

## THE SECRETARY OF TRANSPORTATION WASHINGTON, D.C. 20590

March 22, 2010

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

Re: OSC File No. DI-08-3138

Dear Mr. Reukauf:

I am responding to your letter of March 19, 2009, which referred for investigation aviation safety concerns raised by Timothy Funari, Support Manager at the Federal Aviation Administration (FAA), D21 Terminal Radar Approach Control (TRACON), Detroit Metropolitan Airport (DTW). Mr. Funari's allegations include safety-of-flight issues as well as concerns surrounding the reporting and investigation of operational errors and deviations.

I delegated responsibility for investigating these matters jointly to the Office of Inspector General (OIG) and the FAA Air Traffic Safety Oversight Office (AOV). Enclosed are the OIG's Report of Investigation and FAA Administrator Babbitt's response.

In summary, the OIG investigation substantiated or partially substantiated four of Mr. Funari's seven allegations:

- Investigators were unable to substantiate that the Detroit TRACON's missed approach procedures may result in aircraft occupying the same airspace in violation of FAA Order 7110.65, *Air Traffic Control*. (Allegation 1)
- Investigators substantiated that the Detroit TRACON has not identified which part of FAA Order 7110.65 authorizes five nautical miles of Miles-In-Trail separation between successive arrivals into three of DTW's controlled satellite airports. Consequently, Detroit TRACON air control staff does not know which separation requirements to follow regarding those arrivals. (Allegation 2)
- Investigators substantiated the allegation that Detroit TRACON controllers have, in violation of FAA Order 7110.65, allowed aircraft to come within 1.5 nautical miles of the adjacent airspace boundary without prior coordination or documented coordination procedures. (Allegation 3)
- Investigators substantiated the allegation that Detroit TRACON controllers have operated dual Instrument Landing System (ILS) approaches in violation of FAA Order 7110.65. However, they were unable to substantiate that such violations

resulted in operational errors or deviations, or that Detroit TRACON management officials improperly treated such violations as performance issues. (Allegation 4)

- Investigators were unable to substantiate that Detroit TRACON officials certified a controller-in-training before justifying his performance. (Allegation 5)
- Investigators were unable to substantiate that a Detroit TRACON Operations Manager manipulated a March 2008 Runway Occupancy Time survey to produce results that would allow the TRACON to reduce separation minima between aircraft on final approach. (Allegation 6)
- Investigators substantiated that Quality Assurance Review procedures and investigations into operational errors and deviations at DTW have been inadequate. However, they were unable to substantiate that Detroit TRACON officials purposely failed to detect, report, investigate, and address operational errors or deviations or discouraged employees from reporting such events. (Allegation 7)

By the enclosed memorandum, FAA Administrator Babbitt accepted the OIG's findings and, where warranted, set forth a corrective action plan, including a timeframe for implementation of each measure.

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

Sinderely yours

Enclosures



### Memorandum

Date:

MAR 8 2010

To:

Mr. Robert Westbrooks, Acting Assistant Inspector General for

Special Investigations and Analysis

From:

J. Randolph Babbitt, Administrator

Subject:

Response to Office of the Inspector General (OIG) Investigation 109Z000021SINV,

Re: Air Traffic Management at Detroit Wayne County Metropolitan Airport

The Federal Aviation Administration (FAA) has reviewed the OIG Report identified above and submits the following responses to the allegations and OIG's findings:

#### Allegation 1

"The Detroit TRACON's procedures do not safely ensure that an aircraft conducting a missed approach from an uncontrolled satellite airport will not occupy the same airspace as aircraft departing other local airports. As a result, losses of separation may occur, in violation of FAA Order 7110.65."

**Response:** Although the OIG investigation was unable to substantiate this allegation, the FAA is committed to:

- Review the existing standard operating procedures (SOP) and letters-of-agreement (LOA) that apply to Detroit Terminal Radar Approach Control (TRACON) (D21) and the satellite airports
- Review the missed approach and go-around procedures at each satellite airport under each of the prevailing configurations used at Detroit Wayne County Metropolitan Airport (DTW)
- Identify improvement(s) needed to airspace, LOAs, and SOP to ensure the separation standards are properly documented (if appropriate)
- Review and update current training utilized for missed approaches and go-arounds at D21 and satellite airports
- Ensure that all operational personnel at D21 receive new (refresher) training on missed approaches and go-arounds at DTW and the satellite airports

The FAA is committed to completing these measures no later than May 28, 2010.

#### Allegation 2

"It is unclear under which FAA authority the Detroit TRACON is providing Miles-in-Trail separation for successive arrivals into certain controlled satellite airports."

Response: Based on the OIG findings, the FAA is committed to:

- Review the governing policy(s) to specifically identify the authority for separation of successive arrivals at the controlled satellite airports surrounding D21
- Review the existing SOPs and LOAs that apply to D21 and the satellite airports
- Identify improvement(s) needed to LOAs and SOP (if appropriate)
- Review and update current training utilized for controlling successive arrivals at the satellite airports surrounding D21
- Ensure that all operational personnel at D21 receive new (refresher) training on controlling successive arrivals at the satellite airports, targeted on strengthening the workforce's understanding of the requirements and variables contained in FAA policy

The FAA is committed to completing these measures no later than May 28, 2010.

#### Allegation 3

"Detroit TRACON controllers have allowed aircraft to come within 1.5 nautical miles of the adjacent airspace boundary without prior coordination or documented coordination procedures, in violation of FAA Order 7110.65."

**Response:** Based on the OIG findings, the FAA is committed to:

- Identify improvement(s) needed to the airspace and/or SOP (if appropriate)
- Review and update current training utilized for boundary separation requirements at D21
- Ensure that all operational personnel at D21 receive new (refresher) training on boundary separation requirements, targeted on strengthening the workforce's understanding of the requirements and variables contained in FAA policy

We are encouraged that the OIG found that the FAA is actively working towards the elimination of the 1.5 nautical mile boundary separation violations. The FAA is committed to completing the measures identified above no later than May 28, 2010. In addition, the Director of Central Terminal Operations will continue requiring weekly audits of boundary separation violations, and will provide quarterly reports to the Air Traffic Organization's Chief Operating Officer (COO) through the Vice President, Terminal Services. These reports will include both the status of airspace redesign efforts and an analysis of 1.5 nautical mile violations identified during each three-month period. These actions will be reviewed annually to measure boundary separation improvements, and new corrective measures will be considered if necessary.

#### Allegation 4

"The Detroit TRACON's operation of dual or triple ILS approaches caused violations of FAA Order 7110.65, and management improperly viewed such violations as performance issues rather than operational errors or deviations."

