety data from NAS Services performance data; for example, RMLS, National Airspace Performance Reporting System (NAPRS).

c. Examining and reconciling occurrence reports collected through the EOR/MOR and assessment processes to ensure:

(1) The quality of the data is of the highest standard (for example, there are no duplicate or conflicting reports).

(2) Accurate categorization of occurrences to accomplish agency metric requirements (for example, loss of standard separation occurrences, Category A and B operational errors, runway incursions).

(3) Identification of occurrences that must be reported to other organizations (for example, pilot deviations, foreign facility deviation, and hazardous air traffic reports).

d. Conducting system risk analysis of all RAEs in accordance with this order and supporting standard operating procedures (SOPs) and ensuring findings are made available to the ATO (for example, observed and identifies trends, recommended mitigations).

2-2. Identification and Calculation. AJS will identify or calculate the following from reconciled data:

a. The associated MOC of all airborne loss of standard separation occurrences.

b. All RAEs.

c. Applicable ATO and agency safety metrics.

d. All runway incursions.

e. Pilot deviations and near midair collision reports (NMACs) which AJS will forward to the responsible Flight Standards Office.

f. Vehicle and pedestrian deviations, which AJS will forward to the Airports Division and other affected organizations.

g. Any foreign facility deviations, which AJS will forward to the appropriate state or organization.

h. Spillouts, military deviations, etc., which AJS will forward to the Department of Defense.

Occurrence Reporting Order (JO 7210.632)

Secondly, the Air Traffic Organization Occurrence Reporting Order (JO 7210.632) prescribes what must be reported by air traffic facilities and how they must be reported.

This is the definition of a Mandatory Occurrence Report from this order:

e. Mandatory Occurrence Report (MOR) – An occurrence involving air traffic services for which the collection of associated safety-related data and conditions is mandatory. See Appendix A for a full listing of MORs.

Occurrence Reporting Order (JO 7210.632)

Here is the actual MOR definition under which FFD's will be reported:

A-5. Airborne Air Traffic Control Anomaly (Airspace/Altitude/Route/Speed) *not* Involving a Loss of Separation.

a. Any instance in which an aircraft enters airspace on other than the expected or intended altitude, routing, or airspeed, or without a point-out or hand-off.

b. Any instance where an aircraft operates at an altitude, routing, or airspeed, that an employee providing air traffic services determines affected the safety of flight or operations. These occurrences normally result in air traffic control (ATC) issuance of a Safety Alert or control action. All non-loss TCAS resolution advisories (RA) and/or spillouts must be reported under this MOR.

c. Any occurrence where an aircraft enters special use airspace (for example, a warning area, military operations area, or ATC assigned airspace) without coordination and/or authorization.

You will notice that the reporting language does NOT specifically mention FFD's. However, ANY occurrence in which an aircraft enters airspace without coordination MUST be reported under this MOR. As a result, FFD's would be reported under the auspices of the MOR.

**Attachment 4:
MOR/EOR Web-based Form**

Occurrence Reporting Order (JO 7210.632)

Posted below is a screen shot from CEDAR that shows the data fields associated with the MOR. You will see that it includes a radio button (yes or no) to select if the reported occurrence is an FFD. This will tag each and every FFD and make the data available for query and analysis.

MOR/DDR Form - Windows Internet Explorer Tuesday, August 9, 2011

* Indicates required item

Preliminary Data:

Facility * A80	Entry Date* and Time* (UTC) [Date Picker] [Time Picker]	Significant Event <input type="radio"/> Yes, <input checked="" type="radio"/> No
MOR Type * --A/C entered airspace on other than expected/intended altitude/route/speed or without a point-out or handoff.		

