



U.S. OFFICE OF SPECIAL COUNSEL

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The Special Counsel

September 15, 2015

The President
The White House
Washington, D.C. 20510

Re: OSC File Nos. DI-13-4206, DI-14-0359, DI-14-0461, DI-14-0492, and
DI-14-1590

Dear Mr. President:

Pursuant to my duties as Special Counsel, enclosed please find the Department of Transportation's (DOT) reports based on disclosures of wrongdoing at the Federal Aviation Administration (FAA), Detroit Metropolitan Airport (Detroit) in Detroit, Michigan. The Office of Special Counsel (OSC) has reviewed the reports and, in accordance with 5 U.S.C. §1213(e), provides the following summary of the allegations and our findings.

I received these disclosures from five Air Traffic Controllers (controllers) at Detroit: Vincent M. Sugent, John Overman, Corinna Morris, Michael Redies, and Lewis M. Bird (whistleblowers). Each consented to the release of his or her name. They alleged that FAA employees engaged in conduct that constitutes gross mismanagement and a substantial and specific danger to public safety by failing to address frequent and systemic problems with computer-based systems designed to automate the filing and amending of flight plans and delivery of departure clearances. The whistleblowers also alleged that the Detroit facility operated without an operations manager for approximately five years.

The agency substantiated the whistleblowers' allegation that multiple¹ flight plans introduce a safety risk into the air traffic control system with controllers and pilots potentially acting upon conflicting information. The investigation found that air traffic control facilities across the national airspace system are encountering this problem on a regular basis, and that it is significantly more common during inclement weather periods. The investigation did not substantiate the whistleblowers' allegation that the facility lacked an operations manager position, finding that other positions combined to serve this need and the lack of a single manager position did not pose a safety hazard. Nevertheless, the agency recently hired an operations manager. I find that the reports meet all statutory requirements and the findings appear to be reasonable. As the agency acknowledged, the process to correct the concerns caused by the filing of multiple flight plans has been lengthy and cumbersome, and has not yet

¹ FAA has identified "multiple" flight plans as those submitted for the same aircraft taking off from the same airport within a certain timeframe, which contain different flight data (e.g., different route/aircraft type/equipage) that can generate unplanned risk. They are sometimes referred to as "duplicate" flight plans.

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been resolved throughout the national airspace system. Therefore, additional monitoring may be required.

The whistleblowers' allegations were referred to DOT Secretary Anthony Foxx to conduct an investigation pursuant to 5 U.S.C. §1213(c) and (d). Secretary Foxx delegated the investigation to FAA's Office of Audit and Evaluation (AAE). On May 16, 2014, DOT submitted the agency's report to OSC. In addition, the FAA provided supplemental reports updating the agency's progress on corrective actions on July 28, 2014, October 6, 2014, November 13, 2014, February 2, 2014, April 9, 2015, and July 15, 2015. Pursuant to 5 U.S.C. §1213(e)(1), the whistleblowers provided comments on the report on July 9, 2014. Mr. Sugent submitted additional comments on January 6, 2015, April 24, 2015, and August 2, 2015. As required by 5 U.S.C. §1213(e)(3), I am now transmitting the reports and comments to you.²

I. The Whistleblowers' Allegations

The whistleblowers alleged that FAA permits the entry of multiple flight plans into the National Airspace System (NAS), via FDIO,³ by dispatchers and online providers. When multiple flight plans are entered, the potential for errors and discrepancies increases. Controllers must vet and check new flight plan data against existing plans. Additionally, when multiple flight plans are entered into the FDIO/NAS, controllers often need to physically search through pending flight progress strips to compare and contrast prior plans against new information displayed in the FDIO system. Because flight plans have a three hour active window for their execution, in some instances controllers will need to search through large numbers of plans to find prior versions or check against recent revisions.

