

Report to Congressional Requesters

February 1998

AVIATION SAFETY

Weaknesses in Inspection and Enforcement Limit FAA in Identifying and Responding to Risks





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Resources, Community, and Economic Development Division

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The Honorable John McCain Chairman, Committee on Commerce, Science, and Transportation United States Senate

The Honorable Slade Gorton Chairman, Subcommittee on Aviation Committee on Commerce, Science, and Transportation United States Senate

In response to your request, this report examines (1) the outcomes of the Federal Aviation Administration's (FAA) inspection process in fiscal years 1990 through 1996 and how this process could be strengthened to better assess and encourage compliance with aviation safety and security regulations and (2) the outcomes of FAA's enforcement process during this period and how this process could be strengthened to better address potential violations of aviation safety and security regulations. This report contains recommendations to the Secretary of Transportation for improving FAA's enforcement of aviation safety and security regulations.

As you requested, unless you publicly announce its contents earlier, we plan no further distribution of this report until 30 days after the date of this letter. We will then send copies to the appropriate congressional committees; the Secretary of Transportation; the Administrator, FAA; the Director, Office of Management and Budget; and other interested parties. We will make copies available to others upon request.

If you or your staff have any questions, please call me at (202) 512-3650. Major contributors to this report are listed in appendix VI.

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Purpose

The Federal Aviation Administration (FAA) regulates and monitors the safety and security of air transportation and air commerce, an effort supported by the aviation industry through training and self-monitoring programs. Both the agency and the industry have come under increased scrutiny since the fatal crashes of ValuJet Flight 592 in May 1996 and TWA Flight 800 in July 1996. The public has demanded better government oversight of aviation safety and security, and congressional hearings have focused on FAA's training of inspectors, targeting of inspection resources, and use of enforcement actions.

The Senate Committee on Commerce, Science, and Transportation and its Subcommittee on Aviation, which oversee FAA, asked GAO to respond to the following two questions: (1) What were the outcomes of FAA's inspection process in fiscal years 1990 through 1996? (2) What were the outcomes of FAA's enforcement process during this period? To respond to these questions, GAO analyzed FAA's inspection and enforcement data for fiscal years 1990 through 1996 and in February and March 1997 conducted nationwide surveys of 600 safety inspectors and 175 security special agents who perform inspections for FAA. GAO also interviewed safety and security inspectors in two FAA regions, managers in all FAA programs that conduct inspections, and regional counsels in all nine FAA regions.

Background

FAA's aviation safety and security programs provide for the initial certification, periodic surveillance, and inspection of airlines, airports, repair stations, and other aviation entities, as well as of pilots and mechanics. These inspections are intended not only to detect actual violations but also to serve as part of an early warning system for identifying potential systemwide threats to aviation safety and security. Safety inspections range from a visual check by an individual FAA inspector of a pilot or an aircraft at the gate (ramp inspection) or during a flight (en route inspection) to a special in-depth inspection of an entity (airline) or a facility (repair station) that may last a week or longer and involve a team of inspectors. Security inspections typically range from a daily spot-check of an airport's security by a pair of inspectors to a comprehensive annual inspection involving larger teams systematically checking an airport's compliance with all applicable security regulations and requirements. When safety and security inspectors identify violations, agencywide guidance requires that such violations be investigated and appropriately addressed, and program office guidance requires that violations be reported in their respective program office's database for tracking the results of inspections.

FAA's enforcement program affords a range of options for responding to violations of aviation safety and security regulations, from providing training or issuing warning notices to imposing penalties, such as fines or suspensions of operating certificates, called certificate actions. Although FAA has long depended on the willingness of certificate holders to adhere to regulatory requirements, it has, since 1990, increased its emphasis on gaining compliance through cooperative rather than punitive means.

