



THE SECRETARY OF TRANSPORTATION

WASHINGTON, D.C. 20590

December 14, 2009

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-08-2971

Dear Mr. Reukauf:

I am responding to your letter of November 25, 2008, which referred for investigation aviation safety concerns raised by Mark Lund, an Aviation Safety Inspector and Boeing 757 Partial Program Manager at the Federal Aviation Administration's (FAA's) Certificate Management Office (CMO) for Northwest Airlines. Specifically, Mr. Lund alleged that the CMO and Great Lakes Regional Office failed to provide effective oversight of Northwest's Airworthiness Directive process, resulting in the carrier's continued systemic non-compliance with FAA airworthiness directives (AD). In response to your request, former Secretary Mary Peters delegated the review of this matter to the Office of Inspector General (OIG) on January 5, 2009. Enclosed is the OIG's report.

In summary, the OIG's review substantiated that the CMO failed to provide effective oversight of Northwest's AD process, resulting in the carrier's continued systemic AD non-compliance. Although the CMO recommended improvements to the carrier's AD program in 2000 and 2002, it never ensured that Northwest implemented a comprehensive solution. As a result, during a 2008 FAA national special emphasis validation review of ADs, CMO inspectors identified 14 instances of AD non-compliance—one of the highest numbers for all major air carriers reviewed. Further, in fiscal year 2009, CMO inspectors identified eight more instances of non-compliance. Despite the history and current trends, CMO inspectors also continued to accept voluntary disclosures of AD non-compliances, which exempt Northwest from enforcement actions.

The problems identified appear to reside primarily with the CMO. The OIG did not find any instances where the Great Lakes Regional Flight Standards Division acted inappropriately in declining CMO inspectors' recommendations for legal enforcement action.

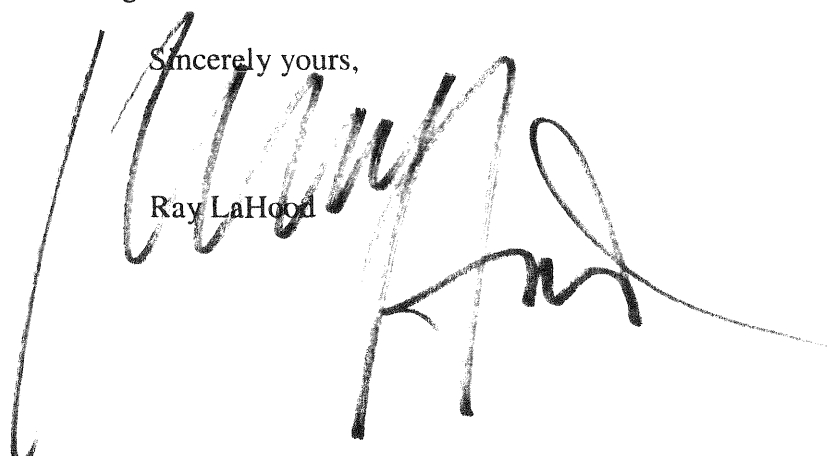
As shown in the attachment to the enclosed OIG report, FAA Administrator Babbitt accepted the OIG's findings and concurred with its recommendations. He has also committed to establish an Internal Assistance Capability review team to oversee the timely accomplishment of the recommendations.

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William E. Reukauf

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

Sincerely yours,

Ray LaHood

A large, stylized handwritten signature in black ink, which appears to be 'Ray LaHood', written over the printed name.

Enclosure




Memorandum

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

Subject: ACTION: Report on FAA Oversight of
Airworthiness Directive Compliance at
Northwest Airlines
OSC File No. DI-08-2971

Date: December 7, 2009

From: Calvin L. Scovel III 
Inspector General

Reply to
Attn. of: J-1

To: The Secretary

This memorandum presents the results of our review of whistleblower concerns raised by Mark Lund, an Aviation Safety Inspector and Boeing 757 Partial Program Manager assigned to the Federal Aviation Administration's (FAA) Certificate Management Office (CMO) for Northwest Airlines. Mr. Lund alleged that the CMO and FAA's Great Lakes Regional Office failed to provide effective oversight of Northwest's Airworthiness Directive process, resulting in the carrier's continued systemic non-compliance with FAA airworthiness directives (AD).

Mr. Lund made his disclosures to the U.S. Office of Special Counsel (OSC), and former Secretary Peters delegated the investigation to the Office of Inspector General (OIG). We conducted our review of the allegations between February and November 2009. We visited the CMO for Northwest and the Great Lakes Regional Office, interviewed FAA personnel, analyzed AD-related documents, and reviewed FAA guidance and Federal laws and regulations. Our methodology is further detailed in the exhibit to this report. Attachment 1 contains copies of the whistleblower disclosure report and the Secretary's delegation to the OIG.

The FAA Administrator concurred with our findings and recommendations. The Administrator's response and implementation plan are included at attachment 2.

If you accept the results of our review, we recommend that you transmit this report and FAA's response to OSC. The Department's response to OSC is due on December 14, 2009.

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

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RESULTS IN BRIEF

We substantiated the allegation that the CMO failed to provide effective oversight of Northwest's AD process, resulting in the carrier's continued systemic AD non-compliance. Although the CMO recommended improvements to the carrier's AD program in 2000¹ and 2002, it never ensured that Northwest implemented a comprehensive solution. As a result, during a 2008 FAA national special emphasis validation review of ADs, CMO inspectors identified 14 instances of AD non-compliance—one of the highest numbers for all major air carriers reviewed. In fiscal year (FY) 2009, after the national review, CMO inspectors identified eight additional non-compliances. For example, Northwest officials had to ground 27 aircraft in November 2008 because Northwest had not performed required AD inspections of landing gear parts. These inspections were intended to prevent the separation of the main landing gear from the wing and possible rupture of the wing fuel tank.

Despite the history of AD non-compliance, CMO inspectors continued to primarily work collaboratively with the carrier to resolve AD deficiencies in FYs 2008 and 2009. For example, CMO inspectors issued letters of correction to the carrier rather than seeking civil penalties for most non-compliances found. While these actions were in accordance with FAA enforcement guidance when assessing each non-compliance individually, the guidance states that administrative action, such as a letter of correction, is not adequate when there is a trend of non-compliance for the same FAA regulation.

Despite the history and current trends, CMO inspectors also continued to accept voluntary disclosures of AD non-compliances, which exempt Northwest from enforcement actions. In FYs 2007 through 2009, CMO principal inspectors accepted 15 AD-related disclosures, 1 of which was a repeat disclosure for the same AD. They also accepted three disclosures during FAA's 2008 national AD special emphasis review. This action directly conflicted with FAA and industry guidance that does not permit voluntary disclosures in anticipation of or during an FAA inspection. While voluntary programs can help to identify and correct safety issues that might otherwise not be known, a partnership program that does not ensure air carriers correct underlying problems is less likely to achieve safety benefits.

