



Memorandum

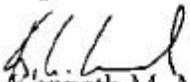
**U.S. Department of
Transportation**

Office of the Secretary
Of Transportation

Office of Inspector General

Subject: INFORMATION: Management Advisory on Status of
the Federal Aviation Administration's 90-Day
Safety Review Recommendations
Report No. AV-1998-090

Date: March 3, 1998

From: 
Kenneth M. Mead
Inspector General


Jane F. Garvey
Federal Aviation Administrator

Reply to
Attn of:

To: The Secretary
Thru: The Deputy Secretary

The Department of Transportation's Office of Inspector General (OIG) and Federal Aviation Administration (FAA) conducted a joint followup review to assess the implementation of recommendations made by FAA's 90-day safety review task force (task force). Our joint review also assessed the need for recommendations beyond those made by the task force in its September 16, 1996 report. The purpose of this management advisory is to report the results of our assessment.

Background

Events in 1996, including ValuJet's rapid growth and tragic accident, caused FAA to take a hard look at the way it conducts safety inspections, especially with respect to air carriers less than 5 years old¹. After the ValuJet accident, FAA inspectors made a comprehensive evaluation of the air carrier and found several serious deficiencies, including ValuJet's failure to establish the airworthiness of some of its aircraft, systemwide maintenance deficiencies, multiple shortcomings in the quality assurance of its contractors, and a lack of engineering capability in its maintenance program. In view of the multiple serious deficiencies found within one air carrier, on June 18, 1996, the former FAA Administrator directed the Deputy Administrator to lead a team to determine if there was more FAA could do to improve the safety of the aviation system.

¹ Considered new entrant air carriers.

The Deputy Administrator formed a task force to make a 90-day review of the way FAA conducts safety inspections and to recommend actions that could be implemented in the “near term.”² The task force examined Federal regulations and FAA’s oversight of commercial airlines engaged in substantial contracting out of maintenance and training functions, as well as the flexibility with which FAA inspection resources could be deployed effectively in response to varied aircraft fleet mixes³, rapid growth, or other changes by an air carrier.

The task force made 31 recommendations categorized into six general issue areas: (1) FAA and Office of the Secretary (OST) certification policy and process, (2) FAA resource targeting to address safety risks, (3) newly certificated air carrier operations and growth, (4) air carriers’ contracting out and varied aircraft fleet mix, (5) FAA inspector and air carrier guidance material, and (6) FAA inspection resources. Of the 31 recommendations, 24 required action by FAA, 5 required action by both FAA and OST, and 2 required OST action only.

The following presents the results of the joint OIG and FAA assessment of the status of the task force recommendations. We have also attached briefing charts and the most recent FAA status report detailing initiatives established, completion dates, and estimated completion dates for each of the 31 recommendations made by the task force. (See attachments 1 and 2).

Results

We found FAA and OST have initiated action to address all recommendations and have implemented 9 of the 31 recommendations. FAA and OST took the following actions to complete these recommendations:

- FAA increased the number of aviation safety inspectors by 146 and support personnel by 74 in Fiscal Year 1997 (Recommendation 6B).
- FAA required each air carrier to list in its operating specifications all contractors performing substantial aircraft maintenance and to conduct on-site audits of each contractor (Recommendation 4B).
- FAA created an analytic unit of specialists to evaluate air carrier safety risks, provide analytical support to FAA aviation safety inspectors, identify emerging aviation safety issues, improve the quality of FAA safety data, and disseminate safety information to FAA inspectors and organizations outside FAA, such as Congress (Recommendation 2E).⁴

² Although the task force report used the expression “near term”, the report did not provide a specific timeline or date. The implementation schedule was left to the discretion of implementing officials.

³ Air carriers using a variety of aircraft types have more complex maintenance programs than air carriers with an aircraft fleet of the same make and model.

⁴ FAA established the Flight Standards Safety Analysis Information Center on May 20, 1997.