**Response:** Based on the OIG findings, the FAA will:

- Review the existing SOP at DTW
- Identify improvement(s) needed to the SOP (if appropriate)
- Review and update current training utilized for controlling dual or triple ILS approaches at DTW
- Ensure that all D21 operational personnel are trained on the correct application of approach course intercept procedures, specifically when dual or triple ILS configurations are in-use; this training will include an explanation of the basis for these procedures in the safety of flight requirements for stabilized approaches

The FAA is committed to completing these measures no later than May 28, 2010. The Central Quality Control Group will continue weekly audits of ILS course intercepts, and Quality Assurance personnel using the Performance Data Analysis and Reporting System (PDARS) tool will complete their independent reports of ILS course intercepts. Terminal Services will provide the COO with monthly reports on D21's compliance with final approach course intercepts. This action will continue until the approach course intercepts at D21 reach a consistent performance level.

#### Allegation 5

"Detroit TRACON officials certified a controller-in-training before his performance justified it."

**Response:** We are pleased your investigation found no evidence to substantiate this allegation, and no further actions are warranted.

#### Allegation 6

"A Detroit TRACON Operations Manager manipulated a March 2008 ROT survey to produce results that would allow the TRACON to reduce separation minima between aircraft on final approach."

Response: While the OIG investigation was unable to substantiate this allegation, we recognize Runway Occupancy Time (ROT) surveys are very key elements used as the basis for reduced separation standards on final approach, and therefore the accuracy and integrity of these surveys must be ensured. Terminal Services will task the Terminal Procedures Team with reviewing paragraph 10-4-8 to ensure that survey retention timeframes and recovery is prescribed. The next Team meeting is not scheduled until June 2010, therefore any document modification will be initiated no later than **December 31, 2010.** 

#### Allegation 7

"Detroit TRACON officials have purposely failed to detect, report, investigate, and address operational errors and deviations, and discouraged employees from reporting such events."

**Response:** We are encouraged that the OIG investigation found no evidence that D21 officials have purposely failed to detect, report, investigate, and address operational errors and deviations, nor that they discouraged reporting. The OIG found several indications that reporting and investigations of air traffic events such as operational deviations and errors has improved, and the FAA is committed to:

- Continue to close-out findings resulting from the Safety Assurance Group (now referred to as the Quality Control Group) and Office of Safety audits conducted during 2009
- Review and update current training utilized for reporting safety events at D21
- Ensure that all D21 operational personnel are trained on proper methods of reporting safety events in a timely manner
- Ensure that all D21 operational management and quality control specialists are trained on proper methods of investigating safety events
- Communicate in writing the performance expectations (including support of employee participation in the mandatory and voluntary safety reporting programs) to all supervisory and management personnel at D21; this written communication will include a reminder that all management must openly support the safety event reporting and avoid any prohibited personnel practices, including reprisal for whistleblowing, which are defined by law at § 2302(b) of title 5 of the United States Code (U.S.C.); copies of this communication and distribution list of the personnel to whom it was delivered will be retained for inspection
- Increase D21's Traffic Analysis and Review Program (TARP) audits to review at least two hours of radar operations a <u>week</u>; periods selected for review will be determined by the Central Quality Control Group; all data files necessary to independently validate these audits will be retained for 12 months from the date of the review

For all actions listed above except the first bullet, the FAA completion date will be **April 30**, **2010**. Because the facility is actively using an airspace workgroup to address some of the findings from the audits, updates on the airspace workgroup actions will be provided as part of the quarterly to the Vice President, Terminal Services. The weekly audit requirement will be reviewed annually to measure reporting and investigating improvements, or until reporting procedures as prescribed by FAA Order 7210.56C, *Air Traffic Quality Assurance*, are revised.

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

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



## Memorandum

U.S. Department of Transportation Office of the Secretary of Transportation Office of Inspector General

Subject:

ACTION: OIG Investigation #109Z000021SINV,

Re: Air Traffic Management at Detroit Wayne

County Metropolitan Airport

Date: February 22, 2010

Reply to Attn. of:

R. Engler x6-4189

From:

Robert A. Westbrooks

Acting Assistant Inspector General

for Special Investigations and Analysis, JI-3

To: Hank Krakowski
Chief Operating Officer
Air Traffic Organization, AJO-1

This report describes the findings of our investigation of various procedural irregularities at Detroit Metropolitan Wayne County Airport (DTW). These concerns were first reported to the U.S. Office of Special Counsel (OSC) in March 2009 by a whistleblower, and were subsequently referred to the Office of Inspector General for investigation. By law, we are required to provide a copy of our Report of Investigation and FAA's response to the Secretary, and the Secretary is required to submit the report and response to OSC.

Please review this report and respond to us in writing by March 8, 2010. Your response should include any comments, a statement of corrective action planned or taken as a result of our investigation, and your timeframe for implementation of any planned corrective action.

If you have any questions or concerns about this report, please contact me at (202) 366-1415, or the Director of Special Investigations, Ronald Engler, at (202) 366-4189.



# U.S. Department of Transportation Office of Inspector General

REPORT OF INVESTIGATION	INVESTIGATION NUMBER	DATE
	#I09Z000021SINV	Feb. 22, 2010
TITLE	PREPARED BY:	STATUS
Air Traffic Management at	Brian Uryga	FINAL
Detroit Wayne County	Senior Attorney/Investigator	
Metropolitan Airport	Special Investigations and Analysis, JI-3	
	U.S. Department of Transportation	
	Office of Inspector General	İ
	DISTRIBUTION	APPROVED BY:
		JI-3

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#### ATTACHMENT:

1. Methodology of Investigation

#### BACKGROUND

On March 19, 2009, U.S. Department of Transportation Secretary Ray LaHood received an investigative referral from the U.S. Office of Special Counsel (OSC). A whistleblower who served as a Frontline Manager at the D21 Terminal Radar Approach Control (TRACON), Detroit Metropolitan Airport (DTW or Detroit Metro), reported aviation safety concerns to the OSC. The whistleblower alleged numerous procedural irregularities at DTW, including the violation of FAA orders and directives, the failure to follow airport procedures, and the lack of adequate procedures. The whistleblower's specific concerns relate to missed approaches at nearby satellite airports, failure to maintain required boundary separation, a lack of controller understanding regarding alternative radar sites, failure to report and investigate operational errors or deviations, and other related issues. He claims his attempts to bring these safety concerns to the attention of management officials at the airport during the last six years have been met with considerable resistance.

The Secretary delegated investigative responsibility jointly to the Office of Inspector General (OIG) and the FAA Air Traffic Safety Oversight Office (AOV). AOV concurs with this report. Attachment 1 describes the methodology of our investigation.

DTW has six runways. There are four parallel runways, which are designated Runways 21R, 21L, 22R, 22L, when operating to the south. There are also two intersecting runways. Runway 27R runs east to west, and intersects Runways 21L, 21R, and 22L. Runway 27L intersects 21L, and intersects the flight path of aircraft on Runway 21R.

The Detroit Air Traffic Control Tower is responsible for the airspace within approximately five miles of the airport. It manages takeoffs and landings for Detroit Metro's six runways, as well as aircraft and surface vehicles on taxiways and service roads. The Detroit TRACON controls airborne aircraft beyond that approximate five-mile radius and up to approximately 40 miles from the airport.