The problems we identified appear to reside primarily with the CMO; we did not find any instances where the Great Lakes Regional Flight Standards Division

¹ In April 2000, FAA and Northwest negotiated a Global Settlement Agreement to address numerous AD violations that occurred from 1996 to 1999. In the agreement, FAA levied a \$900,000 civil penalty, but agreed to excuse \$300,000 of that penalty if the carrier complied with key provisions, including enhancing its AD program.

acted inappropriately in declining CMO inspectors' recommendations for legal enforcement action.² However, we did identify one enforcement case that was misplaced by regional personnel after they received it from the CMO in October 2008. It was not until we asked about the status of this case that the mistake was discovered. CMO personnel re-sent the case in September 2009, and the Regional Office acted promptly to propose a \$1.35 million civil penalty against Northwest, the largest amount recommended for cases opened during the special emphasis review.

Based on our findings, we are making recommendations aimed at strengthening FAA's oversight of AD compliance at Northwest to ensure the carrier takes action to resolve longstanding deficiencies in its AD program. Our recommendations are listed on pages 17 and 18.

BACKGROUND

FAA issues ADs to notify aircraft owners (e.g., air carriers) of a known safety deficiency with a specific model of aircraft, engine, avionics, or other system. ADs specify inspections that must be carried out, conditions and limitations that must be complied with, and any actions that must be taken to resolve an unsafe condition. Compliance with ADs is mandatory and governed by the Code of Federal Regulations (14 C.F.R. § 39 [2002]).

On March 13, 2008, in response to lapses in FAA oversight of AD compliance at Southwest Airlines, FAA initiated a Special Emphasis Validation of Airworthiness Directives Oversight (Notice 8900.36). This national review was a two-phase effort to determine U.S. air carriers' compliance with ADs. For Phase 1, FAA instructed inspectors to select and audit the execution of 10 ADs applicable to each fleet type at each air carrier by March 28, 2008. For Phase 2, FAA instructed inspectors to complete additional audits by June 30, 2008, to bring the total number of ADs reviewed to 10 percent of all applicable ADs for each fleet type.

When an inspector suspects that an air carrier is not complying with an AD, the inspector initiates an Enforcement Investigative Report (EIR or enforcement case). After the inspector completes the investigation and confirms that a violation has occurred, the inspector will recommend either an administrative action (e.g., letter of correction) or legal enforcement action (e.g., a civil penalty) in accordance with FAA Order 2150.3B, FAA Compliance and Enforcement Program. This Order requires inspectors to use the Enforcement Decision Tool to determine the type of action to be taken against an air carrier when a violation occurs. The tool is a series of questions that applies risk management principles to allocate limited

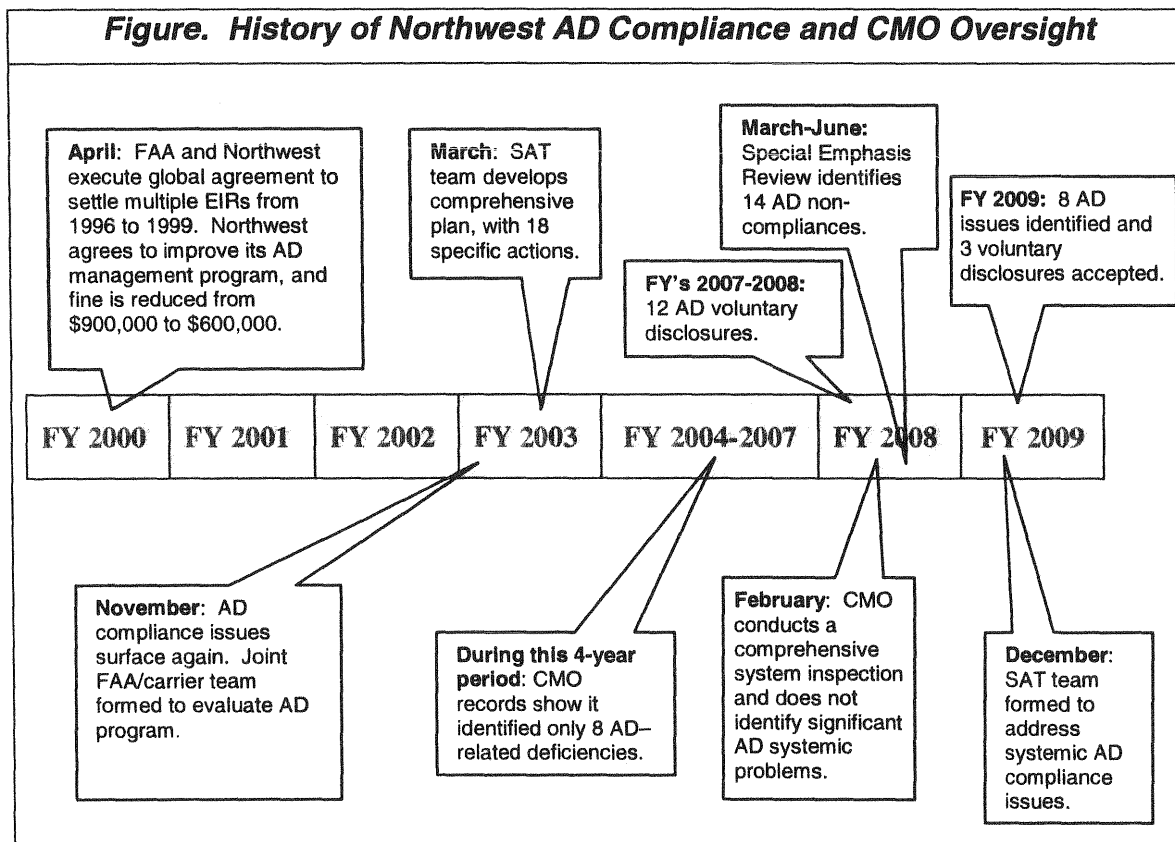
² It should be noted that administrative actions are not reviewed by the Regional Office.

agency investigative and legal resources to the most important cases for a more timely and effective compliance and enforcement system. For example, inspectors must prove the non-compliance was intentional or a high safety risk to recommend a civil penalty.