Aircraft Involved:

Aircraft #1 * [Text Box]	A/C Type * <input type="radio"/> IFR <input type="radio"/> VFR	Controlling: Facility * [Text Box]	Frequency [Text Box]
		Violated: Facility * [Text Box]	Frequency [Text Box]

Additional Information:

Foreign Facility Deviation? <input checked="" type="radio"/> Yes <input type="radio"/> No	Action Taken by: <input type="checkbox"/> ATC <input type="checkbox"/> Flight Crew
Summary * ✓ [Text Area]	
0 of 3000 available characters used	

**Attachment 5:
CARSAMMA Report Form**

CMA F4

LARGE HEIGHT DEVIATION FORM

Report to the CARSAMMA of an altitude deviation of 300ft or more, including those due to TCAS, Turbulence and Contingency Events

1. Today's date:		2. Reporting Unit:	
DEVIATION DETAILS			
3. Operator Name:		4. Call Sign:	
		ACFT Registration Number:	
5. Aircraft Type:		6. Mode C Displayed: <input type="checkbox"/> Yes. Which FL? _____ <input type="checkbox"/> No.	
7. Date of Occurrence:		8. Time UTC:	
9. Occurrence Position (lat/long or Fix):			
10. Cleared Route of Flight:			
11. Cleared Flight Level:		12. Estimated Duration at Incorrect Flight Level (seconds):	
13. Observed Deviation (+/- ft):			
14. Other Traffic Involved:			
15. Cause of Deviation (<i>brief title</i>):			
(Examples: ATC Loop Error, Turbulence, Weather, Equipment Failure)			
AFTER DEVIATION IS RESTORED			
16. Observed/Reported Final Flight Level*:		Mark the appropriate Box	
*Please indicate the source of information: <input type="checkbox"/> Mode C <input type="checkbox"/> Pilot		17. Is the FL above the cleared level: <input type="checkbox"/>	
		18. Is the FL below the cleared level: <input type="checkbox"/>	
19. Did this FL comply with the ICAO Annex 2 Tables of Cruising Levels? <input type="checkbox"/> Yes <input type="checkbox"/> No			
NARRATIVE			
20. Detailed Description of Deviation			
<i>(Please give your assessment of the actual track flown by the aircraft and the cause of the deviation.)</i>			
21 - CREW COMMENTS (IF ANY)			

When complete please forward the report(s) to:
 Caribbean and South American Monitoring Agency (CARSAMMA)
 CENTRO DE GERENCIAMENTO DA NAVEGAÇÃO AÉREA
 PRAÇA SENADOR SALGADO FILHO, S/N - CENTRO
 20021-370 - RIO DE JANEIRO - RJ
 Telefone: (55-21)2101-6358 Fax: (55-21) 2101-6358
 E-Mail: carsamma@cgna.gov.br

REPORT OF LARGE HEIGHT DEVIATION OF 300 FT OT MORE BETWEEN FL 290 AND FL 410

Report to the Caribbean and South American Monitoring Agency (CARSAMMA) of a height deviation of 300ft or more, including:

- 1) Those due to TCAS/ACAS;
- 2) Turbulence and contingency events; and
- 3) Operational errors resulting in flight at an incorrect level or coordinated by ATC units.

NOTE: The ATC Units are requested to inform CARSAMMA the LHD reports by the 10th day of the following month even if **NO** deviation occurs.

Name of FIR _____.

Please complete Section I or II as appropriate.

SECTION I:

There were **NO** reports of large altitude deviation for the month/year _____.

SECTION II:

There was (were) ____ report(s) of a height deviation of 300ft or more between FL 290 and FL410. Details of the height deviation are attached (Large Deviation Report Form).

(Please use a separate form for each report of height deviation).

SECTION III:

When complete please forward the report(s) to:
Caribbean and South American Monitoring Agency (CARSAMMA)
CENTRO DE GERENCIAMENTO DA NAVEGAÇÃO AÉREA
PRAÇA SENADOR SALGADO FILHO, S/N - CENTRO
20021-370 - RIO DE JANEIRO - RJ
Telefone: (55-21)2101-6358 Fax: (55-21) 2101-6358
E-Mail: carsamma@cgna.gov.br

NOTES TO AID COMPLETION OF CARSAMMA FORM CMA F4

SPECIFICATION OF THE FIELDS:

1. ENTER TODAY'S DATE.
2. ENTER THE 4 (FOUR) LETTER ICAO IDENTIFIER FOR THE FIR OR ENTER THE NAME OF THE REPORTING UNIT.
3. ENTER THE OPERATOR'S 3 (THREE) LETTER ICAO IDENTIFIER. FOR INTERNATIONAL GENERAL AVIATION, ENTER "IGA".
4. ENTER THE CALL SIGN AND THE ACFT REGISTRATION NUMBER.
5. ENTER THE ICAO DESIGNATOR AS CONTAINED IN ICAO DOC 8643, E.G., FOR AIRBUS A320-211, ENTER A320; FOR BOEING B 747-438, ENTER B744.
6. ENTER "YES" OR "NO". IF "YES", INFORM THE FLIGHT LEVEL.
7. ENTER THE DATE OF OCCURRENCE.
8. ENTER THE TIME UTC OF OCCURRENCE.
9. ENTER THE OCCURRENCE POSITION (FIX, LAT/LONG OR RADIAL AND NAUTICAL MILES).
10. ENTER THE CLEARED ROUTE OF FLIGHT (IN CASE OF DIRECT OR ALEATORIC FLIGHTS, ENTER "DCT").
11. ENTER THE CLEARED FLIGHT LEVEL.
12. ENTER THE ESTIMATED DURATION AT INCORRECT FLIGHT LEVEL (IN SECONDS).
13. ENTER THE OBSERVED DEVIATION IN FEET (FOR UPWARDS DEVIATIONS, WRITE "+", FOR DOWNWARDS DEVIATIONS, WRITE "-").
14. ENTER THE OTHER TRAFFIC INVOLVED, IF ANY (CALL SIGN, REGISTRATION NUMBER, FLIGHT LEVEL, AIRCRAFT TYPE AND ROUTE).
15. ENTER THE CAUSE OF DEVIATION ACCORDING TO THE TABLE BELOW:

A - Failure to climb / descend as cleared.	I - ATC system loop error; (e.g.: Pilot misunderstands clearance message or ATC issues incorrect clearance).
B - Climb / descend without ATC clearance.	J - Equipment control error encompassing incorrect operation of fully functional FMS or navigation system; (e.g.: By mistake the pilot incorrectly operates INS equipment).
C - Entry into airspace at an incorrect flight level.	K - Incorrect transcription of ATC clearance or re-clearance into the FMS.
D - Deviation due to turbulence or other weather related cause.	L - Wrong information faithfully transcribed into the FMS; (e.g.: Flight plan followed rather than ATC clearance or original clearance followed instead of re-clearance).
E - Deviation due to equipment failure.	M - Error in ATC-unit to ATC-unit transition message.
F - Deviation due to collision avoidance system (ACAS/TCAS) advisory.	N - Negative transfer received from transitioning ATC-unit.
G - Deviation due to contingency event.	O - Other.
H - Aircraft not approved for operation in RVSM restricted airspace.	P - Unknown.

16. ENTER THE OBSERVED/REPORTED FINAL FLIGHT LEVEL, PROVIDING THE SOURCE OF INFORMATION (MODE C AND/OR PILOT).
17. and 18. SELECT ONE OF THE OPTIONS: IF THE AIRCRAFT WAS ABOVE OR BELOW THE CLEARED LEVEL.
19. SELECT ONE OF THE OPTIONS: IF THE FL COMPLIED WITH THE ICAO ANNEX 2 TABLES OF CRUISING LEVELS.
20. WRITE A BRIEF DESCRIPTION OF DEVIATION.
21. WRITE THE CREW COMMENTS, IF ANY.

**Attachment 6:
FFD Listing**

Foreign Facility Deviations (FFD)
Reported at San Juan CERAP (Jan. 2009 - Jun. 2011)

