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

The Inspector General

Office of Inspector General
Washington, DC 20590

May 15, 2007

The Honorable Scott J. Bloch
Special Counsel
U.S. Office of Special Counsel
1730 M Street, NW, Suite 300
Washington, DC 20036-4505

Re: OSC File No. DI-06-1117

Dear Mr. Bloch:

Thank you for your letter of July 18, 2006, in which you referred allegations of a safety-related nature made by Michael Dunkin, a former Federal Aviation Administration (FAA) employee,[1] to the Secretary of Transportation for investigation. Then-Acting Secretary Maria Cino delegated responsibility to our office for investigation and response. Presented herein are Mr. Dunkin's allegations and the results of our investigation into each of them.

In brief, our investigation did not substantiate Mr. Dunkin's allegations and, therefore, we have no recommendations for regulatory or administrative action.

Allegations

Mr. Dunkin alleged to OSC that managers at the Aviation Systems Standards (AVN)[2] line stations in Anchorage and Oklahoma City ordered maintenance

[1] On June 28, 2006, prior to raising his allegations to OSC, FAA terminated Mr. Dunkin's employment as an Avionics Technician in Anchorage, Alaska.

[2] FAA's Office of Aviation Systems Standards (AVN) operates a fleet of flight inspection aircraft for, among other things, airborne evaluation of electronic navigational aids and signals. AVN "line stations" perform maintenance, modifications, and alterations for these aircraft. AVN's headquarters and maintenance base of operations is located in Oklahoma City, Oklahoma, with five additional line stations located nationwide, including Anchorage (to which Mr. Dunkin was assigned).

technicians not to record AVN aircraft equipment malfunctions in FAA's Inventory, Logistics and Maintenance (ILM) database. He alleged to OSC that managers issued these orders because recording equipment malfunctions would result in aircraft being grounded for maintenance, and aircraft availability is one measure of each manager's performance. During our interview of Mr. Dunkin, he told us he had knowledge of only one instance in which a manager ordered a maintenance technician not to enter an aircraft equipment malfunction into the ILM database, i.e., Anchorage Manager Charles "Bob" Kelley allegedly ordered Mr. Dunkin in December 2005 not to record the malfunction of the cockpit voice recorder on FAA aircraft N85, a Canadair Challenger 601 operated by AVN.

Mr. Dunkin also alleged that an equipment malfunction occurred on another AVN aircraft; however, he was not able to attribute the failure to enter it into the ILM database to the direction of a manager, nor was he able to identify which maintenance technician failed to make the entry. In this instance, Mr. Dunkin alleged that the Flight Director on AVN aircraft number N86, a Canadair Challenger 601, caused the autopilot to "freeze" resulting in the pilot's inability to control the aircraft. According to Mr. Dunkin, the onboard aircraft's Diagnostics Fault Detection System recorded 106 occurrences of this malfunction from mid-2003 to around mid-2005, but none were entered into the aircraft logbook or the ILM database.

In another instance, Mr. Dunkin alleged to OSC that FAA aircraft number N96, a British Aerospace (BAE) 125-800A Hawker, experienced three instances of emergency exit lighting failure without any corresponding entry into the ILM database.

In October and November 2006, Mr. Dunkin made to our office, via email and letter, two additional safety-related allegations:

1. In 2002, supervisors J.D. Bittle and Frank Bridges instructed maintenance technicians to ignore a "deep gouge" in the nose landing gear of AVN aircraft number N57, a Learjet.

2. In 2002, Mr. Bittle improperly directed maintenance mechanic Mark Adams to repair, rather than replace, a rib on the right wing of N99, a BAE 125-800A Hawker.[3]

[3] Mr. Dunkin also reported to us that AVN aircraft number N18 operated with "incorrectly rigged" nose trim; however, he did not allege that managers directed the incorrect repair, or that they ordered maintenance technicians not to record problems with the nose trim in the ILM database. In any event, we found the N18 nose trim problem was reported by an AVN pilot in the logbook, documented in the ILM database, and repaired in a timely manner.

3. We found that N96 experienced an emergency exit lighting failure, which Mr. Dunkin repaired and did in fact enter into the ILM database, as required.