FINDINGS

Due to Ineffective CMO Oversight, Longstanding Deficiencies in Northwest's AD Process Continue To Occur

For over a decade, Northwest has experienced systemic problems in complying with ADs. As shown in the following figure, after reaching a settlement of \$600,000 in April 2000 to resolve numerous AD violations, FAA opted to work collaboratively with the carrier from 2002 to 2009 in resolving AD non-compliances. In that period, FAA performed two joint FAA/carrier reviews, allowed Northwest to submit numerous voluntary self-disclosures of AD non-compliances, and closed enforcement cases primarily with letters of correction. To date, however, these actions have not been adequate. In FYs 2008 and 2009, CMO inspectors found 22 instances of AD non-compliances. Given that AD non-compliance issues continue to occur in 2009, the status of Northwest's compliance with more than 1,000 ADs is unknown.



AD Non-Compliance and CMO Oversight From 1996 Through 2007, Before the National Special Emphasis Review

As part of the 2000 agreement with Northwest to address AD violations that occurred from 1996 to 1999, FAA reduced the penalty from \$900,000 to \$600,000 in exchange for improvements to the carrier's AD program. Northwest agreed to improve its processes for reporting, tracking, and monitoring ADs; clarifying responsibilities; and assigning accountability. In addition, FAA required the carrier to sample ADs to validate compliance, conduct quality assurance audits of the AD process, and perform a physical verification of AD completion for 10 percent of the aircraft within each fleet type. However, FAA never followed up to ensure the carrier actually corrected these issues and failed to identify AD deficiencies in subsequent years. Specifically:

- In July 2001, the CMO closed the settlement case without further legal action, congratulating Northwest on its commitment in resolving the issues with its AD program.
- In November 2002, only 16 months later, systemic AD compliance deficiencies surfaced again. FAA formed a Safety Analysis Team (SAT)³ to recommend improvements to Northwest's AD management process.
- In March 2003, CMO management closed the matter contingent upon Northwest's implementation of the SAT's recommended actions. However, we found no evidence that CMO inspectors followed up to ensure that Northwest complied with this action plan. In fact, during our review, CMO personnel did not have any documentation of the recommendations or Northwest's response. We had to obtain a copy from air carrier officials.
- During the next 4 fiscal years (FY 2004 through February 2008), CMO inspectors identified only 8 AD compliance deficiencies at Northwest, despite conducting 87 AD inspection activities. CMO inspectors also did a Safety Attribute Inspection (SAI)⁴ that did not identify the AD program as a risk area. This review was performed just 1 month before the national special emphasis review began in March 2008, which found 14 AD non-compliances.

Significant AD Non-Compliances Identified During the 2008 National Special Emphasis Review

During a period of 4 months, FAA's national special emphasis review identified 14 AD deficiencies at Northwest⁵—in contrast to the 8 the CMO had identified over the previous 4 years. The number of AD non-compliances at Northwest was one of the highest of all airlines reviewed. As a result of these findings, CMO inspectors concluded that systemic weaknesses existed in the carrier's AD program and increased its risk rating in July and again in September 2008, only 5 and 7 months, respectively, after they had completed the SAI and did not identify ADs as an increased risk area.

CMO inspectors' inability to identify these weaknesses during the SAI performed just 1 month before the special emphasis review indicates serious deficiencies in FAA's regular oversight. The CMO has scheduled another SAI for FY 2010. (Normally these are performed in 5-year intervals.) FAA will need to ensure that

³ SATs are formed as a joint FAA and industry team that works collaboratively to correct deficiencies within air carriers' systems.

⁴ SAI is part of FAA's air carrier oversight system and requires a comprehensive review of an air carrier's policies and procedures for a specific program or area. CMOs use the results of the SAI to identify risk areas that may require additional inspections and focus.

⁵ The CMO reviewed a total of 169 ADs.

the SAI is conducted at Northwest independent of the upcoming merger with Delta so problems in Northwest's AD program are not overlooked.⁶

For the 14 AD non-compliances identified during the 2008 national special emphasis review, CMO inspectors opened 13 enforcement cases, resulting in 8 letters of correction, 3 civil penalties (proposing more than \$1.9 million in fines), and 2 cases closed with no action.

Non-Compliances the Whistleblower Identified During the 2008 Review

Mr. Lund found 8 of the 14 non-compliances and initiated 7 of the 13 enforcement cases.⁷ According to Mr. Lund, in all eight cases, deficiencies were found within Northwest's engineering process during the development, review, and approval of the AD Engineering Orders, which include the critical work instructions and schedule for accomplishing the AD requirements. Table 1 shows the status for the seven AD enforcement cases initiated by Mr. Lund. He took issue with the CMO Principal Inspector's actions for four of his enforcement cases.

Table 1. Status and Action Taken for the Seven AD Enforcement Cases Initiated by Mr. Lund

AD Number	Description	Status/Action^d
1986-26-03 ^a	Thrust Reverser System Modification	Closed: No Action
1989-02-02 ^{a,c}	Brake Metering Valve and Antiskid	Closed: No Action
2006-07-23 ^b	Rudder Power Control Unit	Closed: Letter of Correction
2002-12-04 ^b	Right Main Landing Gear/ AutoSpeed Brake Modification	Closed: Letter of Correction
2005-12-18	Horizontal Stabilizer Trim Unit	Closed: Letter of Correction
1990-24-02 ^c	Windshield Heat Wiring Inspection	Open: Recommended Civil Penalty of \$1.35 million
1990-12-04 ^c	Anti-Ice Control System Modification	Open: Recommended Civil Penalty of \$305,000

^a Mr. Lund disagreed that these two cases should have been closed with no action.

^b Mr. Lund alleged that corrective actions for these two cases were not adequate.

^c Mr. Lund highlighted these three AD non-compliances in the complaint to illustrate the types of deficiencies and non-compliances he found.

^d CMO inspectors are responsible for recommending the type of action to be taken. Only civil penalty actions are forwarded to the region. Regional personnel calculate the amount of the penalty using FAA enforcement guidance.

⁶ Delta Air Lines has acquired Northwest as a wholly owned subsidiary and is merging operations under one operating certificate. The Delta CMO will be the primary oversight office in charge of FAA inspectors for Northwest located in Minneapolis.

⁷ Mr. Lund indicated that his intent was to combine two ADs into one enforcement case as they both involved the same deficiency related to the tracking of component parts.

Two Lund AD Enforcement Cases Closed With No Action: CMO management overturned Mr. Lund's recommendations for "substantial" civil penalties and closed two of his cases without corrective actions. We determined that CMO management had a reasonable basis to forgo legal enforcement actions for these potential AD non-compliances. However, we concluded that the findings still represented examples of Northwest's AD-related deficiencies.