Several smaller, satellite airports are located within the Detroit TRACON's airspace. Some, such as Detroit City airport and Oakland County International airport are "controlled," meaning they have their own air traffic control tower. Others, such as Oakland/Troy airport and Monroe Custer airport, lack a control tower and are considered "uncontrolled." The TRACON is responsible for ensuring the safe arrival and departure of aircraft using the uncontrolled satellite airports, as there is no control tower staff to manage takeoffs and landings at those airports.

A missed approach occurs when an aircraft, at the pilot or controller's discretion, aborts a landing during final approach and climbs in altitude. The aircraft must follow a published missed approach procedure, which typically turns it away from its arrival runway and attempts to keep the aircraft a safe distance from other aircraft and ground obstacles in the area. The controller also may issue the aircraft a published alternate

missed approach procedure if he/she wishes the aircraft to execute something other than the missed approach procedure.

The Instrument Landing System (ILS) provides precision guidance to an aircraft as it approaches and lands on the runway. The system is located at the airport and uses a "localizer," which emits radio signals providing lateral guidance, and a "glideslope," which emits radio signals providing vertical guidance. Instruments within the cockpit receive the radio signals and notify the pilot if the aircraft is following the appropriate approach path.

Dual ILS approaches occur when aircraft simultaneously arrive at, for example, Runways 27L and 27R or Runways 22R and 21L. To date, Detroit Metro has not conducted triple ILS approaches, although the facility has submitted a waiver to FAA to do so and is awaiting a response.

#### **SYNOPSIS**

We were unable to substantiate by a preponderance of the evidence that that the Detroit TRACON's missed approach procedures may, in violation of FAA Order 7110.65, Air Traffic Control, result in aircraft occupying the same airspace. (Allegation 1)

We substantiated that the Detroit TRACON has not identified which part of FAA Order 7110.65 authorizes five nautical miles of Miles-In-Trail separation between successive arrivals into three of Detroit Metro's controlled satellite airports. Consequently, Detroit TRACON air control staff does not know which separation requirements to follow regarding those arrivals. (Allegation 2)

We substantiated the allegation that Detroit TRACON controllers have, in violation of FAA Order 7110.65, allowed aircraft to come within 1.5 nautical miles of the adjacent airspace boundary without prior coordination or documented coordination procedures. (Allegation 3)

We substantiated the allegation that Detroit TRACON controllers have operated dual ILS approaches in violation of FAA Order 7110.65. However, we were unable to substantiate by a preponderance of the evidence that such violations resulted in operational errors or deviations, or that Detroit Metro management officials improperly treated such violations as performance issues. (Allegation 4)

We were unable to substantiate by a preponderance of the evidence that Detroit TRACON officials certified a controller-in-training before his performance justified it. (Allegation 5)

We were unable to substantiate by a preponderance of the evidence that a Detroit TRACON Operations Manager manipulated a March 2008 Runway Occupancy Time

(ROT) survey to produce results that would allow the TRACON to reduce separation minima between aircraft on final approach. (Allegation 6)

We substantiated that Quality Assurance Review procedures and investigations into operational errors and deviations at Detroit Metro have been inadequate. However, we were unable to substantiate by a preponderance of the evidence that Detroit TRACON officials purposely failed to detect, report, investigate, and address operational errors or deviations or discouraged employees from reporting such events. (Allegation 7)

Below are the details of our investigation.

#### **DETAILS:**

**Allegation 1:** The Detroit TRACON's procedures do not safely ensure that an aircraft conducting a missed approach from an uncontrolled satellite airport will not occupy the same airspace as aircraft departing other local airports. As a result, losses of separation may occur, in violation of FAA Order 7110.65.

#### **FINDINGS**

We were unable to substantiate this allegation.

In support of his claim, the whistleblower cited the Detroit TRACON's procedure for aircraft having missed a "VOR/GPS-A" approach to uncontrolled Oakland/Troy airport. Under this procedure, a TRACON controller instructs the aircraft to conduct a climbing left turn to 3,000 feet and hold position at a navigational aid approximately seven miles northwest of Oakland County International airport (approximately 15 miles northwest of Oakland/Troy airport). The whistleblower claims that because the TRACON controller releases the aircraft from radar coverage services upon final approach to Oakland/Troy, this missed approach procedure takes the aircraft directly over Oakland County International without radar coverage services.

According to the whistleblower, an aircraft departing Oakland County International would not immediately appear on the TRACON controller's radar scope because the radar does not capture images close to the ground. Therefore, the departing aircraft could occupy the same airspace as the missed approach aircraft from Oakland/Troy without being seen by the controller. The whistleblower also alleges that the alternate missed approach procedure for uncontrolled Monroe Custer airport may also result in violations of FAA Order 7110.65, because the procedure may direct an aircraft into the airspaces of Detroit City and Windsor, Ontario airports.

We reviewed the relevant missed approach procedure for Oakland/Troy airport and the alternate missed procedure for Monroe Custer airport and found they were flight-checked, as required under FAA Order 7110.65, to ensure missed approach aircraft safely avoid ground obstacles, such as antennae. We interviewed five current and former Frontline Managers who worked with the whistleblower at the Detroit TRACON, and none recalled a missed approach at any of Detroit Metro's satellite airports that resulted in a loss of separation. Although some of the Frontline Managers we interviewed did not demonstrate adequate knowledge of requirements for separating non-radar aircraft from radar identified aircraft, we have not received, nor did we find, any other information demonstrating a loss of separation during the execution of a missed approach procedure.<sup>1</sup>

**Allegation 2**: It is unclear under which FAA authority the Detroit TRACON is providing Miles-in-Trail separation for successive arrivals into certain controlled satellite airports.

#### **FINDINGS**

We substantiated this allegation.

Although the Detroit TRACON currently provides five nautical miles of Miles-In-Trail separation between successive arrivals into three of its controlled satellite airports, the TRACON has not identified which part of FAA Order 7110.65 requires such separation. Consequently, Detroit TRACON air traffic control staff do not understand why they are required to provide five miles separation and may inadvertently apply less than what is required. Although this may have resulted in violations of FAA Order 7110.65, we could not identify any specific violations because relevant electronic data no longer exists.

The Detroit TRACON has two primary radar sites for tracking aircraft within its airspace, "DTW-A," which is located at Detroit Metro, and "DTW-C," which is located approximately 25 miles northwest of the airport. The DTW-A radar site is the primary radar source for Detroit Metro, Detroit City, and Willow Run airports, while the DTW-C site is the primary radar source for Oakland County International and Ann Arbor airports. According to the Coordinator for the Radar Unit at Detroit Metro, the DTW-C site was established to provide better radar coverage at Oakland County International and to serve as a back-up for the DTW-A site.

<sup>&</sup>lt;sup>1</sup> On January 22, 2010, the whistleblower provided us with information concerning a possible loss of separation during a missed approach at Oakland/Troy airport. AOV is reviewing the data from this event.

