



**U.S. Department  
of Transportation**

Office of the Secretary  
of Transportation

**GENERAL COUNSEL**

1200 New Jersey Avenue, SE  
Washington, DC 20590

January 20, 2011

Karen P. Gorman, Esq.  
Deputy Chief, Disclosure Unit  
U.S. Office of Special Counsel  
1730 M Street, NW, Suite 300  
Washington, DC 20036-4505

Re: OSC File No. DI-09-2095

Dear Ms. Gorman:

This is to follow up on your recent request for supplemental information in the above-referenced matter. Attached please find a January 19, 2011 memorandum from the Office of Inspector General, to whom the Secretary delegated the investigation. Please treat this memorandum as our supplemental report.

Please do not hesitate to contact Debra Rosen or me if you have any questions.

Sincerely,

A handwritten signature in cursive script, appearing to read "Judith S. Kaleta".

Judith S. Kaleta  
Assistant General Counsel for General Law

Enclosure



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

# Memorandum

Subject: **INFORMATION:** OIG Investigation  
#I09Z000059SINV; Re: Air Traffic Management  
at Detroit Metropolitan Wayne County Airport  
(DI-09-2095)

Date: January 19, 2011

From: Ronald C. Engler *RCE*  
Director  
Special Investigations, JI-3

Reply to  
Attn. of: R. Engler

To: Judith S. Kaleta  
Assistant General Counsel for General Law  
Office of General Counsel

This memorandum/supplemental report responds to a U.S. Office of Special Counsel (OSC) email dated November 24, 2010, requesting clarification regarding the Office of Inspector General (OIG) report of investigation into aviation safety concerns at the Federal Aviation Administration (FAA) Air Traffic Control Tower (ATCT) at Detroit Metropolitan Wayne County Airport (DTW). We respectfully request that you forward this information to OSC.

**1. OSC request:** We request clarification and additional information on OIG's finding concerning the allegation that DTW management implemented the Northeast Flow without properly notifying the Wayne County Airport Authority (WCAA) or the Airport District Office (ADO). OIG concluded this allegation was "unfounded." OIG found that these officials were aware that departures would occur to the East from runway 9R-27L and "worked closely with their DTW counterparts during the development of the flow and helped to convey its impacts to the general public." In support of this finding, OIG provided the March 2007 Environmental Assessment (EA) for the runway 3R-21L paving project prepared by WCAA and signed by ADO, which indicates that runway 9R-27L would be used for arrivals and departures during peak periods. Critically, however, the EA states on page 1 that "[t]his temporary operation would not result in the creation of any new air traffic procedures. . ." The EA further states on page 15 that "[n]o new flight tracks would be utilized during the proposed action." Yet, the OIG report confirms that DTW management did implement a new air traffic procedure – the Northeast Flow – with Notice DTW N7110.142, and this procedure did create new flight tracks.

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OIG also provided the February 2008 Categorical Exclusion prepared by WCAA and signed by ADO for the second phase of the runway construction project. This document states that "[d]ue to the complexity of runway intersections the FAA Air Traffic Control Tower does not plan to use. . . [runway 9R-27L] as a replacement runway during construction." The OIG report states that the Northeast Flow was operated during this construction project. OIG states that, despite this "ambiguous information" in the Categorical Exclusion, the ADO official who signed the document stated that departures to the East from runway 9R-27L were neither prohibited nor unanticipated, and that he was aware such departures might be necessary. This information does not establish that WCAA or ADO were notified that DTW management intended to implement or planned to operate a new air traffic procedure. As noted, we seek clarification of OIG's finding and any information that would confirm that the WCAA and the ADO were notified that DTW management intended to create a new air traffic procedure prior to the implementation of the Northeast Flow.

**OIG response:** We interviewed Lindsay Butler, Regional Environmental Program Manager, FAA Airports Division, Great Lakes Region, and Wayne Sieloff, WCAA Director of Planning, Construction, and Design. (The Detroit ADO is part of the Great Lakes Region.) Butler stated ADO officials were aware, in 2007, that aircraft would depart to the east from Runway 9R during the reconstruction of Runway 3R-21L. She and Sieloff told us that WCAA and FAA Airports Division officials worked closely with DTW air traffic control officials to ensure the airport was not negatively affected by the project, which WCAA and the ADO, not the DTW ATCT, initiated. According to Sieloff and Butler, WCAA, Airports Division, and DTW air traffic officials discussed new air traffic patterns that might be necessary to ensure the airport retained its arrival and departure capacity during the reconstruction. Consequently, WCAA officials included the possibility that aircraft would depart to the east from Runway 9R in the March 2007 EA and March 1, 2007, Public Information Session provided in our July 16, 2010, report.