The burdens created by deficiencies in these systems are compounded in inclement weather. Adverse conditions cause pilots, air traffic control centers, and dispatch centers to make multiple revisions to flight plans, enter new flight plans, or re-route flights to maintain

² The Office of Special Counsel (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 and safety. 5 U.S.C. § 1213(a) and (b). OSC does not have the authority to investigate a whistleblower's disclosure; rather, if the Special Counsel determines that there is a substantial likelihood that one of the aforementioned conditions exists, she is required to advise the appropriate agency head of her determination, and the agency head is required to conduct an investigation of the allegations and submit a written report. 5 U.S.C. § 1213(c). Upon receipt, the Special Counsel reviews the agency report to determine whether it contains all of the information required by statute and that the findings of the head of the agency appear to be reasonable. 5 U.S.C. § 1213(e)(2). The Special Counsel will determine that the agency's investigative findings and conclusions appear reasonable if they are credible, consistent, and complete based upon the facts in the disclosure, the agency report, and the comments offered by the whistleblower under 5 U.S.C. § 1213(e)(1).

³ The information associated with flight plans is entered, organized, and transferred within the FAA air traffic control network through a variety of computer systems. At Detroit, controllers working in the air traffic control tower (tower) receive flight information from a system known as Flight Data Input/Output (FDIO). When controllers receive this information, it is managed and reviewed through the use of flight progress strips. These are small strips of paper containing relevant required information such as aircraft identifications, route fixes, assigned altitudes, and departure and destination details. Requisite information on flight progress strips is defined by FAA regulation. See FAA Order No. JO 7110.65U. After controllers review this information for accuracy, they transmit the data to aircraft via an interface known as the Pre-Departure Clearance (PDC) system or by voice.

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flight schedules. As a consequence, controllers are responsible for reviewing flight plans, calling pilots, and searching through discarded flight progress strips, in an environment where the extra workload imposed on controllers increases existing delays.

The controllers disclosed additional issues with the operation of the Pre-Departure Clearance system. Specifically, they noted that alerts and notifications often occur erroneously, displaying revision alerts when no revisions have been made, revisions for flights that simply do not exist, or revisions to flights that have already departed.

The whistleblowers and other controllers filed numerous problem reports with Detroit management. The whistleblowers stated that despite their reports, the problems caused by the filing of multiple flight plans persisted. Further, the whistleblowers noted that Detroit lacked an operations manager, and that this position was vacant since approximately 2008. The operations manager is responsible for overseeing, tracking, and resolving this and many other operational problems. According to the whistleblowers, nearly every other tower of a comparable size in the NAS has one or more operations managers for the controllers and their front line managers.

Thus, the Detroit controllers contended that these software problems and the serious nature of the operational errors that could result, coupled with the lack of appropriate management authority to resolve these issues, constituted gross mismanagement and a substantial and specific danger to public safety.

II. The Agency Reports

The investigation determined that since FAA does not have statutory requirements or enforcement mechanisms in place to ensure flight plans are filed using established protocols, multiple flight plans are sometimes entered into the NAS. Multiple flight plans contain the same aircraft identification and departure airport, but some flight parameters are different from the original, such as requested altitude, routing, speed, or departure time. The investigation revealed that air traffic control facilities across the NAS encounter this problem on a regular basis, and that it is significantly more common during inclement weather periods.

According to the report, the entry of multiple flight plans introduces a safety risk into the air traffic control system with air traffic controllers and pilots acting upon potentially conflicting information. When multiple flight plans are filed for the same flight, there is the potential that a controller can clear the flight for departure based upon a flight plan that is different than the one the operator most recently filed. As a result, the crew could fly a route that the controller did not anticipate or planned for. FAA has no current automation system capable of identifying or “flagging” the multiple flight plans and notifying the controller.

The investigation also revealed that some airline dispatchers are not following proper protocols. Instead of having existing flight plans amended, they enter new flight plans without removing the original flight plan. However, according to the report, FAA lacks

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standards across the NAS for the length of time a flight plan is active, which makes it difficult for dispatchers to comply with FAA protocols. A typical flight plan has a time limit of two hours before it expires, requiring the filing of a new plan, while some facilities allow three hours before expiration. For example, the Air Route Traffic Control Center (ARTCC) in Cleveland, the facility that stores the flight plans for Detroit, has a three-hour time limit. A dispatcher in Atlanta may be unaware that an existing previously submitted flight plan is still active in Detroit, and may erroneously enter a new one assuming that the previously filed plan had expired.