The applicable separation standards for successive arrivals at Detroit Metro's controlled airports are provided in the Detroit TRACON's Standard Operating Procedures (SOP) or the Letter of Agreement (LOA) the TRACON has with each airport. According to the TRACON, the separation for successive arrivals at each airport is based on the sufficiency of radar coverage that is provided.

The required separation at Willow Run airport is three nautical miles, regardless of the radar site in use. Because of less radar coverage, the minimum separation at Ann Arbor and Detroit City airports is five nautical miles, regardless of the radar site used. The separation for Oakland County International is three miles when using the DTW-C radar site and five miles when using the DTW-A site. Therefore, in the event of an outage at the DTW-C radar site, Oakland County International would rely on the DTW-A site, and the Detroit TRACON would, accordingly, increase the separation between successive arrivals to five miles.

The whistleblower contends that the Detroit TRACON has not identified the FAA authority on which the facility relies to require the increased five-mile separation at Ann Arbor, Detroit City, and Oakland County International airports. Therefore, according to the whistleblower, Detroit TRACON controllers do not know which separation requirements to follow when controlling successive arrivals into those airports. For example, the whistleblower contends that controllers have reduced the separation for successive arrivals into Ann Arbor and Detroit airports from five to three nautical miles because the TRACON controllers mistakenly believed the increased, five-mile separation was merely a request from the tower controllers at the two airports. As explained below, this would constitute a violation of FAA Order 7110.65.

According to the whistleblower, if the increased five-mile separation at Ann Arbor, Detroit, and Oakland County International airports is based on insufficient radar coverage, then the Detroit TRACON must provide a form of non-radar separation called a "timed approach," or the respective air traffic control tower needs to provide visual separation for the successive arrivals. The whistleblower believes that the TRACON is, in fact, conducting a timed approach because such approaches require a minimum separation of five miles between successive arrivals. According to the whistleblower, if the TRACON is conducting timed approaches when providing the five-mile separation, it is not following all of the conditions required to conduct those approaches as provided in FAA Order 7110.65, Paragraph 6-7-1.

FAA Order 7110.65, Paragraph 5-5-4, states the standard minimum separation that the Detroit TRACON must provide for successive arrivals at Detroit Metro's controlled satellite airports is three nautical miles. The order also provides, however, that a TRACON cannot provide the three-mile separation if radar coverage does not extend within ½ mile from the end of a runway. According to the Detroit TRACON Support Manager, such lack of radar coverage at Ann Arbor, Detroit, and Oakland County

International (while using the DTW-A site) is why the standard three-mile separation cannot be used at those airports.

It is unclear, however, which portion of FAA Order 7110.65 authorizes the *five*-mile minimum the Detroit TRACON has chosen. For example, during the week of March 30, 2009, the FAA Air Traffic Office of Safety, Quality Assurance Division, (ATO-Safety) conducted an on-site investigation of the TRACON to assess the facility's progress after a February 2009 review of the TRACON conducted by the FAA Central Service Area Safety Assurance Group. According to ATO-Safety, the TRACON was unable to explain why the increased five-mile separation for successive arrivals was required at Ann Arbor and Detroit City airports.

Additionally, during our interview with the Detroit TRACON Support Manager, she could not identify a part of FAA Order 7110.65 authorizing this five mile separation. Instead, she stated that the increased separation at Ann Arbor, Detroit City, and Oakland County International airports has always been required by each airport's LOA or the TRACON SOP. Although the Staff Manager stated the TRACON does not, as the whistleblower believes, conduct timed approaches, she also stated that the five-mile minimum indeed derives from the part of FAA Order 7110.65 dealing with timed approaches. According to the Support Manager, the facility uses the five-mile standard of the timed approach without adhering to all of the conditions required to conduct a timed approach. Thus, it is unclear what part of FAA Order 7110.65 authorizes the five mile separation for Detroit Metro's controlled satellite airports.

If the Detroit TRACON is, in fact, conducting timed approaches by providing the five-mile separation for successive arrivals, we find that the facility is indeed not meeting all of the conditions required by FAA Order 7110.65, Paragraph 6-7-1, for conducting those approaches. Moreover, the interviews we conducted indicate that Detroit TRACON staff or controllers have not been trained on how to conduct timed approaches. Thus, even if the conditions for conducting timed approaches exist, the evidence indicates Detroit TRACON air traffic control staff does not know how to conduct such approaches in accordance with FAA Order 7110.65.

ATO-Safety also found that the Detroit TRACON applies the five-mile separation requirement inconsistently, and corroborated the whistleblower's allegation that controllers have coordinated with the air traffic control towers at Ann Arbor and Detroit City airports to reduce the separation between successive arrivals to three miles. During our on-site interviews, Detroit Metro staff corroborated ATO-Safety's findings. Under certain circumstances, controllers may coordinate to provide less separation for successive arrivals than is called for in an LOA. As stated above, however, the radar coverage at those two airports does not meet the criteria for applying the standard three-mile separation. Thus, if the TRACON controllers applied three-miles of separation, they would have violated FAA Order 7110.65. We cannot, however, independently verify that

this has occurred, as we are not aware of any existing electronic data portraying such events.

In any event, in response to ATO-Safety's investigation, the Detroit TRACON Support Manager issued a memorandum on May 27, 2009, to all TRACON personnel explaining that "due to inconsistencies in radar coverage," the respective LOAs for Ann Arbor and Detroit City airports require five nautical miles of separation for successive arrivals. The memorandum stated Detroit TRACON staff would be verbally briefed on this information, and training records indicate this occurred in May and June 2009. However, the Support Manager's memorandum still did not identify a part of FAA Order 7110.65 authorizing five miles of separation.

**Allegation 3:** Detroit TRACON controllers have allowed aircraft to come within 1.5 nautical miles of the adjacent airspace boundary without prior coordination or documented coordination procedures, in violation of FAA Order 7110.65.

#### **FINDINGS**

We substantiated this allegation.

The Safety Assurance Group conducted a Quality Control Review (QCR) in February 2009 and found instances of controllers violating the 1.5 nautical mile adjacent airspace boundary separation requirement. In response to the Safety Assurance Group's findings, the Director of Terminal Operations for the Central Terminal Service Area required Detroit Metro senior management officials to formulate a plan to address the findings of the QCR Report and provide periodic updates on the facility's progress. The Director also required the facility to provide weekly audits that include reviewing sample data replays for compliance with the 1.5 nautical mile boundary separation requirement.

The interviews we conducted during our September 2009 site visit, however, confirmed that controllers still occasionally fail to maintain the 1.5 nautical mile adjacent airspace boundary separation. According to the Frontline Managers we interviewed, violations of FAA Order 7110.65, Paragraph 5-5-10, occur despite reminders to controllers about the separation requirement. Further, the Director of Terminal Operations confirmed during her January 29, 2010, interview that this non-compliance remains an issue, as it has been detected during weekly audits.