At the end of fiscal year 1996, FAA had about 3,000 inspection staff predominately based in the agency's nine regions. These inspectors worked in five FAA program offices with a budget of \$535 million. Two of these offices followed up on reports of violations by opening nearly 90 percent of the enforcement cases and were, therefore, the focus of GAO's review: The Flight Standards Service (Flight Standards), which oversees aviation safety, had a budget of \$322 million in fiscal year 1996, and the Office of Civil Aviation Security (Security) had a budget of \$67 million to oversee the security of the nation's airports and air carriers and monitor the transportation of hazardous materials by air. When Flight Standards inspectors find problems (which include but are not limited to violations), they are required to enter their findings into a database for tracking the results of inspections. Security inspectors, called special agents, are required to report violations in one of two databases. In addition to tracking the results of inspections, these Flight Standards and Security databases track all activities performed by inspectors. Inspectors in both programs generally choose whether to open enforcement cases. FAA's field and regional program offices decide whether to handle these cases through administrative actions, such as warning notices; legal actions, such as fines or suspensions of operating certificates; or no action. If legal actions are chosen, the cases are handled by FAA regional or headquarters legal staff, who negotiate many of the final penalties.

The aviation community shares the responsibility for ensuring aviation safety and security. Many airlines, repair stations, and aviation companies conduct internal reviews and/or have quality assurance programs to foster and monitor their own compliance with FAA's regulations. In addition, some airlines and pilots participate in voluntary self-disclosure programs or partnership programs with FAA to identify and correct violations without being penalized.

Results in Brief

While there are no direct measures of the aviation industry's compliance with aviation safety and security regulations, the results of FAA's

inspections provide both an indirect measure of the industry's compliance and an early warning of potential safety and security problems. In fiscal years 1990 through 1996, nearly 96 percent of the 2 million inspections conducted by Flight Standards and Security resulted in no reports of problems or violations. GAO questions whether this rate is a meaningful measure of the aviation industry's compliance with regulations for several reasons. First, many inspectors do not report all problems or violations they observe. In addition, many inspections are not thorough or structured enough to detect many violations. Finally, FAA's inspection tracking systems do not distinguish major from minor violations. FAA's information on compliance in the aviation industry is thus incomplete and of limited use in providing early warning of potential risks and in targeting inspection resources to the greatest risks.

During fiscal years 1990 through 1996, FAA inspectors opened nearly 110,000 enforcement cases to follow up on reports of violations from their inspections and from noninspection sources. Forty-five percent of the 110,000 enforcement cases were initiated as a result of inspections conducted by FAA. FAA inspectors also followed up on reports of violations from outside sources, such as police reports and public complaints, which accounted for 41 percent of the enforcement cases opened. In the remaining 14 percent of the cases, FAA inspectors followed up on violations reported by other FAA personnel, such as air traffic controllers who reported instances when aircraft deviated from their assigned flight altitudes. Inspectors exercised discretion in opening enforcement cases in response to reported problems and violations; not all reported problems or violations resulted in enforcement cases. When compliance could be gained informally, for example, many inspectors did not open cases. The amount of paperwork and the time needed to reenter inspection results in a separate enforcement database also discouraged inspectors from opening cases.

FAA resolved almost 121,000¹ enforcement cases during this same period, using administrative actions (46 percent), legal actions (34 percent), or no action (19 percent). The resolution could not be determined for 1 percent of the enforcement cases because of missing data. When resolving cases through legal action, FAA's legal staff generally negotiated lower penalties than the agency's inspection staff had recommended, reducing fines in 80 percent of the civil penalties closed and suspension days in 58 percent of the certificate actions settled. FAA legal staff told us that they do not

¹The number of cases closed differed from the number of cases opened because some cases were started before 1990.

have the legal resources to litigate all cases and that penalties were lowered for many reasons, including insufficient evidence to support certain charges and precedents for lower penalties set in prior cases. The impact of FAA's enforcement actions on compliance is difficult to assess because FAA has not followed up on the aviation industry's implementation of corrective actions.