Sieloff added that although DTW air traffic officials provided WCAA officials with a general projection of feasible departures necessitated by the closure of Runway 3R-21L – which WCAA used in the environmental documents, e.g., the EA, required under the National Environmental Procedures Act – DTW officials developed the Northeast Flow. And, although WCAA and Airports Division officials did not review and approve the Northeast Flow, doing so was not within their authority. How DTW altered the arrival and departure of aircraft to accommodate for the loss of Runway 3R-21L was the responsibility of the airport's air traffic officials because the Northeast Flow was an air traffic procedure. Thus, for example, the aircraft departure headings, e.g., MOONN, ERRTH, and MARRS, provided in chapter 5 of the ATCT operating manual, DTW 7110.9B, for the Northeast Flow were assigned by DTW air traffic personnel at their discretion.

The statement, "[t]his temporary operation would not result in the creation of any new air traffic procedures. . ." contained within the March 2007 EA is correct, but requires clarification. As stated, the Northeast Flow was a temporary modification of air traffic operations. The terminology "new air traffic procedures" was provided in the context of Terminal Instrument Procedures (TERPS) and the development of departure procedures designed to assist pilots' transition from the runway environment to the terminal radar environment. FAA Orders 8260.3B, *United States Standards for TERPS*, and 8260.46D, *Departure Procedure Program*, govern the development of TERPS. In this light, "temporary operation" refers to how DTW aggregated and utilized existing TERPS and ground handling procedures to facilitate increased departures from Runway 9R.

Moreover, the use of Runway 9R during peak traffic periods or certain weather conditions while Runway 3R-21L was under construction did not necessitate the development of new departure procedures because the departure procedure from Runway 9R was developed in accordance with TERPS requirements. There was, for example, simply an increase in the number of departures during peak traffic periods from Runway 9R during Northeast Flow operations. In addition, the procedures employed during the Northeast Flow were consistent with FAA Orders 7110.65, *Air Traffic Control*, and 7400.2G, *Procedures for Handling Airspace Matters*, and resulted in no change to the airspace design.

Concerning flight tracks, all instrument flight rules departures from DTW are radar vectored (i.e., provided a specific radar heading). Radar vectored departure tracks vary depending on weather, wind, traffic, and other tactical considerations. Although departures from Runway 9R occurred infrequently prior to the implementation of the Northeast Flow, the procedures for doing so are longstanding and did not change during the Northeast Flow operation.

Prior to the implementation of the Northeast Flow in May 2007, local officials and the general public were informed by WCAA that aircraft may depart to the east from Runway 9R. The only airborne accommodation resulting from the Northeast Flow implementation was to radar vector departing aircraft toward the Interstate 94 corridor to minimize noise impact for the City of Taylor, Michigan, which lies directly east of DTW. From the end of 2006 to the beginning of 2007, DTW ATCT staff developed the ground movement procedures for the use of Runway 9R departures and coordinated with DTW Terminal Radar Approach Control officials concerning departure headings for various types of aircraft. The accommodation for Runway 9R departures during the Northeast Flow fell well within the scope of procedures concerning radar vectored departures, specifically FAA Orders 7110.65, Paragraph 5-8-2, *Initial Heading*, and 8260.64D, Paragraph 2-1, *Departure Procedure Guidelines*.

As to the February 8, 2008, Categorical Exclusion, the airport, airlines, and FAA agreed to temporarily use Runway 9R, i.e., the remaining crosswind runway, during the rehabilitation of Runway 9L-27R in 2008 as weather and traffic conditions necessitated. The resultant infrequent use of Runway 9R, therefore, does not mean it became a "replacement" runway for the typical departure runways of 3L-21R and 4R-22L, as it was not used continually during the closure of Runway 9L-27R.