Nonetheless, we found that Detroit TRACON management is making an ongoing effort to eliminate violations of the 1.5 nautical mile boundary separation minimum. As part of this effort, the Director of Terminal Operations recently asked for monthly briefings from the Safety Assurance Group about the progress on safety issues, including controller noncompliance with the 1.5 nautical mile boundary separation minimum, at Detroit Metro.

Moreover, on May 11, 2009, the TRACON created an Airspace Redesign Team to facilitate the safer movement of aircraft within its airspace. According to the Motown District Manager and the Director of Terminal Operations, the 1.5 mile boundary separation non-compliance will be addressed during the redesign process.

**Allegation 4:** The Detroit TRACON's operation of dual or triple ILS approaches caused violations of FAA Order 7110.65, and management improperly viewed such violations as performance issues rather than operational errors or deviations.

#### **FINDINGS**

We partially substantiated this allegation.

FAA Order 7110.65, Paragraph 5-9-7.b., establishes the requirements for conducting dual or triple ILS approaches. Subparagraph 4 requires that controllers: (1) clear an approaching aircraft "to descend to the appropriate [glideslope] intercept altitude soon enough to provide a period of level flight to dissipate excess speed" and (2) "[p]rovide at least 1 mile of straight flight prior to the final approach course intercept." The requirement of a period of level flight is intended to ensure an aircraft is able to slow enough to conduct a stabilized approach, while the mile of straight flight is intended to ensure the aircraft does not turn too abruptly onto its final approach course and is properly aligned with the runway.

The whistleblower alleges that the above requirements are selectively adhered to by controllers at the Detroit TRACON. Additionally, he alleges that violating these requirements should constitute an operational error or deviation rather than, as management believes, a performance issue for the responsible controller.

In response to the whistleblower's concerns, TRACON management issued Notice D21 7110.157 on September 28, 2008, which told controllers of the installation of a "Dual Bar," or a line on the Standard Terminal Automation Replacement System (STARS) video monitors, to aid them in adhering to the requirements for conducting simultaneous ILS approaches. The notice provided the procedures for using the Dual Bar, and the facility briefed the controllers and Frontline Managers on those procedures in September 2008. The procedures, which have been incorporated into the Detroit TRACON SOP, require controllers, with some exceptions, to ensure aircraft are on the ILS localizer at or outside the Dual Bar. The Dual Bar is displayed on the STARS approximately 17 nautical miles from Detroit Metro for both northerly and southerly approaches to the airport. The localizer, meanwhile, has a useful range of approximately 18 miles.

Although the Dual Bar has improved the controllers' ability to comply with FAA Order 7110.65, Subparagraph 5-9-7.b.4, controller non-compliance continued after its

implementation. For example, in its March 30, 2009 investigation, ATO-Safety found several instances of non-compliance.

Moreover, ATO-Safety found that guidance provided by an Operations Manager subsequent to the implementation of the Dual Bar did not comply with the intent of FAA Order 7110.65, Subparagraph 5-9-7.b.4. In a January 23, 2009, email to Detroit TRACON frontline managers, the Operations Manager wrote:

Compliance of a "period of level flight to dissipate excess speed" can occur at any point within our airspace, including an outer fix that the pilot has been instructed to cross at 12[,]000 [feet] and 250 [knots]. This also provides the opportunity of "at least 1 mile of straight flight prior to final approach course intercept."

ATO-Safety found, however, that the Operations Manager's guidance provided in the email did not comply with the intent of FAA Order 7110.65, Subparagraph 5-9-7.b.4, to ensure a controller enables an aircraft to safely execute arrival during dual ILS approaches. We concur with ATO-Safety's conclusion because if the level and straight flight can occur anywhere within the Detroit TRACON's 40 miles of airspace, the aircraft may regain speed during final approach and still need to make an abrupt turn onto its final approach course.

In response to ATO-Safety's finding, Detroit TRACON management issued a memorandum on May 27, 2009, that rescinded the guidance provided by the Operations Manager in his January 23, 2009 email. The memorandum clarified that the requirement for at least one mile of straight flight must occur on the "intercept heading to the final approach course and not any other segment." In other words, the new memorandum required the one mile of straight flight to occur immediately prior to the aircraft intersecting the ILS final approach, rather than anywhere within the TRACON's airspace. Training records indicate TRACON controllers were briefed on this clarification between May and July 2009.

Nevertheless, during our December 2009 site visit, we were informed by a Quality Assurance Department official at Detroit Metro that Detroit TRACON controllers still violate either or both of the requirements in FAA Order 7110.65, Subparagraph 5-9-7.b.4. These are among the types of violations the Quality Assurance Department is to look for during the aforementioned weekly audits required by Central Terminal Operations. However, we have not found evidence that these violations resulted in a loss of separation or other operational error or deviation. Consequently, we cannot substantiate the allegation that TRACON management improperly viewed such violations as performance issues rather than operational errors or deviations.

**Allegation 5:** Detroit TRACON officials certified a controller-in-training before his performance justified it.

#### **FINDINGS**

We were unable to substantiate this allegation.

According to the whistleblower, in June 2008 his Operations Manager ordered him to certify a controller-in-training on the "K" position within two weeks, so the controller-in-training could receive a pay increase. The Detroit TRACON has approximately 15 controller positions, each assigned to a specific portion of airspace. The controller assigned to the "K" position, for example, is responsible for a portion of airspace around several satellite airports, while the controller at the "D" position is responsible for a portion of airspace around Detroit City airport.

The whistleblower contends that when he refused the order, the Operations Manager removed the controller-in-training from the whistleblower's crew and assigned him to another Frontline Manager. Allegedly, that Frontline Manager prematurely certified the controller-in-training on the "K" position, the fourth required certification for a pay increase.

According to the whistleblower, the improper certification of the controller on the "K" position was possible because that position is almost always worked in combination with the "D" position, on which the controller-in-training was also being trained. The whistleblower contends that the controller-in-training's new Frontline Manager trained the controller on both positions, but recorded more hours to the "K" position than actually occurred. According to the whistleblower, the new Frontline Manager could still monitor the allegedly unqualified controller-in-training on the "K" position under the pretext that the controller was being trained on the "D" position.

FAA Order 3120.4 provides the guidance, instructions, and standards for air traffic controller training. Subparagraph 3-2.b. states that the allocation of training time "may be allotted between the consolidated positions based on traffic activity, as determined by the [instructor]." Although the whistleblower believes that the amount of time allotted to the controller-in-training on the "K" position was unusually high in comparison to the time allotted to the "D" position, we did not find any independent records or electronic data that would verify the amount of traffic activity at the time of the training in June 2008.

Additionally, the whistleblower provided training documents he suggested demonstrated that the controller was not sufficiently proficient at the "K" position to be certified at that position. He argues that the documents show that the instruction given to the controller-

in-training on the "K" position are not what he would expect be given to someone already certified on that position. We found, however, that Frontline Managers continue to provide guidance and instruction to controllers even after training is complete. Thus, these documents alone are insufficient to demonstrate the controller was prematurely certified.