In part because FAA's enforcement database, like FAA's inspection databases, does not distinguish major from minor cases, FAA cannot readily set risk-based priorities for resolving enforcement cases. Both the sequence and the time for processing enforcement cases often depended on factors other than the cases' impact on aviation safety and security. In addition, workload, accused violators' requests for additional information about their cases, and statutes of limitation or other deadlines for initiating certain types of cases influenced the sequence and the time for processing enforcement cases.

Principal Findings

FAA's Inspection Activities

Overall, during fiscal years 1990 through 1996, 96 percent of Flight Standards' inspections and 91 percent of Security's inspections resulted in no reports of problems or violations. Both the underreporting of observed problems or violations and the reliance on unstructured inspections by individual inspectors may result in the underreporting of problems or violations. Despite guidance requiring them to enter all observed problems or violations into their respective office's inspection tracking system, 35 percent of the Flight Standards inspectors and 32 percent of the Security inspectors surveyed by GAO said that they reported half or fewer of the problems or violations they observed during inspections in fiscal year 1996, the year covered by the survey. In some cases, FAA inspectors interviewed did not agree on the agency's reporting requirements; in other cases, inspectors did not report violations if compliance could be achieved informally. In addition, Flight Standards does not specify minimum or key tasks to be accomplished during ramp and en route inspections, even though dot's Inspector General has issued recommendations to this effect several times since 1992. GAO's recent review of repair stations² suggests that more intensive, structured team inspections identify more safety problems than unstructured inspections by individual inspectors.

 $^{^2\!}$ Aviation Safety: FAA Oversight of Repair Stations Needs Improvement (GAO/RCED-98-21, Oct. 24, 1997).

Moreover, when Security began in fiscal year 1996 to combine comprehensive inspections requiring the completion of specified tasks with rigorous, unannounced tests of security directives, the rate of violations found during its inspections more than doubled, rising from 9 percent to 19 percent.

The lack of distinction between major and minor violations in FAA's inspection tracking systems, combined with incomplete information on the frequency of violations, hampers FAA in using the results of its inspections as an early warning system for identifying potential threats to aviation safety and security, as well as in allocating its inspection resources to the greatest potential threats. GAO reported 10 years ago that FAA needed to develop criteria for targeting safety inspections to airlines whose characteristics may indicate safety problems, and in February 1995 and April 1996, GAO identified serious problems with the quality of the data systems on which FAA's targeting depends. Although Flight Standards has developed a system for targeting its inspections, this system relies on the database whose accuracy is compromised by incomplete information. Because of these and other problems, inspectors are making limited use of this system.

FAA's Enforcement Activities

In fiscal years 1990 through 1996, FAA's inspections generated the largest percentage of violation reports that led to enforcement cases, followed by sources outside FAA, and then other sources within FAA. Other noninspection activities conducted by air traffic controllers and other FAA personnel can identify violations that result in violation reports and may lead to enforcement actions. Sources outside FAA included, for example, the police (21 percent), who filed reports when they arrested individuals carrying weapons through airport security checkpoints or using drugs on aviation-related jobs; the public (5 percent); and the aviation industry (4 percent).

Inspectors exercise discretion in opening enforcement cases. In fiscal years 1990 through 1996, Flight Standards opened about one enforcement case for every four inspections that identified problems (25,392 cases for 88,912 inspections with problems). This number is consistent with the fact that problems may but do not always include regulatory violations. It also reflects FAA's current emphasis on gaining voluntary compliance rather than pursuing formal enforcement cases. In addition, inspectors may not initiate cases because of burdensome paperwork and because prior cases were dropped or recommended penalties were lowered. For example, in

response to our survey, well over half of the Flight Standards inspectors (66 percent) and Security inspectors (58 percent) said they do not initiate enforcement cases because doing so entails too much paperwork, especially for minor violations. In their view, the paperwork is not worth the effort for many violations. In addition, because the enforcement database is not linked to the program offices' inspection tracking systems, the results of inspections must be entered manually a second time for violations that result in enforcement cases. In Security, the number of enforcement cases opened (12,850) exceeded the number of inspections with reported violations (11,052). This difference reflects the fact that certain types of violations can result in cases against more than one air carrier. For example, one violation at an airport security checkpoint that serves several air carriers could lead to cases against all of the carriers. While the vast majority of Flight Standards inspectors and Security inspectors rated their own efforts at fostering compliance with the Federal Aviation Regulations in fiscal year 1996 as successful, fewer than one-third of these inspectors rated FAA's enforcement process as an excellent or good method for fostering compliance.