FAA did not plan as part of the 2008 project to use Runway 9R in any non-standard or non-typical way. Because DTW added the Northeast Flow to the DTW 7110.9B operating manual prior to the Runway 9L-27R rehabilitation in 2008, the Northeast Flow, including departures from Runway 9R, was available for use at the discretion of DTW. And, to reiterate, DTW air traffic control officials are not required to notify or seek the approval of the WCAA or ADO concerning the airport's day-to-day use of air traffic control procedures or air traffic flows.

**2. OSC request:** We also seek clarification and additional information on OIG's finding concerning Mr. Sugent's allegation that DTW failed to conduct a safety assessment prior to implementing the Northeast Flow. The OIG report states that "[a]lthough DTW officials told investigators they considered safety issues when developing and implementing the Northeast Flow in 2007, no corresponding safety risk assessment-related documentation exists, and we therefore could not verify this claim." DTW and Central Service Area officials explained that DTW was not required to document a formal safety assessment within the ATO Safety Management System at the time the Northeast Flow was created. According to the report, Detroit TRACON Support Manager Patricia Bynum told investigators that she and other DTW officials "would have assessed the safety risks of the Northeast Flow to ensure it was a safe operation. . ." The report does not include any evidence that anyone in fact recalled conducting a safety assessment on the Northeast Flow. Further, while the report finds that the Advisory Circular concerning blast fences constitutes only a recommendation, rather than a requirement, it appears from the report that the necessity or feasibility of a blast fence was not considered until OIG inquired about this issue during the investigation. We request confirmation that DTW was not required in 2007 or 2008 to conduct or document any safety assessment or analysis pursuant to any FAA order or requirement, such as FAA Order 8040.4. Also, in light of OIG's inability to verify that a safety assessment was conducted, we request that OIG confirm whether Mr. Sugent's allegation was substantiated, and if not, identify the evidence that forms the basis for this finding.

**OIG response:** We were unable to substantiate the allegation that safety risks were not assessed when the Northeast Flow was developed. During a supplemental interview on December 15, 2010, Patricia Bynum recalled that, during several meetings, the DTW air traffic team that developed the Northeast Flow conducted a "safety analysis" of the procedure to ensure it complied with applicable safety regulations, notably FAA Orders

7110.65 and 7210.3, *Facility Operation and Administration*. In addition, DTW ATCT Support Specialist Rodney Harris, who has held the position since 2002 and was part of the team that developed the Northeast Flow, acknowledged that although the team did not hold a "Safety Risk Management" meeting as described by the now required FAA Safety Management System (SMS), they nevertheless held team meetings to review various aspects of the procedure, including aircraft separation, angles, and course headings to ensure it complied with the requirements of FAA Order 7110.65. (The team did not consider the necessity or feasibility of a blast fence because WCAA, not DTW, was responsible for blast fences.) Bynum and Harris told us they did not formally document the team's analysis. However, they told us they were unaware of any order at that time that required them to do so. We are also unaware of any such order.

As described below, DTW was not required to conduct or document an SMS safety risk analysis until October 1, 2008, more than two months after DTW last conducted the Northeast Flow. FAA Order 8040.4, *Safety Risk Management*, which became effective in 1998, "establishes the safety risk management policy and prescribes procedures for implementing safety risk management" policies within the agency. It did not, in and of itself, provide specific methods and documentation requirements for conducting, for example, an SMS safety risk analysis. Thus, as provided in Paragraph 4 of the order, each program office is responsible for creating such procedures: "Each program office will interpret, establish, and execute the policy contained herein consistent with its role and responsibility."

On September 30, 2008, the Director of Terminal Operations for the Central Services Area (which includes DTW) issued FAA Order JC 7232.15, *Safety Risk Management Implementation for Central Service Area*. The order, which became effective October 1, 2008, set forth DTW's SMS responsibilities, including conducting and documenting SMS safety risk analyses.

