ACTIONS TAKEN TO ADDRESS ALLEGATIONS OF UNSAFE MAINTENANCE PRACTICES AT NORTHWEST AIRLINES

Federal Aviation Administration

Report Number: AV-2007-080
Date Issued: September 28, 2007
This report presents the results of our audit of the Federal Aviation Administration’s (FAA) actions taken to address allegations of unsafe maintenance practices at Northwest Airlines (Northwest). These allegations were reported by an FAA Aviation Safety Inspector (the complainant) assigned to FAA’s Northwest Airlines Certificate Management Office (CMO) in Bloomington, Minnesota.

The complainant alleged that Northwest’s actions during the aircraft mechanics’ strike—initiated against the airline on August 20, 2005—created a public safety risk. Specifically, the complainant alleged that Northwest’s replacement mechanics and management personnel transferred into maintenance roles were not appropriately trained and that processes involving receipt of aircraft parts were improperly conducted. The complainant contacted then Minnesota Senator Mark Dayton, who requested that FAA and the Office of Inspector General (OIG) evaluate the validity of these allegations.

To avoid duplicative efforts, we monitored FAA’s review processes and results to evaluate both FAA’s response to the complainant and the validity of the allegations. To accomplish this objective, we interviewed the complainant, accompanied FAA review team members as observers during their on-site work, and met extensively with FAA officials to review the conclusions they developed and planned to report.
In addition, our investigative staff interviewed CMO inspectors and managers, who also expressed a desire to discuss problems related to the CMO’s oversight. We provided a summary of the concerns identified during these interviews to FAA Headquarters in October 2005. We also briefed Senator Dayton and his staff on our audit and investigative results in October 2005. Exhibit A contains further details on our scope and methodology. Exhibit B provides details on the results of our investigative staff interviews.

BACKGROUND

In August 2005, approximately 4,400 Northwest Airlines mechanics went on strike. Northwest replaced these mechanics with a combination of management representatives, newly hired mechanics, and contract mechanics. FAA responded to the strike by sending its inspectors to perform focused oversight in locations where Northwest had major operations. FAA management reported that Northwest continued to operate safely despite the mechanics’ strike.

However, on August 22, 2005, an FAA inspector performing oversight at Northwest expressed concerns that Northwest had not adequately trained its replacement mechanics for their new responsibilities and that it had made other changes that negatively affected its operations. For example, the complainant stated that the parts receiving procedures had been changed to speed up processing, but that these changes had resulted in a more limited review of repaired parts. The inspector submitted his concerns to FAA in the form of a safety recommendation and filed a complaint about Northwest’s operations and FAA’s oversight with Senator Mark Dayton’s office.

At the same time, Northwest officials complained to the CMO that the complainant’s conduct was interfering with Northwest operations. On August 29, 2005, Northwest management officials notified the CMO that it would no longer permit the complainant to have unescorted access to Northwest facilities. According to Northwest officials, the complainant had displayed disruptive and unprofessional behavior in his interactions with Northwest employees and vendors. As a result of these complaints, CMO managers reassigned the complainant to office duties and restricted him from performing oversight on Northwest Airline premises.

Our investigative staff reviewed the validity of Northwest’s allegations as well as the propriety of actions that CMO management had taken against the complainant in response to these allegations. Generally, we could not conclude that Northwest’s concerns were baseless or fabricated. We determined that Northwest had documented complaints about the inspector going back many years.
According to Northwest, FAA’s response to its prior complaints about the inspector had not been effectively handled.

However, the airline’s August 29, 2005, letter of complaint came within days of the beginning of the mechanics’ strike. The letter also followed several inspection findings identified by the complainant criticizing Northwest’s operations. The CMO’s reassignment of the complainant in response to the airline’s complaints removed a highly experienced inspector from on-site duties when Northwest’s operations were most affected by labor problems. We encouraged the CMO to establish a “clean slate” with the complainant and provide him with training and feedback so he could address concerns about his interactions with Northwest officials and function as an effective aviation safety inspector. Further, while there may have been merit to some of the airline’s concerns with the complainant, it was incumbent upon FAA to determine the validity of the complainant’s safety concerns about Northwest’s operations.