- *AD-1986-26-03, Thrust Reverser System Modification.* Mr. Lund found that in 1987, Northwest flew 3 aircraft on 60 flights before identifying and correcting an AD compliance deficiency. However, because the deficiency occurred 21 years ago, the Principal Avionics Inspector (Paul Biever) determined FAA had no statutory means to take legal enforcement action. According to FAA Order 2150.3B, for those violations occurring before December 12, 2003, there is a 5-year statute of limitations on enforcement proceedings for civil penalties over \$50,000 (28 USC 2462). Although there is an exception for civil penalties under \$50,000, it is doubtful a case for a violation that occurred 21 years ago would be accepted, especially in this case where the discrepancy was subsequently corrected.
- *AD-1989-02-02, Brake Metering Valve.* Mr. Lund determined that, in 2004, Northwest personnel self-disclosed to FAA that 20 Boeing 757s had been in non-compliance with this AD for brake valves since 1991. The CMO accepted Northwest's voluntary disclosure, and Northwest took corrective action by replacing the non-compliant brake valves in 2004. However, Mr. Lund concluded in 2008 that Northwest was still not in compliance with this AD because work instructions lacked a procedure for re-marking the brake metering valves as recommended by Boeing Service Bulletin 757-32A0081 revision 1, dated September 1988.

In response to Mr. Lund's investigation in March 2008, the carrier physically inspected the aircraft and confirmed that the correct brake metering valves were installed. However, Mr. Lund asserted that Northwest was still in non-compliance with the AD because the parts had not been re-marked as recommended by the September 1988 "revised" service bulletin. Northwest refuted Mr. Lund's assertion on the grounds that (1) the original service bulletin (dated June 1988) referenced in the AD did not require re-marking and (2) the revised service bulletin explicitly stated that airplanes that were already inspected and modified per the previous version of the service bulletin do not require additional work.

Ultimately, the Principal Avionics Inspector (Mr. Biever) closed the case with no action. Since the AD lacked clarity and aircraft inspections did not identify

any non-compliant parts, we determined that FAA had a reasonable basis to conclude that no AD violation occurred. Nevertheless, we agree with Mr. Lund that the inclusion of the parts marking requirement in the revised Boeing service bulletin demonstrates the importance of parts control. In addition, the lack of part number control hindered Northwest's ability to immediately confirm that it was in compliance with the AD. We found no evidence that the CMO addressed the parts control issue.

Two Lund AD Enforcement Cases Closed With Inadequate Corrective Actions (AD-2006-07-23 and AD-2002-12-04):⁸ In both of these cases, Mr. Lund found that Northwest's work instructions deviated from those in the ADs and alleged that the cases were closed with insufficient corrective action. Northwest revised its work instructions accordingly and stated its audit process implemented in 2007 included an Engineering Mandatory Review Board that would identify and prevent these errors in the future.

Mr. Lund took exception to this corrective action because he believed the carrier's audit process would not review new engineering mandatories (EM)⁹ in a timely manner. The policy stated that EMs will be reviewed after being opened (preferably within 30 days) but did not include a "required" deadline, thus allowing a potential AD non-compliance. Northwest maintained that it is not practical to perform the audit before an EM release and that in all cases this review would come before the AD compliance date. We concluded this is a reasonable argument, but agree with Mr. Lund that there is a risk of the process not working effectively as designed. Accordingly, the CMO should monitor this process to ensure the audits occur before the AD compliance date, especially when ADs have a short compliance timeframe.

CMO Inspectors Continued To Find AD Non-Compliances After the AD Special Emphasis Review

During FY 2009, CMO inspectors found eight additional instances of AD non-compliance at Northwest, but closed five of these with letters of correction.¹⁰ These 5 included 1 case where air carrier officials grounded 27 aircraft in November 2008 after finding they were in non-compliance with an AD requiring mechanics to inspect landing gear fuse pins (AD-2000-07-13). Continuing to close AD enforcement cases with administrative action (e.g., a letter of correction) is contrary to FAA guidance, which states that administrative action is not

⁸ Enforcement cases EIR2008GL010191 and EIR2008GL010164.

⁹ EMs are used by Northwest to implement new procedures into its maintenance program.

¹⁰ The other three remain open. The inspector proposed a civil penalty for one of these three, and action has not been determined for the other two.

appropriate when there is a trend of non-compliance for the same FAA regulation that has gone undeterred by the use of administrative or legal enforcement action.

The inspector (Dan Mirau) responsible for this case told us that he believed a letter of correction was sufficient, and he used this deficiency as a catalyst to form a second collaborative FAA/air carrier review team (i.e., SAT) in December 2008. He believed that with the SAT, the CMO and Northwest would be able to drill down deep enough to determine the real systemic problems with the carrier's AD management process.

In May 2009, the SAT presented its findings and recommendations to Northwest management. Many of the discrepancies identified were similar in nature to problems identified in the 2000 Global Settlement Agreement and the first SAT performed in 2002. For example, it was found that Northwest's AD process lacked clear responsibilities, adequate guidance in the maintenance manual and engineering handbooks, and quality assurance oversight. At the time of our review, Northwest was in the process of implementing actions recommended by the SAT.

The Whistleblower Identified a Serious Non-Compliance and CMO Oversight Failure in 2009

Mr. Lund found that Northwest did not comply with AD 2008-10-11 and Federal Aviation Regulation (FAR) 121.1113C (a FY 2009 AD enforcement case currently pending FAA management review). These regulations require air carriers to incorporate new airworthiness limitations into their maintenance procedures and to have an FAA-approved fuel tank system (FTS) maintenance program to mitigate risks associated with ignition sources and flammability conditions in fuel tanks.¹¹

Specifically, the Principal Avionics Inspector (Mr. Biever) approved the FTS maintenance program Operations Specifications on December 16, 2008, even though he knew Northwest had not incorporated all of the FTS requirements into its Reliability Document, General Engineering and Maintenance Manual, and maintenance task cards. He also violated the AD by granting the carrier extensions to January 31, 2009, (for the reliability and maintenance documents) and March 15, 2009, (maintenance task cards) without obtaining approval from the Seattle Aircraft Certification Office (ACO). Specifically, FAR 121.1113C states the following: "After December 16, 2008, no certificate holder may operate

¹¹ In July 1996 Trans World Airlines flight 800 exploded upon take-off from New York's John F. Kennedy Airport killing all 230 people on board. The National Transportation System Board accident investigation that followed found the cause to be faulty wiring in the center wing fuel tank of the aircraft.

an airplane...unless the maintenance program for that airplane has been revised to include applicable inspections, procedures, and limitations for fuel tanks systems.”

According to the AD, only the ACO has the authority to grant extensions on compliance. We confirmed with ACO representatives that Mr. Biever did not have the authority to grant an extension, and that the carrier was not in compliance with the AD or FAR 121.1113C when the CMO approved the FTS program Operations Specifications. Moreover, even with the improper extension from the CMO (for the Reliability Document and General Engineering and Maintenance Manual), Northwest still did not complete updates until April 1, 2009, and February 13, 2009, respectively.