**3. OSC request:** In addition, we request clarification and additional information on OIG's findings concerning the safety of the Northeast Flow. Mr. Sugent alleged that he and other controllers raised safety concerns regarding the procedure, including aircraft having to cross an active runway and taxi a further distance to depart, the proximity of the approach-end of runway 9R to Taxiway Quebec and a service road, and the potential hazards to aircraft and vehicles caused by jet blast from aircraft departing on runway 9R. He also disclosed that a controller filed a safety complaint through the NASA Aviation Safety Reporting System, stating that on April 28, 2008, he observed a minimum of 12 aircraft on Taxiway Quebec pass behind departing aircraft on runway 9R, which is less than the 2,000 feet recommended by FAA regulations, and that there were no blast fences or other structures to prevent debris from blowing into the taxiing aircraft. Mr. Sugent stated that FAA did not respond to this safety complaint. The OIG report does not adequately address these allegations. OIG states that "[w]e are aware of no reported incidents or complaints from pilots or ground crew concerning the procedure." The

report acknowledges that Mr. Sugent provided a copy of the controller's safety complaint to investigators; however, OIG states that it "cited only the controller's own concern rather than complaints or reports from pilots of aircraft using the taxiway." OIG further notes that Mr. Sugent "was unable to provide any complaints from pilots citing debris or concerns about jet blast. . ." The report does not address whether FAA responded to the controller's safety complaint, or explain why a NASA safety complaint from a controller does not warrant the same level of review or response as those filed by pilots or ground crew.

Further, in his interview with OIG, Mr. Sugent provided the name of the controller who filed the safety complaint and urged OIG to interview him and other controllers who raised safety concerns about the Northeast Flow. However, the report does not indicate that OIG interviewed any controllers other than Mr. Sugent. Regarding the concern for aircraft crossing an active runway, the report states that AOV reviewed the Northeast Flow procedure and determined it "did not constitute a specific and substantial threat to public health or safety.["] The report also states that controllers were briefed on the Northeast Flow in 2007 and 2008, but does not address the concerns raised by controllers during those briefings. Based on our review, it appears that the investigation was not sufficient to support the conclusions reached on the safety of the Northeast Flow, absent the inclusion of any information from other controllers who raised similar safety concerns about the procedure.

**OIG response:** We interviewed the former controller who submitted the Aviation Safety Reporting System (ASRS) complaint. He stated that he believed the lack of blast fences west of Runway 9R created a risk of jet blast-created "field on debris" (also known as FOD) affecting the safety of aircraft on Taxiway Quebec. He came to this belief after having witnessed, on April 24, 2008, dust and grass between Runway 9R and Taxiway Quebec being blown onto the taxiway by the jet blast of departing aircraft. He confirmed he never received a response to his ASRS complaint.

The former controller also stated that around the same time as his complaint, another controller witnessed dirt being blown on Taxiway Quebec by aircraft departing Runway 9R. He could not, however, recall the name of the other controller. He was also unaware of any complaints about FOD from pilots using Taxiway Quebec or DTW employees using the nearby service road.

We conducted a search of NASA's ASRS online database to determine the status of his complaint. Despite separate searches for complaints, regardless of year, from the State of Michigan using the terms "blast," "fence," and "FOD" – which the former controller used in the complaint – we found no record of the complaint. FAA officials also searched the ASRS database for the April 24, 2008, complaint. Their search, inclusive of dates from March 2008 through June 2008, was unsuccessful. It is unclear, therefore, whether NASA received the complaint and, if it did, what FAA's response was.

Further, neither the WCAA officials responsible for blast fences nor FAA Airports Division officials were aware of safety concerns regarding jet blast from Runway 9R. And, these officials told us the locations of Taxiway Quebec and the service road comply with FAA safety regulations. For example, the service road jogs to the west so that it is beyond the 1,000-foot runway safety zone to the west of Runway 9R-27L; Taxiway Quebec is 1,645 feet from the runway. Thus, there was insufficient reason to consider blast fences. In fact, we found DTW ran the Northeast Flow in 2007 and 2008 without incident and the flow ended as an approved air traffic procedure effective March 18, 2010.

Nevertheless, we conveyed the concerns of Mr. Sugent and his fellow controllers regarding the potential effects of jet blast from aircraft departing Runway 9R to WCAA officials. WCAA Director of Airfield Operations Diane Walker informed us on December 14, 2010, that if DTW announces resumption of the Northeast Flow, WCAA officials will first ask the ADO to examine whether blast fences are necessary to the west of Runway 9R and, if so, determine the appropriate location for the fences.