



THE SECRETARY OF TRANSPORTATION

WASHINGTON DC 20590

December 10, 2010

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

Re: OSC File No. DI-10-2602

Dear Mr. Reukauf:

By letter dated July 9, 2010, you referred for investigation disclosures from Rand Foster, an Aviation Safety Inspector assigned to the Federal Aviation Administration's (FAA) Northwest Mountain Region as a Technical Specialist. Mr. Foster alleged that potentially non-compliant and unsafe modifications, involving the installation of Night Vision Imaging Systems (NVIS), were performed on hundreds of emergency medical service (EMS) helicopters and charged that FAA failed to take action to appropriately address these deficiencies. I delegated investigative responsibility for this matter to FAA's Office of Audit and Evaluation (AEE). Enclosed is the Report of Investigation (ROI), including a comprehensive corrective action plan.

To summarize our investigation, of the eleven allegations detailed in your referral, three were substantiated, three were partially substantiated, and five were not substantiated. The investigation found that a significant number of EMS helicopters were not in compliance with approved FAA certification requirements for the NVIS systems. While FAA's certification process for the NVIS modifications was technically compliant with the regulations, the installer of these systems, Aviation Specialties Unlimited, Inc. (ASU) did not fully comply with the requirements in numerous cases. In addition, the operators of these aircraft frequently failed to complete FAA-required conformity inspections to ensure continued compliance with the approved certification criteria after the helicopters were modified.

The certificate holders (who modified, maintained, and operated NVIS-equipped aircraft) were solely responsible for compliance with the approved certification criteria. However, FAA did not maintain sufficient tracking and surveillance to ensure that all NVIS-modified EMS helicopters were fully compliant at the time of the completed modifications, and to ensure that the aircraft remained in compliance with approved certification requirements once they were in service.

The investigation also substantiated a number of cases where a FAA inspector inappropriately issued field approvals, which allowed some aircraft to return to service, contrary to FAA policy, and that FAA did not provide clear and unambiguous guidance to

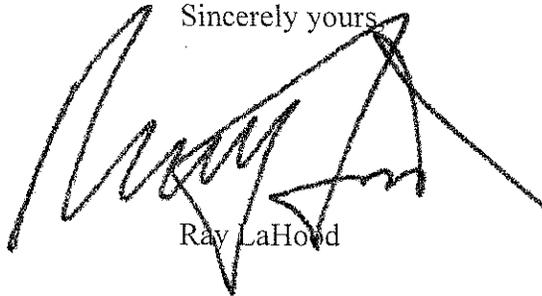
William E. Reukauf

operators for maintaining continuing compliance with the NVIS certification requirements. These shortcomings also contributed to the compliance deficiencies that were identified in the ASU-modified fleet.

As a parallel effort conducted in conjunction with this investigation, FAA performed a detailed compliance audit on a random sample of the affected aircraft and has developed a comprehensive corrective action plan to address the deficiencies that were identified in the investigation. This plan has already been implemented and the main elements of the plan will be completed within 12 months of October 30, 2010. The main corrective actions include: 1) All operators were notified of the identified deficiencies on October 15, 2010 and FAA will follow up, monthly, with all operators within 60 days after the initial notification; 2) Significantly increased FAA inspector surveillance for conformity with the requirements across the entire NVIS-modified helicopter fleet; 3) A determination of the root causes that have contributed to the errors made during the modification process and the development of installation conformity guidelines and training for all operators; 4) Immediate termination of ASU's authority to approve changes and an increase in the surveillance of all ASU projects; 5) The issuance of improved guidance to all approved modification centers and operators on how to maintain continued compliance after NVIS modifications; and 6) Discipline of all employees involved in the inappropriate field approvals. The complete details of, and the implementation timetable for, FAA's corrective action plan are contained in the attached ROI.

I am grateful to Mr. Foster for raising these concerns. His diligence has led to significant process improvements at FAA which will further enhance aviation safety.

Sincerely yours

A handwritten signature in black ink, appearing to read 'Ray LaHood', is written over the typed name. The signature is stylized and somewhat cursive.

Ray LaHood

Enclosures

**Federal Aviation Administration
Report of Investigation
To the Secretary of Transportation**

In response to:

U.S. Office of Special Counsel (OSC)

File DI-10-2602

**Director, Audit and Evaluation (AAE-1)
Federal Aviation Administration**

December 10, 2010

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1. Introduction and Summary

1.1 Origin and Conduct of Investigation

In July 2010, the Federal Aviation Administration, (FAA) Office of Audit and Evaluation (AAE) was directed by the Secretary of Transportation to investigate Office of Special Counsel (OSC) whistleblower disclosure, OSC File No. DI-10-2602, dated July 9, 2010. The FAA's Office of Audit and Evaluation is an independent organization with authority to conduct oversight of all FAA organizations and programs. This disclosure was originated by Mr. Rand Foster, who is an FAA Aviation Safety Inspector (ASI) assigned to the FAA's Northwest Mountain Region (ANM) as a Technical Specialist.

Included in the referral was a letter from the OSC to Secretary LaHood dated July 9, 2010, that contained information referencing a prior OSC disclosure, OSC File No. DI-08-1904, dated July 8, 2008, which had also originated with FAA Inspector Foster. Both OSC referrals paralleled each other and described similar allegations. However, the 2008 OSC disclosure investigation was not completed within deadlines imposed by the OSC, subsequent extensions were denied, and OSC chose to publish its findings without a formal Department of Transportation (DOT) response. Both disclosures contain allegations of non-compliance and potentially unsafe modifications that were performed on hundreds of emergency medical service (EMS) helicopters and charge that FAA failed to appropriately address the problem. For the purpose of this report, we will refer to OSC File No. DI-08-1904, dated July 8, 2008, as OSC I, and OSC File No. DI-10-2602, dated July 9, 2010, as OSC II.

Mr. Foster alleges that approximately 300 EMS helicopters may have been improperly modified with Night Vision Imaging System (NVIS) installations and received FAA approval for non-compliant modifications. The helicopters in question were modified by Aviation Specialties Unlimited, Inc. (ASU), of Boise, Idaho, which holds several Supplemental Type Certificates (STCs¹) and a repair station certificate. The responsible office for ASU's STC approvals is the Seattle Aircraft Certification Office (SACO) and the responsible office for monitoring the installation of NVIS equipment under ASU's STCs is the Boise Flight Standards District Office (FSDO) in Boise Idaho.

Additionally, the complainant alleges that after the FAA discovered the modifications did not comply with the required specifications, it failed take appropriate action to bring these aircraft into compliance. Mr. Foster also contends that FAA failed to implement a formal process to ensure that the affected helicopters were brought into compliance in a timely manner because of an effort to conceal this issue from the public.

¹ A listing of technical acronyms and abbreviations is contained in Appendix A and definitions in Appendix B.

1.2 Description, Conduct, and Methodology of the Investigation

The FAA organizations involved in the allegations are the Aircraft Certification Service (AIR) and the Flight Standards Service (AFS). AIR is responsible for setting and overseeing compliance with the design and manufacturing standards for aircraft and other aviation products. AFS is responsible for, among other things, determining that aircraft are in an airworthy condition before they are operated and overseeing the repair stations where work is performed on aircraft. Within the AFS and AIR umbrella organizations, the regional offices include: ANM-100 (Transport Airplane Directorate); ANM-200 (Northwest Mountain Flight Standards Division); ASW-170 (Fort Worth Aircraft Certification Office); and FTW AEG-25 (Fort Worth Aircraft Evaluation Group). Additionally, it was determined by AAE that the investigation should also include the Boise Flight Standards District Office (FSDO) where ASU is geographically located.

After further evaluation of the allegations, it was determined that AAE required substantial technical assistance in the form of aviation safety inspectors from AFS and AIR, as well as engineers from AIR. Inspectors from these organizations developed and conducted substantial parts of this investigation, but were overseen by an AAE lead investigator.

Prior to the OSC II referral, AVS had already initiated an investigation into allegations transmitted in an email dated March 2, 2010, to AVS-1 and AVS-2. A copy of that email is included in Appendix E of this report. In addition to the email sent to AVS-1 and AVS-2, the complainant sent a letter dated May 31, 2010, to the Secretary of Transportation and the FAA Administrator, which contained similar allegations discussed in both the OSC I and II disclosures. A copy of that letter is included in Appendix F of this report.

AAE conducted interviews with the complainant on August 17-19, 2010. Mr. Foster provided a list of names and positions of individuals who had direct responsibility and authority for the FAA's NVIS/NVG approval process. He provided AAE with background information regarding ASU's compliance history and the CFR Part 145 Repair Station recertification project that occurred after ASU's Repair Station Certificate was revoked in 2008. Mr. Foster also provided background information regarding helicopters that had been approved for modification inappropriately by a previous Principal Avionics Inspector. He expressed his concerns openly and his strongly-held belief that the FAA repeatedly failed to address the proper certification and re-inspection of those helicopters in accordance with Federal Aviation Regulations (FARs).

AAE reviewed the AVS 2010 NVIS Audit Plan, which was already under development prior to receipt of OSC II. This Audit was designed to assess the current condition of NVIS approved STCs, that were already installed, by conducting sampling inspections and to validate any findings discovered during the Audit for further disposition and corrective action. For the remainder of this report, we will refer to the 2010 NVIS Audit Plan as the "2010 Audit."

From August 17, 2010 through October 22, 2010, AAE conducted 26 onsite interviews with FAA and ASU personnel. Listed below are the names of individuals that were interviewed during the course of our investigation.

1. Rand Foster, Aviation Safety Inspector (ANM-230), Renton, WA
2. [REDACTED], Deputy Associate Administrator for Aviation Safety (AVS-2), FAA HQ
3. [REDACTED], Director, Flight Standards Service (AFS-1), FAA HQ
4. [REDACTED], former Director (AFS), Special Assistant to AVS-1, FAA HQ
5. [REDACTED], Manager, Flight Standards Division (ANM-200), Renton, WA
6. [REDACTED], Manager, Transport Airplane Directorate (ANM-100), Renton, WA
7. [REDACTED], Acting Assistant Division Manager (ANM-201B), Renton, WA
8. [REDACTED], Special Assistant to the Division Manager (ANM-200SA), Renton, WA
9. [REDACTED], Manager, Flight Test Branch (ANM-160S), Renton, WA
10. [REDACTED], Manager, Boise FSDO (NM-11), Boise, ID
11. [REDACTED], Assistant Manager, Boise FSDO (NM-11), Boise, ID
12. [REDACTED], Manager, Seattle MIDO (ANM-108S), Renton, WA
13. [REDACTED], Manager, Technical Standards Branch (ANM-240), Renton, WA
14. [REDACTED], Aviation Safety Inspector (ANM-230), Renton, WA
15. [REDACTED], Principal Avionics Inspector for ASU, Boise FSDO, Boise, ID
16. [REDACTED], Principal Maintenance Inspector for ASU, Boise FSDO, Boise ID
17. [REDACTED], NVG Project Engineer, SACO, Renton, WA
18. [REDACTED], NVG Project Engineer, FW ACO (ASW-170), Fort Worth, TX
19. [REDACTED], Flight Test Pilot, FW ACO (ASW-170), Fort Worth, TX
20. [REDACTED], Propulsion Engineer SACO (ANM-140), Renton, WA
21. [REDACTED], Senior Aerospace Engineer SACO (ANM-120S), Renton, WA
22. [REDACTED], Aviation Safety Inspector, FW AEG (AEG-25), Fort Worth, TX
23. [REDACTED], Aviation Safety Inspector, FW AEG (AEG-25), Fort Worth, TX
24. [REDACTED], Investigations Supervisor (ANM-750), Renton, WA
25. [REDACTED], President of Aviation Specialties Unlimited (ASU), Boise, ID
26. [REDACTED], Vice President of Aviation Specialties Unlimited (ASU), Boise, ID

Planning for the 2010 Audit began in March 2010. After reviewing findings on ASU modified aircraft documented in the FAA's Program Tracking and Information Subsystem (PTRS), the Transport Airplane Directorate (ANM-100) and the Northwest Mountain Flight Standards Division (ANM-200) began work to determine the root causes for the discrepancies associated with ASU NVIS installations and the documented findings.

The initial review indicated that the previously-collected data were not detailed enough to conduct a root cause assessment. The need for more detailed information, along with the mandate to investigate the OSC II disclosure, stimulated an accelerated plan to collect additional data and supporting evidence necessary to validate or refute the allegations in OSC II. Moreover, given the history of the disclosures raised by Inspector Foster, AAE and AVS determined that addressing the OSC II allegations, alone, was not sufficient to fully respond to current disclosures and potential future disclosures, and accordingly, the 2010 Audit also addressed allegations in OSC I.

With AAE concurrence, ANM-100 and ANM-200 initiated a special audit of NVIS installations. The 2010 Audit team was composed of five sub-teams, each with three inspectors and one engineer, conducting hands-on inspections and supported by a data validation team. The audit team was assembled from AFS and AIR offices across the

country. Phase 1 of the Audit was concerned solely with NVIS installations made in accordance with STCs that are owned and installed by ASU. In Phase 2, other non-ASU installations were evaluated to determine if the nature of the findings is consistent across this sector of the industry. This information was utilized to develop appropriate corrective actions to improve compliance and conformance of all NVIS modified helicopters.

Phase 1 of the 2010 Audit was completed on September 30, 2010, and Phase 2 was completed in mid-October 2010. During Phase 1, 29 aircraft were inspected. A substantial number of non-conformances and non-compliances were identified, which were attributed to ASU as the STC holder/ installer, as well as the helicopter operators. A team of engineers and inspectors from ANM-100 and ANM-200 assessed these findings and eight overarching findings were identified. These findings and planned future actions by AFS and AIR are summarized below. Details, including time lines, are listed in Section 3.2.

1.3 Summary of Evidence Obtained From the Investigation

Of the eleven allegations made in the OSC II disclosure, six were substantiated in whole or in part and five were not substantiated. Each of the eleven allegations resulted in process improvements or corrective actions to FAA policy or procedures which are listed in Section 3.2 of this report.

1.4 Violations or Apparent Violations of Law, Rule or Regulation

There were no apparent violations of law, rule or regulation by FAA employees found in this investigation. However, an enforcement case is in progress as a result of the improper modification of an instrument detected during routine AFS surveillance. Regulatory compliance issues detected during the 2010 Audit and attributed to ASU or aircraft operators will be handled in accordance with the processes prescribed in FAA Order 2150.3C, *FAA Compliance and Enforcement Program*.

1.5 Changes in Agency Rules, Regulations or Practices

The investigation of this disclosure and the accompanying 2010 Audit revealed the need for changes in agency guidance and policies. These are noted in corrective actions or improvements to FAA policy or procedures and are detailed in Section 3.1 of this report. All corrective action plans are scheduled for completion within 24 months or by the dates indicated in Section 3.2 of this report.

1.6 Restoration of Any Aggrieved Employee

The results of this investigation do not indicate that any employee had been aggrieved in relation to OSC File No. DI-10-2602, dated July 9, 2010.

1.7 Disciplinary Action Against Any Employee

As discussed in allegation 2 of the OSC disclosure, an ASI in the Boise FSDO made a number of inappropriate field approvals. A contributing factor was the failure of FSDO management to ensure ASI's adhered to a field approval process that should have precluded the inappropriate field approvals. Upon review of the facts, and in consultation with division staff and the regional human resources division, the ASI responsible for the field approvals was issued a five-day suspension by a decision letter on February 5, 2008. He subsequently served the suspension. The failure of the FSDO manager and assistant manager to implement the field approval process and detect the improper actions of the ASI were viewed by their supervisor, the Assistant Division Manager, to be a result of poor performance rather than misconduct. The manager was advised he would not receive a superior contribution pay increase because of his office's sub-standard performance in the oversight of ASU. Subsequently, both the manager and assistant manager retired.

1.8 Referral to the Attorney General

There were no actions discovered during the investigation that required referral to the Attorney General.

2. BACKGROUND

2.1 Night Vision Goggles and Their Impact on Safety

NVGs first came into widespread use as a military application. Initially used during the Vietnam conflict, they were considered an essential military tool by the time of Operation Desert Storm in February of 1991. The same tactical advantages NVGs present make them ideal for night time helicopter emergency medical services (HEMS) operations. In these operations, they are particularly useful in seeing and avoiding obstacles in the low-altitude enroute, takeoff and landing phase of flight when operating away from brightly lit urban areas.

The National Transportation Safety Board (NTSB) released a *Special Investigation Report on Emergency Medical Services Operations*, which among other things, discussed the importance of NVIS in HEMS operations.² It is noted in the report that while 38 percent of HEMS flights were at night, 49 percent of accidents occurred during this time. Page 13 of the NTSB report contains the statement, “The Safety Board concludes that if used properly, NVIS could help EMS pilots identify and avoid hazards during nighttime operations.”