In resolving enforcement cases, FAA has increased its use of administrative actions, such as warning notices, and reduced its reliance on legal actions, such as fines and suspensions of operating certificates. Administrative actions, which closed 35 percent of FAA's enforcement cases in fiscal years 1990 through 1992, accounted for over half of the agency's enforcement actions closed in fiscal years 1994 through 1996. FAA's regions varied, sometimes substantially, in their use of enforcement actions. In fiscal year 1996, for example, Security used legal actions nearly two-thirds of the time in one region and less than one-fourth of the time in another region. Department of Transportation (DOT) and FAA officials attributed these differences broadly to differences in regional enforcement philosophies or to variations in workload, the entities overseen, and community standards and laws. We were unable to verify any specific links between these factors and the regional variations in enforcement actions. Such regional variations and the discretion exercised by inspectors and legal staff were cited by airline officials and private attorneys interviewed as contributing to perceived inconsistencies in FAA's response to regulatory violations.

FAA's legal staff frequently negotiated reductions in the penalties recommended by the inspection staff for both civil penalty cases and certificate actions. Attorneys reduced the recommended fines in about 80 percent of the 20,179 civil penalty cases closed during fiscal years 1990 through 1996, arriving at a median final penalty of 25 cents for each dollar

proposed by the inspection staff, including dropping the fines altogether for one-third of the cases. Attorneys also reduced the recommended suspensions in 58 percent of the 11,658 certificate actions settled during the same period, accepting a median suspension of 30 days instead of the median 60 days recommended by inspectors. In 27 percent of the certificate action cases, they settled for no suspensions at all. In addition, although FAA assessed fines against all types of aviation operators, it suspended the operating privileges of small operators and individuals, but not of major or national air carriers.3 The regional counsels in FAA's nine regional offices offered a number of reasons for the lower penalties, including insufficient evidence for certain charges, precedents set in prior cases, limits on the violator's ability to pay, and difficulties in calculating appropriate penalties for multiple violations. FAA's legal offices also varied in the extent to which they reduced fines. For example, the median fine ranged from 13 cents to 50 cents on the recommended penalty dollar for Flight Standards cases in fiscal year 1996.

The order in which enforcement cases were processed was determined by the regions, not by FAA headquarters. Because FAA's enforcement tracking system does not distinguish major from minor cases, it provided little information on relative risk for the regions to use in setting processing priorities. The time taken to process enforcement cases varied with the type of enforcement action taken: On average, administrative actions took 5 months while the average time for legal actions ranged from 15 months to 3 years, depending on the type of case. In addition, factors other than risk—such as the regions' enforcement caseload, the actions of violators, and various deadlines for initiating cases—often dictated both the time and the sequence for processing cases.

Recent and proposed changes in FAA's enforcement processes could reduce the time needed to resolve cases and help FAA target its resources more effectively to the cases with the greatest potential impact on safety and security. For example, the use of warning tickets, recently pilot-tested by Flight Standards in one region, provided immediate feedback to violators on their noncompliance, and the use of streamlined procedures for handling weapons cases, adopted by Security in fiscal year 1995, has already reduced the processing time for these legal cases to around 4 months, substantially down from the average of a little over 2 years for other civil penalty cases. Refining and expanding the use of these procedures could help FAA target its legal resources more effectively.

³Under its enforcement order, FAA can impose a fine instead of a suspension when a disruption in service would have a substantial adverse impact on the public interest that would not be outweighed by safety considerations.