Adding to the complexity of the issue, the report explained that each ARTCC has a different deadline for allowing amendments to a flight plan prior to printing the flight strip. After this deadline, amendments are no longer allowed. The investigation found that the earlier a facility imposes deadlines for amendments to flight plans the higher the likelihood that the facility will receive multiple flight plans, because earlier deadlines make it more difficult for airlines to make adjustments due to rapidly changing factors such as sudden, severe weather. A dispatcher need only modify one field in the flight plan and a second flight plan can be filed. The investigation concluded that there is no regulatory guidance regarding filing flight plans, and the agency has not imposed a standard for when flight plans expire. As such, the FAA has no ability to enforce the existing protocol.

Since 2012, FAA has “assigned personnel to identify the cause of the problem and determine effective corrective actions as part of a working group. Other than the education of dispatchers, the group has had little impact.” The report identifies several factors contributing to the failure of this group, including the reassignment of group members, other work projects, and a major re-organization of the Air Traffic Organization (ATO), together with delayed responses for suggested corrective actions. In addition, the report states that some ATO senior officials “either were not aware of, or did not perceive the significance of the problem.”

As a long-term resolution to the problem, the report identified the need for a system that would disallow multiple flight plans in “proposal” status that contain the same aircraft flight information. According to the report, this “requires significant technical and training obstacles and may have a negative impact on DOD operations, as well as some small air carriers, which often file multiple flight plans using the same aircraft identification and departure point but for different flights.”

The report recommends that ATO establish a standardized time across the NAS in which flight plans are active. This can be flexible during bad weather, but even an extension of the active flight plan itself should have a standardized amount of time. In addition, the report recommends that ATO standardize the time for when amendments to flight plans are prohibited from external sources, and determine whether and how it will accept changes to flight plans within 30 minutes of departure. The ATO should further consider re-installing equipment at Detroit needed to open a second clearance delivery position during periods of bad weather.

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The report also recommended that ATO convene a Safety Risk Management Panel (SRMP) to identify hazards and analyze risk associated with multiple flight data for the same flights. This SRMP should include representatives from FAA and airline stakeholders who can determine ways to mitigate the risks and monitor actions taken to ensure they are effective. The outcome from the panel should be a published, accountable process for the airlines and FAA to follow and should include any necessary changes in their automation, policy, and procedures needed to ensure accountability while reducing risk.

Finally, ATO should continue to track and identify the top air carrier offenders and continue frequent education and training. During the monthly Flight Plan Filer's Teleconference, discussion of the frequent offenders and significant events caused when controllers fail to catch the multiple flight plan should be included.

ATO adopted the recommendations and provided a Corrective Action Plan to address the findings associated with multiple flight plans. ATO agreed to immediately establish a Duplicate Flight Plan Task Force from the work group that was formed in 2012, to identify actions to address the risks associated with multiple flight plans and respond to each of the report's recommendations. ATO pledged that the Task Force will deliver documented, accountable processes for industry and FAA to follow, including any necessary changes to automation and/or policy and procedure changes. Final recommendations were targeted to be delivered to the SRMP no later than May 19, 2014. The SRMP was to be convened no later than June 20, 2014, comprised of key stakeholders. The SRMP was tasked with evaluating standardization of time across the NAS in which flight plans are active; standardization of time that flight plans are transmitted to tower/TRACON facilities from the ARTCC; how and whether to accept changes to flight plans within 30 minutes of proposed departure; and automation requirements for improvements to safety, efficiency and reliable flight plan processing. Results of the SRMP were to be published by July 1, 2014.

The FAA's Safety and Technical Training division planned to conduct an audit of the multiple flight plan reports by December 31, 2014, continuing until improvement is visible. Specific to Detroit, FAA's Air Traffic Services will survey the tower-cab at Detroit and consider the feasibility of opening a second clearance delivery position.