This impropriety on the part of the CMO allowed Northwest to operate 61 Boeing 757 aircraft in non-compliance with this AD and FAR 121.1113C for at least 3.5 months and potentially its entire fleet of over 300 aircraft.¹² Therefore, FAA needs to investigate whether the fuel tank programs for all Northwest aircraft fleets comply with this AD and take appropriate administrative action against Mr. Biever for approving an extension without proper authority.

The CMO Accepted Voluntary Disclosures Despite a Clear Trend of AD Non-Compliance

CMO management continued to accept voluntary disclosures despite a clear trend of similar AD process deficiencies and contrary to its own guidance governing disclosures for repeat violations and disclosures made during any FAA inspection.

The CMO Accepted Voluntary Disclosures for Recurring AD Process Deficiencies

During FYs 2007 and 2008, the CMO accepted 12 voluntary disclosures, all involving AD overflights, (i.e., the air carrier operated aircraft that were not in compliance with an AD). While each disclosure involved different ADs, clear trends existed in the types of deficiencies identified.¹³ For example:

- Five disclosures related to work instructions that did not comply with AD requirements, pointing to weaknesses in Northwest’s engineering process for developing work instructions. In 1 case, 39 aircraft had to be grounded because the carrier’s inspection and replacement procedures developed by Northwest’s engineering department did not meet the AD requirements.

¹² The Operations Specification covered all Northwest aircraft types and represents approval of the FTS maintenance program as required by related ADs and FAR 121.1113C. Mr. Lund’s enforcement case covered only Boeing 757 aircraft, but all of Northwest’s fleet of over 300 aircraft could also be in non-compliance with FAR 121.1113C.

¹³ The voluntary disclosures may fall into more than one category.

During the 2008 special emphasis review at Northwest, 9 of the 14 AD deficiencies were also related to this same weakness.

- Four disclosures found that forecast inspection numbers were not set up correctly, resulting in aircraft missing required inspection intervals.
- Five disclosures related to repairs or procedures that deviated from the AD requirements without an approved Alternate Means of Compliance (AMOC). In one instance, aircraft had operated for over 14 years before the discrepancy was discovered and an AMOC was approved. During the 2008 special emphasis review at Northwest, 2 of the 14 AD deficiencies were also related to this same weakness.

The CMO Accepted Voluntary Disclosures During the 2008 Special Emphasis Review, Contrary to FAA Guidance

CMO management accepted three voluntary disclosures during the AD special emphasis review (March 13, 2008, through June 30, 2008). Two of these were questionable, and one, in our view, clearly should not have been accepted. These actions exempted the carrier from enforcement action, which directly violated FAA guidance¹⁴ stating “FAA ordinarily will not forgo legal enforcement action if the certificate holder...informs the FAA of the apparent violation during, or in anticipation of, an FAA investigation/inspection.”

- The carrier disclosed two AD violations on March 14, 2008—the day after FAA’s national review began. For one AD (2006-24-03, inspection of nose landing gear main fitting barrel on Airbus 330), two aircraft operated for 172 days before the non-compliance was identified (required inspection was not accomplished within the time limit). For the other AD (2005-07-08, Boeing 757 Slat Wedge replacement), nine aircraft were operated for 45,603 hours before the non-compliance was identified (slats manufactured internally did not meet AD requirements).
- On May 16, 2008, Northwest disclosed non-compliance with an AD requiring the carrier to install a system that provides an alert when the DC-9 tail cone is not installed properly (AD 1991-22-03). Northwest disclosed that its installation instructions deviated from AD requirements and obtained verbal approval for an AMOC from the Seattle ACO on the same date of the disclosure and written approval on May 19, 2008. On June 16, 2008, FAA closed the report. The AD had a required compliance date of January 1994;

¹⁴ FAA Order 8900.1, Chapter 11 and Advisory Circular 00-58B provides guidance on the Voluntary Disclosure Reporting Program.

therefore, Northwest had been operating its DC 9 aircraft for over 14 years before it discovered that it was not in compliance with this AD.

While the two voluntary disclosures reported on March 14, 2008, are questionable, the CMO clearly should not have accepted the May 16, 2008, voluntary disclosure since Northwest knew about the CMO's ongoing AD special emphasis review when it submitted this disclosure. Further, we found that this AD in particular was included on the CMO's list of ADs selected as part of the special emphasis review. In addition, the CMO's report to FAA Headquarters summarizing the national review results included the AD as compliant.

The CMO Manager (Ken McGurty) initially indicated to us that he approved the acceptance of this disclosure because it was not on the list of ADs the inspectors selected to audit. He also told us they included it in the national review and reported it as compliant because it was reviewed after the carrier took corrective action. However, we obtained documentation dated May 6, 2008, (10 days prior to the voluntary disclosure) that showed the AD was on the CMO list of ADs to be reviewed. In response, Mr. McGurty revised his reason for accepting the disclosure to be that Northwest identified it before the CMO inspector started to review the AD. He also indicated that if he had rejected the voluntary disclosure and processed it as an enforcement action using FAA guidance, it would have resulted in administrative action (i.e., the same outcome as being processed as a voluntary disclosure since corrective action would still be required from the air carrier).

Mr. McGurty also indicated that he did not believe FAA guidance applied to the special emphasis review because it was conducted to "validate our system for overseeing air carrier management of ADs." He also indicated it was an audit to validate an FAA Air Transportation Oversight System (ATOS), not Northwest's compliance.

We disagree, and in our view, the CMO should not have accepted these voluntary disclosures, not only because it was contrary to the intent of FAA guidance but also because of the carrier's history of AD non-compliance as documented in this report. Further, we found that the prior Principal Avionics Inspector (Sam Varajon) rejected another voluntary disclosure submitted on May 28, 2008, citing that FAA guidance did not allow the violation to be accepted because an FAA investigation or inspection was already in progress.

Despite Non-Compliances Found During the 2008 Review, the CMO Accepted Voluntary Disclosures in 2009, Including a Repeat Disclosure for the Same AD

The CMO accepted three voluntary disclosures from the carrier during FY 2009. One of these voluntary disclosures was a repeat violation of the same AD requiring the removal and replacement of defective Wood Electric Company circuit breakers on all DC-9 aircraft by May 17, 2005.

In this case, Northwest had conducted two fleet campaigns to identify and remove defective circuit breakers but still failed to comply with this AD, so accepting this disclosure conflicted with FAA guidance on repeated violations. The guidance states:

Upon consideration of the facts and circumstances surrounding the repeated violation, the FAA will determine on a case-by-case basis whether a repeated violation will be covered under this policy...PIs [Principal inspectors] are encouraged to evaluate the systemic issues and circumstances surrounding each apparent violation.