Recommendations

To strengthen FAA's inspection and enforcement processes, GAO recommends that the Secretary of Transportation direct the FAA Administrator to take several actions, including the following:

- Revise FAA's order on compliance and enforcement to specify that FAA's inspection staff are required to report all observed problems and violations in their respective program office's database for tracking the results of inspections.
- Provide guidance to FAA's inspection staff on how to distinguish major from minor violations and to legal staff on how to identify major legal cases.
- Improve and integrate FAA's inspection and enforcement databases to (1) identify major violations and major legal cases; (2) target inspection and legal resources to the violations and enforcement cases with the greatest potential impact on aviation safety and security; and (3) link inspection and enforcement data so that violations can be tracked from their identification through their resolution.

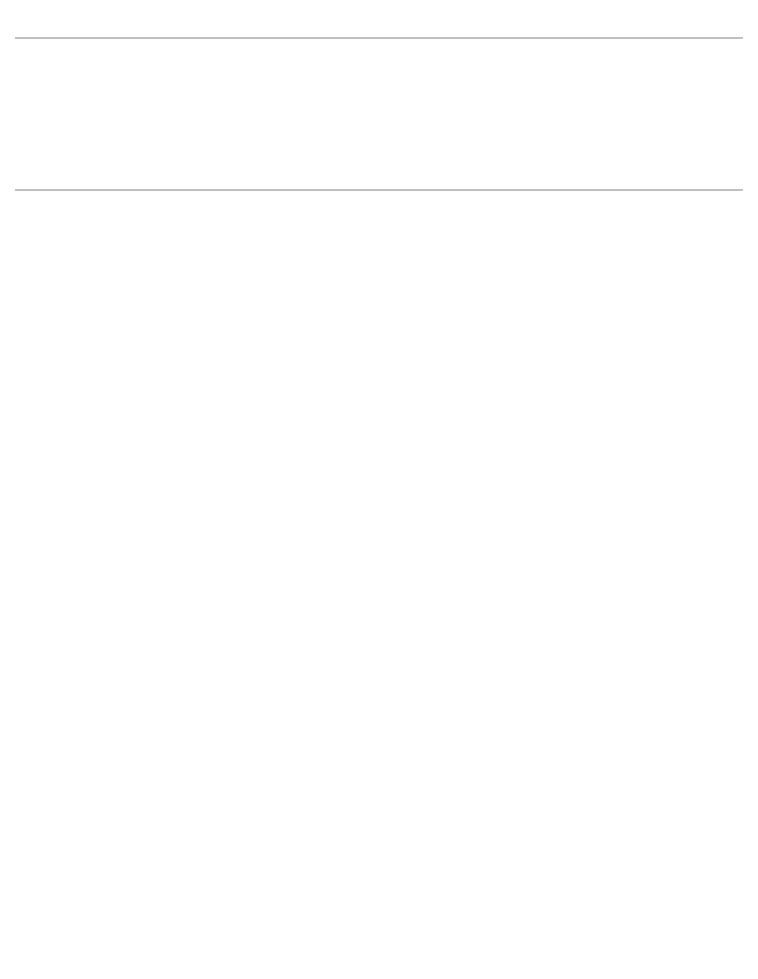
This report includes other recommendations to improve the usefulness of FAA's databases and the coordination of FAA's inspection and enforcement efforts.

Agency Comments

DOT expressed concern about the report's negative portrayal of FAA's efforts to oversee compliance with the Federal Aviation Regulations. (See app. VI.) DOT attributed GAO's conclusions to the use of inappropriate performance measures and selectivity in reporting survey results. DOT suggested that the safety record of air carriers transporting passengers and GAO's survey data on inspectors' assessments of their own success in fostering compliance would be better measures of the industry's compliance than inspection results. DOT further objected to the report's focus on systems for tracking FAA's inspection and enforcement activity as a means of evaluating the effectiveness of the oversight system. DOT stated that analysis of data in these tracking systems is but one tool at its disposal for assessing risk. Although DOT did not comment explicitly on GAO's recommendations, DOT agreed that actions can be taken that will further strengthen its inspection programs, improve compliance with applicable requirements, and strengthen its analytical capability. DOT added that some actions have already been completed and other actions are under way to make improvements, such as expediting the processing

of cases through the use of warning tickets and streamlined procedures for Security weapons cases.