- FAA developed a strategy to evaluate and improve the quality of inspection and safety-related data (Recommendation 2F).
- FAA established policy and guidance requiring a new air carrier to adhere to the manufacturer's maintenance program, time intervals, and maintenance processes (Recommendation 4E).
- FAA issued an airworthiness handbook bulletin to inspectors to guide them in evaluating contractual relationships between air carriers and maintenance providers and has encouraged industry to develop a model contract for maintenance providers to facilitate FAA's contract evaluation (Recommendation 4C).
- FAA and OST limited assistance provided to unprepared or unqualified air carrier applicants (Recommendation 1E).
- FAA clarified policy and guidance requiring FAA to follow its certification process called the "Gate Concept" (Recommendation 1C).⁵
- OST enforced requirements for filing a complete air carrier application by dismissing air carrier applications if the applicant could not provide complete information within 30 days (Recommendation 1A).

However, corrective actions to address the most significant recommendations identified by the 90-day safety review task force are in-process. The task force made recommendations that will result in FAA reengineering its air carrier certification and surveillance program. FAA is integrating several of the recommendations into a new system to radically change its approach to aviation safety oversight. Therefore, much work remains to correct the systemic problems with FAA's aviation safety inspection program. Significant recommendations are in-process to:

- create a national certification team of specialists to assist FAA offices with new air carrier certifications;
- make FAA surveillance of air carriers more systematic and targeted to deal with identified risks, such as developing comprehensive annual surveillance plans tailored to each air carrier's operations and redirecting inspections throughout the year to risk areas identified by data trend analysis;
- develop air carrier partnership programs to generate improved safety information that may not otherwise be accessible to FAA;
- heighten the level of FAA surveillance for at least the first 5 years of an air carrier's operation;
- devise new staffing standards for assigning FAA Flight Standards personnel; and

⁵ FAA's certification process is divided into five phases with three "gates." The gates are defined as particular points in the process at which specified requirements must be met before proceeding to the next part of the process. The "gate concept" controls the amount of resources that will be applied to certification activities.

- design a new FAA Flight Standards pay system.

The task force leaders had envisioned most of the recommendations would be implemented within 3 to 6 months of the September 1996 report issue date. However, we found many will take considerably longer to implement than originally estimated by the staff assigned responsibility for taking corrective actions. Twelve of the 22 open recommendations have been delayed beyond the original dates estimated for completion. Of these 12, completion dates were extended by a year or more for 9 recommendations. Although estimated completion dates for the remaining 10 open recommendations are more than a year from the report issue date, they are on schedule with original estimated completion dates established by FAA and OST implementing officials. For the 22 open recommendations, 14 are scheduled for completion by the end of Calendar Year 1998 and 8 are expected to be implemented by the end of Calendar Year 1999.

Reasons for Delays

We found that the recommendations in-process will take longer to implement because of three principal reasons. First, FAA and OST underestimated the time it would take to implement significant changes, such as time to clarify and issue new rulemaking or guidance, or negotiate with union representatives. Second, as a result of our joint review, FAA reopened four recommendations and added milestones to fully address the intent of these task force recommendations.

The third and most significant reason for the delay is that the task force made recommendations that will result in FAA reengineering its air carrier certification and surveillance processes. To address the task force recommendation to make air carrier surveillance more targeted and systematic, FAA teamed with Sandia National Laboratories to conduct a comprehensive analysis of FAA's certification and surveillance processes.⁶ This reengineering project took 8 months and was a precursor to FAA's decision to develop a new system called the Air Transportation Oversight System. This new system is under development and will integrate the task force recommendations in-process.

The 10 recommendations on schedule and the 12 recommendations delayed together with their estimated due dates are listed in the following two tables.

⁶ FAA participated in a joint project with Sandia National Laboratories to improve the FAA surveillance process for air carriers and issued a report on July 8, 1997, which identified deficiencies in the current FAA air carrier surveillance process and made 12 recommendations for follow-on work to be accomplished by FAA. FAA has not implemented the new surveillance process.