It is important to note that an NVIS modification is an aid to flight crews and is not required by FAA rule or regulation. However, if installed, it must be compliant with the applicable FAA regulations, and the system must conform to aircraft type design requirements.

Standard cockpit lighting is unsuitable for NVG operations because of glare and additional reflections that are highlighted by the goggles. NVIS modifications mitigate this glare and additional reflections, allowing pilots to use NVGs safely. Without modified cockpits, lights used to make cockpit instrumentation readable during night operations can cause bright “blooming” within the visual field while wearing NVGs. This can eliminate the safety margin gained by using NVG in night operations.

2.1.1 ASU NVG Installations

ASU's installations consist of placing a special material over the face of instruments and radios, which are “back-lit” at night to make them readable. In some cases, ASU replaces unfiltered light bulbs with filtered light bulbs in certain radios and instruments in addition to post-lights aimed away from the cockpit but toward parts of the cabin which need to be illuminated.

NVGs alter colors used for warning, caution and advisory indications as well as limitation markings on instruments. Generally, the ASU NVIS modifications alter the intensity and appearance of cockpit, instrument and avionics lighting to make them suitable for viewing while wearing NVGs. This is accomplished by application of filter material over instruments, avionics and warning/caution/advisory lights, supplemented with additional lighting and sometimes installing filtered light bulbs in certain instruments or radios as well. The specific modifications vary by aircraft make and model. It is also important to note that individual variations and modifications made after an aircraft was originally certified may

² Aviation Special Investigation Report NTSB/SIR-06/01, adopted by the NTSB on January 25, 2006.

result in differences in cockpit configuration for a given make and model and between aircraft of the same make and model in an operator's fleet.

2.2 Supplemental Type Certificates

An STC is a type certificate (TC) issued under Title 49 United States Code (USC) § 44704 (b) by the Administrator. It defines the design change to a product or appliance. As appropriate it lists the aircraft serial numbers affected and identifies the certification basis listing specific regulatory compliance information for the design change.

The type of design approval is determined by the magnitude and complexity of the change. Changes can be further defined as minor and major changes (Title 14 Code of Federal Regulations (14 CFR) § 21.93). Under 14 CFR § 21.113, STCs are required for major changes in type design, not great enough to require a new application for a TC under § 21.19.

Minor changes are defined as changes that have no appreciable effect on the weight, balance, structural strength, reliability, operational characteristics, airworthiness characteristics, or other characteristics affecting the safety of the product. Minor changes may be approved under a method acceptable to the Administrator prior to submitting any substantiating or descriptive data to an ACO (14 CFR § 21.95).

Major changes are defined as all changes that are not minor changes. Major changes require the applicant to submit substantiating data and necessary descriptive data for inclusion in the type design, per 14 CFR § 21.97.

An NVIS modification to a helicopter is considered a major change and requires an STC.

2.2.1 Key Steps in Approval

There are many steps involved in the STC approval process. An in-depth overview of this process can be found in AC 21-40, *Application Guide for Obtaining a Supplemental Type Certificate*.

Many of the steps associated with the issuance of an STC may be different when issuing an initial STC versus an amended STC or a minor change to an existing STC. However, there is one requirement common to all of them. In all instances, the type design for the STC, amended STC or change must be FAA approved prior to the associated aircraft being returned to service (RTS).

2.2.2 The Role of Delegation in STCs

Title 49 USC § 44702(d) authorizes the Administrator to delegate to private persons any function relating to examinations, inspections, and testing of aircraft, subject to any regulations, supervision, and review that the Administrator may prescribe.

FAA Order 8110.4, *Type Certification*, and AC 21-40 indicate the use of designees is recommended. The decision to delegate certain compliance findings to designees depends upon a number of factors such as safety criticality of the installation, complexity of the design, the experience of applicant and designees, and applicant's processes. The handling

of the ASU projects was no exception. The same factors were used by the SACO to determine the use of designees and the level of direct involvement of FAA engineering and flight test personnel. ASU requested the use of designees for their projects in the past. With respect to their requests, since the ASU modifications were viewed as an “aid to the pilot” which actually increased the level of safety, it was normal for the SACO to rely on the use of designees. The use of designees on ASU NVG approvals allows SACO resources to be focused on more important areas such as continued operational safety of the US registered transport aircraft in commercial operation.

2.2.3 The ASU Partnership for Safety Plan (PSP)

On March 17, 2010, the FAA and ASU entered into a signed PSP agreement. The purpose of the PSP is to define and standardize STC processes between the FAA and ASU. The PSP process is derived from FAA Order 8110.4. It states, “The FAA encourages applicants to develop a plan for working with their geographic ACO that considers all safety aspects.” The guidance for developing a PSP is in “*The FAA and Industry Guide to Product Certification*” and can be found at the FAA’s website.

The ASU PSP was intended to standardize how all STC projects will be processed. It also set expectations and responsibilities for ASU in regards to their STC projects. It defines the change process for STCs and indicates minor change authority.

The 2010 Audit revealed that under the PSP minor change agreement, ASU did not consistently produce compliant/conforming aircraft STC modifications. As noted in Action Plan 3 in Section 3.2, the minor change authority contained in the ASU PSP has been terminated.

2.2.4 The Corrective Action Plan

From 2004 to 2007, ASU modified some 268 aircraft, which represented approximately 53% of the total non-military rotorcraft capable of NVG use in the United States. By FAA policy, all NVIS installations are required to be accomplished by STC. Based on a review of ASU NVIS installations completed by early calendar year 2008, 217 helicopters were suspected as having issues because they either did not conform to the applicable STC, the data was inappropriately approved, or the aircraft was inappropriately returned to service. In response to this finding, a number of approaches to resolve the issue were considered before AFS and AIR finalized what would be known as the Corrective Action Plan (CAP).

Of the 217 aircraft involved, 16 aircraft were in public-use and did not have airworthiness certificates nor were they required to meet the same certification conformity standards as non-public use aircraft. The objective of the CAP was to focus on the remaining 201 suspect aircraft that were issued airworthiness certificates that had been issued STC with appropriate supporting data, by the end of October, 2008. Given the authority delegated to ASU at the time, ASU was responsible for establishing conformity to the appropriate STC for 160 aircraft. The FAA was responsible for establishing conformity for 41 suspected aircraft.

By October 30, 2008, all 201 suspect aircraft with airworthiness certificates were issued new STC data packages and had either been added to an existing STC by serial number or issued a “one-time” only STC. The “one-time” STC approval process does not require extensive high-quality, data packages, since it is intended for a single modification and repeatability in other aircraft is not an issue. FAA Order 8110.4 documents the STC processes used in the CAP.

Prior to the CAP, over 50 aircraft were inappropriately returned to service via field approvals. These aircraft were brought into compliance during the CAP by the issuance of one-time STCs, in accordance with the guidance contained in FAA Order 8110.4.

Initiating a program by publishing a notice directing the inspection of these aircraft to confirm whether or not they conform to the ASU STC would likely have the effect of operators grounding the aircraft immediately, or at least restricting their use from NVG operations. The grounding of a large percentage of the ASU modified fleet would have had a deleterious impact on safety and the public’s welfare, due to the unavailability of HEMS or NVG-aided operations in areas covered by those aircraft. Therefore, conformity was a longer-term objective and was not considered to be the primary objective of the CAP in 2008 as a result of OSC I.

Notice N 8900.51 prescribed certain actions, that if completed, would have “closed the loop” in correctly conforming the existing modified condition with approved data. There was insufficient accountability established for both operators and AFS ASIs to ensure the actions required in the notice consistently resulted in conformity. Consequently, there were no systemic controls to ensure that STC conformity would continue over time.

The CAP resulted in non-compliant aircraft having approved data. However, since the conformity of each aircraft was not completed by the operators, there were no indications of quality and appropriateness of the data packages. The 2010 Audit results did confirm that the data packages were deficient in many cases. These deficiencies are identified in findings 4, 5 and 6 in Section 3.2 and will be resolved upon completion of the associated action plans.

2.3 History of ASI Foster’s Disclosures and FAA Actions

Mr. Foster’s first disclosure to the OSC resulted in the issuance to the DOT of disclosure file DI-08-1904, referred to in this report as OSC I. It was dated July 8, 2008 and required an appropriate investigation and a response from the Secretary of Transportation. The FAA responded to the DOT Office of Inspector General (OIG) with a draft report of investigation in September of 2008. Follow-up activity between the OIG and the FAA was not completed in time to meet a final extension granted by the OSC. On July 9, 2009, the OSC published its report on the disclosure without the benefit of the DOT’s response. The OSC I disclosure is contained in Appendix C.

On March 2, 2010, Mr. Foster sent an e-mail message to the Associate Administrator for Aviation Safety (AVS-1) and her Deputy (AVS-2) restating his concerns. These “did not concern ASU as much as the collusion in the FAA to cover up the issues and to falsify documents in the process.” AVS-2 responded to the allegations in the message in an e-mail

reply on March 31, 2010. The e-mail from ASI Foster and the reply are contained in Appendix D.

Dissatisfied with the March 31, 2010 reply, Mr. Foster next sent a letter to the FAA Administrator and the Secretary of Transportation, dated May 31, 2010. Before an investigation into the allegations in the letter could be completed, the FAA received notice of the current OSC disclosure, OSC II. Since a final response to the letter prior to completion of the OSC's investigation and report is inappropriate, an interim response dated August 11, 2010, was sent to Mr. Foster. He will receive a final response upon completion of the OSC's report.

Mr. Foster subsequently submitted a second disclosure to the OSC, resulting in the issuance to the DOT of disclosure file DI-10-2602. The disclosure was dated July 9, 2010, and again required an appropriate investigation and response from the Secretary of Transportation. The Secretary assigned the investigation to AAE.

2.4 The 2010 Audit

After receipt of Mr. Foster's first disclosure, the managers of ANM-100 and ANM-200 were aware of growing concerns regarding ASU. Surveillance conducted by the ASU repair station PIs and others since the completion of the CAP indicated a history of performance issues by ASU in installing NVIS modifications. In order to understand perspectives of both AIR and AFS staff responsible for the oversight of the ASU, a meeting was held on July 6, 2010, at the FAA regional headquarters in Renton, Washington. The meeting was attended by key technical and management personnel from the Boise FSDO, SACO, the ANM-100, ANM-200 and a senior advisor to AVS-1. The discussion resulted in specific actions, including a focused in-depth inspection of ASU and other STC holders, later termed the "2010 Audit."

Receipt of the March 2, 2010, e-mail message from ASI Foster to AVS-1 and AVS-2 caused an acceleration of the planning and execution of the Audit. Upon receipt of the OSC II disclosure, an assessment was made by the managers of ANM-100 and ANM-200 and AAE to define the best approach for investigating the allegations. The conclusion was that the 2010 Audit would be the most effective way to obtain accurate data to assess the validity of the technical allegations against the ASU NVIS modified fleet. The data from the 2010 Audit provided the needed information for defining subsequent, and more comprehensive, corrective actions to eliminate the continuing problems with NVIS STC compliance.

2.5 Methodology of the Audit

Because there were potential performance issues with ASU as both an STC holder and a repair station, the new audit required a collaborative effort between AIR and AFS. The 2010 Audit was a focused, in-depth inspection, performed by five sub-teams, and supported by a data validation team, each composed of selected AFS and AIR personnel. The sub-teams conducting hands-on inspections of NVIS-modified aircraft were composed of two AFS and two AIR employees.

The objective was to establish whether or not there was both conformance and compliance in NVIS aircraft modifications. Any identified unsafe conditions were the responsibility of the operator to correct. Data collected assisted in addressing any deficiencies with NVIS modifications or their continued airworthiness. This was accomplished in two phases. Phase 1 was an assessment over a 30 day period of ASU performance in 14 CFR part 21 and 43 activities. Phase 2 was also conducted over a 30-day period and focused upon selected other (non-ASU) NVIS STC holder modified aircraft, again to assess performance in Parts 21 and 43. Additionally, AAE accompanied an audit team and participated in the Phase 1 audits. Personnel from AAE were able to validate the day/night readability and NVG compatibility portions of the audit.

A detailed plan was developed that defined the objective, scope, data required for the inspections by the sub-teams, data evaluation and response activities once the inspections are complete, and a communications plan. Data gathered supported the identification of changes or additions to FAA guidance on continued airworthiness of NVIS modifications. This may include:

- Industry outreach
- A Special Airworthiness Information Bulletin for all NVIS operators
- A SAFO

Phase 1 commenced on August 31, 2010, and continued through September 30. Definition and planning for Phase 2 will be contingent on analysis of data from Phase 1. Phase 2 commenced on September 27, 2010.

Phase 1 audit activities included:

- On-site inspection of 29 NVIS modified aircraft by specially trained sub-teams. There was also an enhanced inspection of 3 aircraft to include day/night readability and NVG compatibility. These enhanced inspections included an AIR flight test pilot skilled in this additional inspection.
- An audit of ASU by the Boise FSDO to investigate TSO approved and non-TSO'd aircraft components possibly altered by ASU.³
- A joint AFS-AIR review of existing PTRS data for approximately 19 additional aircraft that were inspected in the last year.
- A joint AFS-AIR review of 10 selected ASU data packages and Engineering Change Order submittals to assess ASU adherence to current processes.

A supporting activity was a detailed review of PTRS entries concerning surveillance of ASU repair station activities, designed to assess ASU adherence to PSP processes.

³ See the definition of TSO in Appendix B

3) Findings and Action Plans

After completing the investigation into the allegations in OSC II and with Phase I of the 2010 Audit completed, AVS and AAE directed that all findings that indicated a need for corrective action be formalized and action plans developed. The findings were assessed by technical staff from ANM-100, and ANM-200, with coordination as needed with AVS and AAE, and are presented in Section 3.2. Note that when validation is complete for all items, root cause(s) must be determined before an action plan can be finalized. All corrective action plans are scheduled for completion within 24 months from October 29, 2010.

3.1 OSC II – OSC File DI-10-2602

In the following section, references are made to findings of the 2010 Audit and immediate corrective actions required of the operators. Where a systemic issue was identified, it was captured in Section 3.2 as a finding with related action plan and time line for accomplishment.

The allegations from Mr. Foster are presented exactly as they are described in the OSC II referral, and in the section below, we present our findings sequentially to each one. However, it should be noted that there is substantial overlap among a number of the allegations, and as such, the same findings address multiple allegations.

Allegations and Responses:

1. Allegation: Mr. Foster *“alleges that FAA employees in the Seattle Aircraft Certification Office (SACO), the Flight Standards Division, Northwest Mountain Region, and FAA Headquarters are engaging in conduct which constitutes a violation of law, rule or regulation, gross mismanagement, and an abuse of authority, all which has contributed to a substantial and specific danger to public safety.”*

Findings and Conclusions: This allegation was not substantiated. AAE found no evidence to indicate that FAA official(s) engaged in unlawful conduct, gross mismanagement, or abuse of authority. However, this investigation did confirm that the FAA was initially not aggressive enough in monitoring and ensuring compliance.

Moreover, this investigation, along with the lessons learned from OSC I and OSC II, have resulted in comprehensive process improvements and significant corrective actions with regard to the process of NVIS installation approval and the monitoring of compliance through periodic FAA inspections. A detailed listing of these improvements can be found in Section 3.2, Action Plans 1-8 of this report.

2. Allegation: *“In addition, many of the helicopters were returned to service following modification with field approvals by an ASI in the Boise FSDO, contrary to FAA policy.”*

Findings and Conclusions: This allegation was substantiated. As part of an investigation following a formal complaint by ASU’s president Mike Attwood on June 15, 2007, Mr. Foster discovered there were a number of questionable field approvals performed by an inspector in the Boise FSDO. Later investigation disclosed there were more than 50 erroneous field approvals performed by the ASI

and an additional one by an ASI from the FSDO in Scottsdale, Arizona. These field approvals were performed contrary to FAA directives. The inspector involved appeared to be unaware of the appropriate guidance on field approvals.

The policy which was in effect at that time was AFS Notice 8000.349 and FAA Order 8300.10, which required a return to service for an NVIS modification is accomplished through an STC. The Boise FSDO did have a field approval review procedure which should have precluded this from happening. However, FSDO management did not enforce the field approval procedure and was not aware of the requirement for return to service of an NVIS modification through an STC. After discovery of the 50 erroneous field approvals, these aircraft were brought into compliance during the 2008 CAP by the issuance of one-time STCs, in accordance with the guidance contained in FAA Order 8110.4 (ref. Section 2.2.4 of this report).

The 2010 Audit revealed no instances of ASU NVIS aircraft being returned to service without an approved STC as the basis. While aircraft were properly returned to service, there were numerous errors/discrepancies with the STC approved data. Details of the corrective action plans and improvements can be found in Section 3.2, Action Plans 2 and 3.

See Section 1.7 for a description of actions taken against FAA employees.