Date	FIR	Description
1/29/2009	TKPK	Aircraft entered ZSU airspace at altitude other than coordinated
2/23/2009	MDCS	Aircraft entered ZSU airspace at altitude other than coordinated
4/6/2009	TNCF	Aircraft entered ZSU airspace at altitude other than coordinated
4/9/2009	MDCS	Assumed control in ZSU airspace without coordination
5/18/2009	TNCM	Aircraft entered ZSU airspace at altitude other than coordinated
5/29/2009	SVZM	Aircraft entered ZSU airspace at altitude other than coordinated
5/30/2009	SVZM	Assumed control in ZSU airspace without coordination
6/13/2009	MDCS	Aircraft entered ZSU airspace at altitude other than coordinated
6/19/2009	TFFR	Aircraft entered ZSU airspace at altitude other than coordinated
6/21/2009	MDCS	Aircraft entered ZSU airspace at altitude other than coordinated
6/26/2009	TNCF	Aircraft entered ZSU airspace at altitude other than coordinated
7/1/2009	SVZM	Aircraft entered ZSU airspace at altitude other than coordinated
7/9/2009	SVZM	Aircraft entered ZSU airspace at altitude other than coordinated
7/11/2009	MDCS	Aircraft entered ZSU airspace at altitude other than coordinated
7/13/2009	SVZM	Aircraft entered ZSU airspace at altitude other than coordinated
7/13/2009	SVZM	Aircraft entered ZSU airspace at altitude other than coordinated
7/13/2009	SVZM	Aircraft entered ZSU airspace at altitude other than coordinated
7/14/2009	TNCF	Aircraft entered ZSU airspace without prior coordination
7/17/2009	MDCS	Aircraft entered ZSU airspace at altitude other than coordinated
7/17/2009	TNCF	Aircraft entered ZSU airspace without prior coordination
8/6/2009	SVZM	Aircraft entered ZSU airspace at altitude other than coordinated
8/8/2009	TNCF	Aircraft entered ZSU airspace without prior coordination
9/4/2009	SVZM	Aircraft entered ZSU airspace at altitude other than coordinated
9/27/2009	SVZM	Aircraft entered ZSU airspace at altitude other than coordinated
9/28/2009	SVZM	Aircraft entered ZSU airspace at altitude other than coordinated
10/6/2009	TNCF	Assumed control in ZSU airspace without coordination
10/12/2009	TNCF	Aircraft entered ZSU airspace without prior coordination
10/18/2009	SVZM	Aircraft entered ZSU airspace at altitude other than coordinated
10/21/2009	SVZM	Aircraft entered ZSU airspace at altitude other than coordinated
10/30/2009	TNCM	Assumed control in ZSU airspace without coordination
10/30/2009	TTZP	Aircraft entered ZSU airspace without prior coordination
11/15/2009	TKPK	Assumed control in ZSU airspace without coordination
11/19/2009	TTZP	Aircraft entered ZSU airspace without prior coordination
11/24/2009	TNCF	Aircraft entered ZSU airspace without prior coordination
11/29/2009	MDCS	Aircraft entered ZSU airspace at altitude other than coordinated
11/29/2009	MDCS	Aircraft entered ZSU airspace at altitude other than coordinated
11/29/2009	SVZM	Aircraft entered ZSU airspace on a route other than coordinated
12/4/2009	MDCS	Aircraft entered ZSU airspace at altitude other than coordinated
12/10/2009	TTZP	Aircraft entered ZSU airspace on a route other than coordinated
12/11/2009	TAPA	Assumed control in ZSU airspace without coordination
12/12/2009	TNCM	Aircraft entered ZSU airspace at altitude other than coordinated
12/14/2009	TKPK	Assumed control in ZSU airspace without coordination

Foreign Facility Deviations (FFD)
Reported at San Juan CERAP (Jan. 2009 - Jun. 2011)