Further, the Operations Manager denied ordering the whistleblower or the controller-intraining's subsequent Frontline Manager to prematurely certify the controller. According to the Operations Manager, he reassigned the controller's training from the whistleblower to the other Frontline Manager because there were new controllers-in-training that he wanted the whistleblower to train and he assigned the controller to the other Frontline Manager because they previously worked well together. We recognize that it is in the Operations Manager's self-interest to deny the whistleblower's allegation; however, none of the other individuals we interviewed provided any evidence to corroborate the whistleblower's allegation. The Frontline Manager who certified the controller no longer works at FAA, and we could not locate him for an interview.

**Allegation 6:** A Detroit TRACON Operations Manager manipulated a March 2008 ROT survey to produce results that would allow the TRACON to reduce separation minima between aircraft on final approach.

#### **FINDINGS**

We were unable to substantiate this allegation because we could not verify the accuracy of the March 2008 ROT survey. Detroit Metro, however, conducted another ROT survey in 2009 that was verified and approved by FAA's Central Terminal Operations.

Under FAA Order 7110.65, Paragraph 5-5-4, separation between aircraft on final approach within ten nautical miles of the arrival runway may be reduced to 2.5 nautical miles if an ROT of 50 seconds or less is documented. ROT is defined as the length of time between the arriving aircraft passing over the runway threshold to a point clear of the runway. FAA Order 7210.3, Paragraph 10-4-8, requires the average ROT to be calculated using a sample of no less than 250 arrivals that need not be consecutive, but must represent the types of aircraft using the runway. If a stopwatch is used, the survey must record the call sign, type, and ROT for each aircraft.

The whistleblower alleges that the Detroit TRACON Operations Manager manipulated the March 2008 ROT survey for Runways 22R and 4L to achieve an average ROT under 50 seconds. The whistleblower claims the Operations Manager told the whistleblower and others that he would advise the airlines ahead of time that he was conducting the survey. This would enable the airlines to attempt to move their aircraft off the runway more quickly. He also finds suspicious the TRACON's inability to produce the survey

during the Safety Assurance Group's February 2009 review, previous surveys showing a ROT of more than 50 seconds, and the whistleblower's own informal observations showing a ROT of 51 seconds.

We interviewed the Operations Manager who conducted the March 2008 ROT survey, and he denied the whistleblower's allegation. According to the Operations Manager, he conducted the survey from the Air Traffic Control Tower. He used a stopwatch, his vision, and the ground control monitors to calculate the ROT. Although he conceded he told TRACON staff that he wished to advise the airlines of the survey, he told us he ultimately did not give the airlines advance notice of the survey. Additionally, none of the individuals we interviewed provided any evidence to corroborate the whistleblower's allegation regarding the manipulation of the survey.

We confirmed that Detroit TRACON management could not produce the survey during the Safety Assurance Group's February 2009 review. This alone, however, does not demonstrate that the survey was manipulated or that the results are inaccurate. Further, in a March 3, 2009 memorandum, the Motown District Manager acknowledged the facility could not locate the ROT survey and terminated reduced separation on Runways 4L and 22R.

During the course of our investigation, the whistleblower and the Motown District Manager were able to locate the March 2008 ROT survey and both provided it to us. The survey calculated an average ROT of 44.1 seconds for 260 arrivals to Runway 4L on March 16, 19, 20, 22, and 27, 2008, and an ROT of 44.0 seconds for 257 aircraft on Runway 22R on March 15, 23, 26, and 29, and April 2 and 3, 2008. Although the survey recorded the call sign and ROT of at least 250 aircraft of at least 15 different types, no relevant electronic data is available as the data was not retained after the expiration of the required retention period. Consequently, there is no independent data to verify the accuracy of the survey.

Further, we found no previous ROT surveys or other independent data to verify the accuracy of the surveys. Similarly, electronic data does not exist to verify the accuracy of the whistleblower's observation that the ROT is actually 51 seconds.

Detroit Metro's Traffic Management Unit conducted a new ROT survey after the Safety Assurance Group's review. The new survey looked at 250 arrivals on Runway 4L between April 13 and 16, 2009, and 259 arrivals on Runway 22R on June 18, 29, 26 and July 6 and 8, 2009. The 2009 ROT survey reported an ROT of 48.58 seconds for Runway 4L and an ROT of 49.91 for Runway 22R. As required in FAA Order 7210.3, the 2009 ROT survey provided the call sign, type, and ROT for at least 250 aircraft on Runway 4L and Runway 22R.

The Detroit Staff Manager — who was, at the time, Acting Manager of Detroit Metro — provided the results of the new ROT survey to the Director of Terminal Operations. These results were forwarded in an August 21, 2009, memorandum requesting resumption of reduced separation on Runways 4L and 22R. In a September 10, 2009, memorandum to the Staff Manager, the Director of Terminal Operations granted the request to resume reduced separation in accordance with FAA Order 7110.65, Paragraph 5-5-4. The Director also stated in her memorandum that the documentation provided by the facility met the requirements of FAA Order 7210.3 and must be maintained by the facility for the duration of the reduced separation procedure. Thus, the March 2008 ROT survey no longer serves as the basis for the reduced separation on Runways 4L and 22R.

**Allegation 7**: Detroit TRACON officials have purposely failed to detect, report, investigate, and address operational errors and deviations, and discouraged employees from reporting such events.

#### **FINDINGS**

We partially substantiated this allegation.

The evidence indicates that Quality Assurance Review procedures and investigations into operational errors and deviations at Detroit Metro have been inadequate. However, the evidence does not indicate that TRACON officials have purposely failed to detect, report, investigate, and address operational errors or discouraged employees from reporting such events.

The whistleblower specifically alleged the following:

• The "culture" within the Detroit TRACON "does not allow or support the reporting and investigating of air traffic events" and that "[m]anagement officials do not provide the appropriate support or oversight for controllers and do not encourage the reporting of events."

The evidence does not substantiate the existence of a culture within the Detroit TRACON that does not allow or support the reporting of air traffic events such as operational errors or deviations or discourages air traffic control staff from reporting such events. None of the individuals we interviewed, including the whistleblower's fellow Frontline Managers, agreed that a culture as described by the whistleblower existed within the Detroit TRACON. Instead, they told us that management has consistently instructed them to report all air traffic events and that they are unaware of any instances of discouragement as alleged by the whistleblower.

Further, on November 9, 2007, the Motown District Manager sent an email to the TRACON's Frontline Managers and Operations Managers stating, Proximity events<sup>2</sup> ARE NOT acceptable. The standard is 3 miles and/or 1000 feet. I have a concern about briefing controllers that [proximity events] are okay. THEY ARE NOT. ... When I took over as the acting manager I chose to not 'look away' if there was a loss of separation. It was a very painful and rough time in this building but we did the RIGHT THING. I am still not looking away and nobody else better be. (Emphases in original.)

In a June 26, 2008, email, this time to the TRACON and Air Traffic Control Tower Operations Managers and the Quality Assurance Manager, the District Manager wrote:

[O]ur terminal services vice president made it very clear that he wants all [operational errors] to decrease. He expects all system events to be fully investigated. If the investigation shows it to be in error, then it needs to be reported. So once again, I'm reminding you that these are, always have been, and always will be my expectations too.

