



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

The Inspector General

Office of Inspector General
Washington, D.C. 20590

July 27, 2005

The Honorable James L. Oberstar
Ranking Democratic Member
Committee on Transportation
and Infrastructure
U.S. House of Representatives
Washington, DC 20515

Dear Representative Oberstar:

Thank you for your April 28, 2005 letter requesting that we provide you with the current status of the Federal Aviation Administration's (FAA) actions in response to the recommendations in our July 2003 audit report "Review of Air Carriers' Use of Aircraft Repair Stations." The use of repair stations has become a fundamental part of air carriers' maintenance programs, and a key finding in our report was that FAA had not responded to the shift in the source of air carriers' maintenance. That is, airlines were increasingly outsourcing aircraft maintenance to repair stations, but FAA continued to concentrate its inspection resources on maintenance performed at air carriers' in-house maintenance facilities.

The focus of our report was not repair station maintenance versus in-house maintenance—it was the fact that both require oversight. We emphasized the need for FAA to ensure it was channeling its oversight toward the organizations actually performing the maintenance. Since our report, air carriers have expanded their use of external repair facilities and now contract out 53 percent of their aircraft maintenance expense to outside repair facilities, up from 47 percent in 2003. Accordingly, FAA's progress in implementing the recommendations in our report continues to be an important issue.

FAA responded positively to the recommendations and proposed to implement actions that, in our opinion, would enhance its oversight of domestic and foreign repair stations. FAA initially planned to implement all of our recommendations by August 2005. However, its progress has been slow: FAA has completed only one of nine promised actions. FAA has recently slipped its original target dates and now indicates all

recommended actions will not be fully implemented until the beginning of fiscal year (FY) 2007.

A key part of the work that remains is completion of FAA's plan to implement a new risk-based system for oversight of domestic repair stations. FAA has developed the framework for the system but still needs to train the inspectors and develop new computer software to provide inspectors with data analysis capabilities. Implementation of recommendations to address our findings on FAA's oversight of foreign repair stations also is incomplete. According to FAA, implementation of its planned actions in this area depends on completion of its complex negotiations with the European Aviation Safety Agency. FAA has developed several draft guidance documents outlining procedures that will be used when repair station inspections are conducted by foreign authorities on FAA's behalf. These procedures will not be put in place until a new bilateral agreement between the United States and the European Agency is reached—this could be several years away.

A detailed summary of our recommendations, the specific actions planned or taken by FAA, and actions needed can be found in the addendum to this letter. Overall, we believe FAA's proposed actions are good, but we are concerned with the planned timetable for their completion. As air carriers work to cut costs, their use of contract maintenance facilities is increasing. Since January 2005, at least three major airlines have announced their plans to decrease their in-house maintenance staff and increase use of repair stations.

In our view, FAA needs to re-evaluate its timetable and, if needed, its planned actions to determine if it can expedite improvements to its process for repair station oversight. We note that draft reports from both the House and Senate Committees on Appropriations show restored funding for FAA aviation safety inspector staffing; the funding was reduced in FY 2005. This should provide additional support for repair station oversight.

Details on July 2003 Report Recommendations and FAA's Progress

During our 2003 audit, we reviewed FAA's oversight of 12 domestic and 11 foreign FAA certificated repair stations. We identified the following issues with respect to FAA's oversight.

Domestic Repair Stations. In addition to finding that FAA inspectors were not focusing their oversight in areas where more of the maintenance was performed, we also determined that:

- FAA inspections of repair stations were infrequent and
- Inspections did not encompass a review of all aspects of repair stations' operations.

We made four recommendations to improve FAA's repair station oversight. For example, we recommended that FAA develop a means of identifying repair stations that air carriers use to perform critical repairs; perform risk assessments of data collected to target inspector resources; and develop a comprehensive, standardized approach to repair station oversight.

Shortly after our report was issued, FAA formed a workgroup to determine how best to address these recommendations. The workgroup developed a new risk-based system for oversight of domestic repair stations. This approach (much like FAA's Air Transportation Oversight System for air carrier oversight) would allow FAA to target inspector resources to the areas of greatest need and provide continuous assessment of each repair station. The new oversight system would also supply a mechanism to prioritize repair stations assessed as a high risk.

Another key aspect of the new system will be the standardization of repair station surveillance. FAA inspectors will be required to review 14 specific areas at each repair station before an inspection is complete. For example, each inspector would be required to evaluate tools and equipment, parts and materials, training, contract maintenance, and technical data during inspections.