Date	PIR	Description
12/16/2009	TTZP	Aircraft entered ZSU airspace at altitude other than coordinated
12/16/2009	TTZP	Aircraft entered ZSU airspace at altitude other than coordinated
12/16/2009	TTZP	Aircraft entered ZSU airspace at a time other than coordinated
12/17/2009	TTZP	Aircraft entered ZSU airspace at altitude other than coordinated
12/18/2009	SVZM	Aircraft entered ZSU airspace at altitude other than coordinated
12/21/2009	MDCS	Aircraft entered ZSU airspace at altitude other than coordinated
12/25/2009	MDCS	Aircraft entered ZSU airspace on a route other than coordinated
12/26/2009	MDCS	Aircraft entered ZSU airspace at altitude other than coordinated
12/26/2009	TTZP	Aircraft entered ZSU airspace at altitude other than coordinated
12/30/2009	MDCS	Aircraft entered ZSU airspace at a time other than coordinated
1/2/2010	TNCM	Aircraft entered ZSU airspace without prior coordination
1/6/2010	SVZM	Aircraft entered ZSU airspace at altitude other than coordinated
1/16/2010	MDCS	Assumed control in ZSU airspace without coordination
1/16/2010	MDCS	Aircraft entered ZSU airspace without prior coordination
1/16/2010	MDCS	Aircraft entered ZSU airspace without prior coordination
1/16/2010	MDCS	Aircraft entered ZSU airspace at altitude other than coordinated
1/18/2010	MDCS	Aircraft entered ZSU airspace at altitude other than coordinated
1/19/2010	SVZM	Aircraft entered ZSU airspace at altitude other than coordinated
1/19/2010	SVZM	Aircraft entered ZSU airspace at altitude other than coordinated
1/22/2010	TNCF	Aircraft entered ZSU airspace at altitude other than coordinated
1/23/2010	MDCS	Aircraft entered ZSU airspace on a route other than coordinated
1/24/2010	MDCS	Aircraft entered ZSU airspace at altitude other than coordinated
1/24/2010	MDCS	Aircraft entered ZSU airspace without prior coordination
1/24/2010	SVZM	Aircraft entered ZSU airspace at altitude other than coordinated
1/24/2010	TTZP	Aircraft entered ZSU airspace at altitude other than coordinated
1/24/2010	TTZP	Aircraft entered ZSU airspace at altitude other than coordinated
2/1/2010	MDCS	Aircraft entered ZSU airspace at altitude other than coordinated
2/8/2010	MDCS	Aircraft entered ZSU airspace without prior coordination
2/9/2010	TAPA	Aircraft entered ZSU airspace at a time other than coordinated
2/12/2010	MDCS	Aircraft entered ZSU airspace at altitude other than coordinated
2/14/2010	MDCS	Aircraft entered ZSU airspace at altitude other than coordinated
2/20/2010	MDCS	Aircraft entered ZSU airspace at altitude other than coordinated
2/27/2010	MDCS	Aircraft entered ZSU airspace without prior coordination
2/27/2010	TFFR	Aircraft entered ZSU airspace without prior coordination
2/27/2010	TTZP	Aircraft entered ZSU airspace at altitude other than coordinated
2/28/2010	TFFR	Aircraft entered ZSU airspace without prior coordination
3/1/2010	MDCS	Aircraft entered ZSU airspace at altitude other than coordinated
3/11/2010	SVZM	Aircraft entered ZSU airspace at altitude other than coordinated
3/11/2010	SVZM	Aircraft entered ZSU airspace at altitude other than coordinated
3/12/2010	TNCF	Did not issue route of flight assigned by ZSU
3/12/2010	TNCF	Aircraft entered ZSU airspace at altitude other than coordinated
3/13/2010	MDCS	Aircraft entered ZSU airspace at altitude other than coordinated
3/26/2010	TFFR	Aircraft entered ZSU airspace without prior coordination

Foreign Facility Deviations (FFD)
Reported at San Juan CERAP (Jan. 2009 - Jun. 2011)