- On January 15, 2007, Northwest voluntarily disclosed that it had found one aircraft was not in compliance with AD 2002-25-04. The aircraft had operated 2,433 cycles¹⁵ before the non-compliance was discovered. The reason for the non-compliance was attributed to inadequate guidance in the AD that did not clearly identify certain circuit breakers that needed to be removed. As part of its corrective action plan, the carrier was to revise its inspection instructions so the defective circuit breakers could be more readily identified and replaced. The carrier also stated it would re-inspect each operational DC-9 aircraft for these specific defective circuit breakers by April 13, 2007.
- About 2 years later, on January 5, 2009, Northwest found another aircraft that contained a defective circuit breaker and again voluntarily disclosed this non-compliance, which the CMO accepted. The circuit breaker found in this aircraft should have been removed in 2005 as part of the first fleet inspection. The CMO manager (Ken McGurty) stated that he approved the acceptance due to differences between the first and second disclosures and the incomplete information in the AD.
- Northwest completed a third fleet wide inspection and identified 24 additional DC-9 aircraft that contained the defective circuit breakers. In total, the 25 non-compliant aircraft found in 2009 (24 percent of its DC-9 fleet) had operated for

¹⁵ One cycle represents one take-off and landing.

almost 4 years in non-compliance to AD 2002-25-04. Many of these 25 aircraft included circuit breakers that should have been identified as part of the 2007 fleet inspection, which leaves questions as to the carrier's thoroughness of this inspection and the adequacy of FAA's follow-up to the carrier's comprehensive fix.

We agree there were differences in the two voluntary disclosures. However, given the history of non-compliance to this specific AD and FAA's guidance to consider systemic issues—many of which had just been identified during the special emphasis review—the CMO should have pursued enforcement action instead of accepting the voluntary disclosure. Therefore, FAA should consider taking appropriate administrative action against Mr. McGurty for approving the repeat disclosure and the three disclosures accepted during FAA's special emphasis review.

Allegations of Regional Oversight Weaknesses Unsubstantiated

Mr. Lund alleged that the Great Lakes Region has engaged in a pattern of declining to pursue enforcement actions and civil penalties, which also contributed to the AD problems at Northwest. However, we found no evidence to support that the Regional Office intentionally prevented CMO inspectors from recommending legal enforcement action (i.e., civil penalty). While we found other issues involving enforcement cases, we were unable to substantiate Mr. Lund's allegation that the former Regional Flight Standards Division Manager rejected two of his recommended civil penalties after approval by the CMO Manager and regional specialist. We also compared the Region's percentage of penalties with other regions and found no concerning disparities (see table 2).

**Table 2. Percentage of Civil Penalty Cases by FAA Region
September 1, 2008-May 19, 2009**

Regional Office	Letter of Correction	Civil Penalty	Total	Civil Penalty %
<i>Eastern</i>	129	13	142	9%
<i>Great Lakes</i>	273	22	295	7%
<i>Southern</i>	131	8	139	6%
<i>Southwest</i>	456	28	484	6%
<i>Western Pacific</i>	65	10	75	13%

The Region Handled Mr. Lund's Civil Penalty Cases Appropriately

In 2008, Mr. Lund recommended civil penalties for two violations that were not AD related (Enforcement Case 2008GL010106 video monitors and Enforcement Case 2008GL010095 improperly installed outflow valve actuator). However, Mr.

Lund alleged that the CMO and regional specialist approved the penalties, but the former Flight Standards Division Manager for the Great Lakes Regional Office rejected them.¹⁶

In both cases, the regional specialist stated that the Enforcement Investigative Report (EIR) package did not provide sufficient evidence to prove the air carrier intentionally violated a Federal Aviation Regulation; therefore, according to FAA Order 2150.3B, a civil penalty was not supported. For example, in the case involving the valve actuators, the specialist stated that the EIR package did not properly label inspector opinions, contained an inaccurate number of non-compliant flights, and lacked an orderly and logical statement of the facts as required per FAA Order 2150.3B. The regional specialist prepared a written analysis, which was reviewed by his supervisor and forwarded to the Regional Director for his concurrence.

In both cases, the Regional Office personnel prepared a non-conformity report (NCR) and sent it, along with the EIR package back to the CMO to correct the non-conformities. The CMO's Principal Avionics Inspector (Mr. Biever) consulted with the regional counsel and determined that the carrier's intent (i.e., whether the air carrier deliberately or knowingly did not comply) could not be proven and issued letters of correction to Northwest.

Other Enforcement Issues Noted

While we did not substantiate Mr. Lund's allegations about improprieties in the Great Lakes Regional Office, our interviews of CMO inspectors found some reluctance to recommend civil penalties because they believed the region was too lenient on imposing civil penalties. We believe this perception may partially be a by-product of the new enforcement tool implemented in October 2007, which limited the inspectors' flexibility to recommend a civil penalty. Another contributing factor may be that for several years FAA Headquarters strongly promoted the benefits of working collaboratively with air carriers as opposed to assessing large civil penalties.

We also identified one enforcement case that was identified by Mr. Lund, involving the windshield heat wiring inspection AD that the Regional Office misplaced after receiving it from the CMO in October 2008. It was not until we asked about the status of the case as part of our review that the mistake was discovered. The CMO re-sent the case in September 2009, and the Region acted promptly to propose a \$1.35 million civil penalty against Northwest, the largest amount recommended for cases opened during the special emphasis review.

¹⁶ The Flight Standards Division Manager has since retired, but we interviewed regional personnel who worked on both cases and reviewed related documentation.

CONCLUSION

Despite a 10-year history of AD non-compliance at Northwest, CMO inspectors chose to work collaboratively with the air carrier to correct non-compliances and accept voluntary disclosures of AD deficiencies with little consideration of legal enforcement action. This is contrary to FAA's own guidance, which states that administrative actions, such as letters of correction, are inappropriate when there is a trend of non-compliance for the same FAA regulation that has gone undeterred by the use of administrative or legal enforcement action. We testified in April 2008, after AD non-compliances at Southwest were exposed, that we were concerned FAA relies too heavily on self-disclosures and promotes a pattern of excessive leniency at the expense of effective oversight and appropriate enforcement. Further, a partnership program that does not ensure air carriers correct underlying problems is less likely to achieve safety benefits.

Our review has found that Northwest continues to have AD problems—many based on inadequate work instructions due to engineering errors—despite the carrier's attempts to correct the problems over the years. Mr. Lund's most recent findings of Northwest's failure to comply with the AD requiring maintenance program changes for fuel tank systems demonstrate that the carrier's audit process implemented in 2007 may be ineffective, as alleged by Mr. Lund. Therefore, it is critical that FAA provides heightened oversight of Northwest's AD program to ensure compliance to both past and future ADs.