3. Allegation: *“It was initially determined that approximately 140 helicopters were returned to service with approvals inaccurately indicating that the NVIS modifications conformed to the specifications of the STC. Mr. Foster indicates that through additional collection of information, the number of helicopters modified by NVIS by ASU increased from 250 to more than 500.”*

Findings and Conclusions: This allegation was substantiated. Approximately 160 aircraft were returned to service with approvals inaccurately indicating that the NVIS modifications conformed to the specifications of the STC. These aircraft received new STC data packages as a result of the OSC I disclosure. The 160 non-conforming aircraft were required to receive installation conformity inspections by their operators in order to be returned to service in accordance with FAA guidelines by October 30, 2008, as required in the “OSC I” CAP (described in further detail in Section 2.2.4 of this report). These conformity inspections were not performed, apparently due, in part, to a general lack of understanding of the requirements.

FAA regulations do not require that conformity inspections be performed by FAA personnel or by FAA-designees. However, these inspections were required to be completed by the operators of those aircraft that received revised STC data packages in 2008. In retrospect, FAA should have maintained more extensive surveillance to ensure that these conformity inspections had been accomplished. The corrective actions presented in Section 3.2 (4b and 4e) should ensure more rigorous surveillance going forward.

The 2010 Audit revealed no instances of ASU NVIS aircraft being returned to service without an approved STC as the basis in 2008. However, the 2010 Audit also revealed the additional finding that there are continuing errors and discrepancies

with the approved STC data in the ASU-modified fleet. The CAP in Section 3.2 outlines the planned solutions to these on-going STC data discrepancies (Action Plan 2).

The “250 to more than 500” aircraft mentioned in the second part of this allegation is a reference to the estimated number of aircraft which have had NVIS installed by ASU between the first and second OSC disclosures. The 2010 Audit confirmed that similar discrepancies may exist in the entire ASU-modified fleet. The CAP described in Section 3.2 addresses all NVIS-modified aircraft, no matter when the modifications were initially accomplished.

4. Allegation: *The Notice was issued in September 2008, and established as National Policy a Corrective Action Plan for NVIS modifications performed by ASU...Mr. Foster notes with concern that the language of the Notice is inconsistent with regulations and an FAA Order governing airworthiness and the conditions that must be met for an aircraft to be considered airworthy.”*

Findings and Conclusions: This allegation was not substantiated because no inconsistencies with the regulations were found in the issuance of Notice 8900.51. However, the investigation did reveal two significant shortcomings with 8900.51 (effective 9/17/08 – 9/17/09) because it did not establish accountability and tracking requirements to ensure compliance with the NVIS certification standards. Inspectors were not required to document and track findings in the PTRS database, a primary tool for tracking certificate-holder compliance with the regulations.

During interviews conducted by AAE with AVS senior management officials, these executives agreed, in retrospect, that the notice should have established these requirements and should have directed adequate surveillance. While the language in Notice 8900.51 lacked such requirements, this investigation did not establish that the notice was contrary to any regulations, orders, or policies pertaining to airworthiness requirements. Thus, while Notice 8900.51 was consistent with existing regulations at the time, this investigation has confirmed that it was not an effective means of accomplishing its objective, which was to ensure regulatory compliance.

Mr. Foster maintained that a previous draft of the order would have more effectively ensured compliance. However, that draft version of Notice 8900.nn, which was proposed to AFS-300 in mid-April 2008, did “not conform to the standards established by FAA Order 1320.1E, *FAA Directives Management*. The draft order notified operators of the airworthiness issues with ASU modified aircraft and then directed actions from the operators. Per FAA Order 1320.1E, FAA can only issue notices to direct the work of FAA employees. FAA cannot compel a certificate holder to take any action through use of a notice and does not notify operators of safety matters in a notice. Thus, the draft notice was withdrawn, and Notice 8900.51 was developed consistent with FAA policy, published, and made effective 9/17/08.

A detailed listing of corrective action plans and improvements can be found in Section 3.2, Action Plans 1-8 of this report. Action Plan 5 includes the issuance of a revised FAA Order 8900.xx to formalize NVIS oversight guidance.

5. Allegation: “Mr. Foster asserts that the issuance of the Notice was a purposeful remedy undertaken in an effort to avoid the need for issuance of an airworthiness directive, which would have established a formal process to identify safety or non-compliance issues, and set a plan to mitigate the issues and a timeline for compliance. This Notice also did not satisfy the regulatory requirement that the aircraft comply with and conform to an approved type design.”

Findings and Conclusions: This allegation was not substantiated. It again refers to Notice 8900.51. Considerable attention was directed toward this matter in the development of the 2008 CAP, as well as in other activities associated with ASU oversight, up to and including the recent 2010 Audit. At the time of the 2008 CAP, the FAA had not established that an unsafe condition existed which is the required legal basis for issuing an airworthiness directive (AD).

The fact that the notice did not contain specific verbiage that restated to operators that their aircraft must conform to an approved type design does not establish that Notice 8900.51 failed to comply with regulatory requirements. As previously discussed, the notice was directed to Flight Standards Inspectors as required by FAA policy, not operators. However, operators are required by the regulations, to conform to their approved type designs.

AVS and AAE will continue to monitor Section 3.2, Action Plan 1, item d, for resolution on whether an AD may be required in the future, if unsafe conditions can be documented.

6. Allegation: Mr. Foster “contends, however, that this informal process fails to adequately address the problem. First, the operators have not been advised of the potential safety hazard relating to the NVIS modifications, as the informal notification only indicated a technical non-conformity issue with data. Further, many of the helicopter operators have delayed taking steps to bring their aircraft into conformity because they are awaiting formal action by FAA, directing them to do so.”

Findings and Conclusions: This allegation was substantiated in part. This allegation is once again directed toward alleged deficiencies with Notice 8900.51 (effective 9/17/08 – 9/17/09), and we have previously discussed the shortcomings of the order despite the fact that it was technically compliant with the regulations.

A safety analysis conducted by the FAA’s Office of Aviation Safety Analytical Services noted the incident and accident rate for ASU NVIS-modified aircraft was comparable to the rate for unmodified aircraft. Thus, there is no analytical justification to substantiate that a potential safety hazard exists, which is unique to ASU NVIS installations. As a result of thorough analysis conducted in the development phase of the first CAP in 2008, the remaining issue, as stated in the Notice, was “to provide for resolution of identified discrepancies pertaining to those aircraft modified by ASU.”

Our investigation did substantiate that the order and subsequent corrective actions in 2008 failed to adequately address the non-compliance problem. While the CAP was completed in July 2008, the 2010 Audit revealed continued deficiencies with ASU as

the STC-holder and installer, as well as incomplete actions by operators to maintain their aircraft in accordance with Instructions for Continued Airworthiness (ICA) instructions. NVIS-modified aircraft ICAs require an annual conformity inspection of the modified aircraft to revalidate the NVG compatibility.

This investigation did not substantiate that operators have delayed taking steps to bring their aircraft into conformity because they are awaiting formal action by FAA, directing them to do so. On the contrary, this investigation revealed that since the FAA began auditing ASU's installations during phase 1 of the 2010 Audit, there have been an increased number of requests by NVG operators made to both Fort Worth (FW) ACO and SACO NVG project engineers to correct deficiencies discovered by them during operator data package reviews. Interviews with both FAA NVIS Project Engineers revealed that operators have been proactively reviewing their data package for accuracy and making necessary corrections to ensure that their aircraft conform to their approved STC data packages. As a result of continued deficiencies with NVIS installations, significant improvements and corrective actions have been and are continuing to be developed. Details of those improvements and corrective actions are contained in Section 3.2, Action Plans 2, 3, 4, and 5 of this report.

7. **Allegation:** *"In addition, Mr. Foster alleges that SACO is engaging in a process of "rubber stamping drawings of NVIS modified helicopter configurations submitted by ASU, which are based on photographs of the aircraft, in order to retroactively approve the data in the STCs for those aircraft...He contends that this retroactive approval process fails to address the identified safety hazard relating to the installation of the filters and incompatible light sources. While these helicopters may now be deemed to conform to their STCs, they have not been physically evaluated to determine whether lights and filters previously installed without approved data are correctly positioned, are compatible with NVG use, and do not impede the pilot's ability to see the instruments and radios in normal night and day situations or while using the goggles."*

Findings and Conclusions: This allegation was substantiated in part. However, the allegation that SACO is "rubber stamping drawings" and "that this retroactive approval process fails to address the identified safety hazard relating to the installation of the filters and incompatible light sources" was not substantiated. Prior to the CAP in 2008, aircraft were inappropriately returned to service via field approvals (addressed in allegation 2). These aircraft were brought into compliance during the CAP by the issuance of one-time STCs, in accordance with the guidance contained in FAA Order 8110.4. In this regard, the use of photographs is specifically allowed in accordance with FAA Order 8110.4.

The NVIS systems are a safety enhancement, even with the deficiencies noted in this investigation. A notice directing the immediate inspection of these aircraft to confirm whether or not they conformed to the ASU STC would have required the grounding of numerous aircraft, or restricted their use in conditions where NVG operations are advised. Grounding a large percentage of the ASU-modified fleet would have had a significant deleterious effect on the safety and well-being of the public, due to the unavailability of HEMS or NVG-aided operations for the emergency transport of critically-injured or ill patients. Therefore, conformity was a

longer-term objective and was not considered to be the primary objective of the CAP.

Notice 8900.51 prescribed certain actions that if completed, would have resulted in conformity with the existing STCs. As previously discussed, conformity inspections were not required to be accomplished by FAA personnel or designees. Installation conformity inspections were required to be accomplished by the operators of those aircraft who received revised data packages.

Nonetheless, it has been previously established that Notice 8900.51 lacked sufficient accountability and tracking to ensure that operators actually conducted these inspections following receipt of revised data packages. Therefore, with respect to the following portion of the above stated allegation, “While these helicopters may now be deemed to conform to their STCs, they have not been physically evaluated to determine whether lights and filters previously installed without approved data are correctly positioned,…” this investigation did substantiate that portion of the allegation.

After a thorough review of data gathered during Phase 1 of the 2010 Audit, the team concluded there is no evidence of the SACO not following the approved process. However, the Audit did show that the minor change approval process documented under the PSP agreement did not consistently produce compliant/conforming aircraft STC modifications. The minor change process relied on ASU’s in-house processes which were determined to be inadequate. As a result of continued deficiencies with ASU’s ability to consistently produce compliant/conforming aircraft, significant improvements and corrective actions have been developed. Details regarding current and proposed corrective action plans and improvements are contained in Section 3.2, Action Plans 2 and 3 of this report.

8. Allegation: *“He also contends that in many installations the instruments manufactured to Technical Standard Order (TSO) requirements were modified contrary to regulatory requirements, with FAA concurrence, and the TSO markings were not removed so that any future installer would be aware that those instruments were not compliant with the TSO.”*

Findings and Conclusions: This allegation was not substantiated. The investigation revealed that this process is permitted in accordance with FAA Order 8150.1B, Paragraph 20. More specifically, paragraph 20 states, “Design changes to a TSO article by a person other than the manufacturer who submitted the statement of conformance is permitted by 14 CFR §§ 21.303 and 21.611(c). The modified TSO articles must be approved under 14 CFR Part 43 or the provisions of the applicable airworthiness regulations.”

AAE requested a review of this policy by the FAA Office of the Chief Counsel, Airworthiness Law Branch, which confirmed that this practice is permissible by regulation. The modification is part of the approved STC. A memorandum was obtained from the Aircraft Engineering Division confirming this policy. The 2010 Audit did not substantiate any instances where ASU was not following the STC approved process to modify TSO articles. Routine earlier AFS surveillance of ASU

modifications did reveal instances where ASU employees may have modified equipment to the extent that it was non-functional. These incidents are being processed under the normal AFS enforcement program.

Although non-standard marking of modified TSO equipment was a concern, the 2010 Audit revealed that both the SACO and the FW ACO have been consistent in the application of parts marking rules and policy. Although this allegation was not substantiated, AAE has requested that AIR review previously approved STC drawings packages as part of their action plan to ensure that the marking requirement existed on past approvals. Details of corrective actions are contained in Section 3.2, Action Plan 2 of this report.

9. Allegation: *“Thus, Mr. Foster contends that FAA has allowed aircraft with invalid airworthiness certificates, and potentially hazardous NVIS modifications, to remain in service. He asserts that without a systematic approach to ensuring conformity and airworthiness, the result will be continued operation of unairworthy aircraft that were not properly evaluated, and the potential for sporadic groundings of emergency medical service helicopters that are waiting for approved data, putting at risk emergency response crews and trauma patients whose lives depend on their availability.”*

Findings and Conclusions: This allegation was substantiated in part. The investigation did not substantiate Inspector Foster’s allegation that “FAA has allowed aircraft with invalid airworthiness certificates, and potentially hazardous NVIS modifications, to remain in service.” This allegation appears to stem from referenced verbiage in the draft notice (Notice 8900.nn), which was never issued. The draft notice stated, “If the altered aircraft make/model/series does not match the STC listed on the FAA Form 337 for the modification, the aircraft cannot be conformed to the STC. Therefore, the airworthiness certificate is invalid.” The rationale for not issuing the draft notice was documented in the “Findings and Conclusions” section of allegation 4.

Aircraft are permitted to be operated only when that aircraft completely meets the definition of “airworthy.” It is always the operator’s responsibility to maintain and operate only airworthy aircraft. If the inference is that Notice 8900.51 allowed non-compliant operations, it is important to note that the FAA cannot, by the issuance of a Notice, alter the regulatory requirement for operating airworthy aircraft. NVIS ICAs require an annual conformity inspection of the aircraft be accomplished. The 2010 Audit results indicate that operators may not have appreciated the importance of this requirement and may not have been performing the required annual inspection. Corrective action plans and improvements will address this problem. Details can be found in Section 3.2, Action Plans 5-8.

The allegation that there was not a successful “systematic approach to ensuring conformity” was substantiated.

10. Allegation: *“In addition, Mr. Foster reports that recent inspections have resulted in the identification of a significant number of non-compliant modifications, evidenced by the numerous enforcement actions against the repair station performing modifications, ASU.”*

Findings and Conclusions: This allegation was substantiated. The inspections referred to by Mr. Foster are associated with surveillance activities conducted by ASIs exercising their oversight responsibility of ASU. After receiving a copy of Mr. Foster's e-mail message on March 2, 2010, ANM-200 directed an assessment be conducted on records of ASU surveillance to identify trends. The results of the assessment supported the need to conduct an audit of representative ASU performed NVIS modifications. This in turn led to Phase 1 of the 2010 Audit with its accompanying expedited schedule. Findings and action plans presented in Section 3.2 indicate there are a significant number of non-compliant modifications resulting from ASU NVIS installations. In addition, preliminary indications are that there are several causal factors underlying the non-compliances in addition to ASU faults. These included operator deficiencies.

In response to the allegations, the current investigation has prompted widespread enhancements to the process by which NVIS installations will be monitored by continued FAA oversight of such installations. A detailed listing of these improvements can be found in section 3.2 of this report (ref. action plans 4-8).

11. Allegation: *“According to Mr. Foster, FAA officials delayed issuance of the Notice due to concerns over the negative publicity regarding Southwest Airlines and American Airlines in April 2008.”*

Findings and Conclusions: This allegation was not substantiated. Our investigation revealed that the FAA exercised due diligence in pursuing a systematic plan of action after discovery of the 50 erroneous field approvals. These aircraft were brought into compliance during the 2008 CAP by the issuance of one-time STCs, in accordance with the guidance contained in FAA Order 8110.4 (ref. Section 2.2.4 of this report).

The FAA drafted Notice 8900.nn, which was never issued due to the fact that the language therein did not meet the specific criteria of a “Notice” in accordance with FAA order 1320.1E. Subsequently, Notice 8900.51 was developed and issued and effective between 9/17/2008 and 9/17/2009. Notice 8900.51 prescribed certain actions, that if completed, would have “closed the loop” in correctly conforming the existing modified condition with approved data. Conformity inspections were not required to be accomplished by FAA personnel or designees however; installation conformity inspections were required to be accomplished by the operators of those aircraft who received revised data packages. However, as previously noted, Notice 8900.51 lacked sufficient accountability and tracking to ensure that operators actually conducted these inspections following receipt of revised data packages.