GAO'S report offers a balanced portrayal of FAA'S enforcement activities by presenting all of the relevant information developed in the course of GAO's review and identifying many actions in progress to improve the agency's existing systems and procedures. GAO's methodology is appropriate. The report is based on nationwide surveys of inspectors and complex analyses of FAA's inspection and enforcement data undertaken after extensive coordination with cognizant FAA legal and program officials. GAO placed the resulting data in context through interviews with inspectors about their workload, their reporting of violations, and the factors they weigh in deciding whether to initiate enforcement cases. Interviews with regional counsels added perspective on the constraints faced in handling and settling cases. The report describes serious weaknesses in FAA's processes for detecting and addressing the industry's violations of aviation regulations. These weaknesses hinder FAA in reliably using inspection data to identify and correct safety and security problems. As the report states, there are no direct measures of the industry's compliance with safety and security regulations. Given the relatively rare occurrence of fatal air carrier crashes, GAO believes that inspection results and other indicators of safety problems are appropriate indirect measures of the industry's compliance with the regulations that can provide early warning of potential safety risks and some sense of the industry's compliance with the regulations. As air traffic increases in the next decade, FAA's inspections and other indicators will be critical to improving safety and avoiding the increase in fatal crashes that is projected if the current crash rate continues. As requested by DOT, GAO incorporated into the report survey data showing that the vast majority of inspectors rated their own efforts in fostering compliance with the regulations as moderately or very successful. GAO also included related data showing that over two-thirds of the inspectors surveyed rated FAA's enforcement process as no better than fair as a method of fostering compliance. GAO concurs with DOT's assertion that inspection tracking systems are but one tool for assessing risk; however, underreporting by inspection staff and other inaccuracies in the tracking systems impair the reliability of these systems for understanding historical and current trends, assessing systemwide risks, and allocating FAA's resources to best address these and other potential risks.



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Abbreviations

AAIRS	Airport and Air Carrier Information Reporting System
ASAP	Aviation Safety Action Program
ASRP	Aviation Safety Reporting Program
CASIS	Civil Aviation Security Information System
DOT	Department of Transportation
EIR	Enforcement Information Report
EIS	Enforcement Information System
FAA	Federal Aviation Administration
FAR	Federal Aviation Regulation
FOIA	Freedom of Information Act
NASA	National Aeronautics and Space Administration
NTSB	National Transportation Safety Board
PTRS	Program Tracking and Reporting Subsystem
SAS	Statistical Analysis System
SPAS	Safety Performance Analysis System

Introduction

The Federal Aviation Administration (FAA) regulates and monitors the safety and security of air transportation and air commerce. The aviation industry shares responsibility for the safety of air passengers. FAA performs inspections to ensure compliance with the Federal Aviation Regulations (FAR) and may take enforcement actions against violators. Inspections, through their identification and resolution of violations, can also serve as part of an early warning system of potential safety and security issues that may be much broader than individual violations. The aviation industry supports FAA's efforts through training and self-monitoring programs. Both the agency and the industry have come under closer scrutiny since the fatal crashes of ValuJet Flight 592 in May 1996 and TWA Flight 800 in July 1996. The public has demanded better government oversight of aviation safety and security, and congressional hearings have focused on FAA's training of inspectors, targeting of inspection resources, and use of enforcement actions.