4. We found no evidence that supervisors J.D. Bittle and Frank Bridges instructed maintenance technicians to ignore a "deep gouge" in the nose landing gear of N57.

5. We found no evidence that Mr. Bittle improperly directed Mr. Adams to repair, rather than replace, a rib on the right wing of N99.

6. We found that FAA previously addressed the allegations concerning Mr. Murphy's conduct. We concluded that FAA, prior to Mr. Dunkin making his complaint to OSC and OIG, took appropriate action in response to the allegations.[6]

Based on the foregoing findings, we have no recommendations for regulatory or administrative action.

Details

1. We found no evidence that AVN Anchorage Manager Kelley ordered Mr. Dunkin not to record the malfunction of N85's cockpit voice recorder into the ILM database.

Mr. Dunkin told us that in December 2005, AVN pilot Mike Ryder told him in Anchorage that the cockpit voice recorder on N85, a Canadair Challenger 601, malfunctioned while the aircraft traveled from Asia to Alaska. Mr. Dunkin told us that Mr. Kelley ordered him not to record the malfunction in the ILM database. Instead, he said to "get the plane out to Oklahoma City." Mr. Dunkin told us he relayed Mr. Kelley's order via telephone, to Dan Wheeler, an Aircraft Lead Technician in AVN Oklahoma City, and repeated it in an email to Mr. Wheeler on December 22, 2005. We interviewed Mr. Ryder, Mr. Wheeler and Mr. Kelley and reviewed N85's logbook. As explained below, the evidence does not substantiate Mr. Dunkin's allegation.

Mr. Ryder told us he did not recall telling Mr. Dunkin that N85's cockpit voice recorder malfunctioned while the aircraft traveled from Asia to Alaska. However, Mr. Ryder asserted to us he was a "stickler" for entering maintenance issues into the

[6] As a result of a non-work related injury, Mr. Murphy is presently a quadriplegic in long-term disability status.

aircraft logbook when they occurred, and thus would have logged any such malfunction if it occurred. Mr. Dunkin and other maintenance technicians similarly characterized Mr. Ryder's reporting habit.

We found that in N85's logbook, Mr. Ryder wrote that the cockpit voice recorder malfunctioned during flight from Anchorage to Oklahoma City, not from Asia to Anchorage as Mr. Dunkin stated. Moreover, Mr. Ryder and Mr. Wheeler both told us a repair to the cockpit voice recorder, which was deferrable under the Minimum Equipment List,[7] would have resulted in a departure delay of approximately 15 minutes. Thus we find no motive for Mr. Ryder not to have recorded the problem in Anchorage, had he believed the cockpit voice recorder was malfunctioning.

In addition, Mr. Wheeler told us that Mr. Dunkin never told him that Mr. Kelley ordered him not to record the malfunction of N85's cockpit voice recorder into the ILM database and not to repair it. Further, Mr. Dunkin's December 22, 2005, email to Mr. Wheeler makes no mention of Mr. Kelley's alleged order. His email states, in reference to N85:

> On the other problem, I rang out all the wires from the control unit to the other unit on drawing 23-71-0, pages 1 & 2, except for the two data busses from J/P6B to the FCAV, on page 23-50-01. Everything "appeared" to ring good. I tried the equipment from N85 in N78 and it works as advertized also the known good equipment in N78 was tried in N85, but it does the same thing as N85's equipment. The aircraft was never out of service long enough to take apart what I needed to in order to find the source of the problem.

Finally, Mr. Kelley denied ordering Mr. Dunkin or any other maintenance technician not to record any equipment malfunction in the ILM database. We recognize Mr. Kelley's denial is self-serving. Nonetheless, when considered within the context of Mr. Ryder's and Mr. Wheeler's statements to us, we find it credible.

In sum, the evidence does not support Mr. Dunkin's allegation that Mr. Kelley ordered him not to record the malfunction of N85's cockpit voice recorder into the ILM database.

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[7] Federal Aviation Regulation (FAR) 91.213 permits the authorization of a Minimum Equipment List (MEL). The MEL is intended to permit the operation of an aircraft with certain inoperative items for a limited period of time until repairs can be accomplished.