3.2 Detailed Audit Findings and Action Plans

Finding 1		
<p>Of the 29 aircraft inspected (with findings validated) to date, all aircraft had non-compliances and/or non-conformances</p> <ul style="list-style-type: none"> - There were installation conformity errors found on all aircraft inspected - There are currently 278 findings of which 51 (18%) are potential safety findings. <i>Some findings and potential safety findings are associated with multiple entities. Therefore, aggregate percentages may exceed 100%.</i> <ul style="list-style-type: none"> o There are 9 STC Holder (ASU) potential safety findings (3% of the overall findings, 18% of the potential safety finding) o There are 41 operator potential safety findings (16% of the overall findings, 80% of the potential safety findings) o There are 13 installer (ASU) potential safety issues (5% of the overall findings, 25% of the potential safety findings) - ASU currently has 119 STC holder findings and 72 installer findings (55% of the overall findings) - Operators currently have 155 findings (45% of the overall findings) 		
Action Plan 1	Time Line (Reference date for start 10/15/2010)	Primary Office
a. Appropriate FSDO PIs will formally notify operators of the findings and will track all findings through completion of action	Immediate notification to operators and follow-up within 60 days after initial notification.	CHDO
b. AFS Technical Standards Branches will follow-up with notified PIs to confirm corrective actions complete	Monthly thereafter until complete	Regional -230 branches
c. SACO will notify ASU of all type design issues	Started, will not exceed 30 days	SACO
d. SACO will evaluate STC related potential safety findings using existing COS process	Started, will not exceed 30 days	SACO

Finding 2		
<p>There are numerous drawing/documentation errors and ambiguities which may have contributed to non-conformance/non-compliance</p> <ul style="list-style-type: none"> - Failures to thoroughly assess filtration requirements led to design omissions (e.g. components not lighted in NVIS mode, lights not filtered) - Numerous cases of document errors (e.g. ICAs, Master Drawing Lists) <ul style="list-style-type: none"> o Recurring issues related to design and installation processes (e.g. radar altimeter Decision Height light filters coming off in service) 		
Action Plan 2	Time Line	Primary Office
a. Formally notify ASU of the inaccuracies found in documents during the Audit	60 days	SACO
1. Require ASU to provide root cause analyses for the issues found to reduce the overall error rate	180 days to complete all root cause analysis	SACO
2. ASU to define how it will incorporate the root cause corrective action(s) for the drawing and document errors into all of its modified aircraft, not just the aircraft in the Audit	180 days to complete all root cause analysis	SACO
3. Corrective action must address the inadequate pre-assessment process and how it will be improved	12 months	SACO
b. SACO to monitor ASU's performance and provide follow-up management through Action Plan 3	Started	SACO
c. Send the TSO policy clarification memorandum (AIR-100 dated 9/28/10) to all ACOs/MIDOs via email with explanation.	30 days	AIR-100
d. SACO to work with the Rotorcraft Directorate to standardize drawing marking requirements for modified Technical Standard Order (TSO) articles; as part of the detailed corrective action, previously approved STC drawings must be reviewed to ensure they require marking of modified TSO articles per FAA Order 8150.1	12 months	SACO
e. AIR and AFS to develop an NVIS installation conformity checklist	3months	Seattle Manufacturing District Office

Finding 3		
The minor change process does not consistently produce compliant/conforming aircraft		
Action Plan 3	Time Line	Primary Office
a. Terminate the minor change authority in the PSP. All ASU certification activities will be managed by the SACO.	Completed	ANM-100
b. Increase the level of involvement of FAA engineers and inspectors in future ASU projects. Add one additional engineer to project.	Started and ongoing. Additional engineer added to project.	SACO
c. Increase level of designee supervision for designees associated with ASU projects	Started and ongoing	SACO
d. Evaluate ASU's performance prior to considering re-issuance of minor change authority in the PSP. Minor change authority will not be re-issued until ASU develops and implements specific procedures to reliably produce complete and compliant STCs.	Started and ongoing	SACO

Finding 4		
AFS oversight of operator maintenance/alteration is inadequate - There is no standard process between CHDOs and the SACO for communicating issues with ASU STCs		
Action Plan 4	Time Line	Primary Office
a. Issue interim guidance to AFS PIs to require confirmation that OpSpecs paragraph D093 contents are correct, that operators are properly implementing ICA requirements for both aircraft NVIS equipment and goggles, and that NVIS equipped aircraft continue to meet type design requirements by conforming aircraft with NVIS STC data and other type design change data occurring after NVIS modification.	30 days	AFS
b. Prescribe actions to ensure an effective and immediate surveillance plan is in place for NVIS modified aircraft	30 days	AFS
c. Establish an interim procedure for sharing potential safety findings with the appropriate certificate managing ACO	30 days	AFS and AIR
d. Establish a standard process between CHDOs, the ASW AEG and the SACO for communicating issues with ASU STCs	18 months	AFS
e. Add inspection requirements to FY 2012 National Program Guidelines	12 months	AFS

Finding 5		
Operators failed to preserve the NVIS compatible configuration of their aircraft		
<ul style="list-style-type: none"> - Changing the configuration of the flight deck after STC modification without consideration of the NVG compatibility of the individual components 		
Action Plan 5	Time Line	Primary Office
a. Issue interim guidance to ASIs to ensure that operators properly implement ICA requirements addressing the maintenance of the NVIS compatible configuration	9 months	AFS
b. Publish a revision to FAA Order 8900.1 to formally provide NVIS oversight guidance	12 months	AFS
c. Issue guidance to operators to increase awareness of regulatory requirements to maintain NVG compatibility	6 months	AFS
d. Initiate a working group between the Rotorcraft Directorate, AFS and Industry (e.g., HAI) to develop educational material that communicates the importance of maintaining NVG compatibility, possible venue FAAST Team presentations	6 months	AFS

Finding 6		
Operators are not properly maintaining NVIS components		
<ul style="list-style-type: none"> - Operators are failing to follow inspection processes (e.g. daily inspections and failure to follow ICAs) - ICAs generally lack clarity and specificity 		
Action Plan 6	Time Line	Primary Office
a. Issue interim guidance to ASIs to ensure that operators properly implement ICA requirements addressing the maintenance of the NVIS configuration	9 months	AFS
b. Issue guidance to operators to increase awareness of regulatory requirements for maintenance	6 months	AFS
c. Develop and implement an AFS surveillance program to ensure continuing compliance with required NVIS inspections	12 months	AFS
d. Charter a work group to develop guidance for ICAs	6 months	AFS and AIR
e. Add an ASI to the Rotorcraft AEG staff <u>specifically dedicated</u> to the review of ICAs for initial and amended NVIS STCs	6 months	AFS-100 and ASW-200

Finding 7		
<p>There is insufficient knowledge among AFS PIs and operators regarding NVIS-related maintenance procedures</p> <ul style="list-style-type: none"> - Special emphasis inspection results demonstrate a need for additional training/guidance 		
Action Plan 7	Time Line	Primary Office
a. Develop and present appropriate briefings to improve ASI knowledge among the PIs for the 35 air carriers with NVIS authorization	90 days	AFS
b. Develop and present appropriate training and support material to improve ASI knowledge	24 months	AFS
c. Develop appropriate guidance for operators (e.g., SAFO, AC)	6 months for SAFO	AFS

Finding 8		
<p>OpsSpec paragraph D093 (HNVGO Maintenance Program) is not being effectively used to require appropriate maintenance</p> <ul style="list-style-type: none"> - AFS guidance for issuance of OpsSpec paragraph D093 is inadequate - Currently issued OpsSpec paragraphs D093 do not always include requirements for maintenance of the NVGs and NVIS modified aircraft - OpsSpec paragraph D093 is unclear 		
Action Plan 8	Time Line	Primary Office
a. Clarify AFS guidance for issuance of OpsSpec paragraph D093	9 months	AFS
b. Develop and implement an AFS surveillance program to ensure compliance with the existing and revised OpsSpec paragraph D093	9 months	AFS
c. Clarify the language in OpsSpec paragraph D093	18 months	AFS
d. Revise OpsSpec paragraph D093 to better describe operator duties to maintain the NVIS equipment on their aircraft	18 months	AFS

Appendix A – List of Acronyms and Abbreviations

Acronym or Abbreviation	Meaning
14 CFR	<i>Title 14 Code of Federal Regulations</i>
AC	Advisory Circular
ACO	Aircraft Certification Office
AD	Airworthiness Directive
AFS	Flight Standards Service
AIR	Aircraft Certification Service
ANM-100	Transport Airplane Directorate
ANM-200	Northwest Mountain Region Flight Standards Division
ASI	Aviation Safety Inspector
ASU	Aviation Systems Specialties, Inc., of Boise, Idaho
AVS	The Aviation Safety Line of Business
AVS-1	The Associate Administrator for Aviation Safety
AVS-2	The Deputy Associate Administrator for Aviation Safety
CAP	Corrective Action Plan
CHDO	Certificate Holding District Office
COS	Continuing Operational Safety
DOT	U.S. Department of Transportation
FAA	Federal Aviation Administration
FSDO	Flight Standards District Office
HEMS	Helicopter Emergency Medical Service
ICA	Instructions for Continued Airworthiness
NTSB	National Transportation Safety Board
NVG	Night Vision Goggles
NVIS	Night Vision Imaging System
OIG	Department of Transportation Office of Inspector General
OSC	U.S. Office of Special Counsel
PI	Principal Inspector
PSP	Partnership for Safety Plan
PTRS	Program Tracking and Recording Subsystem
RTS	Return to Service
SACO	Seattle Aircraft Certification Office
SAFO	Safety Alert for Operators
STC	Supplemental Type Certificate
TSO	Technical Standard Order
U.S.C.	<i>United States Code</i>

Appendix B – Definitions

Airworthy	The definition of airworthy contained in 14 CFR § 3.5(a) applies to type-certificated products (aircraft, aircraft engine, or propeller), and parts thereof. Title 49 USC § 44704(c), and 14 CFR § 21.183(a), (b), and (c) state that the two conditions that must be met for issuance of an airworthiness certificate are: <ol style="list-style-type: none"><li data-bbox="521 457 1378 667">1. The product must conform to its type certificate (TC). A product conforms to its TC when its configuration and the components installed are as described in the drawings, specifications, and other data that are part of the TC, which includes any supplemental type certificates, airworthiness directives, and field approved alterations incorporated into the product; and<li data-bbox="521 688 1378 722">2. The aircraft (product) must be in a condition for safe operation.
Technical Standard Order (TSO)	A TSO is a minimum performance standard issued by FAA for specified materials, parts, processes, and appliances used on civil aircraft.

Appendix C – OSC File DI-08-1904 (OSC I)

11 Pages



U.S. OFFICE OF SPECIAL COUNSEL

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Washington, D.C. 20036-4505
202-254-3600

July 30, 2009

The President
The White House
Washington, D.C. 20510-1102

Re: OSC File No. DI-08-1904

Dear Mr. President:

In accordance with 5 U.S.C. § 1213(e)(4), I am transmitting information concerning a whistleblower disclosure that was referred to the Honorable Mary E. Peters, former Secretary of Transportation, on July 8, 2008, pursuant to 5 U.S.C. § 1213(c). The referral sets forth serious allegations made by Rand Foster, an Aviation Safety Inspector and Airworthiness Technical Specialist with the Department of Transportation's (DOT) Federal Aviation Administration (FAA), concerning non-compliant and potentially unsafe modifications made to hundreds of emergency service helicopters operating across the country, and FAA's alleged failure to appropriately address this problem. Based on Mr. Foster's disclosures, we found a substantial likelihood that FAA officials and employees engaged in a violation of law, rule, or regulation, gross mismanagement, and an abuse of authority, all of which contributed to a substantial and specific danger to public safety.

Mr. Foster disclosed that more than 300 emergency service helicopters were modified with a night vision imaging system (NVIS) to allow the use of night vision goggles. After FAA discovered that the modifications did not comply with required specifications, and in many instances created a safety hazard, FAA prepared a Notice of National Policy declaring the helicopters' airworthiness certificates invalid and establishing procedures to bring the aircraft into compliance. Mr. Foster reported, however, that following the negative publicity in April 2008 about alleged safety problems with the Southwest Airlines and American Airlines fleets, FAA officials decided against issuing the Notice. Although the helicopter operators were advised of the technical non-compliance issues, FAA allegedly failed to address the potential safety hazards relating to the NVIS modifications. Mr. Foster contended that FAA, in an effort to avoid scrutiny, failed to implement a formal process to ensure that the helicopters were brought into compliance in a timely and coordinated manner, allowing aircraft with invalid airworthiness certificates and potential safety hazards to remain in service.

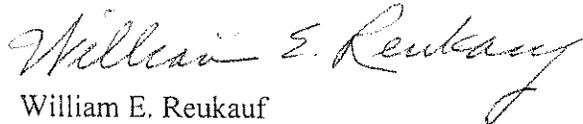
Under 5 U.S.C § 1213(c), the Secretary of Transportation was required to conduct an investigation of the allegations and submit a written report to OSC within 60 days of OSC's transmittal or within any longer period of time agreed to by OSC, setting forth DOT's findings and any corrective action taken. OSC granted DOT five extensions of time over a period of more than twelve months. During this time, OSC was advised by DOT that FAA completed an

The President
Page 2

initial investigation in August 2008 and provided a report to DOT's Office of Inspector General (OIG) for review in September 2008. In October 2008, we understand OIG responded to FAA with a report outlining OIG's questions, concerns and recommendations for further investigation by FAA. We also understand that late last month, FAA submitted a supplemental report to OIG. Despite the extensions granted, and OSC's notice to DOT that the fifth extension would be final, the Secretary has not submitted the required report. Rather, after the close of business on July 20, 2009, the final due date of the report, DOT's Office of General Counsel requested an additional 60-day extension of time to file the report. In light of the serious nature of the safety allegations and the length of time that has passed, I have concluded that it is no longer in the public interest for OSC to grant further extensions of time in this matter.

Accordingly, we are transmitting this disclosure matter to you without DOT's report in accordance with 5 U.S.C. § 1213(e)(4). As further required by section 1213(e)(4), we have transmitted this information to the Chairmen of the Senate Committee on Commerce, Science and Transportation and the House Committee on Transportation and Infrastructure. We have also sent copies to the Ranking Member of each Committee. In addition, we have filed a copy of this transmittal in our public file and have concluded our involvement in this matter.

Respectfully,



William E. Reukauf
Associate Special Counsel

Enclosure



U.S. OFFICE OF SPECIAL COUNSEL

1730 M Street, N.W., Suite 300
Washington, D.C. 20036-4505

The Special Counsel

July 8, 2008

The Honorable Mary E. Peters
Secretary
U.S. Department of Transportation
1200 New Jersey Avenue, S.E.
Washington, D.C. 20590

Re: OSC File No. DI-08-1904

Dear Madam Secretary:

There are approximately 750 emergency medical service helicopters operating in the U.S. today. These emergency aircraft serve a vital role in saving lives, and the Federal Aviation Administration (FAA) has recognized the importance of improving the safety of their operations.¹ Serious allegations concerning non-compliant and potentially unsafe modifications made to hundreds of emergency service helicopters, and FAA's failure to appropriately address the problem, have been filed with my office. Thus, pursuant to my responsibilities as Special Counsel, I am referring to you for investigation whistleblower disclosures that FAA employees in the Rotorcraft Directorate, Southwest Region, the Flight Standards Division, Northwest Mountain Region, and FAA Headquarters are engaging in conduct which constitutes a violation of law, rule or regulation, gross mismanagement, and an abuse of authority, all of which has contributed to a substantial and specific danger to public safety.

Mr. Rand Foster, who has consented to the release of his name, is an Aviation Safety Inspector (ASI) and Airworthiness Technical Specialist with FAA. He discloses that more than 300 emergency service helicopters were modified with a night vision imaging system (NVIS) to allow the use of night vision goggles. After FAA discovered that the modifications did not comply with required specifications, and in many instances created a serious safety hazard, FAA prepared a Notice of National Policy declaring the helicopters' airworthiness certificates invalid and establishing procedures to bring the aircraft into compliance. Mr. Foster reports, however, that following the negative publicity regarding Southwest Airlines and American Airlines in April 2008, FAA officials decided against issuing the Notice. Although the helicopter operators have been advised of the technical non-compliance issues, FAA has failed to address the potential safety hazards relating to the NVIS modifications. Mr. Foster contends that FAA, in an effort to conceal this issue from the public and avoid scrutiny, has failed to implement a formal process to ensure that the helicopters are brought into compliance in a timely and coordinated manner, allowing aircraft with invalid airworthiness certificates and potential safety hazards to remain in service. Mr. Foster contends that the lack of a coordinated plan may result in unnecessary and sporadic groundings of emergency medical service helicopters, putting at risk

¹ FAA Fact Sheet, EMS Helicopter Safety, May 13, 2008.

The Special Counsel

The Honorable Mary E. Peters

Page 2

emergency response crews and trauma patients whose lives depend on their availability. The information disclosed by Mr. Foster reveals a substantial likelihood of wrongdoing and raises concerns regarding the airworthiness of hundreds of emergency medical service helicopters.

The allegations are detailed in the enclosed Report of Disclosures, incorporated herein by reference. As the attached report demonstrates, it appears that FAA has engaged in a pattern of suppression of actions by its safety inspectors to bring aircraft into airworthy and safe flying conditions. FAA has covered up another instance of airworthiness non-compliance.

The U.S. 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 or safety. 5 U.S.C. § 1213(a) and (b). As Special Counsel, if I find, on the basis of the information disclosed, that there is a substantial likelihood that one of these conditions exists, I am required to advise the appropriate agency head of my findings, and the agency head is required to conduct an investigation of the allegations and prepare a report. 5 U.S.C. § 1213(c) and (g).