RESULTS IN BRIEF

In reviewing FAA’s actions to investigate the complainant’s safety concerns, we determined that FAA needs better procedures for responding to and resolving safety complaints identified by its inspectors. Currently, FAA does not require that internal allegations about safety oversight be investigated by staff independent of the office where the complaint is generated. It also does not require that review results be published or that, where appropriate, involved staff be held accountable for remedying any identified problems. Circumstances surrounding FAA’s handling of safety allegations at Northwest underscore the need for FAA to develop better review processes.

On September 7, 2005, FAA dispatched a three-member inspection team to review inspector allegations of unsafe maintenance practices and FAA’s oversight of Northwest. We accompanied FAA on this review and immediately identified concerns with the composition of the review team and the team’s review procedures. Two of the three FAA review team members were from the Great Lakes regional office in Des Plaines, Illinois. The Manager of the Northwest CMO, where the complainant works, reports directly to the Division Manager in the Great Lakes office. The complainant questioned whether team members from the Great Lakes office would be objective in their review.

We encouraged FAA to use team members that were not associated with the Northwest CMO to prevent any questions about the impartiality of the review team. However, FAA’s Director of Flight Standards Service advised us that the review was a regional office responsibility. Therefore, he declined to change the
team members, stating that one of them was an experienced office manager from another region.

**FAA’s first review team did not thoroughly review the complainant’s allegations.** Once on site at the CMO and Northwest offices in September 2005, FAA’s team performed a very limited review of the complainant’s allegations. In August and September of 2005, FAA inspectors responsible for oversight of Northwest’s operations identified at least 121 findings related to replacement mechanics’ lack of knowledge or ability to properly complete maintenance tasks and maintenance documentation. Even though the review team was aware of these findings, the team’s only action to examine the complainant’s allegation that replacement mechanics were not properly trained was a review of the mechanics’ training files.

The team did not conduct independent observations of replacement mechanics actually performing maintenance tasks and did not assess the 121 inspection findings in its review of mechanic training. Nevertheless, in November 2005, FAA reported that Northwest had revised the training program that technicians had to complete before performing maintenance tasks while unsupervised. This action confirmed that the complainant’s concerns about mechanic training were valid and helped to ensure that Northwest continued to operate safely.

From September 2005 to December 2005, we met extensively with FAA and encouraged a more comprehensive review of the complainant’s allegations. During the same period, our office was receiving calls from Northwest employees related to concerns about Northwest operations. During interviews with CMO personnel, OIG investigative staff determined that other inspectors performing oversight of Northwest also shared the complainant’s concerns (see exhibit B). Specifically, these inspectors stated that replacement workers were not receiving proper training and were not properly addressing technical problems as they arose. They also stated that CMO management discouraged the use of civil penalties, thus leading to ineffective oversight of the carrier. We provided FAA with a summary of these inspectors’ concerns in October 2005. As a result, FAA formed a second review team to follow up on these issues.

**FAA performed a second review but did not properly respond to the complainant or ensure that the CMO took corrective action for identified deficiencies.** In November 2005, FAA agreed to initiate a second review to follow up on our concerns regarding its first review and other inspectors’ concerns expressed to our investigative staff. This review was performed by a more independent team consisting of representatives from FAA Headquarters and other regions. Although the review validated more of the concerns identified by the complainant, FAA did not use the results to ensure that the CMO took action to resolve identified problems.
More importantly, despite finding that the complainant had valid concerns, FAA issued a letter to the complainant in February 2006 indicating that all of his safety recommendations lacked merit. For example, the complainant recommended that Northwest revise its mechanic training program. Even though the CMO directed Northwest to revise the program, FAA Headquarters advised the complainant that this recommendation was a subjective, unsupported opinion. This created the appearance that FAA had determined the complainant’s allegations had merit and that corrective action by Northwest was necessary but did not want its written response to acknowledge the validity of the concerns.

The CMO initiated several actions against Northwest requiring that it correct problems identified by FAA inspectors. For example, FAA wrote a letter of correction to Northwest for inappropriately changing its parts receiving procedures and required that the carrier correct this problem. FAA’s decision to issue the letter of correction validated another of the complainant’s allegations. However, FAA never formally issued the full results of the reviews it conducted with recommendations to the CMO for improving its oversight at Northwest. Our recommendations for improving FAA’s review procedures are listed on page 8.