Date	FFD	Description
3/28/2010	MDCS	Aircraft entered ZSU airspace without prior coordination
4/4/2010	MDCS	Aircraft entered ZSU airspace at a time other than coordinated
4/11/2010	SVZM	Aircraft entered ZSU airspace at altitude other than coordinated
4/11/2010	TAPA	Aircraft entered ZSU airspace at altitude other than coordinated
4/14/2010	TNCM	Aircraft entered ZSU airspace at altitude other than coordinated
4/16/2010	TAPA	Aircraft entered ZSU airspace at altitude other than coordinated
4/18/2010	TFFR	Aircraft entered ZSU airspace without prior coordination
4/18/2010	TFFR	Aircraft entered ZSU airspace without prior coordination
5/13/2010	SVZM	Aircraft entered ZSU airspace at altitude other than coordinated
5/23/2010	MDCS	Aircraft entered ZSU airspace without prior coordination
5/23/2010	TUPJ	Aircraft entered ZSU on heading not in accordance with LOA
5/28/2010	MDCS	Aircraft entered ZSU airspace at altitude other than coordinated
5/29/2010	MDCS	Aircraft entered ZSU airspace at altitude other than coordinated
5/31/2010	TFFR	Aircraft entered ZSU airspace without prior coordination
5/31/2010	TNCM	Assumed control in ZSU airspace without coordination
6/1/2010	MDCS	Aircraft entered ZSU airspace without prior coordination
6/1/2010	TTZP	Aircraft entered ZSU airspace at a time other than coordinated
6/2/2010	SVZM	Aircraft entered ZSU airspace at altitude other than coordinated
6/19/2010	MDCS	Assumed control in ZSU airspace without coordination
7/10/2010	TAPA	Aircraft entered ZSU airspace at altitude other than coordinated
7/18/2010	TTZP	Aircraft entered ZSU airspace at altitude other than coordinated
7/21/2010	TFFR	Aircraft entered ZSU airspace at altitude other than coordinated
7/24/2010	MDCS	Aircraft entered ZSU airspace at altitude other than coordinated
7/30/2010	SVZM	Aircraft entered ZSU airspace at altitude other than coordinated
8/16/2010	TNCF	Aircraft entered ZSU airspace without prior coordination
8/25/2010	SVZM	Aircraft entered ZSU airspace at altitude other than coordinated
8/26/2010	TAPA	Aircraft entered ZSU airspace without prior coordination
8/26/2010	TAPA	Aircraft entered ZSU airspace on a route other than coordinated
8/27/2010	TTZP	Aircraft entered ZSU airspace on a route other than coordinated
8/30/2010	SVZM	Aircraft entered ZSU airspace at altitude other than coordinated
8/31/2010	MDCS	Aircraft entered ZSU airspace without prior coordination
9/1/2010	TUPJ	Aircraft departed airport w/o coordination from ZSU
10/4/2010	TTZP	Aircraft entered ZSU airspace at altitude other than coordinated
10/7/2010	TTZP	Aircraft entered ZSU airspace without prior coordination
10/22/2010	TNCF	Aircraft entered ZSU airspace without prior coordination
10/29/2010	TNCF	Aircraft entered ZSU airspace on a route other than coordinated
11/6/2010	SVZM	Aircraft entered ZSU airspace at altitude other than coordinated
11/10/2010	TAPA	Aircraft entered ZSU airspace at altitude other than coordinated
11/18/2010	SVZM	Aircraft entered ZSU airspace at altitude other than coordinated
11/26/2010	MDCS	Aircraft entered ZSU airspace at altitude other than coordinated
12/3/2010	SVZM	Aircraft entered ZSU airspace at altitude other than coordinated
12/22/2010	TAPA	Aircraft entered ZSU airspace on a route other than coordinated
12/28/2010	TNCF	Aircraft entered ZSU airspace without prior coordination

Foreign Facility Deviations (FFD)
Reported at San Juan CERAP *(Jan. 2009 - Jun. 2011)*

Date	FIR	Description
1/8/2011	MDCS	Aircraft entered ZSU airspace without prior coordination
1/8/2011	SVZM	Aircraft entered ZSU airspace at altitude other than coordinated
2/12/2011	TAPA	Aircraft entered ZSU airspace at altitude other than coordinated
3/20/2011	MDCS	Aircraft entered ZSU airspace at altitude other than coordinated
4/16/2011	TNCF	Assumed control in ZSU airspace without coordination
5/4/2011	TFFR	Aircraft entered ZSU airspace without prior coordination
5/13/2011	MDCS	Aircraft entered ZSU airspace on a route other than coordinated
5/13/2011	TNCF	Aircraft entered ZSU airspace without prior coordination
5/31/2011	TNCF	Aircraft entered ZSU airspace without prior coordination
6/18/2011	TTZP	Aircraft entered ZSU airspace at altitude other than coordinated

**Attachment 7:
ZSU FIR Boundary Chart**