RECOMMENDATIONS

Based on our findings, we recommend that FAA:

1. Determine why inspectors did not identify significant systemic issues in Northwest's AD program during the February 2008 Safety Attribute Inspection and whether changes to the Safety Attribute Inspection checklist for AD programs are needed to more effectively identify potential systemic deficiencies in air carrier programs.
2. Require inspectors to perform the AD program Safety Attribute Inspection scheduled for FY 2010 at Northwest independently of Delta so problems in the carrier's system are not overlooked.
3. By March 31, 2010, conduct an independent review of Northwest's AD program to include the following:

- a) A 10-percent sampling of ADs not previously reviewed by the CMO during the AD special emphasis review. If significant non-compliance continues to be identified, expand the review to 100 percent.
 - b) Verification that actions taken in response to Letters of Correction and SAT recommendations were implemented and are effective.
 - c) Review of Northwest's parts configuration control procedures.
 - d) Verification that Northwest's audit process (Engineering Mandatory Review Board) implemented in 2007 is being conducted before AD compliance dates.
 - e) Assurance that the fuel tank programs for all Northwest fleets comply with the ADs for Fuel Tank System Maintenance Program and FAR 121.1113C.
 - f) Assurance that Northwest takes adequate corrective actions if substantial non-compliance is found.
4. Consider taking administrative action against the Principal Avionics Inspector for improperly approving the Operations Specification for Fuel Tank System Maintenance Program and extending AD and FAR required compliance dates.
 5. Consider taking administrative action against the CMO Manager for accepting voluntary disclosures during the special emphasis review and incorrectly reporting a non-compliant AD as compliant.

ACTIONS TAKEN OR PLANNED AS A RESULT OF THE REVIEW

By memorandum dated December 3, 2009, FAA Administrator Babbitt concurred with our findings and recommendations. We consider the memorandum responsive to our report (see attachment 2).

If you have any questions concerning this report, please contact me at 202-366-1959, or my Deputy, David Dobbs, at 202-366-6767.

Attachments (2)

#

cc: FAA Administrator

EXHIBIT. METHODOLOGY

We conducted 12 interviews with the CMO Aviation Safety Inspectors (ASIs) and Supervisory Principal Inspectors for Avionics and the Delta/Northwest Joint Transition Team (JTT).¹⁷

1. Mark Lund, ASI (Whistleblower)
2. Connie Henke, ASI
3. Rory Ernst, ASI
4. Randy Johnson, ASI
5. Roy Peterson, ASI
6. Dan Mirau, ASI
7. David Benner, ASI
8. Lendelle Adams, ASI
9. Paul Biever, Supervisory PAI (Effective August 31, 2008)
10. Sam Varajon, Supervisory PAI (Prior to August 31, 2008 and now JTT)
11. Thomas Stachiw, Manager Delta/Northwest JTT
12. Ken McGurty, Northwest CMO Manager

We interviewed four individuals responsible for reviewing enforcement cases from Great Lakes Region—three from the Flight Standards' Division and one from General Counsel's Office.

1. Thomas Winston, FAA Acting Flight Standards Division Manager
2. Maria Acevedo, Flight Standards Division, Technical Programs Branch Manager
3. Thomas Duellman, Technical Programs Branch, ASI
4. Chris Zurales, Office of Regional Council, Senior Attorney

We interviewed three representatives from the Transport Airplane Division, Aircraft Certification Service, Seattle Certification Office (ACO),

1. Judy Coyle, Aerospace Engineer
2. Tom Thorson, Senior Engineer
3. John Regimbal, Senior Engineer

¹⁷ The JTT was established to identify increased risk factors associated with changes made at both Northwest and Delta carriers during the merger process and recommend focused Air Transportation Oversight System (ATOS) activities to the PIs assigned to the two Certificate Management Units (CMUs).

We reviewed and analyzed numerous documents and data including:

- Airworthiness Directives
- Enforcement Investigation Report packages and related documentation
- Correspondence between the CMO and Northwest
- Northwest maintenance and engineering documents
- Code of Federal Regulation— Title 14: Aeronautics and Space
- FAA Order 2150.3B, FAA Compliance and Enforcement Program
- FAA Notice 8900.36, Special Emphasis Validation of Airworthiness Directives Oversight
- FAA Order 8900.1, Volume 1, Chapter 11, Voluntary Disclosure Reporting Program
- Advisory Circular 00-58AB, Voluntary Disclosure Reporting Program
- Air Transportation Oversight System (ATOS) inspection records
- Enforcement and voluntary disclosure data maintained by the CMO and in FAA's Enforcement Information System.

ATTACHMENT 1. DELEGATION LETTERS

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

FOR OFFICIAL USE ONLY

(Public availability to be determined under 5 U.S.C. 552)



THE SECRETARY OF TRANSPORTATION
WASHINGTON, D.C. 20590

January 5, 2009

MEMORANDUM FOR THE INSPECTOR GENERAL

FROM:


Mary E. Peters

SUBJECT:

**Whistleblower Complaint Referral by the Special Counsel:
OSC File No. DI-08-2971 (Northwest Airlines Certificate
Management Office/Lund)**

On November 25, 2008, the Acting Special Counsel referred to me a whistleblower complaint filed with the U.S. Office of Special Counsel (OSC File No. DI-08-2971) by Mark Lund, a Federal Aviation Administration (FAA) Aviation Safety Inspector, concerning alleged failures in FAA's oversight of Northwest Airlines (NWA) by FAA's Certificate Management Office (CMO). Mr. Lund alleges that FAA's NWA CMO has failed to take appropriate enforcement action against NWA relating to its systemic non-compliance with FAA Airworthiness Directives. Mr. Lund has raised similar issues in the past. In 2005, your office conducted an audit of FAA's investigation into concerns raised by Mr. Lund concerning alleged unsafe maintenance practices by NWA and inadequate oversight by NWA CMO. The audit, which was completed in 2007, validated Mr. Lund's concerns. He has also raised these issues directly with FAA which has been reviewing the matter.

In accordance with his statutory authority, the Acting Special Counsel determined that the information disclosed in this complaint evidences a substantial likelihood of a violation of law, rule or regulation, gross mismanagement, an abuse of authority and a substantial and specific danger to public safety. As a result of this determination, the Department must conduct an investigation of the allegations and submit a report setting forth findings to the Office of Special Counsel.