RECOMMENDATIONS ON SCHEDULE

Rec. No.	Recommendation	Estimated Due Date
2A	Make FAA surveillance of air carriers more systematic and targeted to deal with identified risks, such as developing comprehensive annual surveillance plans tailored to each air carrier's operations and redirecting inspections throughout the year to risk areas identified by data trend analysis (FAA)	10/01/99
2B	Provide increased specialization and more efficient use of geographic aviation safety inspectors to improve inspection quality (FAA)	12/31/99
2G	Train aviation safety inspectors to use the enhanced information and analytic capabilities provided by the new Safety Performance Analysis System and On-line Aviation Safety Inspection System (FAA)	12/31/99
2H	Expedite funding and deployment of the On-line Aviation Safety Inspection System (FAA)	12/31/99
3A	Heighten the level of surveillance of new entrant air carriers for at least the first 5 years of the company's operation (FAA)	10/01/99
3C	Manage safe growth of new entrant air carriers (FAA/OST)	03/31/98
4D	Develop guidance and training to give inspectors a broader perspective on air carrier operations and to help them recognize and identify systemic deficiencies (FAA)	12/15/98
4F	Develop policy that provides for air carriers to maintain a current Statement of Compliance (FAA)	10/01/99
5A	Streamline and consolidate current FAA aviation safety inspector guidance to eliminate duplications and create a more consistent publication system (FAA)	06/30/98
5B	Improve accessibility of aviation safety inspector guidance materials (FAA)	12/31/99

RECOMMENDATIONS DELAYED

Rec. No.	Recommendation	Original Due Date	Revised Due Date
1B	Create a national certification team of specialists to assist FAA offices with new air carrier certifications (FAA)	09/30/97	06/01/98
1D	Exchange application information between FAA and OST (FAA/OST)	06/30/97	06/30/98
1F	Increase new air carrier application fees (FAA/OST)	10/31/97	12/31/98
2C	Develop air carrier safety partnership programs, such as the Flight Operations Quality Assurance and Aviation Safety Action Programs, to improve safety data collection ⁷ (FAA)	06/30/97	08/31/98
2D	Maximize use of inspector and attorney resources (FAA)	12/30/97	12/31/98
3B	Conduct periodic, coordinated FAA and OST reviews of new entrant air carriers (FAA/OST)	12/31/97	06/30/98
4A	Revise the application for new air carriers to require the percentage and type of in-house and contract maintenance and training, and the identity of the corporate position that will oversee contract maintenance and training. (OST)	11/30/96	03/31/98
4G	Develop common policies and procedures applicable to “parent” and “satellite” repair station certification and surveillance (FAA)	01/01/98	12/30/98
5C	Provide adequate training to inspectors on new guidance materials (FAA)	09/30/97	05/31/98
6A	Devise new staffing standards for assigning FAA Flight Standards personnel (FAA)	12/31/97	06/30/99
6C	Design a new Flight Standards pay system (FAA)	09/30/97	12/31/98
6D	Create a Flight Standards Training Center of Excellence and place budget execution and program authority within the Regulation and Certification Line of Business (FAA)	09/30/97	10/31/98

⁷ Under the Flight Operations Quality Assurance program, airlines analyze data from digital flight recorders to identify trends or anomalies with potential safety impacts. Similarly, Aviation Safety Action Programs, formally established between FAA and air carriers, collect safety data from air carriers through self-disclosure reports to generate improved safety information that may not otherwise be accessible to FAA.

Recommendations of the OIG/FAA Joint Review Team

Although significant progress has been made to improve the aviation safety inspection program, the joint review team identified additional actions FAA must take to meet the President's challenge to achieve ". . . a national goal to reduce the fatal accident rate by 80 percent within 10 years." Because of the importance of the task force's recommendations to FAA's aviation safety mission, the OIG and FAA review team identified areas where FAA needs additional corrective action to ensure full implementation of the task force's recommendations.