The whistleblower further alleged:

• An Operations Manager told him not to investigate possible losses of separation unless they are "ugly."

We found that the evidence is insufficient to corroborate the whistleblower's allegation that the Operations Manager told him to investigate only "ugly" losses of separation. The Operations Manager denied saying this, and we found no corroborating documentation or testimony. None of the other Frontline Managers we interviewed stated they received similar instruction from the Operations Manager.

Nevertheless, the District Manager recalled during his interview that he met with the Operations Manager and whistleblower to discuss this issue. Although the District Manager did not recall the Operations Manager admitting that he advised the whistleblower to report only "ugly" losses of separation, he told us that the Operations Manager acknowledged there was "some confusion" regarding what the Operations Manager told the whistleblower and how the whistleblower interpreted that. According to the District Manager, he made clear to the Operations Manager during that meeting that he expected all suspected losses of separation to be reported.

<sup>&</sup>lt;sup>2</sup> A "proximity event" occurs when aircraft are closer than allowed. Although it is a reportable event, the aircraft are not close enough to one another to constitute a loss of separation, which is an operational error.

The whistleblower further alleged the Operations Manager:

Referred to a whistleblower at another TRACON as a "squealer."

We found that the Operations Manager did, in fact, refer to a different whistleblower at another TRACON as a "squealer." Shortly after the Operations Manager arrived at the Detroit TRACON, he sent an August 5, 2007, email to the Frontline Managers on his crew advising that he wanted to get together with each of them over a beer to informally discuss an attachment to the email described as "My Top 10." In the attachment, he made reference to an OSC whistleblower employed at the Dallas TRACON as the "DFW-D10 squealer."

The Operations Manager told us he did not know the specifics regarding the Dallas TRACON whistleblower's disclosures, but comments he heard led him to believe that they were having a negative impact on that facility and that controllers were "walking on eggshells." The Operations Manager's reference to the whistleblower as a "squealer" in the "Top 10 List" was inappropriate. In our opinion, the use of that pejorative term could discourage Frontline Managers from disclosing any aviation safety concerns they may have.

The whistleblower further alleged the Operations Manager:

• Fostered a "passive approach to the investigation of suspected air traffic events."

We did not find sufficient evidence demonstrating the Operations Manager fostered a passive approach to the reporting of air traffic events. In support of this allegation, the whistleblower cited a "Summer 2008 Call to Action Plan" that the Operations Manager sent to all Detroit TRACON Frontline Managers in a May 21, 2008, memorandum. However, we found the memorandum does not support this allegation. To the contrary, the memorandum states, "The FLM should be watching all positions by walking behind the sectors and when they hear something, see something unusual, inappropriate or incorrect, they should take appropriate action."

According to the whistleblower, the Operations Manager later told him and two other Frontline Managers that the Call to Action Plan was only intended to make it appear the facility was providing safe service, and therefore need not be followed. As evidence of this, the whistleblower noted that in his May 17, 2008, "Technical Training Discussion" performance report, the Operations Manager wrote that the whistleblower "needs to relax and only provide general supervision and not his nervous direct supervision method." According to the whistleblower, the Operations Manager's call for "general supervision" contradicts the language cited above from the Call to Action Plan.

During his interview, the Operations Manager denied that he told the whistleblower that the Call to Action Plan need not be followed. The Operations Manager also stated that the comments he wrote in the whistleblower's Technical Training Discussion performance report were not intended to contradict the Call to Action Plan. According to the Operations Manager, his comments in the performance report referenced the whistleblower's practice of "standing close behind our workforce, taking notes, getting in their personal space," thereby affecting the controllers' ability to focus on their jobs, as well as focusing too much on the negative aspects of each controller's performance.

Further, none of the Frontline Managers we interviewed agreed with the whistleblower's characterization that the Operations Manager fostered a passive approach to the reporting of air traffic events. Moreover, neither of the Frontline Managers referred to us by the whistleblower corroborated his contention that the Operations Manager stated that the Call to Action Plan need not be followed.

The whistleblower further alleged the Operations Manager:

• Actively attempted to interfere with the investigation, observation, and reporting of operational errors and deviations.

We did not find sufficient evidence to substantiate this claim. First, none of the other Frontline Managers we interviewed corroborated this statement. Second, a July 2008 investigation ordered by the District Manager did not substantiate the whistleblower's allegations that the Operations Manager harassed the whistleblower for following FAA regulations and directives and hindered him from reporting operational errors.

The July 2008 investigation was conducted by an outside official from the Flint Air Traffic Control Tower, who interviewed the whistleblower, both Detroit TRACON Operations Managers, and six Frontline Managers. According to the August 11, 2008, summary of investigative findings, all of the other Frontline Managers interviewed denied that the Operations Manager kept them from following regulations and directives or hindered them from reporting operational errors or any other safety events.

We did find, however, that there was a personality conflict between the whistleblower and Operations Manager, and they frequently differed on appropriate management style and the interpretation of data showing suspected air traffic events. This was evident in the documentation supplied by the whistleblower and Detroit TRACON officials, as well as the comments of the whistleblower, Frontline Managers, the Operations Manager, and management officials at Detroit Metro and Central Terminal Operations.

For example, the whistleblower contends that the Operations Manager instructed him to not use the data equipment to determine if operational errors or deviations occurred. The Operations Manager responded that he instructed the whistleblower only to not use the

data equipment located in the TRACON operations room while serving as a Frontline Manager. According to the Operations Manager, he instead instructed the whistleblower to use the data replay equipment located outside the operations room, as he believed using the equipment during the shift and in front of the controllers was disruptive and caused undue stress, especially to the controller who may have committed the operational error or deviation. Nonetheless, there is insufficient evidence to demonstrate that the personality conflict or different management style and interpretations constituted interference or harassment by the Operations Manager toward the whistleblower regarding the reporting of air traffic events.

We also found that the whistleblower's concerns regarding the Operations Manager were previously addressed by TRACON management. For example, according to the District Manager's notes of an August 29, 2008, meeting with the Operations Manager, the District Manager advised the Operations Manager that, among other things, he: (1) "better not" instruct the whistleblower not to investigate air traffic events; (2) should treat the whistleblower the same as any other Frontline Manager; and (3) watch his tone and demeanor when addressing anyone, including the whistleblower.

Ultimately, the Motown District Manager and Staff Manager worked with the Director of Terminal Operations to address the conflict between the whistleblower and Operations Manager. The District Manager transferred the Operations Manager from the TRACON to the Air Traffic Control Tower and transferred the Tower Operations Manager to the TRACON. Additionally, the Operations Manager is currently detailed to FAA Headquarters in Washington and will not work in the TRACON if he returns to Detroit Metro. The whistleblower is currently detailed to the position of the Acting TRACON Support Manager. In this position, he is responsible for addressing the same types of allegations made in this matter. All involved parties — including the whistleblower, the Director of Terminal Operations, and Detroit Metro and TRACON managers — have expressed satisfaction with these personnel changes.

