U.S. Department of Transportation

Office of the Secretary of Transportation

The Inspector General

Office of Inspector General
Washington, DC 20590

March 19, 2010

The Honorable Patty Murray
United States Senate
Chairman
Subcommittee on Transportation, Housing and Urban Development, and Related Agencies
Committee on Appropriations
Washington, DC 20510

The Honorable John W. Olver
United States House of Representatives
Chairman
Subcommittee on Transportation, Housing and Urban Development, and Related Agencies
Committee on Appropriations
Washington, DC 20515

The Honorable Christopher Bond
United States Senate
Ranking Member
Subcommittee on Transportation, Housing and Urban Development, and Related Agencies
Committee on Appropriations
Washington, DC 20510

The Honorable Tom Latham
United States House of Representatives
Ranking Member
Subcommittee on Transportation, Housing and Urban Development, and Related Agencies
Committee on Appropriations
Washington, DC 20515

Dear Chairmen Murray and Olver and Ranking Members Bond and Latham:

This report is in response to the Joint Explanatory Statement (JES) accompanying the fiscal year 2009 Omnibus Appropriations Act.[1] This JES directs the Office of Inspector General to evaluate the Federal Aviation Administration's (FAA) process for collecting, analyzing, and using field inspection data collected through its Air Transportation Oversight System (ATOS).

FAA introduced ATOS in 1998 as its new tool for conducting air carrier safety inspections. ATOS was a major shift in FAA's oversight system as it moved beyond the traditional inspection method of simply checking an air carrier's compliance with regulations to identifying and assessing safety risks to preclude accidents. FAA initially implemented ATOS at 10 of the Nation's largest passenger air carriers.

[1] Pub. L. No. 111-8 (2009).

Today, all Part 121[2] passenger air carriers in the United States are being inspected using ATOS.

Over the past 7 years, we have reported on a number of weaknesses within ATOS. In 2002, we recommended that FAA establish strong national oversight and accountability to ensure consistent ATOS field implementation.[3] In 2005, we again recommended that FAA strengthen its national oversight of field offices by establishing policies and procedures to ensure air carrier inspections are conducted in a timely and consistent manner.[4] More recently, in 2008, we recommended that FAA implement a process to track field office inspections and alert the local, regional, and Headquarters offices to overdue inspections.[5]

To conduct this review, we obtained and analyzed ATOS inspection data and interviewed FAA Flight Standards Division (Headquarters) and regional managers to evaluate their role and effectiveness in analyzing data and ensuring timely completion of inspections.

Summary

FAA's oversight of ATOS inspections continues to be ineffective at the national level in large part because FAA does not collect data on all overdue inspections or fully utilize the data it already collects. In response to our 2008 recommendation, FAA established a process to compile inspection data at the national level and distribute quarterly reports to alert regional managers to overdue inspections. However, FAA's data tracking efforts still lack accountability in two key areas.

First, FAA does not monitor completion of a key group of inspections—those identified as scheduled, but not yet assigned.[6] From June 2008 through June 2009, 237 scheduled inspections were left unassigned[7] and uncompleted—and none were being tracked by FAA to completion. While local oversight offices rescheduled some of the inspections, they were not projected for completion for as much as 4 years beyond the original inspection date. Unless FAA holds regional managers accountable for ensuring that local inspection offices complete these inspections, they will continue to lapse beyond the minimum inspection intervals established by FAA. Inspecting air carrier programs at required time intervals is critical to validate the levels of risk that might exist in air carrier programs.

---

[2] 14 CFR § 121, Operating Requirements: Domestic, Flag, and Supplemental Operations.

[3] OIG Report Number AV-2002-088, "Air Transportation Oversight System," April 8, 2002. OIG reports are available on our website: www.oig.dot.gov.

[4] OIG Report Number AV-2005-062, "Safety Oversight of an Air Carrier Industry in Transition," June 3, 2005.

[5] OIG Report Number AV-2008-057, "Review of FAA's Oversight of Airlines and Use of Regulatory Partnership Programs," June 30, 2008.

[6] Assigned inspections are scheduled in the ATOS automated system, and managers commit inspector resources to complete them. Assigned inspections must be completed on time; otherwise, a reason must be documented and the inspections must be manually rescheduled in ATOS.

[7] Unassigned inspections are scheduled in the ATOS automated system, but managers have not committed inspector resources to complete them.

Second, FAA's quarterly inspection status reports do not include any trend analyses or cumulative data roll-up from the rest of the year that could help identify offices where inspections are habitually late. Moreover, regional managers stated that they did not find the Headquarters reports useful and, in many cases, were already tracking the progress of their local oversight offices in completing assigned inspections using locally developed systems. Yet, those systems were not monitoring the 237 overdue inspections identified during our review to completion.