Concerns about FAA's inspection and enforcement efforts are not new. Over the last decade, we have reported that FAA needs to target its inspection resources to the areas posing the greatest potential risks to aviation safety and that FAA inspectors have not consistently reported the results of their inspections, conducted complete inspections, and ensured that identified violations are corrected. Similarly, since 1992, the Department of Transportation's (DOT) Inspector General has criticized the quality of FAA's inspections and identified inconsistencies in FAA's use of enforcement actions. Although FAA has initiated improvements in both its inspection and enforcement programs, problems remain. In response to these ongoing concerns, this report discusses FAA's efforts to improve its inspection and enforcement efforts.

FAA Has Primary Responsibility for Aviation Safety and Security

To promote the aviation industry's compliance with the Federal Aviation Regulations, FAA performs inspections and takes enforcement actions in response to violations. The agency has increasingly relied on cooperation with the industry, through self-disclosure and partnership programs. To improve compliance, inspections and enforcement actions remain central to FAA's efforts. Inspection staff in FAA's program offices conduct inspections, report violations, and may initiate enforcement cases. The program offices in FAA's nine regions usually decide what type of enforcement actions to initiate, while the legal offices evaluate whether a violation has occurred and, if so, initiate appropriate legal action and negotiate sanctions.

¹GAO's products on inspections and enforcement are listed at the end of this report.

Guidance Sets Forth FAA's Compliance and Enforcement Responsibilities

FAA Order 2150.3A, the agencywide compliance and enforcement program handbook, sets forth the responsibilities of FAA personnel and provides them with guidance on carrying out the enforcement program. The order identifies common violations, assigns responsibility to the inspection staff for initially recommending appropriate corrective actions when violations are found, and contains a table of recommended sanctions to promote national consistency. The table provides ranges of sanctions for single inadvertent violations of particular regulations (e.g., a suspension ranging from 15 to 60 days for a pilot found operating an aircraft without a medical certificate). In addition to FAA Order 2150.3A, each of FAA's program offices has internal guidance for its staff—such as handbooks, memos, and directives—that provides further information on handling and processing violations.

Program Office Staff Have a Central Role in Detecting Violations

Inspection staff in five program offices—the Flight Standards Service (Flight Standards), Office of Civil Aviation Security (Security), Aircraft Certification Service (Aircraft Certification), Office of Airport Safety and Standards (Airport Safety), and Office of Aviation Medicine (Aviation Medicine)—perform inspections. In addition, FAA's Air Traffic Control personnel refer regulatory violations to the other program offices for enforcement action.² The purpose of these inspections is to detect violations so that threats to safety and security can be corrected and to deter violations through the possibility that they will be discovered and prosecuted. Table 1.1 summarizes the inspection responsibilities of FAA's five program offices.

 $^{^2}$ Although air traffic controllers do not perform inspections or initiate enforcement cases, they may detect violations while directing the operation of the nation's air traffic system.

Chapter 1 Introduction

Table 1.1: Inspection Responsibilities of FAA's Program Offices

Dollars in millions			
Program office	Responsibilities	Budget, fiscal year 1996	Number of inspection staff, fiscal year 1996
Flight Standards	Inspectors monitor the compliance of over 13,000 certificate holders ^a 8,000 designees, ^b 622,000 certificated pilots, and 534,000 nonpilots (mechanics, repairmen, etc.)	\$321.7	2,637
Security	Inspectors oversee security at 501 airports and 432 U.S. and foreign air carriers, as well as monitor the transportation of hazardous materials.	\$67.3	243
Aircraft Certification	Inspectors monitor manufacturers' procedures to ensure compliance with standards for new aircraft and air parts.	\$76.3	156
Airports	Inspectors ensure that FAA-approved airports and airfields are inspected daily by airport officials for possible violations of standards pertaining to maintenance, transportation, and various hazards.	\$41.5	49
Aviation Medicine	Inspectors oversee the development and implementation of employee drug and alcohol testing programs for over 5,500 aviation industry employers.	\$27.8	48
Total		\$534.6	3,133

^aIncludes air operators (air carriers, air taxis, etc.) and air agencies (schools and repair stations).