2. ***We found no evidence of any malfunctions with aircraft N86's autopilot; and no evidence that any AVN aircraft experienced autopilot malfunction causing the autopilot to "freeze" and override any attempts by the pilot to manually fly the aircraft.***

Mr. Dunkin alleged that, according to the aircraft's onboard Diagnostics Fault Detection System (DFDS), the autopilot on AVN aircraft number N86, a Canadair Challenger 601, "froze" 106 times from mid-2003 to mid-2005. He alleged that none of the occurrences of this malfunction were entered into the aircraft logbook or ILM database, and the aircraft continued to fly when it should have been grounded for maintenance.

Mr. Dunkin told us this allegation is based upon a "rumor" he heard in Oklahoma City in 2003 that one of AVN's Challenger aircraft had flown out of control due to the autopilot's failure to disengage upon pilot command. Further, he told us that in July 2005, after he transferred to Anchorage, AVN pilots Bill Sauble and Mike Ryder told him that N86's autopilot failed to disengage, not allowing them to override it and manually operate the aircraft. Mr. Dunkin told us he assumed that it was the same aircraft he had heard about in 2003 and concluded the aircraft had flown with a malfunctioning autopilot since then.

Our investigation found no evidence of N86's autopilot malfunctioning; however, we found that the Flight Director on N85, also a Canadair Challenger 601, provided faulty input data to the autopilot, causing the autopilot to switch off or disengage, requiring that the pilot manually operate the aircraft. AVN Pilot Mike Ryder told us he first reported a problem with the Flight Director System display in June 2005. It was repaired, and the aircraft was returned to service the same day. Retired AVN Pilots Bill Sauble and Ted Bookman told us they first experienced a "glitch" in N85 as the aircraft departed Honolulu, Hawaii, for Anchorage, Alaska, which logbook records indicate was July 1, 2005. While the aircraft was climbing to cruising altitude, the Flight Director switched from a "single cue" display to a "double cue" display. (These terms and their significance are explained as follows.)

Mr. Sauble said operationally, the aircraft was the same; however, the pilot's visual display of the settings was slightly different. While it was in "double cue," it caused the aircraft's autopilot to switch off, requiring that Mr. Sauble manually operate the aircraft for approximately three minutes. Mr. Sauble found this "annoying," but told us it was "not a safety of flight issue," rather, "...it required me to do my job, which was pilot the aircraft." He told us that if the problem continued after the aircraft reached cruising altitude, he intended to return the aircraft to Honolulu for inspection by maintenance technicians. However, the

problem stopped, and he did not experience it again for several days while flying in the Pacific.

On July 6, 2005, while N85 was flying from Wake Island to Anchorage, the Flight Director's "double cue" display again began causing the autopilot to switch off. When the aircraft landed, Mr. Sauble reported the incident to Mr. Dunkin, who documented the problem, performed a repair, and returned the aircraft to service. The following day, the aircraft flew for three hours, during which time the problem intermittently reoccurred multiple times, lasting for a few seconds and then returning to normal. Mr. Sauble again documented the problem in the aircraft logbook on July 7, 2005. Mr. Dunkin noted in N85's logbook that as of July 7, 2005, the aircraft's "LRU Diagnostic Fault History recorded the 106th fault event...on July 7, 2005." He repaired the aircraft, entered the information into the ILM database, and returned the aircraft to service on July 11, 2005.

Mr. Dunkin told us the onboard DFDS records only the date of the most recent fault, not the date of each fault, and that he merely hypothesized that the 105 other fault events occurred throughout a 24 month period (mid-2003 to mid 2005) since he heard the rumor that the autopilot on an unidentified Challenger aircraft had "frozen," and would not allow the pilot to manually operate the aircraft.

Based upon the evidence in the logbooks, the ILM database, and the pilots' statements to us, we find it reasonable to conclude these 106 fault instances were not, as suggested, autopilot "freezes." Instead, we believe the faults to be instances in which the autopilot switched off, and that they occurred in June and July 2005; rather than, as Mr. Dunkin speculated, over the approximately 24 months since he heard the rumor in Oklahoma City in 2003.