I have concluded that there is a substantial likelihood that the information the whistleblower provided to OSC discloses a violation of law, rule or regulation, gross mismanagement, an abuse of authority, and a substantial and specific danger to public safety. As previously stated, I am referring this information to you for an investigation of the whistleblower's allegations and a report of your findings within 60 days of your receipt of this letter. By law, the report must be reviewed and signed by you personally. Should you delegate your authority to review and sign the report to the Inspector General, or any other official, the delegation must be specifically stated and must include the authority to take the actions necessary under 5 U.S.C. § 1213(d)(5). Without this information, I would hasten to add that the report may be found deficient. The requirements of the report are set forth at 5 U.S.C. § 1213(c) and (d). A summary of § 1213(d) is enclosed. As a matter of policy, OSC also requires that your investigators interview the whistleblower as part of the agency investigation.

In the event it is not possible to report on the matter within the 60-day time limit under the statute, you may request in writing an extension of time not to exceed 60 days. Please be advised that an extension of time is normally not granted automatically, but only upon a showing of good cause. Accordingly, in the written request for an extension of time, please state specifically the reasons the additional time is needed. I must approve any additional requests for an extension of time.

After making the determinations required by 5 U.S.C. § 1213(e)(2), copies of the report, along with any comments on the report from the person making the disclosure and any comments or recommendations by this office will be sent to the President and the appropriate oversight committees in the Senate and House of Representatives. 5 U.S.C. § 1213(e)(3). Unless classified or prohibited from release by law or by Executive Order requiring that

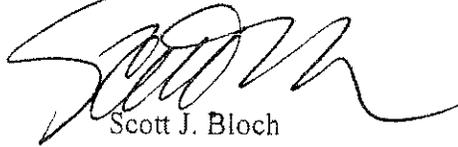
The Special Counsel

The Honorable Mary E. Peters
Page 3

information be kept secret in the interest of the national defense or the conduct of foreign affairs, a copy of the report and any comments will be placed in a public file in accordance with 5 U.S.C. § 1219(a).

Please refer to our file number in any correspondence on this matter. If you need further information, please contact Catherine A. McMullen, Chief, Disclosure Unit, at (202) 254-3604. I am also available for any questions you may have.

Sincerely,

A handwritten signature in black ink, appearing to read 'S. Bloch', with a long, sweeping horizontal stroke extending to the right.

Scott J. Bloch

Enclosures

Enclosure

Requirements of 5 U.S.C. § 1213(d)

Any report required under subsection (c) shall be reviewed and signed by the head of the agency¹ and shall include:

- (1) a summary of the information with respect to which the investigation was initiated;
- (2) a description of the conduct of the investigation;
- (3) a summary of any evidence obtained from the investigation;
- (4) a listing of any violation or apparent violation of law, rule or regulation; and
- (5) a description of any action taken or planned as a result of the investigation, such as:
 - (A) changes in agency rules, regulations or practices;
 - (B) the restoration of any aggrieved employee;
 - (C) disciplinary action against any employee; and
 - (D) referral to the Attorney General of any evidence of criminal violation.

In addition, we are interested in learning of any dollar savings, or projected savings, and any management initiatives that may result from this review.

¹ Should you decide to delegate authority to another official to review and sign the report, your delegation must be specifically stated.



U.S. OFFICE OF SPECIAL COUNSEL
1730 M Street, N.W., Suite 218
Washington, D.C. 20036-4505
202-254-3600

REPORT OF DISCLOSURES REFERRED FOR INVESTIGATION OSC FILE NO. DI-08-1904

I. SUMMARY

Mr. Rand Foster, an Aviation Safety Inspector (ASI) with the Federal Aviation Administration (FAA), discloses serious allegations concerning non-compliant and unsafe modifications made to hundreds of emergency service helicopters, and FAA's failure to appropriately address the problem. He alleges that FAA employees in the Rotorcraft Directorate, Southwest Region, the Flight Standards Division, Northwest Mountain Region, and FAA Headquarters are engaging in conduct which constitutes a violation of law, rule or regulation, gross mismanagement, and an abuse of authority, all of which has contributed to a substantial and specific danger to public safety.

Mr. Foster discloses that more than 300 emergency service helicopters were modified with equipment to allow the use of night vision goggles. After FAA discovered that the modifications did not comply with required specifications, and in many instances created a safety hazard, FAA prepared a Notice of National Policy declaring the helicopters' airworthiness certificates invalid and establishing procedures and deadlines to bring them into compliance. Following the negative publicity regarding Southwest Airlines and American Airlines in April 2008, however, FAA officials decided against issuing the Notice. According to Mr. Foster, the helicopter operators have been advised of the technical non-compliance issues; however, FAA has failed to address the potential safety hazards relating to the NVIS modifications. He contends that in an effort to conceal this issue from the public and avoid scrutiny, FAA has failed to implement a formal process to ensure that the helicopters are brought into compliance in a timely and coordinated manner, allowing aircraft with invalid airworthiness certificates and potential safety hazards to remain in service. Mr. Foster contends that the lack of a coordinated plan may result in unnecessary and sporadic groundings of emergency medical service helicopters, putting at risk the lives of patients who depend on their service.

II. INFORMATION DISCLOSED

Mr. Foster, who has consented to the release of his name, is an ASI and an Airworthiness Technical Specialist assigned to the Flight Standards Division, Northwest Mountain Region, Technical Standards Branch. He is currently detailed to the Special Emphasis Investigations Team (SEIT), Southwest Region, Fort Worth, Texas. Mr. Foster has been employed by FAA for thirteen years and, among other roles, he previously served as Principal Maintenance Inspector in three different Flight Standards District Offices (FSDOs). He has over thirty years of experience in the aviation industry.

In August 2007, Mr. Foster identified approximately 250 U.S. registered emergency service helicopters that had received non-compliant modifications to install a night vision imaging system (NVIS), a supplemental lighting system to allow the use of night vision goggles

(NVGs). The vast majority of these helicopters are used by hospitals, fire departments and paramedic companies to transport patients for emergency medical services, while others are used by sheriff, police and fire departments for public safety. The modifications on these helicopters were performed by a repair station operated by Aviation Specialties Unlimited, Inc. (ASU), of Boise, Idaho, pursuant to several Supplemental Type Certificates (STCs) issued to ASU for the NVIS modifications.¹ The STCs for the NVIS modifications were issued by FAA's Aircraft Certification Office, Seattle, Washington (SACO). Because of variations in the configuration of the cockpits and patient transport areas of different helicopters, the STCs that were issued were specific to the particular make, model, series and serial number of the various helicopters. Thus, the NVIS modifications had to conform to the data, specifications and drawings contained in the STC issued for that particular aircraft.

Mr. Foster explains that he coordinated with the Rotorcraft Directorate, Fort Worth, Texas, to conduct follow-up surveys on the modified helicopters, which identified safety issues relating to the NVIS installations. In particular, some of the filters were improperly installed on instruments and radios in the helicopters, and the placement of these filters significantly impaired the pilot's ability to read the instruments during daylight and night operations without night vision goggles. The Rotorcraft Directorate determined that most of the NVIS modifications were made by ASU without "approved data" -- *i.e.*, the modifications did not conform to the data, specifications and drawings contained in the STC issued for a particular type of helicopter.

In addition, many of the helicopters were returned to service following modification with field approvals by an ASI in the Boise FSDO, contrary to FAA policy. FAA Order 8300.10, now incorporated into FAA Order 8900.1, Volume 4, Chapter 9, requires inspection and approval by the ACO that issued the STC, in this case SACO. It was initially determined that approximately 140 helicopters were returned to service with approvals inaccurately indicating that the NVIS modifications conformed to the specifications of the STC. Mr. Foster indicates that through additional collection of information, the number of helicopters modified for NVIS by ASU increased from 250 to more than 300. It was further determined that approximately 90% of the modifications did not conform to the applicable STCs. The number of helicopters returned to service with improper field inspections increased, as well.

In response to these findings, Mr. Foster drafted a proposed corrective action plan to resolve the NVIS modification issues, which he submitted to his superiors on August 3, 2007. The plan set forth procedures to ensure that all NVIS modified helicopters were properly inspected, that the modifications were brought into conformity with the applicable STC or dismantled, and that the helicopters were in airworthy condition.² He explains that a coordinated

¹ A STC is a Type Certificate (TC) -- a design approval containing data, specifications and drawings -- issued by FAA to modify an aircraft from its original design. The STC, which incorporates by reference the related TC, approves not only the modification but also how that modification affects the original design.

² In November 2007, Mr. Foster initiated enforcement actions against ASU and its Director of Maintenance, Kip McDermott. ASU relinquished its repair station certificate for revocation based on falsification of maintenance records. ASU has since applied for and received a new certificate. Mr. McDermott's certificate has been revoked

plan for bringing the aircraft into compliance in a timely and systematic manner was critical, in order to ensure the airworthiness of the aircraft while preventing unnecessary and/or mass groundings of emergency medical service helicopters. In his proposal, he explained that in instances where a helicopter may be found technically unairworthy (*e.g.*, the NVIS modification did not strictly conform to the STC but there were no safety issues), grounding of the emergency aircraft would be unreasonable and could potentially jeopardize the lives of patients in need of their service. However, in instances where the helicopter is not airworthy due to the unknown condition of the NVIS installation and/or the NVG system, then the aircraft should immediately be removed from authorization to use the NVG system until the situation is resolved.

Between August 2007 and May 2008, Mr. Foster participated in meetings with Bradley Pearson, Manager, and Rick Domingo, then Assistant Manager, Flight Standards Division, Northwest Mountain Region; David Downey, Manager, Rotorcraft Directorate; Richard McCauley, Manager, SACO, and others regarding the NVIS modification issues. In November and December 2007, Mr. Foster reviewed and provided input on a draft Formal Notice of National Policy, N8900.nn (the Notice), alerting various FAA components and aircraft operators of the non-compliance of the NVIS modifications made by ASU. The Notice, which was to be signed by James Ballough, Director, Flight Standards Service, was directed to all Flight Standards Field Office Airworthiness ASIs who have certificate management and oversight responsibilities of carriers with aircraft that received the NVIS modifications. However, it was to be widely disseminated to the Flight Standards branches and divisions in the regions and Headquarters, and posted on FAA's website for access by operators and the public.

The Notice explained that the NVIS modifications were made by ASU on "more than 50% of the total non-military aircraft capable of NVG use in the United States today." Critically, it stated that "[m]any of these aircraft were inappropriately returned to service through a field approval . . . Others may not conform to the STC under which they were modified. In either case, the airworthiness certificate is invalid." As stated in the Notice, 14 C.F.R. § 91.203(a)(1) prohibits the operation of an aircraft without an appropriate and current airworthiness certificate, and 14 C.F.R. § 91.7 prohibits anyone from operating an aircraft unless it is in an airworthy condition. The Notice further explained that in order to receive an airworthiness certificate, an aircraft must conform to its TC, including any STC, and must be in a condition safe for operation.³

The Notice identified the affected aircraft and provided instructions to Principal Maintenance Inspectors (PMIs) and Principal Avionics Inspectors (PAIs) to notify the operators of these aircraft. Operators would then be given ten days from receipt of notice to "validate the status" of each ASU NVIS modified aircraft and report the results back to the PMIs and PAIs. If

based on falsification of maintenance records. Mr. Foster has indicated to OSC that his disclosure does not pertain to allegations of wrongdoing by ASU and Mr. McDermott, which have been addressed by FAA.

³ The Notice further explained that an aircraft conforms to its TC "when its configuration and the components installed are as described in the drawings, specifications, and other data that are part of the TC, which includes any STC, airworthiness directives, and field approved alterations incorporated into the product."

the operator was unable to verify conformity of the aircraft to the applicable SCT, then the aircraft's airworthiness certificate would be deemed invalid. The Notice also established procedures for inspections of the STC data packages in comparison with the actual aircraft by the PMIs and PAIs, and established a system for documenting and tracking all conformity and safety discrepancies and disposition of the affected aircraft.

Critically, however, Mr. Foster reports that the Notice was never issued and a formal action plan has not been implemented to bring the helicopters into compliance. He explains that around the time when the final draft of the Notice was circulated in early April 2008, the safety issues relating to the inspection and maintenance programs for the Southwest Airlines and American Airlines Certificate Management Offices began receiving wide and negative publicity. In light of the sharp criticism and scrutiny FAA was receiving with respect to those issues, FAA management in Headquarters made the decision not to issue the Notice regarding the non-compliance of the ASU NVIS modifications.

On May 1, 2008, Mr. Foster spoke with Rick Domingo to discuss the status of the corrective action plan and Notice. According to Mr. Foster, Mr. Domingo suggested to him that Headquarters management was concerned that publishing the Notice in the wake of the Southwest Airlines and American Airlines problems would result in widespread aircraft groundings and more negative publicity. He further explained that management reasoned that because NVG use and the likelihood of an accident would be reduced during the summer months, when the weather was better, it was not critical that they issue the Notice at that time. Mr. Domingo further advised that management set a target date of October 1, 2008, to bring all of the aircraft into compliance. Depending on the number of aircraft that are still non-compliant as of August 31, 2008, management will determine whether it is necessary to issue the Notice at that time to force the operators to come into compliance or ground their helicopters. On May 2, 2008, Mr. Foster met with Mr. Pearson, his Assistant, Herman Ross, Mr. McCauley, and others regarding this course of action, and he expressed his disagreement with the decision not to publish the Notice and implement a formal process.

According to Mr. Foster, all of the operators of helicopters that received the NVIS modifications have been advised by ASU of the non-conforming modifications, and SACO is working with ASU to bring the aircraft into conformity. He contends, however, that this informal process fails to adequately address the problem. First, the operators have not been advised of the potential safety hazard relating to the NVIS modifications, as the informal notification only indicated a technical non-conformity issue with data. Further, many of the helicopter operators have held off taking steps to bring their aircraft into conformity because they are awaiting formal action by FAA, directing them to do so. In addition, Mr. Foster alleges that SACO is engaging in a process of "rubber-stamping" drawings of NVIS-modified helicopter configurations submitted by ASU, which are based on photographs of the aircraft, in order to retroactively approve the data in the STCs for those aircraft. He asserts that neither SACO nor ASU is properly inspecting the aircraft in accordance with FAA regulatory requirements to ensure readability of the instruments, warning lights and radios, and to maintain the enhanced level of safety requirements for air ambulance operations under 14 C.F.R. Part 135. He contends

that this retroactive approval process fails to address the identified safety hazard relating to the installation of the filters. While these helicopters may now be deemed to conform to their STCs, they have not been physically evaluated to determine whether lights and filters previously installed without approved data are correctly positioned, are compatible with NVG use, and do not impede the pilot's ability to see the instruments and radios in normal night and day situations.

Thus, Mr. Foster contends that FAA has allowed aircraft with invalid airworthiness certificates, and potentially hazardous NVIS modifications, to remain in service. He asserts that without a systematic approach to ensuring conformity and airworthiness, the result will be continued operation of unairworthy aircraft that were not properly evaluated, and the potential for sporadic groundings of emergency medical service helicopters that are waiting for approved data, putting at risk emergency response crews and trauma patients whose lives depend on their availability. As an example, Mr. Foster indicated that in late April 2008, nine medivac helicopters located in California were voluntarily grounded by their operators due to the faulty NVIS filters installed in the aircraft. He contends that removal of this many emergency helicopters from service at one time creates a substantial risk of harm to the public.⁴

III. THE SPECIAL COUNSEL'S FINDINGS

Mr. Foster has presented serious allegations that reveal that FAA, in an effort to avoid scrutiny, has failed to ensure that hundreds of emergency service helicopters with non-conforming and potentially hazardous modifications are brought into compliance and airworthy status. Given the apparent expertise of the whistleblower regarding the matter disclosed, the detail provided, and his first-hand knowledge of the issues described, I have concluded that there is a substantial likelihood that the information provided to the Office of Special Counsel discloses violations of law, rule, or regulation, gross mismanagement, an abuse of authority, and a substantial and specific danger to public safety.

⁴ On May 3, 2008, Mr. Foster reported his allegations to the DOT Office of Inspector General (OIG), which opened a case file (Case No. 08IH-B-66-I-000) and referred the matter to FAA for investigation. Mr. Foster has advised OSC that he has not been contacted by FAA or OIG regarding his allegations.

Redacted

Appendix D – March 2, 2010, E-mail from Rand Foster to AVS-1 and AVS-2 and Response

E-mail from Rand Foster – 3 Pages (Attachment omitted. See Appendix C for content.)
Response from AVS-2 – 5 Pages

Request for Investigation and Resolution

Rand L Foster
ANM-230, Technical Standards Branch GA

to: Peggy Gilligan, John
Hickey

03/02/2010 10:22 AM

Cc: [REDACTED]

History: This message has been replied to and forwarded.

