



**U.S. Department of
Transportation**

Office of the Secretary
of Transportation

The Inspector General

Office of Inspector General
Washington, D.C. 20590

January 11, 2010

The Honorable Claire McCaskill
717 Hart Senate Office Building
U.S. Senate
Washington, DC 20510

Dear Senator McCaskill:

This is in response to your request that we report FAA's progress in implementing our recommendations to improve its oversight of outsourced aircraft maintenance. As you know, we have reported on this issue three times since 2003, resulting in 23 recommendations. We also testified in 2007 before the Senate Subcommittee on Aviation Operations, Safety, and Security.¹ During that hearing, we noted that FAA had made a number of procedural improvements but that the growth in maintenance outsourcing would demand heightened vigilance and continual action on the part of FAA.

As airlines increasingly outsource maintenance to external repair stations to reduce operating costs, our audits focused on the following concerns:

- Ensuring FAA targets oversight to where maintenance is actually performed,
- Establishing FAA oversight at non-certificated facilities, which perform the same type of maintenance as certificated facilities but without regulatory oversight, and
- Adapting FAA's oversight of outsourced maintenance to a risk-based model.

Overall, FAA has responded positively to our recommendations and has proposed actions we believe will enhance its oversight of domestic and foreign repair stations. To date, however, FAA has completed action on only 7 of our 23 recommendations and has not sufficiently addressed the remaining 16. The following summarizes our key report findings and provides FAA's status with regard to respective recommendations.

¹ OIG Testimony Number CC-2007-076, "Aviation Safety: FAA Oversight of Foreign Repair Stations," June 20, 2007.

Review of Air Carriers' Use of Aircraft Repair Stations

Despite the increase in air carriers' use of external repair facilities, we reported in 2003 that FAA concentrates its oversight of airline maintenance on work performed at the air carrier's in-house facilities. Many repair stations are located in foreign countries but are certificated by FAA to perform critical aircraft maintenance, such as complete airframe teardowns and engine overhauls. FAA permits foreign authorities to inspect these facilities on its behalf to prevent duplicative inspections and reduce the financial burden on foreign repair stations. Yet, we found that FAA had not implemented adequate oversight procedures. As a result, foreign inspectors do not provide FAA with sufficient information to determine what was inspected at the facility, what problems were found, and how they were corrected. Our report made nine recommendations, seven of which have been completed by FAA. However, the two recommendations FAA has yet to act on are the most significant in that they require FAA to develop a process to identify trends in aircraft maintenance and determine where the most critical maintenance is performed. FAA proposed plans to complete actions for the remaining two recommendations by December 31, 2009, once it receives feedback from industry and inspectors on a proposed change that will redefine critical maintenance. Until FAA completes actions for these recommendations, it will be unable to effectively target inspector resources to repair stations that perform critical aircraft maintenance.

Recommendations: <i>Review of Air Carriers' Use of Aircraft Repair Stations</i>		FAA Propose Action?	FAA Complete Action?
1	Collect/monitor air carrier maintenance financial data to identify trends in the source of maintenance and make shifts in inspector resources as warranted.	Yes	No*
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.	Yes	No*
3	Implement procedures to improve information sharing through FAA's newly integrated Safety Performance Analysis System by (a) requiring certificate management inspectors to document the name of the repair stations they have reviewed in the Air Transportation Oversight System database and (b) requiring district office inspectors to include the areas inspected, the results, and corrective actions taken in the Program Tracking and Reporting System.	Yes	Yes
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.	Yes	Yes
5	Modify existing inspection documentation requirements with foreign aviation authorities so that FAA receives sufficient documentation to ensure FAA-certified repair stations meet FAA standards.	Yes	Yes
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.	Yes	Yes
7	Develop procedures to verify that foreign aviation authorities place adequate emphasis on FAA regulations when conducting reviews at FAA-certified facilities.	Yes	Yes
8	Clarify requirements with foreign aviation authorities to ensure that changes to FAA-certified foreign repair stations' operations that directly impact FAA requirements are sent to FAA for approval.	Yes	Yes

*FAA recently provided information indicating that it has taken action to implement this recommendation. May be closed pending our review of these proposed actions.

Recommendations (cont.): <i>Review of Air Carriers' Use of Aircraft Repair Stations</i>		FAA Propose Action?	FAA Complete Action?
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.	Yes	Yes

OIG Report Number AV-2003-047, July 8, 2003.

Review of Air Carriers' Use of Non-Certificated Repair Facilities

Although air carriers have used non-certificated facilities for years to perform minor or emergency repairs, we reported in 2005 that carriers now use these facilities to perform scheduled and critical maintenance. Neither FAA nor air carriers provide regular on-site reviews of the maintenance performed at these facilities. In its response to our report, FAA stated that we overlooked the fact that repairs at non-certificated facilities were performed by mechanics who hold FAA certificates. FAA indicated this was a key factor in ensuring the quality of the repair work. While we acknowledge this fact, it is important to point out a key distinction that carries risk. FAA-certificated facilities rely on approved quality control systems, multiple levels of oversight, and training programs to ensure that repairs are performed properly, whereas non-certificated facilities have none of these controls. Having certificated mechanics is important but not an adequate substitute. Our report made seven recommendations, but to date FAA has not taken any actions. FAA states it will take action pending feedback from industry and inspectors on a proposed change that will redefine critical maintenance. We plan to meet with FAA in January 2010 to resolve these recommendations.