**FINDING**

**FAA Needs To Develop Better Procedures for Investigating and Resolving Inspector Safety Recommendations and Concerns**

FAA established a process for performing increased oversight of Northwest operations when the mechanics’ strike began, and more than 800 FAA inspections were completed within the first 2 months of the strike. FAA also took steps to require that Northwest enhance its training program for replacement mechanics to ensure that the airline continued to operate safely. However, when one of its inspectors raised safety concerns, FAA did not demonstrate a willingness to thoroughly review and address the issues that the complainant identified. In fact, FAA informed the complainant that all of his concerns lacked merit, even though its own reviews of the allegations determined that some of the issues, such as problems with replacement mechanic training, were valid.

FAA’s review process had significant shortcomings. Specifically, FAA did not conduct comprehensive, objective reviews; release a report of its findings showing how it resolved the complainant’s concerns; or hold the CMO accountable for correcting the safety and oversight deficiencies identified by its review teams and our investigative staff. To promote greater information sharing and the Agency’s commitment to safety, FAA needs to develop better processes for responding to inspector concerns.
FAA Did Not Objectively Review and Respond to the Complainant’s Safety Recommendation

In August 2005 and again in October 2005, the complainant submitted recommendations to FAA’s Office of Accident Investigation, which is responsible for administering FAA’s Safety Recommendation Program. This program is used to identify and correct safety deficiencies in the National Airspace System and to prevent accidents and incidents. Although the complainant submitted his concerns to FAA in the form of a safety recommendation, the information mirrored the allegations sent to Senator Dayton. Specifically, that:

- Northwest’s replacement mechanics were inadequately trained,
- Northwest’s parts receiving processes were improperly conducted, and
- FAA’s CMO management was not responsive to inspector concerns about Northwest.

The Office of Accident Investigation forwarded the complainant’s allegations and safety recommendations to FAA’s Director of Flight Standards Service for action, in accordance with FAA Order 8020.11B, Aircraft Accident and Incident Notification, Investigation, and Reporting.

On January 19, 2006, the Director issued a response to the Office of Accident Investigation summarizing the Agency’s conclusion on the complainant’s safety recommendations. Despite the fact that its two review teams confirmed that some of the complainant’s concerns were valid (e.g., the concern about training for replacement mechanics), FAA essentially concluded that all his safety recommendations lacked merit. This determination appeared to focus on the fact that, in FAA’s view, the recommendations were not consistent with FAA procedures for submitting safety recommendations. After reviewing the Director’s response, the Office of Accident Investigation issued a letter to the complainant on February 21, 2006, stating that the recommendations were closed and not adopted.

We agree that some of the complainant’s recommendations focused more on concerns with operations in the CMO rather than direct safety issues at Northwest; however, many of the concerns about Northwest and the CMO’s oversight were valid. For example, FAA’s first review team acknowledged in its November 2005 report that Northwest’s initial replacement training program was not effective. Yet, in response to the complainant’s recommendation that Northwest revise its aircraft mechanic and inspector training programs to ensure that mechanics and inspectors are competent to perform maintenance tasks, FAA officials advised the complainant in February 2006 that this recommendation was a subjective, unsupported opinion.
In this case, it appears that FAA’s review teams were not able to address the complaints in an objective way. FAA’s handling of the complainant’s safety concerns appeared to focus on discounting the validity of the complaints rather than determining whether there were conditions at Northwest and the Northwest CMO that needed correction. A potential negative consequence of FAA’s handling of this safety recommendation is that other inspectors may be discouraged from bringing safety issues to FAA’s attention.

FAA needs to clarify its policy for reviewing inspector safety recommendations and ensure that the response to such recommendations remains focused on the substance of safety concerns, not the format in which they are submitted or the personal issues with the inspector who submits them. FAA might have accomplished that in this situation had it assigned an impartial review team.

**FAA Needs To Hold the Northwest CMO Accountable for Correcting Identified Safety Deficiencies**

FAA has not taken sufficient action to verify that the CMO has corrected deficiencies identified by its two review teams. FAA’s second review team conducted on-site testing at Northwest in November and December of 2005 and—unlike the first review team—determined that at least 14 of the concerns expressed by inspectors and managers had merit. For example, the second review team determined that:

- The CMO had not acted on the individual events that were listed in the complainant’s allegation and identified by other CMO inspectors in the weeks following the strike.
- The CMO could have been more aggressive in pursuing enforcement actions against Northwest where warranted. The review team determined that the CMO had not issued any civil penalties against Northwest in fiscal years 2004, 2005, and 2006.