Peggy and John,

With all due respect, I make the following statement:

In May 2008, I provided a whistleblower complaint to the OSC and DOT/OIG concerning installation of night vision supplemental lighting systems (NVIS) in HEMS helicopters by Aviation Specialties Unlimited (ASU). The action was taken due to frustration with division leadership and overt actions to circumvent laws and regulatory requirements. The complaint did not concern ASU as much as the collusion in the FAA to cover up the issues and to falsify documents in the process. I have attached a copy of the ruling by OSC for your convenience.

I believe that I acted in a manner that the public would expect in any government employee to protect their trust and safety. As a result, I have received requests from inspectors over the past two years as they wanted to know of my experiences. Those requests were for guidance concerning the personal effects and costs of a whistleblower complaint, the effects of complaining to their management about other managers and offices, my technical expertise on the subject, and what protocols might be effective. I want to let you know that my decisions are not and have not been taken lightly or with malice even though I have had occasional nightmares with cold sweats questioning what I have done with my career after watching the horrors experienced by others that filed whistleblower complaints.

However, the situation cannot go on.

I was aware that the Seattle ACO retroactively approved many data packages to "make" installations legal in the time leading up to 2008 just to keep HEMS flying. I was aware that [REDACTED], an assistant to [REDACTED], had been given a special assignment with a regional specialist to go forth and evaluate old installations and new ones as the company continued its tradition while the assignment was contrary to good judgement that would have directed the responsible offices to require immediate compliance rather than attempting to continue region level management of the certificate. Let me elaborate that the tradition of ASU means that it performs an installation then has data approved because of production needs, it performs installations without approved data hoping they would not get caught, or it performs the installation haphazardly and contrary to the data. Unfortunately, the data that was/is approved in most instances was manipulated to meet the requirements by ASU and/or the FAA although the installation was not compliant with that data.

Over time I have received knowledge about many new non-compliant installations. I

referred the informers to the appropriate parties for resolution with no resolution. The pencil whipping paperwork in SACO has continued. The company has continued to perform below regulatory requirements and I will assert that this has happened with the full knowledge of management individuals at great cost to the integrity of the FAA and the trust of its employees and the public.

Currently, there are several enforcement cases open against ASU. At least one case is for falsification. This is a real problem since the original falsification issues were not properly referred to OIG as they should have been in 2007 by management. The situation is not excusable. The FAA has not performed its duties or "made the right decisions even though no one is watching".

Let me add, that I have never prescribed to the notion that HEMS aircraft be grounded because of bad NVIS installations. The original voluntary groundings by operators in 2008 were not excusable and done because operators obtained knowledge that their aircraft were not airworthy and feared FAA retribution. The FAA has been irresponsible at the headquarters level by failing to provide guidance that describes the risks, mitigates those risks until compliance, and sets a firm date for full compliance. [REDACTED] issued a notice that went so far as to say that even though the aircraft were not airworthy it was OK to go ahead and operate. I do not know if that irresponsibility stems from bad business practices and decisions or from the failure of the division managers to be truthful with their briefings on the subject. In any event, the result as one phrase appropriately describes the situation, "is what it is and we are where we are".

I hereby request that the persons listed below be sanctioned in the manner described for each individual. I thank you with the trust in advance that some action will be taken within the next 10 days.

[REDACTED], ANM-200
Resignation by April 1, 2010

[REDACTED], ANM-100
Resignation by April 1, 2010

[REDACTED], ANM-201, currently Acting AWP-200,
Resignation by April 1, 2010 or reassignment below management level

[REDACTED], ANM-160S
Resignation by April 1, 2010 or reassignment below management level

[REDACTED], ANM-200SA
Reprimand for failure to report regulatory non-compliance by superiors

[REDACTED], ANM-240
Counseling for failure to report regulatory non-compliance by superiors



Press Release and Letter to President 07 30 2009.pdf

This email was copied to the interested parties so that communication can be facilitated and expedient. I will provide a copy of this email to the Office of Special Counsel.

Rand L. Foster
Aviation Safety Inspector
Regional Airworthiness Specialist
ANM-230 Technical Standards Branch
Cell 206-390-5483, Office 425-227-2248

WARNING: This record MAY contain Sensitive Security Information that is controlled under 49 CFR parts 15 and 1520. No part of this record may be disclosed to persons without a "need to know," except with the written permission of the Administrator of the Transportation Security Administration or the Secretary of Transportation. Unauthorized release may result in civil penalty or other action. For U.S. Government agencies, public disclosure is governed by 5 USC 552 and 49 CFR parts 15 and 1520.

Re: Request for Investigation and Resolution

John Hickey

Rand L Foster

03/31/2010 11:57 AM

AVS-002, Offc. of the Associate Administrator

Ali Bahrami

Mr. Foster,

Attached for your information is our response to your allegations as set forth below. Again, my apologies for the delay in responding.

Sincerely,
John Hickey



Foster_email_response.doc

Rand L Foster

John, I appreciate you attention to the matter alt...

03/19/2010 04:26:11 PM

From: Rand L Foster/ANM/FAA
To: ANM-230, Technical Standards Branch GA
CC: John Hickey/AWA/FAA@FAA
Date: 03/19/2010 04:26 PM
Subject: Re: Request for Investigation and Resolution

John, I appreciate you attention to the matter although January 29 is a bit far away (smiling). The certificate holder has been able to manipulate the FAA's responsibilities because of too many hands in the pie for way too long. There is a very simple solution to the issues with ASU. There is also a very simple solution to restoring my confidence. Just having people own up to their actions would be a good start.

Rand

John Hickey

Mr. Foster. Just a quick note to say I haven't forg.

03/19/2010 11:32:07 AM

Rand L Foster

The lack of accountability at the management le...

03/03/2010 04:36:19 PM

John Hickey/AWA/FAA

John Hickey/AWA/FAA
AVS-002, Offc. of the
Associate Administrator

03/02/2010 10:40 AM

To: Rand L Foster/ANM/FAA@FAA

cc: Peggy Gilligan/AWA/FAA@FAA

Subject: Re: Request for Investigation and Resolution

Mr. Foster,

Thank you for this note expressing your concerns over the night vision goggles. I have a somewhat limited recollection of this issue, but do recall some of the conversations that took place, I believe, in 2008. Unfortunately, I do not have a current understanding of the status of the OSC case, and Associate

Administrator Peggy Gilligan is on business leave all this week. I can clearly state your recommended sanctions and timeline will not be carried out as you suggest below. I can tell you I will look further into this case again and get back with you sometime next week.

Sincerely,
John Hickey

Rand L Foster

Peggy and John, With all due respect, I make th

03/02/2010 01:22:42 PM

From: Rand L Foster/ANM/FAA
ANM-230, Technical Standards Branch GA
To: Peggy Gilligan/AWA/FAA@FAA, John Hickey/AWA/FAA@FAA
Cc: Brad Pearson/ANM/FAA@FAA, Herman Ross/ANM/FAA@FAA, Jody M Radcliffe/ANM/FAA@FAA, Ali Bahrami/ANM/FAA@FAA, Thomas E Archer/ANM/FAA@FAA, Rick Domingo/ANM/FAA@FAA, orika.vincent@oig.dot.gov
Date: 03/02/2010 01:22 PM
Subject: Request for Investigation and Resolution

Peggy and John,

With all due respect, I make the following statement:

In May 2008, I provided a whistleblower complaint to the OSC and DOT/OIG concerning installation of night vision supplemental lighting systems (NVIS) in HEMS helicopters by Aviation Specialties Unlimited (ASU). The action was taken due to frustration with division leadership and overt actions to circumvent laws and regulatory requirements. The complaint did not concern ASU as much as the collusion in the FAA to cover up the issues and to falsify documents in the process. I have attached a copy of the ruling by OSC for your convenience.

I believe that I acted in a manner that the public would expect in any government employee to protect their trust and safety. As a result, I have received requests from inspectors over the past two years as they wanted to know of my experiences. Those requests were for guidance concerning the personal effects and costs of a whistleblower complaint, the effects of complaining to their management about other managers and offices, my technical expertise on the subject, and what protocols might be effective. I want to let you know that my decisions are not and have not been taken lightly or with malice even though I have had occasional nightmares with cold sweats questioning what I have done with my career after watching the horrors experienced by others that filed whistleblower complaints.

However, the situation cannot go on.

I was aware that the Seattle ACO retroactively approved many data packages to "make" installations legal in the time leading up to 2008 just to keep HEMS flying. I was aware that [REDACTED] an assistant to [REDACTED] had been given a special assignment with a regional specialist to go forth and evaluate old installations and new ones as the company continued its tradition while the assignment was contrary to good judgement that would have directed the responsible offices to require immediate compliance rather than attempting to

Analysis of Allegations

On Tuesday, March 2, 2010, ASI Rand Foster sent an electronic mail message to AVS-1 and AVS-2. The message contained allegations of wrongdoing by Senior Executives and others assigned to the Northwest Mountain Region Flight Standards Division and the Transport Airplane Directorate. The allegations are quoted below with responses for each.

Allegations and Response:

1. Allegation: The SACO "retroactively approved many data packages to 'make' installations legal in the time leading up to 2008 just to keep HEMS flying."

Response: Once the FAA identified aircraft that were not properly returned to service, those aircraft were retroactively approved by an STC under the Corrective Action Plan. Under the CAP each aircraft design modification was evaluated to determine that it met the applicable airworthiness standards of Part 27 or Part 29. After this review was completed, each aircraft was recognized either through amendments to existing multi-ship STC's or through issuance of STC's applicable to individual aircraft - both practices falling within defined FAA policy and guidance.

Following the completion of the CAP in October of 2008, all aircraft that receive ASU NVIS modifications are STC approved by SACO prior to being returned to service. Additionally, since completion of the CAP, the majority of the STC's applicable to individual aircraft have since been consolidated into existing multi-ship STC's.

2. Allegation: "[REDACTED], an assistant to [REDACTED] had been given a special assignment with a regional specialist to go forth and evaluate old installations and new ones as the company continued its tradition while the assignment was contrary to good judgment." The company noted was ASU.

Response: During the period the CAP was active, ASI's [REDACTED] and [REDACTED] were assigned responsibility for overseeing the Flight Standards (AFS) portion of the project. This was a prudent management assignment of resources considering the importance of the success of the CAP. Afterwards, they returned to their normal duties. Each inspector has intermittent involvement with ASU related issues as they arise.

3. Allegation: The "data that was/is approved in most instances was manipulated to meet the requirements by ASU and/or the FAA although the installation was not compliant with that data."

Response: In no case did the SACO "manipulate" data to find compliance. In all cases, compliance findings were made based on application of the regulatory requirements, using the processes outlined in FAA orders, advisory circulars, and other appropriate Aircraft Certification Service (AIR) policy and guidance.

4. Allegation: ASI Foster referred other inspectors with concerns "to the appropriate parties for resolution," but "without resolution."

Response: The allegation cannot be resolved on the basis of the information provided. We need to know the specific ASI's who raised concerns, the parties they attempted resolution with and the basis for their dissatisfaction with any response provided. All concerns that we are aware of were satisfactorily resolved.

- 5. Allegation: "The pencil whipping paperwork in SACO has continued."

Response: In all cases where the SACO approved ASU STC's or amendments to those STC's, the requirements of 14 CFR part 27 or 29, FAA Order 8110.4, and Rotorcraft Directorate policy have been adhered to.

- 6. Allegation: ASU continues to "perform below regulatory requirements and I will assert that this has happened with the full knowledge of management individuals at great cost to the integrity of the FAA and the trust of its employees and the public."

Response: In regard to the submission of data to the FAA for STC approval, an applicant must show that the subject modification meets or exceeds the applicable FAR standards. In the case of ASU, the SACO has only approved those STC's and amendments that have been shown to meet the requirements of 14 CFR parts 27 or 29.

- 7. Allegation: Several enforcement cases are underway against ASU. "At least one case is for falsification. This is a real problem since the original falsification issues were not properly referred to OIG as they should have been in 2007 by management."

Response: EIR 2010EA030025 may result in a finding of falsification. However, the Allegheny FSDO has not completed their investigation and the Eastern Region Flight Standards Division has not completed the review required to determine sanction. With regard to the "original falsification issues," these were properly processed by the Northwest Mountain Region Flight Standards Division and Regional Counsel's Office.

- 8. Allegation: "The original voluntary groundings by operators in 2008 were not excusable and done because operators obtained knowledge that their aircraft were not airworthy and feared FAA retribution."

Response: It is not true that the voluntary groundings ASI Foster referred to were "not excusable." It was the operator's actions alone that brought about the voluntary groundings. The facts of this matter are that in discovery activity in support of a case, it was necessary for FAA counsel to obtain records and photographs of approximately 20 aircraft. This occurred in April and May of 2008. An ANM-200 regional specialist coordinated the gathering of the needed documentation with the relevant principal inspectors and was careful to point out that we were not making airworthiness determinations. That determination is always ultimately the responsibility of the operator. Some of the affected operators elected to review the airworthiness status of the subject aircraft. If they questioned conformity to the relevant STC, they recognized the aircraft were potentially technically unairworthy and therefore grounded them until they could resolve the airworthiness discrepancies. All air carriers are expected to recognize their responsibility to operate only airworthy aircraft and know the consequences of failing to do so.

- 3
9. Allegation: "The FAA has been irresponsible at the headquarters level by failing to provide guidance that describes the risks, mitigates those risks until compliance, and sets a firm date for full compliance."

Response: The FAA has in fact been very responsive at the regional and headquarters level in response to the issues raised by ASU's NVIS installations. The CAP and notice N 8900.51, issued to provide guidance to ASI's concerning the CAP, were the result of a thoroughly reviewed and vetted process. As noted in the memorandum, the FAA's Aviation Safety Chief Scientist and Technical Advisor performed a safety analysis and concluded the ASU NVIS modified HEMS fleet had not shown an increase in accident risk compared to the overall NVIS modified fleet. The notice contained a date for completion of the CAP of October 31, 2008, and the CAP was completed a day early.

10. Allegation: A notice was issued by AFS that "went so far as to say that even though the aircraft were not airworthy it was OK to go ahead and operate."

Response: Notice N 8900.51 did not state that, "even though the aircraft were not airworthy it was OK to go ahead and operate."

11. Allegation: The notice may have been issued because of "the failure of the division managers to be truthful with their briefings on the subject."

Response: As noted in response 9, the safety analysis concluded the ASU NVIS modified fleet did not have a heightened accident risk compared to the overall NVIS modified fleet. Seeking this study is one of many examples of field and headquarters collaboration, and open and robust communication between many levels in AFS and AIR. The safety analysis conclusion was one of many inputs into an extensively coordinated decision to set aside in favor of the CAP an earlier plan to produce a draft notice directing operators to conduct conformity inspections. Participants in these discussions included the Directors of AFS and AIR.

Redacted

**Appendix E – May 31, 2010, Letter from Rand Foster to The
Administrator of the FAA and The Secretary of Transportation**

Letter – 7 Pages

May 31, 2010

Ray LaHood, Secretary
U.S. Department of Transportation
1200 New Jersey Avenue, SE
Washington, DC 20590

J. Randolph Babbitt, Administrator
Federal Aviation Administration
800 Independence Avenue, SW
Washington, DC 20591

Dear Mr. LaHood and Mr. Babbitt,

On May 3, 2008, I filed a hotline complaint with the USDOT/OIG and the U.S. Office of Special Counsel (OSC) concerning the FAA's internal management failures that allowed improper installation of night vision systems (NVIS) in emergency medical helicopters (HEMS). The OSC picked up the case in July 2008 and began the process of requesting an answer from the FAA as to whether my allegations were fact. The original OSC file number is DI-08-1904. The following information reflects my personal professional and expert opinion of issues still in existence that concern the handling of a repair station that does not operate in a regulatory compliant manner.

After OSC began to investigate the whistleblower case the FAA requested numerous extensions of time to submit an answer. My allegations included failure of FAA management to enforce regulations and laws and that FAA management conspired after the fact to cover up criminal acts of falsification and continued violations by the repair station (and the FAA) performing those installations. To my knowledge, the DOT/OIG never performed an investigation. The OSC finally gave up on the FAA after a year of granting extensions and the case was referred to the Office of the President on July 30, 2009.

The OSC found there was a substantial likelihood that FAA officials and employees engaged in a violation of law, rule, or regulation, gross mismanagement, and an abuse of authority, all of which contributed to a substantial and specific danger to public safety. I will not reiterate my sworn statement or the original allegations and OSC findings as they can be found as an attachment to this letter.

In early 2008, FAA management in Flight Standards (FS) and the Aircraft Certification (ACO) offices of both headquarters in Washington, D.C., and the Northwest Mountain region division offices set forth a corrective action plan after the repair station certificate was revoked and

subsequently recertified. The repair station is Aviation Specialties Unlimited (ASU) (designator UABR) of Boise, Idaho. The FAA managers involved are [REDACTED] (ANM-200), [REDACTED] (ANM-201), [REDACTED] (ANM-100), and [REDACTED] (ANM-100).