In fact, we found no evidence that any AVN pilot ever experienced a malfunctioning autopilot which would "freeze" and not allow the pilot to disengage it to operate the aircraft manually. Mr. Dunkin identified AVN pilots Mike Ryder and Mr. Sauble as having reported the "freezing" autopilot problem to him; however, they both told us that Mr. Dunkin's assertion was backwards, it was not the case that the autopilot could not be shut off; *rather*, there were instances during which time the autopilot would not stay on, requiring the pilots to manually operate the aircraft.

In addition, Mr. Ryder opined that if the N85 autopilot had "frozen" and not allowed the pilot to disengage it, he and all the other pilots in the organization not only would have recorded it (as they did with other maintenance issues), they would have complained loudly and often to senior FAA officials because their lives would have been jeopardized.

3. ***We found that N96 had an emergency exit lighting failure, which Mr. Dunkin repaired and did in fact enter into the ILM database, as required.***

Mr. Dunkin told us there was only one instance of an emergency exit lighting failure on N96, involving a three-step repair process. Mr. Dunkin performed these steps, and entered them in great detail into the N96's logbook and ILM database, as required. Mr. Dunkin did not allege that he was prohibited from documenting the repair, or entering it into the ILM database. Instead, Mr. Dunkin told us he did not like how Mr. Kelley treated him regarding the repair, telling us that Mr. Kelley "yelled" at him for providing too much information about how he performed the repair.

Mr. Kelley confirmed to us that he spoke to Mr. Dunkin regarding his write-up in N96's logbook. Specifically, he told us Mr. Dunkin failed to follow established maintenance procedures when he wrote up the repair. Mr. Dunkin used two full pages of the aircraft logbook (each with a unique, identifying page number), rather than adding his additional comments onto a single sheet of paper which would have then been attached to a single logbook page. Kelley explained this allows for correct tracking in the ILM database, which only contains space for one logbook page number.

We reviewed N96's logbook and determined that Mr. Dunkin performed the repair using two logbook pages to describe the work he performed, and that he entered the repair information into the ILM database.

4. ***We found no evidence that supervisors J.D. Bittle and Frank Bridges instructed maintenance technicians to ignore a "deep gouge" in the nose landing gear of N57.***

Mr. Dunkin alleged that, on September 5, 2002, supervisors J.D. Bittle and Frank Bridges instructed maintenance technicians to ignore a deep gouge in the nose strut of N57, a Learjet, and failed to replace the strut as required by the Learjet maintenance manual. Instead, he alleged, they improperly cleared the aircraft for flight. He told us that, on September 5, pilots encountered a problem steering the aircraft and returned it to the hangar for repair. He told us that, on September 16, 2002, he complained about Mr. Bittle's and Mr. Bridges' instruction to AVN Director Joseph Doubleday and, as a result, the nose strut was replaced. As shown below, however, the evidence does not support Mr. Dunkin's allegation.

First, Mr. Bittle and Mr. Bridges told us that they were aware of the gouge in question and did not ignore it. Instead, they instructed maintenance technicians to measure the depth of the gouge. The technicians told them that the depth was

within acceptable limits as defined in the Learjet maintenance manual. The maintenance technicians confirmed to us this account.

Second, although the nose strut was repaired, the evidence does not support Mr. Dunkin's allegation that it was repaired because of his complaint. We reviewed the logbooks and interviewed the technicians who worked on N57's nose strut from August to October 2002. We found that on August 21, 2002, a technician discovered a scratch on the piston in the N57's nose strut, but determined that the scratch was within acceptable limits and the piston did not need to be replaced. Instead, pursuant to the Learjet maintenance manual, the scratch was removed through polishing. However, over the course of the following month, the scratch deepened as the aircraft flew. We found that after a September 23, 2002, safety check, a maintenance technician recommended that the entire nose strut assembly be replaced. As a result, the serviceable nose strut from N59 was removed and installed on N57.

In sum, we found no evidence that Mr. Bittle and Mr. Bridges instructed maintenance technicians to ignore a "deep gouge" in the piston on the nose landing gear of N57. In fact, the evidence indicates that the initial decision not to replace the piston was in accord with the maintenance manual and the entire nose strut assembly was removed when warranted.

4. We found no evidence that Mr. Bittle improperly directed Mr. Adams to repair, rather than replace, a rib on the right wing of N99.