Finally, the whistleblower alleges:

• Operational errors he reported have not been investigated in accordance with Quality Assurance Review requirements.

Specifically, the whistleblower reported that Detroit TRACON management and Quality Assurance personnel have attempted to overturn or challenge the events he has reported or failed to include him in the investigative process, including operational errors and deviations the whistleblower found during a September 2008 "informal operational audit." He also stated that in August 2008, the facility filed an inappropriate request for reclassification of a July 2008 operational error as a non-event.

Notwithstanding the lack of evidence of a culture within the Detroit TRACON that does not allow or support the reporting of air traffic events, we found the Quality Assurance Review process within Detroit Metro failed to adequately detect and investigate operational errors and deviations.

According to the March 26, 2009 QCR Report, the Safety Assurance Group found that "there are misperceptions among [TRACON controllers regarding] what constitutes an event that should be reported" and that the "seriousness of an event" determines whether to report an operational error or deviation. Among the examples cited in the report were controllers stating that an event need not be reported if it "is not that serious" and that reporting a pilot error or deviation "for a minor infraction isn't good customer service."

The QCR Report also stated that although the TRACON's Safety Assurance Program Directive appeared to comply with FAA Order 7210.56 (which provides direction for the reporting, investigation, and recording of air traffic events), the facility did not appear to handle, process, track, and follow-up on Quality Assurance Reviews and Random Monthly Audits in compliance with the order. Specifically, the Safety Assurance Group found:

- (1) It was unclear from the facility's daily logs for December 28, 2008, to February 10, 2009, what actions, if any, were taken to investigate reported events:
- (2) "Personal observation" appeared to be the sole method for investigating such events;
- (3) The Quality Assurance Review Form, which is used to record the investigation of an air traffic event, lacked instructions for its completion;
- (4) Quality Assurance Review Forms did not always contain complete information or sufficiently describe the event; and
- (5) It was unclear if the Quality Assurance Department conducted a followup review of the events reported in the daily logs and Quality Assurance Review Forms.

As stated above, ATO-Safety conducted a follow-up investigation in March 2009 to determine the Detroit TRACON's effectiveness in addressing the findings of the Safety Assurance Group. ATO-Safety validated the Safety Assurance Group's findings concerning the Quality Assurance Review process. Also, ATO-Safety's review of the facility's mandatory internal audits and the investigative team's own audit of random data found five events not previously detected and/or properly reported by the facility.

The whistleblower provided us with copies of several reported operational errors or deviations that indicate the initial review conducted by the relevant Frontline Manager was insufficient. Specifically, the reviews consisted only of interviews with the controller rather than a review of the applicable data replay to determine whether an

operational error or deviation actually occurred. Additionally, we spoke with the Director of Terminal Operations and her Acting Senior Advisor, who reiterated these findings.

Nevertheless, there is insufficient evidence to corroborate the whistleblower's contention that the facility managers have improperly challenged and attempted to overturn the air traffic events he reported. Although management disagreed with the whistleblower on occasion, we found no evidence of any intent to cover up reported operational errors or deviations. Detroit TRACON and Quality Assurance management contend that their conclusion that the events the whistleblower reported were not operational errors or deviations constitutes a reasonable difference of opinion concerning what the electronic data showed. Because the electronic data for these events no longer exists, we could not verify the accuracy of the TRACON management and Quality Assurance Department conclusions.

The whistleblower also objected to not being involved in the review of the air traffic events he reported. However, Detroit TRACON management officials told us that once the whistleblower disclosed the event, it is the Quality Assurance Department's responsibility to investigate, and we are not aware of any rule or regulation that calls for the reporting employee to be involved in the investigation.

Additionally, we found no evidence that the Detroit TRACON management filed an inappropriate request for reclassification in 2008. Records indicate that on July 14, 2008, the District Manager sought the reclassification of a July 12, 2008, operational error as a non-event. The whistleblower informed the Detroit Metro Quality Assurance Manager in a July 25, 2008, email of his belief that the facility did not have "reasonable grounds" to do so. The Director of Terminal Operations concurred with the reclassification request, and on October 14, 2008, the FAA Acting Manager of Terminal Quality Assurance granted the request after a review by Quality Assurance staff in Washington, DC. Based on the multiple levels of review, the evidence does not support the allegation that the reclassification request was inappropriate.

As stated above, in response to the findings of the Safety Assurance Group and ATO-Safety, Detroit Metro has formulated a plan to address those findings and provide periodic updates on the facility's progress. As part of that plan, the Quality Assurance Manager developed a new Quality Assurance Review Directive and Reporting Form that became effective June 8, 2009. The Safety Assurance Group has reviewed and found the new directive to be adequate.

Additionally, the Quality Assurance Department contracted with a former Detroit TRACON Frontline Manager to conduct weekly audits of the TRACON, as required by the Safety Assurance Group, by reviewing random data replays of its operations.

According to the Director of Terminal Operations, Safety Assurance Group officials also have provided the Detroit TRACON managers with coaching and safety culture training.

The Director described the new Quality Assurance Review process as "very robust" and stated she is satisfied with the facility's progress in addressing the whistleblower's concerns regarding the investigation and reporting of operational errors and deviations. Moreover, our review of the new Quality Assurance Review process and Quality Assurance Review Reports, as well as the interviews we conducted, indicate the investigation of operational errors and deviations has improved.

#### ATTACHMENT 1: METHODOLOGY OF INVESTIGATION

This investigation was conducted by an OIG Senior Attorney-Investigator, with technical assistance from four FAA Air Traffic Investigators (also certified as Air Traffic Control Specialists) assigned to the AOV. To address the whistleblower's concerns, we interviewed and held discussions with the following individuals:

- Timothy Funari, Acting Detroit TRACON Support Manager
- Five current and former Detroit TRACON Frontline Managers (whom we are not identifying to protect their confidentiality)
- Thomas Boland, former Detroit TRACON Operations Manager
- Daniel Chambers, Coordinator for the Detroit Metropolitan Radar Unit
- Michael Foley, Manager of the Detroit Metropolitan Radar Unit
- Patricia Bynum, Detroit TRACON Support Manager
- Randy Olson, Support Specialist, Detroit Quality Assurance Department
- Earl Grand, Detroit Support Manager for Quality Assurance and Training
- Gary Ancinec, Detroit Staff Manager
- Joseph Figliuolo, District Manager for the Motown District
- David Auschermann, Acting Senior Advisor, Central Terminal Operations
- Nancy Kort, Director of Terminal Operations, Central Terminal Service Area

In addition, our investigative team reviewed numerous records and documents obtained from the Detroit TRACON and FAA including: memoranda, emails, airport diagrams, quality assurance review reports, problem reports, FAA regulations, orders, and notices, selected training records, and relevant radar data.

The team also toured the Detroit TRACON and Air Traffic Control Tower.