The second review team also identified a problem with how the CMO resolved safety allegations. The CMO investigated an allegation that a Northwest manager had signed off on a test that was not actually completed to expedite getting an aircraft back into service. The CMO concluded that there had been no regulatory violation, even though it confirmed that the manager did not complete the test and was not qualified to sign off on it. The second review team recommended that the CMO re-open the complaint.

FAA finalized the report on its second review in June 2006. However, we found no evidence indicating that the report was issued to the CMO or that FAA’s Office of Flight Standards Service planned to verify that the findings and other inspector
concerns would be addressed. In fact, even though one of the findings in the second team’s report was that the CMO had not acted on issues identified early in the strike, the team left it to the CMO to further investigate and resolve the 14 concerns expressed by inspectors and managers.

The review team and the Office of Flight Standards Service also left it to the CMO to ensure that issues identified in more than 800 FAA inspection reports on Northwest’s operations would be addressed and resolved. The CMO should be required to report to the Director of Flight Standards Service on actions taken by the CMO and Northwest to resolve deficiencies identified by inspectors and FAA review teams.

RECOMMENDATIONS

We recommend that the Acting Federal Aviation Administrator:

1. Require the Flight Standards Service to establish better internal review procedures to ensure that comprehensive, independent investigations of safety allegations and recommendations are consistently performed.

2. Require the CMO in Bloomington, Minnesota, to report to the Director of Flight Standards Service on actions taken by the CMO and Northwest to resolve deficiencies identified by inspectors and FAA review teams.

AGENCY COMMENTS AND OIG RESPONSE

On September 25, 2007, FAA provided comments to our July 26, 2007, draft report. FAA’s full response is included in the appendix to this report. FAA concurred with both of our recommendations. FAA agreed to establish a new internal review capability that would allow it to perform independent assessments of safety allegations. FAA plans to implement this capability by September 30, 2008. In addition, FAA agreed to require the CMO in Bloomington, Minnesota, to report by November 2007 on actions taken by the CMO and Northwest to resolve deficiencies identified by inspectors and FAA review teams. FAA stated that the report would first be issued to the Division Manager in the Great Lakes region and then forwarded to the Director of Flight Standards Service. When properly implemented, these actions will satisfy our recommendations. Therefore, we consider the recommendations resolved.

Although FAA concurred with both recommendations, the Agency identified three areas in our report in which it respectfully disagreed with our conclusions:
Safety Recommendations: FAA disagreed with our conclusion that it did not want to document the fact that some of the complainant’s concerns were valid. FAA stated that Flight Standards Service policy staff reviewed the complainant’s safety recommendations independently from the two FAA review teams and concluded that the recommendations did not contain the necessary, substantiating information.

Our conclusion that FAA’s response to the complainant gave the appearance that FAA did not want to acknowledge the validity of the complainant’s concerns is based on FAA’s conflicting statements about the same issue. As stated in the report, FAA’s review team reported that Northwest’s initial mechanic training program was not effective; yet, it advised the complainant that his assertion related to inadequate mechanic training was an unsupported, subjective opinion.

Also, the personnel conducting the reviews and those reviewing the complainant’s safety recommendations all reported their findings to the Director of Flight Standards Service. Therefore, results and data disclosed as part of the two FAA reviews were readily available to the Director and, in our view, should have been considered when reviewing and responding to the safety recommendations.

Training: FAA also suggested that it did not adopt the complainant’s recommendation to improve mechanic training because the CMO was already addressing the problem. FAA stated that the CMO documented 16 meetings with Northwest management from April 2005 to August 2005, in which they discussed mechanic training. However, FAA did not provide information to verify that CMO staff actually discussed training concerns during these meetings. In addition, these 16 meetings all occurred before the strike. During FAA’s first review of the allegations, the CMO manager advised us that the CMO was comfortable with the mechanic training in place before the strike. The CMO manager did not become concerned about mechanic training until after the strike began, and after the complainant submitted his safety recommendations. Accordingly, we concluded that FAA’s assertion is not supported by the facts.