FAA plans to introduce the first phase of its new oversight system in October 2005—a manually operated version that will permit inspectors to use the new 14-area criteria for repair station inspections. However, this first version will not provide inspectors with automated data or risk analysis capabilities, and it will not permit inspectors to prioritize repair stations for review. The final phase of FAA's new risk-based repair station oversight system will be more comprehensive, but it will not be fully operational until FY 2007.

In an effort to draw inspectors' immediate attention to the need to improve repair station oversight, FAA has initiated a special emphasis program that requires its inspectors to evaluate how well *air carriers* are monitoring the work performed for them by their major maintenance providers. FAA recognizes that this is only a part of the important work that remains on improving its repair station oversight process.

Foreign Repair Station Oversight. During our 2003 review, we also determined that FAA had initiated agreements with three foreign countries to conduct oversight of FAA certificated repair stations in their respective countries. However, FAA had not effectively monitored surveillance conducted by these foreign aviation authorities on its behalf. Specifically:

- The foreign aviation authorities did not focus on FAA standards during surveillance and

- The inspection documentation provided by the authorities to FAA was incomplete or incomprehensible.

We made five recommendations for FAA to more closely monitor the quality of repair station oversight provided by foreign civil aviation authorities. For example, we recommended that FAA clarify its inspection documentation requirements with foreign aviation authorities and develop procedures to verify that foreign inspectors place adequate emphasis on FAA requirements during their inspections of FAA-certificated repair stations. In response to our recommendations, FAA has developed several draft guidance documents for use in conducting oversight of FAA-certificated repair stations. But, again, we do not know when they will be implemented. When finalized, the guidance documents will:

- Provide a guide for verifying which areas were inspected at foreign repair stations,
- Clarify inspection documentation that should be submitted to FAA, and
- Include specific inspection codes to be used to document inspections conducted by foreign authorities and sample inspections conducted by FAA.

On July 20, 2005, FAA officials advised us that they are now developing interim guidance to be used until negotiations are completed with the European Aviation Safety Agency. This guidance will be incorporated into an FAA advisory circular that FAA hopes to issue in the next few weeks.

The use of repair stations is a trend that is likely to continue. In our view, FAA needs to re-evaluate its timetable for completing its proposed actions and determine if they can be expedited. We will continue to monitor FAA's progress and keep you and your staff apprised as we obtain further information. If you have any questions concerning this report, please contact me at (202) 366-1959 or David A. Dobbs, Assistant Inspector General for Aviation and Special Program Audits, at (202) 366-0500.

Sincerely,



Kenneth M. Mead
Inspector General

Enclosure

Addendum: OIG Recommendations and Corrective Actions Planned or Taken by FAA

Air Carriers' Use of Aircraft Repair Stations, July 2003				
	OIG Recommendation	FAA Actions Taken	FAA Actions Needed	Target Action Date
1	Collect and monitor air carrier maintenance financial data to identify trends in the source of maintenance and make shifts in inspector resources as warranted.	FAA has proposed a change in oversight that would require air carriers to provide Quarterly Utilization Reports to FAA identifying which maintenance facilities performed the highest volume of maintenance activity and performed the most critical types of maintenance for each air carrier. While this proposed corrective action does not directly address our recommendation, the alternative action proposed would provide valuable trend information for FAA to use in targeting its limited resources.	Finalize requirement for air carriers to provide Quarterly Utilization Reports	FY 2006
2	Develop a process to (a) identify repair stations that air carriers use to perform aircraft maintenance, (b) identify the repair stations that are performing safety critical repairs, and (c) target inspector resources based on risk assessments or analysis of data collected on air carrier outsourcing practices.	FAA developed a workgroup to address various issues in our report. To address this recommendation, the workgroup recommended a risk-based oversight system for repair stations that allows for continuous assessments of each repair station and aids inspectors in prioritizing repair stations for inspections.	Refine and make fully operational the repair station assessment tool.	FY 2007
3	Implement procedures to improve information sharing through FAA's newly integrated Safety Performance Analysis System by: (a) requiring certificated management inspectors to document the name of the repair stations they have reviewed in the Air Transportation Oversight System (ATOS) database, and (b) requiring district office inspectors to include areas inspected, the results, and the corrective actions taken in the Program Tracking and Reporting System.	FAA initiated a special emphasis program to evaluate outsourced maintenance management and oversight. However, no action has been taken to require certificate management inspectors to document the name of the repair stations they have reviewed in ATOS. FAA's proposed repair station oversight system will address our concerns regarding the lack of inspection documentation provided by district office inspectors but will not be fully operational for at least 2 years.	Refine and make fully operational the repair station assessment tool.	FY 2007