Recommendations: <i>Review of Air Carriers' Use of Non-Certificated Repair Facilities</i>		FAA Propose Action?	FAA Complete Action?
1	Inventory air carrier vendor lists that include all maintenance providers working on air carrier aircraft and identify non-certificated repair facilities performing critical or scheduled maintenance.	No	No
2	Determine whether it should limit the type of work non-certificated facilities can perform.	No	No
3	Expand its maintenance oversight program to include non-certificated repair facilities if no limitations are placed on the type or scope of work they perform.	No	No
4	Review air carrier training programs as part of FAA's oversight of air carrier operations to ensure mechanics at non-certificated repair facilities (a) are qualified to maintain aircraft in accordance with FAA and air carrier requirements and (b) receive training for critical repairs that is equivalent to the training provided to air carrier mechanics performing the same type of repairs.	No	No
5	Review air carrier training programs to ensure mechanics at non-certificated repair facilities have been adequately trained on preparing maintenance records in accordance with FAA and air carrier procedures.	No	No
6	Review air carriers' audit programs for non-certificated repair facilities as part of its oversight of air carrier operations to ensure each carrier has established a standard and in-depth process for evaluating these facilities.	No	No

Recommendations (cont.): Review of Air Carriers' Use of Non-Certificated Repair Facilities		FAA Propose Action?	FAA Complete Action?
7	Determine whether air carriers evaluate the background, experience, and qualifications of the temporary maintenance personnel used by contractors to ensure the work they perform is completed in accordance with FAA and air carrier requirements.	No	No

OIG Report Number AV-2006-031, December 15, 2005.

Air Carriers' Outsourcing of Aircraft Maintenance

While FAA has recently begun moving its safety oversight toward a risk-based system, we reported in 2008 that it still relies too heavily on air carriers' oversight procedures, which are not always sufficient. Specifically, FAA does not have (1) an adequate system for determining how much and where the most critical maintenance occurs, (2) a specific policy governing when its inspectors should visit repair stations performing substantial maintenance, and (3) adequate controls to ensure that inspectors document findings in the national database and review related findings by other inspectors. In addition, FAA does not require inspectors to validate that repair stations have corrected deficiencies identified in air carrier audits. Our report made seven recommendations to FAA. While FAA proposed corrective actions, it has yet to complete these actions.

One recommendation was a carryover from our July 2003 report—to identify repair stations performing safety-critical repairs and repair stations air carriers use most often. While FAA had responded by establishing a system in 2007 for air carriers and repair stations to report the volume of outsourced repairs, our 2008 review found it was inadequate. The system relies on voluntary reporting, and inspectors do not validate the reported data. FAA initially agreed to improve the system by March 2009, but the completion date has slipped indefinitely. FAA stated that it intended to implement our other six recommendations by December 31, 2009.

Recommendations: Air Carriers' Outsourcing of Aircraft Maintenance		FAA Propose Action?	FAA Complete Action?
1	Improve its maintenance data reporting system by revising its guidance to include all maintenance providers performing repairs of critical components--not just the top 10 substantial maintenance providers--and developing procedures for inspectors to validate the accuracy and consistency of reports.	Yes	No*
2	Require CMO inspectors to conduct (a) initial baseline inspections of substantial maintenance providers to assess whether the maintenance providers are in compliance with air carriers' procedures and (b) follow-up inspections to determine whether this baseline assessment has changed.	Yes	No*
3	Reassess its definition of substantial maintenance to include critical components and ensure that air carriers and FAA offices consistently apply the definition.	Yes	No*
4	Require inspectors to (a) follow up to verify that deficiencies identified by air carriers have been corrected at repair stations and (b) ensure that repair stations have adequate processes for conducting audits, correcting identified deficiencies, and performing trend analyses of findings.	Yes	No*

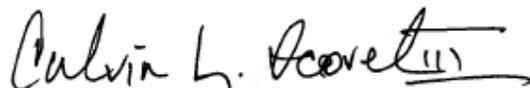
Recommendations (cont.): <i>Air Carriers' Outsourcing of Aircraft Maintenance</i>		FAA Propose Action?	FAA Complete Action?
5	Develop controls to ensure inspectors are complying with inspector guidance to document their findings in FAA's inspection database and review the inspection database for previous findings.	Yes	No*
6	Ensure air carriers document inspections conducted by air carriers' on-site technical representatives at heavy airframe maintenance providers.	Yes	No*
7	Encourage the industry best practice of using airworthiness agreements between air carriers and repair stations that more clearly define maintenance procedures and responsibilities.	Yes	No

OIG Report Number AV-2008-090, September 30, 2008.

*FAA recently provided information indicating that it has taken action to implement this recommendation. May be closed pending our review of these proposed actions.

In closing, FAA needs to continue to move forward with its timetable for completing its proposed actions and expedite those actions, given air carriers' rapidly increasing use of contract maintenance providers. On December 11, 2009, FAA provided information indicating it had developed new guidance, which it believes will address 8 of the remaining 16 recommendations. Although it has taken FAA more than 6 years to address our concerns, we are encouraged with this development. However, we will reserve our determination on whether to close those recommendations until we have conducted a thorough analysis of FAA's proposed actions. 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, please contact me at (202) 366-1959 or Lou E. Dixon, Assistant Inspector General for Aviation and Special Program Audits, at (202) 366-0500.

Sincerely,



Calvin L. Scovel III
Inspector General