The corrective action plan allowed ASU to submit drawings for expedited FAA approval that were derived from current photos of installations even though the aircraft were never inspected to determine compliance with the data requirements and contrary to the FAA's own regulations in 14CFR Parts 43 and 145. In many instances approvals given by the ACO office were improper and did not comply with existing guidance. The sole purpose of those expedited approvals was to add the serial numbers of the individual HEMS aircraft to existing supplemental type certificates (STC) because those aircraft were not eligible to be airworthy unless listed on the STC. Unairworthy HEMS aircraft are a public safety issue because they will not be available for emergency rescue operations yet there are legal formal processes that could be used to mitigate risk and set a time-line for compliance.

While NVIS and the use of night vision goggles are an important upgrade to HEMS the introduction of so many quality variables such as reflections and lighting interferences that pilots consciously work around during normal operations the discrepancies I discuss in this letter can lead to a disaster during emergency conditions when a pilot must make decisions instantaneously.

My estimate is that the FAA has spent in excess of \$1 Million on trying to accommodate ASU over the past two years rather than demand compliance. In addition, ASU has strategically made complaints against the field inspectors that find discrepancies and has appealed to its congressional and FAA headquarters contacts through numerous complaints to alleviate enforcement activities.

The complaints filed by ASU were petty but garnered political attention that sidelined the mission of the FAA. To that end, the FAA has provided 2 Flight Standards inspectors at the region level and at least 2 ACO engineers basically on-call to approve data at the region level in order to continually deal with ASU issues. The FS activity should be directed to the field level inspectors for management of "their" certificate responsibilities rather than region interference and the data approval activities should be put in a queue just like any other ACO applicant.

Flight Standards in headquarters also went so far as to issue Notice 8900.51 that the non-compliance was simply a technical issue and it was OK to continue to operate the aircraft and offered the notion of "low risk". However, the original plan was developed very early in 2008 with the idea for a release of the Notice in April of 2008. This would allow the time period for compliance over the summer months of 2008 when the amount of NVIS operation time would

be at the lowest because of shorter hours of darkness and less bad weather during the summer therefore the "low risk" discussion.

Unfortunately, the planned April release happened to overlap the media frenzy about the FAA's oversight failure on Southwest Airlines and American Airlines. Managers quickly adopted a plan "B" and the release of the Notice was moved to September 2008. With that change came the notion that [REDACTED] would become the primary engineer to make all of the approvals as the most knowledgeable engineer that worked with ASU in the past refused to rubber stamp the drawings due to continued discrepancies by ASU and the fact the drawings were based on photos rather than actual inspections. Let me add that I also believe that [REDACTED] supervisory engineer who provided the expedited data approvals in the summer of 2008 and based his approvals on photos after the corrective action plan was implemented, has also gone to work for ASU after he retired from the FAA.

The plan ultimately included using the 2008 summer to approve at least 90% of the drawings to add the serial numbers of the non-compliant aircraft and then use the Notice as a final method in September to obtain compliance of the few remaining helicopters when it would inconvenience the least amount of operators. The problem with plan "B" was that over time, the errors in handling ASU snowballed into a number of compliance missteps and the FAA continued to accommodate ASU's way of doing business so the issues would not become public. The problem now is greatly out of proportion to how the issues could have been corrected when first identified.

To add to the FAA's injuries, the Notice was advisory and did not mandate action operator action or identify the discrepancies that could lead to vision problems such as reflections while using the goggles or the inability to see caution panel lights during the day without the goggles. We should be clear about one point. The notion of "low risk" is not the same as "no risk" and does not relate to the regulatory requirement that the aircraft should be fully compliant with the regulations for the aircraft to have a valid airworthiness certificate.

These HEMS aircraft are operated under 14CFR135 and legally held to a higher level of safety but the FAA has failed in that requirement to suit its whims. The true physical non-compliance was ignored rather than to set forth a mandatory plan to mitigate the condition by identifying the risks including a mandatory timeline for full inspection and compliance. Most of the 300 original helicopters still operate today with probable vision anomalies that are a risk to the pilots, crew, and patients carried on board those aircraft even though data was rubber stamped to add those serial numbers to approved drawings. If the problem had ended there by mandating inspections and full compliance on the original 300 aircraft then the FAA would have met its responsibilities. However, over the last two years I believe that more than 200 additional HEMS aircraft have been modified by ASU to bring the total closer to 600.

The ACO eventually developed a scheme to cover up the continued violations of the repair station by issuing "retroactive" data approvals even if the aircraft do not even actually conform to those retroactive approvals. This action is contrary to the mandate by congress that the FAA develop regulations and policy to provide the public with a safe air transportation system. The regulations require that maintenance be performed on aircraft using approved data and that the aircraft must conform to that data at the time the maintenance is performed. In addition, the arbitrary issuance of retroactive data approvals for political convenience destroys the very foundation of legal enforcement processes under 14CFR Parts 43 and 145 that ultimately lead to voluntary compliance.

If retroactive approvals are good policy then each person performing maintenance should be allowed to present data for the work performed anytime after the fact and be absolved from sanctions from any failure to have that data approved before the work is accomplished. The short sighted decision to provide industry oversight in this manner is not acceptable and will have long lasting consequences as other maintenance providers learn of the process. Ultimately, the NTSB will not uphold conflicting or arbitrary enforcement about approved data so there is no incentive to comply with the regulatory requirements.

Even though the non-compliance culture at ASU historically includes the items cited below these are the more recent violations; alterations of technical standard order (TSO) instruments by grinding the cases, opening and installing non-TSO lights, and installation of filters affixed to the lens contrary to the FAA regulation (14CFR 21.611c) that states no person may alter a TSO'd item unless it is the owner of the TSO authorization to manufacture the product, lights have been installed without approval, additional lights have been installed that interfered with pilot flight controls, components installed in locations other than proscribed by the approved data, failure to install placards, failure to install filters or the installation of incorrect filters, wrong color of indicator lights, wrong size wiring and circuit breakers, incorrect and generic flight manual supplement information, incorrect continuing airworthiness information, and modification of helicopters when no approved data exists for that model or serial number.

With the assistance of the FAA, the repair station has continued to be production oriented with compliance taking a back seat because of the time and labor costs to do the job correctly. ASU uses that advantage to under bid its competitors and the result is that it is probably the major NVIS supplier to the HEMS industry with the unscrupulous help of the FAA.

Flight Standards has basically ignored the continued violations by ASU. The FS division manager and his assistant have denied the assigned principle aviation safety inspectors (ASI) sufficient resources to perform surveillance and enforcement activities. They have directed those ASIs through management staff to either close investigations or to issue administrative letters

instead of complying with the sanction guidance policy in FAA Order 2150.3 that would have forced the repair station to either be compliant or close their doors 2 years ago.

The Flight Standards region office has also managed the ASU certificate at the region level in a manner that is prejudicial to the repair station and contrary to the guidance in FAA Order 8900.1. The actions of management have ultimately demonstrated a lack of integrity and undermined the professional and expert opinions of the aviation safety inspectors in several offices across the United States. It is no wonder that the FAA ranks 214th of 216 agencies recently polled for employee confidence.

On March 2, 2010, I sent an email to the FAA offices of Peggy Gilligan (AVS-1) and John Hickey (AVS-2) asking for the reassignment or retirement of several individuals that continually violate the agencies own regulations and policies. Mr. Hickey responded that my suggestion would not be considered. Even though AVS-1 and AVS-2 have received numerous briefing papers Hickey apparently requested a review of the actions in the Northwest Mountain region offices and replied that the agency had issued retroactive approvals to data that corrected the violations and denied other allegations that I provided. I then replied that I had to find he was untruthful and I would forward my complaints to outside the agency if that was necessary.

ASU, in cahoots with the ACO and FS, has continued to violate maintenance regulations even after the July 30, 2009, ruling by OSC that should have triggered a full and impartial internal and external investigation with appropriate corrective action. [REDACTED]

[REDACTED] have had full knowledge of the discrepancies with the repair station Aviation Specialties Unlimited (ASU) since 2007. Those managers were also advised by [REDACTED] (ANM-200), [REDACTED] (AFS-300), and [REDACTED] (AEA-200). I allege that these individuals have worked to suppress proper FAA action so that the FAA and their positions would not be further embarrassed. To have done so would have revealed that the handling of the ASU situation closely resembles the same characteristics as the FAA lack of oversight in the Southwest and American Airlines fiasco of early 2008 and would garner media attention. That attention seems inevitable.

While the FAA manager's actions seemed to buy time for the repair station to act properly and clean the records and alterations of the HEMS, the repair station unfortunately continued its non-compliant actions with the aid of the FAA's flawed systemic culture. The public has been put at further risk for the political comfort of a few managers. If the situation had been resolved by comparing the violations and enforcement activities to the regulations and guidance and taking proper low level action in the beginning rather than spinning the problems into a higher and higher level of political fervor we would not be where we are today. A good example of the mismanagement is that I asked Brad Pearson twice to refer the falsification

allegations to the local OIG in 2007 for a criminal investigation. That referral requested in 2007 was not made until about 3 weeks ago and after I confronted John Hickey by email.

I would like to make one final point. The situation surrounding certification of NVIS systems in HEMS is of such proportion that the FAA and industry could never go back and make corrections to the data on each individual helicopter. However, there is a light at the end of the tunnel since the purpose of the STC's was to certify the cockpits to a NVIS compatibility standard using conformity drawings and visual tests. On one hand, the FAA has mandated training and pilot competencies. On the other it has never mandated regular maintenance inspections to detect NVIS incompatibility issues that could be utilized to correct the situation at hand.

In practice, radio systems are upgraded, instruments become defective and are changed, new medical equipment is installed, light filters crack and fall off, light bulbs are changed, cockpit curtains that separate the cockpit from medical personnel sag or tear, and the resulting cockpit compatibility is not maintained with the STC conformity requirements. In reality, the strict STC configuration maintenance is impractical after the original installation and day-to-day maintenance personnel are not familiar with the strict requirements of how to maintain compatibility of the lighting system with the night vision goggles. This amplifies the risk to the aircraft and public rather than mitigates the safety risk.

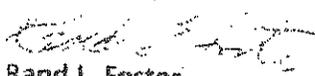
I suggest that the FAA mandate by an Airworthiness Directive (AD) that all aircraft with NVIS systems be inspected every 180 days or any time maintenance is performed that may affect the compatibility of the NVIS system. That inspection would detect incompatible light sources, light reflections on the windshield and other surfaces, and incompatible avionics displays because pilots don't regularly use the goggles on every night flight and thus would prevent a situation where they are caught by surprise when using goggles in an emergency situation.

The inspection protocol would require that a pilot and co-pilot be able to adequately read displays, caution lights, and required instruments in the 3 separate lighting situations of normal daylight, night with normal lighting and navigation lights without goggles, and night near absolute darkness using the goggles. This should occur before further flight every 180 days or after replacement of any instrument, light, or avionics component. It is unrealistic, impractical, and cost prohibitive for the STC to be revised every time that the configuration of a interior cockpit or aircraft exterior light or avionics system is changed. The only way for industry to get a handle on the errors that I have addressed in this letter is to require an inspection program and certification to the "properly altered" condition during the regular maintenance and inspection processes under 14CFR43.13. That inspection requirement should also be part of the legal operations specification system for NVG operation and operator certification.

Hopefully, this suggestion will be adopted before unnecessary loss of life or serious injuries occur because of pilot vision problems while operating HEMS.

With all due respect, I am providing a copy of this letter to the Office of Special Counsel in order to open a new whistleblower complaint and to the FAA Whistleblower's Alliance (FWA). The FAA has a consistent 100% denial of complaints against its managers and I have not seen the culture visibly change in the past 2 years. I do not have confidence that the FAA can change its culture without congressional and external encouragement because I have not seen an independent investigation of any whistleblower complaints other than by the limited powers of the OSC. I appreciate any assistance that you can provide.

Sincerely,



Rand L. Foster

Aviation Safety Inspector

Technical Standards Branch, ANM-230

1601 Lind Ave SW

Renton, WA 98057

(Cell) 206-390-5483

Appendix F – OSC File DI-10-2602 (OSC II)

10 Pages



U.S. OFFICE OF SPECIAL COUNSEL
1730 M Street, N.W., Suite 218
Washington, D.C. 20036-4505
202-254-3600

July 9, 2010

The Honorable Ray LaHood
Secretary
U.S. Department of Transportation
1200 New Jersey Avenue, S.E.
Washington, D.C. 20590

Re: OSC File No. DI-10-2602

Dear Mr. Secretary:

Pursuant to my responsibilities as Associate Special Counsel, I am referring to you for investigation a whistleblower disclosure previously referred to your office in 2008, alleging that employees at the Department of Transportation (DOT), Federal Aviation Administration (FAA), Seattle Aircraft Certification Office, the Flight Standards Division, Northwest Mountain Region, and FAA Headquarters are engaging in conduct which constitutes a violation of law, rule or regulation, gross mismanagement, and an abuse of authority, all of which has contributed to a substantial and specific danger to public safety. Serious allegations concerning non-compliant and potentially unsafe modifications made to hundreds of emergency service helicopters, and FAA's failure to appropriately address the problem, have been filed with the Office of Special Counsel (OSC) for the second time.

2008 Referral and Investigation

On July 8, 2008, OSC referred to the Honorable Mary E. Peters, then-Secretary of Transportation, pursuant to 5 U.S.C. § 1213(c), serious allegations made by Airworthiness Technical Specialist Rand Foster concerning the non-compliant and potentially unsafe modifications made to nearly 300 emergency service helicopters, and FAA's alleged failure to appropriately address this problem. Based on Mr. Foster's disclosures, we found a substantial likelihood that FAA officials and employees engaged in a violation of law, rule, or regulation, gross mismanagement, and an abuse of authority, all of which contributed to a substantial and specific danger to public safety.

Under 5 U.S.C § 1213(c), the Secretary of Transportation was required to conduct an investigation of the allegations and submit a written report to OSC within 60 days of OSC's transmittal or within any longer period of time agreed to by OSC, setting forth DOT's findings and any corrective action taken. OSC granted DOT five extensions of time over a period of more than twelve months. During this time, OSC was advised by DOT that FAA had completed an initial investigation in August 2008, and provided a report to DOT's Office of Inspector General (OIG) for review in September 2008. We learned that in October 2008, OIG responded to FAA with an extensive report outlining OIG's questions, concerns and

recommendations for further investigation by FAA. We also understood that FAA submitted a supplemental report to OIG. Despite the extensions granted, and OSC's notice to DOT that the fifth extension would be final, you did not submit the required report. Rather, after the close of business on July 20, 2009, the final due date of the report, DOT's Office of General Counsel requested an additional 60-day extension of time to file the report. In light of the serious nature of the safety allegations and the length of time that had passed, OSC concluded that it was no longer in the public interest for OSC to grant further extensions of time in the matter.

On July 30, 2009, OSC transmitted the prior disclosure to the President and Congressional oversight committees without DOT's report in accordance with 5 U.S.C. § 1213(e)(4). In addition, we filed a copy of this transmittal in our public file and concluded our involvement in the matter. A copy of OSC's July 30, 2009 letter is enclosed.

June 2010 Request for Information

On June 10, 2010, in response to a new whistleblower disclosure filed by Mr. Foster, OSC requested that DOT provide additional information and the current status of any report in connection with Mr. Foster's allegations. DOT, through its Office of General Counsel, acknowledged that a final report had been completed but declined to provide the report to OSC. Because Mr. Foster has detailed his continuing concerns regarding the non-compliant modifications on what is now approximately 500 aircraft, and the propriety of the retroactive approval of modifications, OSC is referring the allegations to you for an investigation and report pursuant to 5 U.S.C. § 1213(e).

Allegations

As detailed in our 2008 referral, a copy of which is enclosed, Mr. Foster, who has consented to the release of his name, is an Aviation Safety Inspector (ASI) and Airworthiness Technical Specialist with FAA. He then disclosed that approximately 300 emergency service helicopters were modified with a night vision imaging system (NVIS) to allow the use of night vision goggles. After FAA discovered that the modifications did not comply with required specifications, and in many instances created a serious safety hazard, FAA prepared a Notice of National Policy declaring the helicopters' airworthiness certificates invalid and establishing procedures to bring the aircraft into compliance. According to Mr. Foster, FAA officials delayed issuance of the Notice due to concerns over the negative publicity regarding Southwest Airlines and American Airlines in April 2008.¹

Although the helicopter operators were advised of the technical non-compliance issues, FAA failed to address the potential safety hazards relating to the NVIS modifications. Mr. Foster contended that FAA, in an effort to conceal this issue from the public and avoid

¹ In his current disclosure, Mr. Foster notes that the Notice of National Policy was finally issued in September 2008. It is discussed in detail in the attached Report of Disclosures.

scrutiny, failed to implement a formal process to ensure that the helicopters are brought into compliance in a timely and coordinated manner, allowing aircraft with invalid airworthiness certificates and potential safety hazards to remain in service. In particular, he alleged that, rather than ensuring that proper inspections were completed, FAA engaged in a process of "rubber-stamping" drawings of modified helicopter configurations, based on photographs, in order to retroactively approve the data for those aircraft. Mr. Foster contended that the lack of a coordinated plan could result in unnecessary and sporadic groundings of emergency medical service helicopters, putting at risk emergency response crews and trauma patients whose lives depend on their availability.