Background: The Air Transportation Oversight System

ATOS is FAA's approach to air carrier safety oversight. FAA inspectors assigned to local oversight offices use ATOS to conduct surveillance of air carrier operations and maintenance programs at more than 100 Part 121 air carriers in the United States. ATOS is designed to allow FAA inspectors to use data to focus their inspections on areas posing the greatest safety risks and adapt their inspection plans in response to changing conditions within air carriers' operations. ATOS helps inspectors assess air carriers across three primary areas:

- **System Design:** Inspectors evaluate air carriers' policies and procedures to determine if their operating systems comply with safety regulations and standards. System design evaluations are required every 5 years.

- **Performance:** Inspectors determine whether an air carrier is following its FAA-approved procedures and that those procedures and operating systems are working as intended. Performance evaluations are conducted at prescribed intervals depending on the likelihood of failure in air carrier programs.

- **Risk Management:** Inspectors examine air carrier processes dealing with hazards and associated risks that are subject to regulatory control (e.g., enforcement actions and rulemaking). FAA uses these analyses as a basis to target resources towards the most at-risk programs.

The frequency of performance evaluations is based on the significance of the program to an air carrier's operations. Inspections of high-criticality maintenance programs, such as Airworthiness Directive Management, are performed every 6 months; lower-criticality programs, such as Carry-On Baggage or Service Difficulty Reports, are inspected every 12 or 36 months, respectively.

Since ATOS is an automated oversight system, results of inspections and decisions made by managers to mitigate risk levels are collected and organized in a centrally located repository within ATOS. This allows Headquarters and regional officials to monitor the current status of all ATOS inspections.

FAA Headquarters Does Not Use Inspection Status Data To Hold Local Oversight Offices Accountable for Completing ATOS Inspections

Inspections are automatically scheduled in ATOS based on intervals established within the system, and it is the responsibility of local oversight office managers to assign inspectors to complete these inspections. However, our review of inspection data indicates that not all scheduled inspections are being assigned, including those with increased levels of risk. For example, four local oversight offices that transitioned to ATOS since 2006 have yet to complete any scheduled system design or performance inspections for 10 air carrier operations programs. At the time of our review, these inspections were unassigned.

In our June 2008 report, we recommended that FAA implement a process to monitor field office inspections and alert local, regional, and Headquarters management to overdue inspections. In response, FAA developed a process to track the status of ATOS inspections. In July 2008, the FAA Headquarters ATOS Division Manager began sending quarterly inspection status reports—commonly referred to as the Quarterly ADI[8] Completion Report—to regional managers. However, our analysis of FAA's quarterly inspection status reports shows that Headquarters only tracks the status of assigned inspections for timely completion. Unassigned inspections pose a greater problem for FAA because managers have not committed inspector resources to complete these inspections. Once these inspections become past due, there is no sense of urgency to complete them.

FAA Headquarters officials also use the quarterly reports during FAA's "Dashboard" meetings[9] to monitor the current status of ATOS inspection progress. However, scheduling and completing unassigned inspections are not addressed during these meetings; therefore, Headquarters does not know whether they will ever be completed. The fact that FAA does not know the status of all inspections counters its statement that it is monitoring ATOS inspections from a national perspective. Our analysis shows that without FAA's knowledge of unassigned inspections, they could remain uncompleted for months or even years, and any associated risks within air carrier programs would remain unknown.

We found 237 instances where ATOS inspections were unassigned and not completed at the required interval. For example, our review of ATOS data disclosed 11 inspections that were at least 90 days past due but not yet rescheduled. In other instances, FAA did reschedule unassigned inspections. However, as illustrated in the table on the next page, FAA's projected completion dates for these inspections will be up to 4 years past the original due date. Past FAA inspection records have shown that

[8] ADI: Action, Determination, and Implementation is a process in ATOS designed to permit a principal inspector or management official to collect and analyze inspection data in order to make decisions to mitigate risks found during inspections of air carriers' operating programs.

[9] These meetings are held every 2 weeks to discuss potential solutions to national aviation issues, including ATOS.

four of these six programs were identified as having increased levels of risk, meaning inspectors identified vulnerabilities in the programs that could negatively impact safety.

Table. Unassigned and Overdue Inspection Programs

Inspection Program	Original Due Date	Revised Due Date	Time Past Due
Engineering/Major Repairs and Alterations*	Dec. 31, 2008	Dec. 31, 2012	4 years
Line Stations	Sept. 30, 2008	Sept. 30, 2012	4 years
Other Personnel with Operational Control*	Sept. 30, 2008	Dec. 31, 2011	3 years, 3 months
Training of Flight Attendants*	Dec. 31, 2008	June 30, 2010	18 months
Major Repairs and Alterations Records*	Sept. 30, 2008	Mar. 31, 2010	18 months
Deicing Program	Dec. 31, 2008	Mar. 31, 2010	15 months

Source: FAA ATOS repository (June 30, 2008 – June 30, 2009)
*Inspection programs identified with increased risk

FAA officials acknowledged that not all scheduled ATOS inspections will be completed at the required interval. They informed us that in a risk-based oversight system such as ATOS, it is not practical or desirable to complete all inspections just for the sake of completing inspections. Therefore, Headquarters officials do not hold local oversight offices accountable for completing unassigned inspections because doing so would impede the time inspectors need to perform quality inspections for those areas that pose greater risk. While we agree that higher-risk air carrier programs warrant being inspected ahead of lower-risk programs, some of the unassigned inspections were identified by inspectors as "high risk" programs but not inspected. Additionally, ensuring that all areas, regardless of risk, are inspected is a critical step toward identifying and monitoring risk levels before system failure occurs.