Although section 1213(c) of Title 5, United States Code, requires the head of the agency to conduct an investigation of the referred matter and section 1213(d) requires the report to the Office of Special Counsel to "be reviewed and signed by the head of the agency," my authority to conduct an investigation is subject to delegation. Given the Office of Inspector General's past involvement in related matters, I have determined that it is appropriate to delegate investigative responsibilities for this matter, as well as any related subsequent whistleblower allegations, to you as Inspector General, and have attached a copy of the Acting Special Counsel's letter and complaint.

The Department's report to the Office of Special Counsel must be submitted within 60 days after the date the Department received the information unless the Acting Special Counsel agrees in writing to a longer period of time. Thus, the report is due on January 26, 2009. Please inform me of the results of your office's review and completion of the investigation of this matter and promptly apprise me of any issues that may arise in investigating these allegations.

Attachments

**ATTACHMENT 2. FAA MEMORANDUM IN RESPONSE TO FINDINGS AND
RECOMMENDATIONS**



Federal Aviation Administration

Memorandum

Date: DEC 3 2009

To: Lou E. Dixon, Assistant Inspector General for Aviation and Special Program Audits

From: J. Randolph Babbitt, Administrator *JRB for JRB*

Prepared by: Margaret Gilligan, Associate Administrator for Aviation Safety, x73131

Subject: FAA Oversight of Airworthiness Directive (AD) Compliance at Northwest Airlines, Project No. 09A1002A000 – Implementation Plan for Recommendations

After reviewing the findings and recommendations in the above-referenced report, my senior management teams in Aviation Safety (AVS) and Flight Standards Service (AFS) advised me to accept each recommendation with no proposed changes or comments. I concur.

To resolve these matters quickly, I've asked Mr. John Allen, Director, AFS, to establish an Internal Assistance Capability (IAC) review team to oversee the timely accomplishment of our implementation plan for each recommendation (see attachment) by the affected AFS regional division staff, the management team, and employees of the affected local office. To help ensure objectivity, the IAC team will be led by an AFS deputy regional division manager from a region other than the Great Lakes or Southern Regions. Also, IAC team members will be senior managers from AFS headquarters policy offices and AFS regional division offices.

If you have any questions or desire additional information, please have a member of your staff contact Mr. Michael McCafferty, AFS Executive Officer, at (202) 267-3928 or by e-mail at michael.mccafferty@faa.gov.

Implementation Plan for Office of Inspector General (OIG) Project No. 09A1002A000

OIG Recommendation #1: Determine why inspectors did not identify significant systemic issues in Northwest's AD program during the February 2008 Safety Attribute Inspection and whether changes to the Safety Attribute Inspection checklist for AD programs are needed to more effectively identify potential systemic deficiencies in air carrier programs.

OIG Recommendation #2: Require inspectors to perform the AD program Safety Attribute Inspection scheduled for FY 2010 at Northwest independently of Delta so problems in the carrier's system are not overlooked.

OIG Recommendation #3: By March 31, 2010, conduct an independent review of Northwest's AD program to include the following:

- a) A 10-percent sampling of ADS not previously reviewed by the CMO during the AD special emphasis review. If significant non-compliance continues to be identified, expand the review to 100 percent.
- b) Verification that actions taken in response to Letters of Correction and SAT recommendations were implemented and are effective.
- c) Review of Northwest's parts configuration control procedures.
- d) Verification that Northwest's audit process (Engineering Mandatory Review Board) implemented in 2007 is being conducted before AD compliance dates.
- e) Assurance that the fuel tank programs for all Northwest fleets comply with the ADs for Fuel Tank System Maintenance Program and FAR 121.1113C.
- f) Assurance that Northwest takes adequate corrective actions if substantial non-compliance is found.

AVS Response: We will establish an Internal Assistance Capability (IAC) review team to oversee the timely accomplishment of these recommendations. We expect to establish the IAC team as soon as possible (i.e., by no later than December 11). We will update OIG on the status of our actions on a bimonthly basis until these recommendations are completed.

OIG Recommendation #4: Consider taking administrative action against the Principal Avionics Inspector for improperly approving the Operations Specification for Fuel Tank System Maintenance Program and extending AD and FAR required compliance dates.

OIG Recommendation #5: Consider taking administrative action against the CMO Manager for accepting voluntary disclosures during the special emphasis review and incorrectly reporting a non-compliant AD as compliant.

AVS Response: We request from OIG all items of proof supporting these recommendations. We will work with FAA Human Resources personnel to determine what action, if any, may be appropriate based on the evidence you can provide to us. We expect to make a determination about these matters as soon as possible (i.e., by no later than January 29, 2010).



Federal Aviation Administration

Memorandum

Date: DEC 11 2004

To: Lou E. Dixon, Assistant Inspector General for Aviation and Special Program Audits, JA-10

From: *mg* Margaret Gilligan, Associate Administrator for Aviation Safety, AVS-1 *MGH*

Prepared by: Michael F. McCafferty, Executive Officer, AFS-10, 7-3928

Subject: FAA Oversight of Airworthiness Directive (AD) Compliance at Northwest Airlines, Project No. 09A1002A000 – Internal Assistance Capability (IAC) Team

As followup to our response regarding the above-referenced report, please note we've established an IAC review team to oversee the timely accomplishment of our implementation plan for each of the five recommendations. The names and organization locations of the IAC team are as follows:

Rick Domingo	Deputy Division Manager, ANM-201	IAC Team Lead
Larry Youngblut	Air Carrier Operations Branch, AFS-220	IAC Team Member
Ron Wojnar	Aircraft Maintenance Division, AFS-300	IAC Team Member
Peter Spofford	Deputy Division Manager, AFS-900	IAC Team Member
Jim Edwards	AAL Technical Programs Branch, AAL-230	IAC Team Member
Ron Katana	AFS Executive Staff, AFS-10	IAC Team Member
Mike Millard	Program for Emerging Leaders & ASI	IAC Team Member (Adjunct)

If you have any questions or need additional information, please have a member of your staff contact Michael McCafferty by telephone at 202-267-3928 or by email at michael.mccafferty@faa.gov.



**U.S. Department of
Transportation**

Office of the Secretary
of Transportation

GENERAL COUNSEL

1200 New Jersey Ave. S.E.
Washington, D.C. 20590

February 4, 2010

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-08-2971

Dear Ms. Gorman:

This is in response to your e-mail of February 3, 2010, in which you inquired about the status of administrative action planned by the Federal Aviation Administration (FAA) in the whistleblower complaint filed by Mr. Mark Lund.

FAA advises that on January 29, 2010, management proposed a 5 day suspension for Mr. Paul Biever, Principal Avionics Inspector and a 10 day suspension for Mr. Ken McGurty, Manager of the Northwest Certificate Management Office.

Sincerely,

A handwritten signature in black ink, appearing to read "Judith S. Kaleta".

Judith S. Kaleta
Assistant General Counsel for General Law