With regard to the planned audit, FAA's February 2015 update indicated that the audit had not yet been initiated, because it was determined that it was unlikely to yield measurable results until automation and policy changes planned for 2015 are complete. The FAA's April 2015 and July 2015 updates provide the details and results of the audit. The audit revealed: there is no standard definition for facilities to use to identify or report issues; there is no standard method to determine the number of multiple flight plans entering into the NAS; and there is no requirement for facilities to implement procedures to address multiple flight plans, which has led to inconsistencies among facilities. In addition, the auditors noted that personnel at the facilities were unaware of the corrective action plan, the quality assurance bulletin or the safety article intended to inform facility personnel.

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Subsequent supplemental reports confirmed that ATO has been collecting data and evaluating and documenting proposed corrective actions in accordance with the Safety Management System processes. Although FAA is also continuing education and outreach efforts, it cautions that before NAS changes are made, there must be confidence that such changes will not introduce additional risk. The supplemental reports reflect that the Safety Risk Management document that provides risk analysis and hazard mitigation was published in January 2015. The document identifies the issue of multiple flight plans for the same aircraft and the same departure airport as a low-risk hazard, and recommended mitigation to reduce the frequency of multiple flight plans. As anticipated, FAA order changes have been developed to standardize the path of flight plan communication. In addition, the SRMP identified the need to educate dispatchers and flight plan filers to the new requirements and their rationale.

FAA has published a short Information to Operators (InFO) advisory to alert operators about pertinent safety problems prior to the development of an Advisory Circular. A lengthier Advisory Circular providing detailed guidance on filing and changing flight plans is expected to be developed in 2015. Outreach to NAS operators and air traffic controllers continues. FAA published a Quality Assurance Bulletin on Multiple Flight Plans in October, and an article for the winter edition of FAA's safety bulletin, *Safety Matters*, is planned for 2015.

FAA's plans to revise publications include amendments to FAA Orders JO 7110.10, *Flight Services*, and JO 7210.3, *Facility Operation and Administration* to establish criteria and guidelines for flight plan processing by NAS automation systems. Proposed changes are planned for publication in December 2015 and are attached to the SRM Document. These revisions will support changes and/or local adaptations to NAS automation systems. The SRMP also identified the need for specific changes to the *Aeronautical Information Manual*, Official Guide to Basic Flight Information and ATC Procedures, to indicate flight plans are dropped in the ARTCC computer after two hours, and to establish a readily available and transparent system for changing and revising flight plans.

In December 2014, the second clearance delivery position was restored for operational use. Although not identified as a corrective action in the reports, FAA restored an operations manager position in January 2015.

III. The Whistleblowers' Comments

The whistleblowers provided comments on the original report. Mr. Sugent provided additional comments on the updates. The whistleblowers expressed concern that the FAA has lost regulatory control of what information is entered into the NAS and who has the capability to enter information. They acknowledge that the Detroit facility began tracking the issue of multiple flight plans in December 2012, but note that controllers began reporting concerns as early as 2009, including filing multiple Air Traffic Safety Action Program (ATSAP) reports in 2012. Although the whistleblowers acknowledge that some delays are necessary to ensure safety, the lengthy and cumbersome process, including reviving a failed

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task force, has not resulted in correction of the known problems, even as late as July 2015. Mr. Sugen reports that controllers in Detroit continue to encounter the same issues on a daily basis, as evidenced by the continued problem reports included with his comments.

IV. The Special Counsel's Findings

I have reviewed the original disclosure, the agency reports, and the whistleblowers' comments. As noted in the whistleblowers' comments and confirmed by the agency's supplemental reports to OSC, the process to correct the known risks associated with the filing of multiple flight plans has been lengthy and cumbersome. I urge the FAA to continue to monitor this issue until it is resolved throughout the national airspace system.

As required by 5 U.S.C. §1213(e)(3), I have sent copies of the agency reports and the whistleblowers' comments to the Chairmen and Ranking members of the Senate Committee on Commerce, Science, and Transportation and the House Committee on Transportation and Infrastructure. I have also filed copies of the agency reports and whistleblowers' comments in our public file, which is available at www.osc.gov. OSC has now closed this file.

Respectfully,



Carolyn N. Lerner

Enclosures