Quarterly inspection status reports consistently pointed to a lack of inspector resources as the main reason scheduled inspections have gone unassigned and uncompleted. Headquarters officials acknowledged that they are aware of the resource issues cited by the regions, but they have not addressed this problem. Our analysis showed that a lack of inspector staffing was cited in 70 percent of the 237 unassigned inspections over a 1-year period.

FAA's efforts to effectively oversee all inspections at a national level will require a process that tracks unassigned inspections to ensure that they are rescheduled and completed in a timely manner. FAA could maximize the results of this process by monitoring reasons cited by local oversight offices for failing to assign inspections.

This would allow FAA to better ensure repetitive resource issues are resolved that may be impeding timely completion of ATOS inspections.

FAA's Inspection Status Reports Are Not Useful as an Analytical Tool

FAA's Quarterly ADI Completion Report implemented in 2008 shows the current status of ATOS system design and performance evaluations and is sent to the regions during the first month after the quarter in which inspections were performed. The ATOS Division Manager sends follow-up status reports to regional offices to remind them to enter inspection data in ATOS before the end of the 30-day "grace period."[10]

Our analysis shows, however, that FAA's quarterly report is not an effective analytical tool because it only reflects inspection completion data for the past calendar quarter and does not include any trend analyses or cumulative data roll-up that could be useful in identifying problem offices where inspections are habitually late. As a result, Headquarters does not readily know if uncompleted inspections—whether assigned or unassigned—in that quarter would be scheduled and completed in the following quarters.

We spoke with Headquarters officials and determined that the structure and design of the Quarterly ADI Completion Report is left to the discretion of the ATOS Division Manager as there is no documented process for preparing or disseminating the report. We also contacted Flight Standards Division Managers at each of FAA's eight regions to determine if they found these reports, in their current format, to be useful in tracking ATOS inspection results. In all instances, regional managers told us that they were already tracking ATOS inspections and were fully engaged with their local oversight offices in ensuring that ATOS inspections were completed on time; therefore, they did not have much use for the Quarterly ADI Completion Reports. However, inspections continue to be late, and our analysis showed that, like Headquarters, regional managers are also not tracking unassigned inspections to ensure that they will be rescheduled and completed.

Inspection tracking processes at regional offices were, however, more comprehensive than the Quarterly ADI Completion Report prepared by Headquarters personnel. For example, one region also provided analyses of training, budget, and enforcement activities in its report. Another region tracks inspection completion status mid-way through the current quarter to alert regional management that local oversight offices may be falling behind. Even with this extra layer of oversight, neither regional nor local oversight offices are required to report to Headquarters actions taken to complete overdue inspections—unless they ask for them—which regional officials said is unlikely.

[10] ATOS inspections must be completed in the quarter in which they were assigned to inspectors. Principal inspectors or management officials have until the end of the subsequent month to ensure that the decisions they make to mitigate identified risks in air carrier programs are entered into ATOS. Otherwise, they are considered overdue.

When we informed Headquarters officials that regional managers did not find the reports useful, they disagreed. The Headquarters officials asserted that the reports were effective in alerting regional managers to potentially overdue inspections and that tracking inspections at the regional level should be more comprehensive to ensure that ATOS inspections will be completed on time. Although it appears that FAA Headquarters met the basic intent of our 2008 recommendation to monitor inspection status and alert other levels of management to overdue inspections, FAA's process is not effective.

FAA could significantly enhance its inspection monitoring capability if it developed a standardized reporting process based on the more comprehensive regional report formats that tracks unassigned as well as assigned inspections until completion. This process would also provide FAA with more comprehensive analyses and trending reports that it could use to hold local oversight offices accountable for completing timely inspections.

Conclusion

FAA has been refining and enhancing ATOS since its 1998 inception. A strong air carrier oversight system is critical for FAA as it will never have enough inspectors to oversee every aspect of air carrier safety. Yet, ATOS is still lacking a key component—comprehensive national oversight. Until FAA fully addresses this issue, oversight lapses will continue to occur. We plan to issue a report to FAA later this year with our formal findings and recommendations. We will monitor FAA's progress and keep you and your staffs apprised of developments.

If you have any questions concerning this letter, please contact me at (202) 366-1959 or Lou Dixon, Assistant Inspector General for Aviation and Special Program Audits, at (202) 366-0500.

Sincerely,

Calvin L. Scovel III
Inspector General

cc: Secretary of Transportation
Federal Aviation Administrator