As detailed in the attached report, incorporated herein by reference, Mr. Foster now contends that FAA continues to allow modifications based on unapproved data and retroactive approval of such modifications, which has resulted in safety hazards. He reports that recent inspections have resulted in the identification of a significant number of non-compliant modifications, evidenced by the numerous enforcement actions against the repair station performing modifications, Aviation Specialties Unlimited, Inc. The information disclosed by Mr. Foster reveals a substantial likelihood of wrongdoing and raises concerns regarding the airworthiness of hundreds of emergency medical service helicopters.

The U.S. 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 or safety. 5 U.S.C. § 1213(a) and (b). If OSC finds, on the basis of the information disclosed, that there is a substantial likelihood that one of these conditions exists, we are required to advise the appropriate agency head of our findings, and the agency head is required to conduct an investigation of the allegations and prepare a report. 5 U.S.C. § 1213(c) and (g).

We have concluded that there is a substantial likelihood that the information the whistleblower provided to OSC discloses a violation of law, rule or regulation, gross mismanagement, an abuse of authority, and a substantial and specific danger to public safety. As previously stated, we are referring this information to you for an investigation of the whistleblower's allegations and a report of your findings within 60 days of your receipt of this letter. By law, the report must be reviewed and signed by you personally. Should you delegate your authority to review and sign the report to the Inspector General, or any other official, the delegation must be specifically stated and must include the authority to take the actions necessary under 5 U.S.C. § 1213(d)(5). The requirements of the report are set forth at 5 U.S.C. § 1213(c) and (d). A summary of § 1213(d) is enclosed. As a matter of policy, OSC also requires that your investigators interview the whistleblower as part of the agency investigation. Please note that where specific violations of law, rule, or regulation are identified, these references are not intended to be exclusive.

In the event it is not possible to report on the matter within the 60-day time limit under the statute, you may request in writing an extension of time not to exceed 60 days.

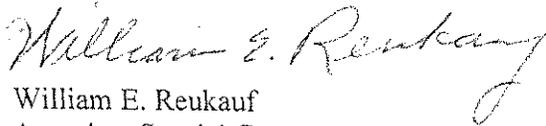
The Honorable Ray LaHood
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Extensions are generally granted when the written request sets forth the basis for the extension and contains a brief summary of the status of the investigation. Extension requests should be addressed to Catherine A. McMullen, Chief, Disclosure Unit, at the above address.

After making the determinations required by 5 U.S.C. § 1213(e)(2), copies of the report, along with any comments on the report from the person making the disclosure and any comments or recommendations by this office will be sent to the President and the appropriate oversight committees in the Senate and House of Representatives. 5 U.S.C. § 1213(e)(3). Unless classified or prohibited from release by law or by Executive Order requiring that information be kept secret in the interest of the national defense or the conduct of foreign affairs, a copy of the report and any comments will be placed in a public file in accordance with 5 U.S.C. § 1219(a). OSC's public file is now online at www.osc.gov.

Please refer to our file number in any correspondence on this matter. If you need further information, please contact Ms. McMullen at (202) 254-3604. I am also available for any questions you may have.

Sincerely,



William E. Reukauf
Associate Special Counsel

Enclosures



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REPORT OF DISCLOSURES REFERRED FOR INVESTIGATION OSC FILE NO. DI-10-2602

I. SUMMARY

Mr. Rand Foster, an Aviation Safety Inspector (ASI) and Airworthiness Technical Specialist with the Federal Aviation Administration (FAA), discloses serious allegations concerning non-compliant and unsafe modifications made to hundreds of emergency service helicopters, and FAA's failure to appropriately address the problem. He alleges that FAA employees in the Seattle Aircraft Certification Office (SACO), the Flight Standards Division, Northwest Mountain Region, and FAA Headquarters are engaging in conduct which constitutes a violation of law, rule or regulation, gross mismanagement, and an abuse of authority, all of which has contributed to a substantial and specific danger to public safety.

Mr. Foster discloses that more than 500 emergency service helicopters were modified with equipment to allow the use of night vision goggles. After FAA discovered that the modifications did not comply with required specifications, and in many instances created a safety hazard, FAA prepared a Notice of National Policy declaring the helicopters' airworthiness certificates invalid and establishing procedures and deadlines to bring them into compliance. Mr. Foster contends that FAA officials delayed issuance of the Notice due to concerns over the negative publicity regarding Southwest Airlines and American Airlines in April 2008. The Notice was finally issued in September 2008. According to Mr. Foster, the helicopter operators have been advised of the technical non-compliance issues; however, FAA has failed to address the potential safety hazards relating to the night vision imaging system (NVIS) modifications. He contends that in an effort to conceal this issue from the public and avoid scrutiny, FAA has failed to implement a formal process to ensure that the helicopters are brought into compliance in a timely and coordinated manner, allowing aircraft with invalid airworthiness certificates and potential safety hazards to remain in service. Mr. Foster contends that the lack of a coordinated plan may result in unnecessary and sporadic groundings of emergency medical service helicopters, putting at risk the lives of patients who depend on their service.

II. INFORMATION DISCLOSED

Mr. Foster, who has consented to the release of his name, is an ASI and an Airworthiness Technical Specialist assigned to the Flight Standards Division, Northwest Mountain Region, Technical Standards Branch. Mr. Foster has been employed by FAA for fifteen years and, among other roles, he previously served as a Principal Maintenance Inspector in three different Flight Standards District Offices (FSDOs). He has over thirty years of experience in the aviation industry.

In August 2007, Mr. Foster identified approximately 250 U.S. registered emergency service helicopters that had received non-compliant modifications to install a night vision imaging system (NVIS), a supplemental lighting system to allow the use of night vision goggles (NVGs). The vast majority of these helicopters are used by hospitals, fire departments and paramedic companies to transport patients for emergency medical services, while others are used

by sheriff, police, and fire departments for public safety. The modifications on these helicopters were performed by a repair station operated by Aviation Specialties Unlimited, Inc. (ASU), of Boise, Idaho, pursuant to several Supplemental Type Certificates (STCs) issued to ASU for the NVIS modifications.¹ The STCs for the NVIS modifications were issued by SACO. Because of variations in the configuration of the cockpits and patient transport areas of different helicopters, the STCs that were issued were specific to the particular make, model, series and serial number of the various helicopters. Thus, the NVIS modifications had to conform to the data, specifications and drawings contained in the STC issued for that particular aircraft.

Mr. Foster explains that he coordinated with the Rotorcraft Directorate, Fort Worth, Texas, to conduct follow-up surveys on the modified helicopters, which identified safety issues relating to the NVIS installations. In particular, some of the filters were improperly installed on instruments and radios in the helicopters, and the placement of these filters significantly impaired the pilot's ability to read the instruments during daylight and night operations without night vision goggles. The installations also had reflections and incompatible light sources that may interfere with the pilot's vision while using the goggles under emergency operation conditions. The Rotorcraft Directorate determined that most of the NVIS modifications were made by ASU without "approved data" – *i.e.*, the modifications did not conform to the data, specifications and drawings contained in the STC issued for a particular type of helicopter.

In addition, many of the helicopters were returned to service following modification with field approvals by an ASI in the Boise FSDO, contrary to FAA policy. FAA Order 8300.10, now incorporated into FAA Order 8900.1, Volume 4, Chapter 9, requires inspection and approval by the Aircraft Certification Office that issued the STC, in this case SACO. It was initially determined that approximately 140 helicopters were returned to service with approvals inaccurately indicating that the NVIS modifications conformed to the specifications of the STC. Mr. Foster indicates that through additional collection of information, the number of helicopters modified for NVIS by ASU increased from 250 to more than 500.

In response to these findings, Mr. Foster drafted a proposed corrective action plan to resolve the NVIS modification issues, which he submitted to his superiors on August 3, 2007. The plan set forth procedures to ensure that all NVIS modified helicopters were properly inspected, that the modifications were brought into conformity with the applicable STC or dismantled, and that the helicopters were in airworthy condition.² He explains that a coordinated plan for bringing the aircraft into compliance in a timely and systematic manner was critical, in order to ensure the airworthiness of the aircraft while preventing unnecessary and/or mass

¹ A STC is a Type Certificate (TC) -- a design approval containing data, specifications and drawings -- issued by FAA to modify an aircraft from its original design. The STC, which incorporates by reference the related TC, approves not only the modification but also how that modification affects the original design.

² In November 2007, Mr. Foster initiated enforcement actions against ASU and its Director of Maintenance, Kip McDermott. ASU relinquished its repair station certificate for revocation based on falsification of maintenance records. ASU has since applied for and received a new certificate. Mr. McDermott's certificate was revoked based on falsification of maintenance records. Mr. McDermott has since applied for and received a new certificate. Mr. Foster has indicated to OSC that his disclosure does not pertain to allegations of wrongdoing by ASU and Mr. McDermott.

groundings of emergency medical service helicopters. In his proposal, he explained that in instances where a helicopter may be found technically unairworthy (*e.g.*, the NVIS modification did not strictly conform to the STC but there were no safety issues), grounding of the emergency aircraft would be unreasonable and could potentially jeopardize the lives of patients in need of their service. However, in instances where the helicopter is not airworthy due to the unknown condition of the NVIS installation and/or the NVG system, then the aircraft should immediately be removed from authorization to use the NVG system until the situation is resolved.

Between August 2007 and May 2008, Mr. Foster participated in meetings with Bradley Pearson, Manager, and Rick Domingo, then Assistant Manager, Flight Standards Division, Northwest Mountain Region; David Downey, Manager, Rotorcraft Directorate; Richard McCauley, Manager, SACO, and others regarding the NVIS modification issues. In November and December 2007, Mr. Foster reviewed and provided input on a draft Formal Notice of National Policy, N8900.nn (the Notice), alerting various FAA components and aircraft operators of the non-compliance of the NVIS modifications made by ASU. The Notice was issued in September 2008, and established as National Policy a Corrective Action Plan for NVIS modifications performed by ASU.

The Notice, dated September 17, 2008, explained that the NVIS modifications were made by ASU on "over 50% of the total aircraft capable of NVG use in the United States today." Critically, it stated that "the aircraft modified by ASU may have been improperly returned to service," which "may have resulted in incomplete installations, due to incomplete technical data, or unapproved data that was not specific to the aircraft installation." Further, the Notice states that: "Although those ASU modified aircraft may have been improperly returned to service, it is important to note the return to service is valid unless actual safety discrepancies are identified."

Mr. Foster notes with concern that the language of the Notice is inconsistent with regulations and an FAA Order governing airworthiness and the conditions that must be met for an aircraft to be considered airworthy. Section 91.203(a)(1) of Title 14, Code of Federal Regulations, prohibits the operation of an aircraft without an appropriate and current airworthiness certificate, and Section 91.7 prohibits anyone from operating an aircraft unless it is in an airworthy condition. FAA Order 8900.1, Volume 7, Chapter 7, Section 1, Paragraph 7-223 clarifies that in order to be considered airworthy, an aircraft must conform to its type design (certificate). Specifically, Para. 7-223(A)(2)(a) states: "Conformity to type design is considered attained when the required and proper components are installed and they are consistent with the drawings, specifications, and other data that are part of the type certificate. Conformity would include applicable supplemental type certificates and field approved alterations."

Mr. Foster notes that the Notice expired in September 2009. Moreover, Notices such as this are directed at ASIs and are not mandates to industry or aircraft owners. Mr. Foster asserts that the issuance of the Notice was a purposeful remedy undertaken in an effort to avoid the need for issuance of an airworthiness directive, which would have established a formal process to identify safety or non-compliance issues, and set a plan to mitigate the issues and a timeline for compliance. This Notice also did not satisfy the regulatory requirement that the aircraft comply with and conform to an approved type design.

According to Mr. Foster, all of the operators of helicopters that received the NVIS modifications have been advised by ASU of the non-conforming modifications, and SACO is working with ASU to bring the aircraft into conformity. He contends, however, that this informal process fails to adequately address the problem. First, the operators have not been advised of the potential safety hazard relating to the NVIS modifications, as the informal notification only indicated a technical non-conformity issue with data. Further, many of the helicopter operators have delayed taking steps to bring their aircraft into conformity because they are awaiting formal action by FAA, directing them to do so.

In addition, Mr. Foster alleges that SACO is engaging in a process of "rubber-stamping" drawings of NVIS-modified helicopter configurations submitted by ASU, which are based on photographs of the aircraft, in order to retroactively approve the data in the STCs for those aircraft. He asserts that neither SACO nor ASU is properly inspecting the aircraft in accordance with FAA regulatory requirements to ensure readability of the instruments, warning lights and radios, and to maintain the enhanced level of safety requirements for air ambulance operations under 14 C.F.R. Part 135. He contends that this retroactive approval process fails to address the identified safety hazard relating to the installation of the filters and incompatible light sources. While these helicopters may now be deemed to conform to their STCs, they have not been physically evaluated to determine whether lights and filters previously installed without approved data are correctly positioned, are compatible with NVG use, and do not impede the pilot's ability to see the instruments and radios in normal night and day situations or while using the goggles. He also contends that in many installations the instruments manufactured to Technical Standard Order (TSO) requirements were modified contrary to regulatory requirements, with FAA concurrence, and the TSO markings were not removed so that any future installer would be aware that those instruments were not compliant with the TSO.³

Thus, Mr. Foster contends that FAA has allowed aircraft with invalid airworthiness certificates, and potentially hazardous NVIS modifications, to remain in service. He asserts that without a systematic approach to ensuring conformity and airworthiness, the result will be continued operation of unairworthy aircraft that were not properly evaluated, and the potential for sporadic groundings of emergency medical service helicopters that are waiting for approved data, putting at risk emergency response crews and trauma patients whose lives depend on their availability. As an example, Mr. Foster indicated that in late April 2008, nine medivac helicopters located in California were voluntarily grounded by their operators when the FAA made a request to examine the aircraft to determine conformity with the data. He contends that removal of this many emergency helicopters from service at one time creates a substantial risk of harm to the public.⁴

In addition, Mr. Foster reports that recent inspections have resulted in the identification of a significant number of non-compliant modifications, evidenced by the numerous enforcement

³ A Technical Standard Order (TSO) is a minimum performance standard issued by FAA for specified materials, parts, processes, and appliances used on civil aircraft.

⁴ On May 3, 2008, Mr. Foster reported his allegations to the DOT Office of Inspector General (OIG), which opened a case file (Case No. 08IH-B-66-I-000) and referred the matter to FAA for investigation. Mr. Foster was never interviewed in connection with the OIG case.

actions against the repair station performing modifications, ASU. He has submitted documentation reflecting the enforcement actions, which documentation is enclosed.

III. THE OFFICE OF SPECIAL COUNSEL'S FINDINGS

Mr. Foster has presented serious allegations that reveal that FAA, in an effort to avoid scrutiny, has failed to ensure that hundreds of emergency service helicopters with non-conforming and potentially hazardous modifications are brought into compliance and airworthy status. Based on Mr. Foster's disclosures, it appears that the improper practices and resultant problems continue despite referral of the allegations by OSC to DOT for investigation in 2008, and after DOT had more than a year to investigate and failed to produce a report. Given the apparent expertise of the whistleblower regarding the matter disclosed, the detail provided, and his first-hand knowledge of the issues described, we have concluded that there is a substantial likelihood that the information provided to the Office of Special Counsel discloses violations of law, rule, or regulation, gross mismanagement, an abuse of authority, and a substantial and specific danger to public safety.

Enclosure

Requirements of 5 U.S.C. § 1213(d)

Any report required under subsection (c) shall be reviewed and signed by the head of the agency¹ and shall include:

- (1) a summary of the information with respect to which the investigation was initiated;
- (2) a description of the conduct of the investigation;
- (3) a summary of any evidence obtained from the investigation;
- (4) a listing of any violation or apparent violation of law, rule or regulation; and
- (5) a description of any action taken or planned as a result of the investigation, such as:
 - (A) changes in agency rules, regulations or practices;
 - (B) the restoration of any aggrieved employee;
 - (C) disciplinary action against any employee; and
 - (D) referral to the Attorney General of any evidence of criminal violation.

In addition, we are interested in learning of any dollar savings, or projected savings, and management initiatives that may result from this review.

¹ Should you decide to delegate authority to another official to review and sign the report, your delegation must be specifically stated.