The joint review team developed three additional recommendations to ensure executive monitoring of the completion of all task force recommendations. We found task force recommendations were taking longer to implement than envisioned and that there was no mechanism to keep the FAA Administrator informed of the status of this significant effort. Also, FAA managers responsible for implementation were closing recommendations without an independent assessment of whether the task force's intent had been met. We found four task force recommendations that had been closed, but the task force's intent had not been met. For example, FAA considered action taken to improve the specialization and efficiency of geographic aviation safety inspectors⁸ as complete because a prototype program had been initiated in one region. However, the joint review team reached a consensus that the intent of the task force recommendation would not be met until the program was implemented nationwide. FAA reopened the four recommendations and added milestones to fully address the intent of the task force.

We also made two additional recommendations to enhance FAA's new certification and surveillance system that is being developed. The joint review team found that aviation safety inspectors located in the field were not fully aware of the major changes planned in FAA's certification and surveillance program. To facilitate the implementation of the new certification and surveillance system, we recommend that FAA inform inspectors on these planned changes. Also, as a part of FAA's new certification and surveillance system, changes are being made to improve the quality of inspections made by geographic aviation safety inspectors. However, we found that inspectors participating in the prototype geographic inspection program had not received air carrier-specific training from the FAA offices with air carrier responsibility, as was the intent of the task force.

We recommended that FAA:

⁸ A geographic inspector is responsible for inspecting air carrier operations that are outside the boundaries of the FAA office with air carrier oversight responsibility. For example, the FAA office with primary air carrier oversight responsibility for Delta Airlines is located in Atlanta, Georgia; however, geographic inspectors located in other FAA offices are responsible for inspecting Delta Airlines' operations in other parts of the country.

1. Establish executive level oversight to:
 - a. monitor progress and sustain momentum for fully implementing all recommendations,
 - b. provide quarterly briefings to the FAA Administrator, and
 - c. assess whether initiatives address the intent of the recommendations.
2. Inform the Flight Standards inspector workforce on changes planned in FAA's certification and surveillance programs.
3. Ensure FAA offices responsible for air carrier certificate management fully train geographic inspectors.

Actions Taken on Joint Review Team Recommendations

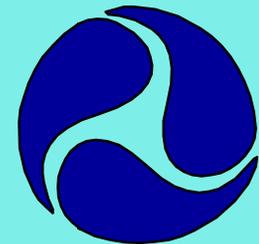
FAA has either taken action or has future plans to take action to address each of these additional recommendations. FAA assigned the Director, Flight Standards Service, the responsibility to sustain momentum for fully implementing all recommendations, including providing quarterly briefings to the FAA Administrator and assessing whether initiatives address the intent of the recommendations. As a first step to inform FAA inspectors on changes planned in FAA's certification and surveillance programs, FAA will distribute an inspector training videotape based on the Flight Standards Strategic Change Workshop held in December 1997. As a part of FAA's new certification and surveillance system under development, geographic inspectors will be trained on an air carrier's specific systems and procedures beginning in the summer of 1998. All geographic inspectors are expected to have received air carrier-specific training under the new certification and surveillance system by December 1999.

If we can answer any questions or be of any further assistance, please call either Guy S. Gardner, FAA Associate Administrator for Regulation and Certification at (202) 267-3131, or Lawrence H. Weintrob, Assistant Inspector General for Auditing at (202) 366-1992. We are available to brief you or your staff at your convenience.

Attachments

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Joint OIG/FAA Review to Assess Implementation of 90-Day Safety Review Recommendations



**U.S. Department
of Transportation**

Joint OIG/FAA Review to Assess Implementation of 90-Day Safety Review Recommendations

Offices/Persons Contacted or Visited

- FAA Headquarters
- OST Aviation Analysis
- FAA Southern Region
- Western Pacific Region
- FAA Counsel,
Eastern Region
- Former NTSB Chairman
- FAA Union Representatives
- Sandia Laboratories
- Analytic Unit, AFS-900
- National Field Office,
AFS-500
- Los Angeles FSDO
- Van Nuys FSDO

Interviewed 19 designated points of contact, 34 additional FAA/OST employees, and 6 technical experts