Composition of First Review Team: FAA disagreed that the Director of Flight Standards Service declined our recommendation to change the composition of the first review team. FAA stated that the team leader was an experienced office manager from the Eastern Region who was selected for the review team by the Director of Flight Standards Service. Also, FAA stated that while the other two team members were staffers who reported to the same regional division manager as the CMO manager, they were not in line of authority for operations between the CMO manager and the regional division manager.

We acknowledged in our report that the first review team included a manager from another region. However, the complainant had already expressed concerns that
staff from the Great Lakes Region would not be objective in assessing his recommendations. We advised the Director of Flight Standards Service of this concern prior to the start of the review, but he chose to dismiss our concerns and those of the complainant. We continue to believe that FAA’s first review team lacked the appearance of objectivity.

**ACTION REQUIRED**

FAA’s planned actions satisfy the intent of our recommendations. Since FAA’s response indicated that it disagreed with our core findings and conclusions, we will follow up, according to the provisions of DOT Order 8000.1C, to ensure that the Agency’s corrective actions are consistent with our recommendations until the final actions are completed.

We appreciate the cooperation of FAA representatives during this audit. If you have any questions concerning this report, please contact me at (202) 366-1427 or Lou Dixon, Program Director, at (202) 366-0500.

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cc: FAA Associate Administrator for Safety  
FAA Chief of Staff  
Anthony Williams, ABU-100
EXHIBIT A. SCOPE AND METHODOLOGY

This performance audit was conducted in accordance with generally accepted Government Auditing Standards prescribed by the Comptroller General of the United States and included such tests as necessary to provide reasonable assurance of detecting abuse or illegal acts. We conducted this review between September 2005 and July 2007.

An FAA inspector in the FAA CMO for Northwest made allegations of unsafe maintenance practices at Northwest and inadequate oversight by the CMO. The complainant reported these concerns to then Minnesota Senator Mark Dayton, who asked FAA and the Office of Inspector General to evaluate the allegations.

To obtain details about the allegation, members of the Office of Inspector General audit and investigative staff interviewed the complainant at Senator Dayton’s office in Fort Snelling, Minnesota, on September 2, 2005. We also analyzed inspection data contained in FAA’s Safety Performance Analysis System and the Air Transportation Oversight System databases to determine the validity of the allegations. We obtained inspection reports from these data sources to identify strengths and weaknesses in FAA’s surveillance of Northwest as they related to the complainant’s concerns.

To determine the effectiveness of FAA’s actions taken in response to the allegations, we accompanied FAA review team members as observers during their review conducted from September 7 to 15, 2005, in Bloomington, Minnesota. In addition, to determine if other inspectors in the CMO shared the same concerns as the complainant and to obtain additional information on safety concerns, the OIG investigative staff conducted separate interviews of 24 individuals: 12 current FAA inspectors, 4 current FAA managers, 7 Northwest mechanics on strike, and 1 retired Northwest mechanic.

We closely monitored FAA’s review and met extensively with FAA Headquarters officials to ensure that FAA’s report accurately reflected the results of its review. FAA provided us with the results of its first review in a report dated November 10, 2005. Because of continuing concerns that we had with the comprehensiveness of the review and the quality of the report, FAA conducted a second review during November and December of 2005. To determine whether FAA adequately addressed our concerns, we reviewed FAA’s January 19, 2006, memorandum on Flight Standards Service’s evaluation of the complainant’s safety recommendations and the June 2006 report on the results of the second team’s review.
EXHIBIT B. OIG INVESTIGATIVE RESULTS

In addition to the work we performed to monitor FAA’s reviews, OIG investigative staff conducted interviews with 24 individuals, including 12 current FAA inspectors, 4 current FAA managers, 7 Northwest mechanics on strike, and 1 retired Northwest mechanic. These interviews revealed that other inspectors in the CMO shared several of the same concerns as the complainant. The following is a brief synopsis of the safety-related allegations concerning Northwest and the alleged lack of proper oversight of Northwest by FAA—specifically, the Certificate Management Office.

- Northwest replacement workers did not receive proper training or enough on-the-job training.

- Replacement workers did not properly complete maintenance paperwork or properly address technical problems as they arose.

- Northwest made an unauthorized change in its procedures for processing repaired parts.

- An alleged improper relationship existed between Northwest and FAA management that resulted in FAA discouraging the use of civil penalties, thus leading to ineffective oversight of the carrier.