In November 2006, Mr. Dunkin reported to us that Mark Adams, a structural mechanic at AVN Oklahoma City, told him that his supervisor, Mr. Bittle, directed him in 2001 or 2002 to perform an unauthorized wing repair on N99, a BAE 125 800A "Hawker" eight-passenger, twin jet engine airplane. We interviewed both Mr. Adams and Mr. Bittle. Mr. Adams confirmed that, as directed by Mr. Bittle, he repaired a rib on the *right* wing of a Hawker. He told us that, because the BAE Structural Repair Manual called for replacement, not repair, of the rib, he refused to sign the logbook returning the aircraft to service. Instead, Mr. Bittle signed the logbook. We confirmed with Mr. Bittle that he ordered the repair, as opposed to the replacement, of the rib. He told us, however, that the repair was authorized under FAA Advisory Circular 43.13.

David Newton, a technical services representative at Raytheon, the company which now owns the former BAE business jets manufacturing division, told us that certain Hawker ribs must be replaced and cannot be repaired. However, neither Mr. Adams nor Mr. Bittle could identify the rib that was repaired; nor could either recall with certainty the tail number of the aircraft on which the repair was made.

Thus, in the interest of safety, we determined that a physical inspection of all AVN operated BAE 125 Hawkers was needed to determine if an improper rib repair was made.

An ASI from the Oklahoma City FSDO and senior investigator from our office determined that FAA sold the N99 Hawker in 2004, and located it in Houston, Texas. In January 2007, they traveled to Houston to inspect the aircraft. They did not discover a repair on either wing. In order to ensure that the repair was not made on a different Hawker, they inspected the four other BAE 125 Hawkers (N94, N95, N97, and N98) that are or were owned by FAA's AVN Division. Two rib repairs matching the description provided by Mr. Adams were found, one on an aircraft in Florida (formerly N95) and one on an aircraft in Alaska (N98).

ASIs from the South Florida FSDO inspected the aircraft formerly identified as N95, and found a repair of Rib 9 on the right wing of the aircraft; however, a review of records showed that the repair occurred in September 2004, after FAA sold the aircraft. In any event, the inspectors found the repair was proper.

Our inspection found that N98 in Alaska had a repair performed on Rib 9 on the *left* wing of the aircraft. We showed photographs of N98's repair to Mr. Adams, who reported that he is confident the repair is the same one he previously identified to us as improper. However, ASIs from the FSDOs in Anchorage and Oklahoma City inspected the repair, and determined that the repair comported with the manufacturer's structural repair manual and verified the repair was properly entered into FAA's ILM database.[8]

In sum, we found no evidence that Mr. Bittle improperly directed Mr. Adams to repair rather than replace a rib on the right wing of N99. Further, we did not find an improper rib repair to any BAE Hawker operated by AVN.

5. ***We found that FAA previously addressed the allegations concerning Mr. Murphy's conduct. We concluded that FAA, prior to Mr. Dunkin making his complaint to OSC and OIG, took appropriate action in response to the allegations.***

The allegations regarding Mr. Murphy's misuse of AVN facilities and equipment and drinking beer on FAA property after duty hours were first made in June 2005 to AVN Anchorage line station Manager Kelley. Mr. Kelley investigated the

[8] Moreover, OIG learned that an anonymous complaint made to FAA in February 2003 alleged that an unapproved rib repair was performed on N98's left wing. A now-retired ASI from the Oklahoma City FSDO investigated the allegation and found it to be without merit.

allegations and initiated corrective action. FAA's Aviation Security and Hazardous Materials Division also conducted an investigation in April 2006. We reviewed their report of findings and found the investigation and response sufficient.[9]

We believe FAA has appropriately addressed Mr. Murphy's actions, as well as the larger problem of other Anchorage AVN employees misusing government facilities and equipment. Therefore, we will make no recommendations to FAA on these matters.

Conclusion

In sum, our investigation did not find merit to Mr. Dunkin's allegations and, therefore, we have no recommendations for regulatory or administrative action.

If I can answer any questions or be of further assistance, please feel free to contact me at 202-366-1959, or my Deputy, Todd J. Zinser, at 202-366-6767.

Sincerely,

Calvin L. Scovel III
Inspector General

[9] As a result of a non-work related injury, Mr. Murphy is presently a quadriplegic in long-term disability status.