90-DAY SAFETY REVIEW

Focus was on FAA flexibility and efficiency in deploying its resources in response to varied fleet mixes, outsourcing, rapid growth, or other airline changes

Report issued September 16, 1996 - six principal issue areas and 31 recommendations

6 Issue Areas

- Certification
- Resource Targeting
- New Entrant Growth
- Outsourcing/Fleet Mix
- Guidance Material
- Inspector Resources

90-DAY SAFETY REVIEW

- **31 Recommendations Focused on Changes to Be Made By the FAA and OST**
- **FAA - 24 recommendations
FAA/OST - 5 recommendations
OST - 2 recommendations**
- **FAA Budgeted Cost of the 90 Day Safety Review Corrective Actions for Fiscal Years 1997 and 1998 (\$54.8 million):**

Operations	\$42.5 million (\$34.3 million--Personnel)
F&E	\$12.3 million (all for On-line Aviation Safety Inspection System)
- **OIG/FAA Review Status of Recommendations:**

9 Complete - FAA (7); FAA/OST (1); OST (1)
22 In Process - FAA (17); FAA/OST (4); OST (1)

RECOMMENDATIONS **COMPLETED**

- **Number of Recommendations Completed: 9**
- Hire additional inspectors and support staff
- Require specific items on outsourcing be included in air carriers' manuals and incorporated by reference in operations specifications
- Create a centralized information management function
- Develop a strategy to improve and evaluate data quality
- Establish policy and guidance requiring new air carriers to adhere to a manufacturer's maintenance program
- Provide guidance for inspectors to evaluate contracts between air carriers and maintenance providers
- Limit FAA/OST assistance to unprepared applicants
- Require FAA to follow the "Gate Concept"
- Enforce OST requirements for filing a complete application

RECOMMENDATIONS ON SCHEDULE

<u>Rec. No.</u>	<u>Recommendation</u>	<u>Estimated Due Date</u>
2A	Improve the air carrier surveillance process	10/01/99
2B	Use geographic inspectors more efficiently	12/31/99
2G	Train inspectors to use the On-line Aviation Safety Inspection System and the Safety Performance Analysis System	12/31/99
2H	Deploy the On-line Aviation Safety Inspection System	12/31/99
3A	Heighten surveillance of new entrant air carriers	10/01/99
3C	Manage new entrant air carrier growth	03/31/98
4D	Develop guidance and training to give inspectors a broader perspective of air carrier operations	12/15/98
4F	Require air carriers maintain a current Statement of Compliance	10/01/99
5A	Streamline FAA inspector guidance	06/30/98
5B	Improve accessibility of guidance materials	12/31/99

RECOMMENDATIONS DELAYED

<u>Rec. No.</u>	<u>Recommendation</u>	<u>Original Due Date</u>	<u>Current Due Date</u>
1B	Create a national certification team	09/30/97	06/01/98
1D	Exchange OST/FAA applications	06/30/97	06/30/98
1F	Increase OST application fees	10/31/97	12/31/98
2C	Develop safety partnership programs	06/30/97	08/31/98
2D	Maximize use of attorney resources	12/30/97	12/31/98
3B	Conduct periodic FAA/OST reviews	12/31/97	06/30/98
4A	Enhance outsourcing information	11/30/96	03/31/98
4G	Develop common repair station policies	01/01/98	12/30/98
5C	Provide training on new guidance	09/30/97	05/31/98
6A	Develop new staffing standards	12/31/97	06/30/99
6C	Design a new pay system	09/30/97	12/31/98
6D	Create a training Center of Excellence	09/30/97	10/31/98

Areas for Improvement

- **Establish executive level oversight to:**
 - **Monitor progress and sustain momentum for fully implementing all recommendations.**
 - **Provide quarterly briefings to the FAA Administrator.**
 - **Assess whether initiatives address the intent of the recommendations.**
- **Inform the Flight Standards inspector workforce on changes planned in FAA's certification and surveillance programs.**
- **Ensure FAA offices responsible for air carrier certificate management fully train geographic inspectors.**