We provided a more detailed summary of our investigative interviews to FAA Headquarters in October 2005. FAA’s second review team evaluated these allegations and reported problems in each of the above areas. However, FAA did not release a report of its findings to show how it resolved the complainant’s concerns. Also, FAA did not develop a follow-up process to ensure that the Northwest CMO resolved all the concerns that were identified.
APPENDIX. MANAGEMENT COMMENTS

Federal Aviation Administration

Memorandum

Date: September 25, 2007
To: Robert E. Martin, Assistant Inspector General for Aviation and Special Program Audits
From: Ramesh K. Punwani, Assistant Administrator for Financial Services/CFO
Prepared by: Anthony Williams, x79000
Subject: OIG Draft Report: Actions Taken To Address Allegations of Unsafe Maintenance Practices at Northwest Airlines

Thank you for providing us with the draft report of your audit of “Actions Taken to Address Allegations of Unsafe Maintenance Practices at Northwest Airlines, Project No. 07A3002A00.” We appreciate your acknowledgement of FAA’s increased oversight of Northwest operations when the mechanics strike began (August 2005), especially FAA’s effort in requiring Northwest to enhance its training program for replacement mechanics to ensure that Northwest continued to operate safely.

We agree with the two OIG recommendations, as follows:

OIG Recommendation 1: Require the Flight Standards Service to establish better internal review procedures to ensure that comprehensive, independent investigations of safety allegations and recommendations are consistently performed.

FAA Response: Concur. Flight Standards Service has prepared a draft document to establish an internal review capability separate and distinct from existing Flight Standards Service oversight capabilities. This capability, based on a recommendation from the Flight Standards regional division managers, will be directly under the purview of the Director, Flight Standards Service. The draft is currently being reviewed by the Flight Standards regional managers and Flight Standards Service plans to implement this new internal review process by September 30, 2008.

Recommendation 2: Require the CMO in Bloomington, Minnesota, to provide a report to the Director, Flight Standards Service on actions taken by the CMO and Northwest to resolve deficiencies identified by inspectors and FAA review teams.

FAA Response: Concur. We recommend the CMO first provide the report to the Flight Standards Service regional division manager in Great Lakes region, who is responsible for and oversees the CMO,
and that regional division manager will forward the report to the Director, Flight Standards Service, certifying completion of actions taken by the CMO and Northwest. Action to be completed by November 2007.

However, there are three items of the draft report we respectfully disagree with, as follows:

1. **Safety Recommendations** – The OIG draft report states FAA, despite finding the complainant had valid concerns, issued a letter to the complainant advising the two safety recommendations were subjective, unsupported opinion as FAA did not want to document the complainant's concerns were valid. In this regard, those safety recommendations were reviewed by Flight Standards Service Headquarters policy staff, independently from the two FAA review teams, who determined the safety recommendations did not contain the necessary, substantiating information per FAA Order 8020.11B, Aircraft Accident and Incident Notification, Investigation, and Reporting (dated 08/16/00, as amended). When the FAA Office of Accident Investigation convened a Safety Recommendation Board to review the two safety recommendations, they provided another separate and independent review of the two safety recommendations.

2. **Training Provided By Northwest** – The OIG draft report states FAA informed the complainant the two safety recommendations were “Closed; Not Adopted” even though FAA determined some of the issues, such as problems with replacement mechanic training, were valid. In this regard, the CMO expressed concern to Northwest representatives about replacement mechanic training and proper documentation of maintenance activities prior to the date of the complaint’s two safety recommendations. The CMO documented 16 meetings with Northwest management during the period of April-August 2005 when they discussed training of mechanics. Prior to the strike, the CMO provided training to aviation safety inspectors (who provided strike surveillance at 29 targeted maintenance stations) with an emphasis on mechanic training.

3. **Composition of First Review Team** – The OIG draft report states the Director, Flight Standards Service, declined the OIG staff recommendation to change the make-up of the first review team (to assure impartiality) as the review was a regional responsibility and one of the three team members was from another region. In this regard, the team leader is an experienced office manager from the Eastern region who was selected for the review team by the Director, Flight Standards Service. While the other two team members were staffers who reported to the same regional division manager as the CMO manager, they were not in line of authority for operations between the CMO manager and the regional division manager.