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Air Carriers' Use of Aircraft Repair Stations, July 2003				
	OIG Recommendation	Actions Taken	Actions Needed	Action Target Date
4	Develop a comprehensive, standardized approach to repair station surveillance by requiring inspectors to review all aspects of repair station operations, from the time the repair is received until it is released to the customer.	The FAA workgroup was tasked with developing a standardized oversight system for repair station surveillance. The workgroup recommended a risk-based oversight system with a baseline surveillance program in which the current annual repair station facility inspection will be divided into 14 sub-elements to better define the intent of the guidance and provide for more comprehensive surveillance. All 14 sub-elements would have to be completed by the inspector before the inspection record could be closed.	Refine and make fully operational the repair station assessment tool.	FY 2007
5	Modify existing inspection documentation requirements with foreign aviation authorities so that FAA receives sufficient documentation to ensure that FAA-certified repair stations meet FAA standards.	FAA has revised guidance for repair facilities seeking to obtain an FAA repair station certificate under the provisions of a bilateral aviation safety agreement. The revised guidance (AC-145-7BXX) contains new provisions stating the documentation foreign aviation authorities must provide to FAA to ensure that FAA-certificated repair stations meet FAA standards. However, this guidance will not be finalized until FAA reaches a new agreement with the European Aviation Safety Agency (EASA).	Finalize the guidance.	FY 2007
6	Develop a process to capture results from (a) foreign aviation authority inspections, and (b) FAA sample inspections of foreign repair stations in FAA's Program Tracking and Reporting System.	FAA has proposed changes to inspector guidance material (Handbook 8300.10) that would address this recommendation. The proposed guidance provides a specific Program Tracking and Reporting System code to use to capture inspections performed by foreign authorities and sample inspections performed by FAA inspectors. However, this guidance will not be finalized until FAA reaches a new agreement with EASA.	Finalize the guidance.	FY 2007

Addendum: OIG Recommendations and Corrective Actions Planned or Taken by FAA

Air Carriers' Use of Aircraft Repair Stations, July 2003				
	OIG Recommendation	Actions Taken	Actions Needed	Action Target Date
7	Develop procedures to verify that foreign aviation authorities place adequate emphasis on FAA regulations when conducting reviews at FAA-certificated facilities.	FAA's proposed revisions to its guidance for repair facilities seeking to obtain and maintain an FAA repair station certificate under the provisions of a bilateral aviation safety agreement should address this recommendation. However, this guidance (AC-145-7BXX) will not be finalized by FAA until it has reached a new bilateral agreement with EASA.	Finalize the guidance.	FY 2007
8	Clarify requirements with foreign aviation authorities to ensure that changes to FAA-certified foreign repair station operations that directly impact FAA requirements are sent to FAA for approval.	FAA's proposed revisions to guidance for repair stations seeking to obtain and maintain an FAA repair station certificate under the provisions of a bilateral aviation safety agreement should also address this recommendation. The revised guidance (AC-145-7BXX) contains procedures that will ensure that changes to FAA-certificated foreign repair station operations that directly impact FAA requirements are sent to FAA for approval. However, FAA will not make this guidance final until it has reached a new agreement with EASA.	Finalize the guidance.	FY 2007
9	Modify procedures for conducting sample inspections to permit FAA inspectors to: (a) conduct the number of inspections necessary to gain assurance that foreign aviation authority inspections meet FAA standards during the initial implementation periods when foreign authorities conduct inspections on FAA's behalf, and (b) base the number of inspections in subsequent years on analysis of data collected from prior sample inspections.	In January 2004, FAA officials met with representatives from the foreign aviation authorities that perform surveillance on FAA's behalf and discussed the need to remove the limitation of a 10 percent annual sampling size. FAA International Field Office managers were informed that it is their responsibility to determine the sample size based on factors specified in the inspector handbook guidance. FAA's action satisfactorily addresses the intent of this recommendation.	None. Agency actions satisfactorily address the recommendation.	N/A