Source: FAA's program offices.

Of the over 3,000 inspection staff in fiscal year 1996, over 90 percent were assigned to Flight Standards and Security, the program offices whose

^bDesignees are authorized by FAA to act as its representatives in examining, inspecting, and testing persons and aircraft for the purpose of issuing airman and aircraft certificates. Designated private pilot examiners, for example, can accept applications for flight tests, conduct those tests, and issue temporary operating certificates to pilots.

activities were the primary subject of our review. Flight Standards inspectors oversee aviation safety by conducting visual checks of aircraft parked at the gate, called ramp inspections; visual checks of pilots or other crew members in flight, called en route inspections; and routine inspections of airlines, repair stations, or other aviation facilities. Typically, these types of inspections are performed by individual inspectors, although teams may be assigned to large, complex facilities. In addition, Flight Standards inspectors may conduct special in-depth inspections at facilities selected through national or regional inspection programs or by local program offices. These inspections are usually performed by teams of inspectors. Inspection staff in Security, who are referred to as special agents, oversee aviation security by conducting comprehensive or supplemental inspections of airports and air carrier stations (e.g., ticket counters, passenger security check points) and by monitoring the transportation of hazardous materials. Comprehensive inspections, used to update or profile operations, review the compliance of airports or air carriers with all relevant federal regulations and approved security program requirements. Supplemental inspections, used to follow up on instances of noncompliance identified during comprehensive inspections or unplanned activities (e.g., visits to airports), review compliance with one or more regulations or program requirements. In addition, Security inspectors conduct security directive tests, which are unannounced, structured assessments of compliance with security directives, which are requirements established in response to a specific threat, such as a terrorist threat against a particular airline. Security inspectors also conduct hazardous materials inspections of all U.S. air carriers and foreign carriers serving the United States to ensure that all regulations governing the shipping of such hazardous materials as flammable and combustible liquids are being followed. Typically, Security inspectors perform inspections in pairs, but comprehensive inspections are usually done by larger teams.

Program Office Guidance Requires Inspection Staff to Report Violations

When inspectors identify violations, FAA Order 2150.3A does not specify that they must enter their findings into their program office's database for tracking the results of inspections. The order simply states that "every apparent or alleged violation must be investigated and appropriately addressed." However, program office guidance for both Flight Standards and Security requires that observed violations be entered into their respective databases for tracking the results of inspections. For example, Security's 1996 National Assessment Program Guidance says that when "personnel become aware of a violation of the FAR or any approved

security program . . . a finding (violation) must be created" in Security's database, the Airport/Air Carrier Information Reporting System (AAIRS). This requirement "will ensure that we are capturing as much information about problem areas as possible" and applies even when matters "are handled by agents with 'on the spot' correction."

Different program offices have different procedures for tracking inspection findings. In Flight Standards, inspectors enter one or more comment codes in their Program Tracking and Reporting Subsystem (PTRS)—"U" for unacceptable or "P" for a potential problem—to record problems in compliance with aviation safety regulations or safe operating practices. These problems may, but do not always, include violations of aviation safety regulations. Security inspectors report problems in AAIRS or in Security's Civil Aviation Security Information System (CASIS) either as violations (instances of noncompliance with regulations or security directives) or as observations (problems that may affect security but are not technically violations). CASIS was used to record all security violations until fiscal year 1996 and is still used to track the results of hazardous materials inspections; AAIRS has been used since 1996 to track the results of airport, air carrier, and screening checkpoint inspections. (See table 1.2.)

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³For example, if the position of an X-ray monitor results in glare on the screen, making it difficult for the screener to read, the Security inspector may suggest that the monitor be repositioned and note his recommendation as an observation. Security directives are documents issued by FAA to air carriers regulated under an approved FAA security program that mandate certain security measures over a finite period of time.

Table '	1.2:	Databases	for	Tracking
Inspec	tion	าร		

Program office	Inspection tracking databases	
Flight Standards	Program Tracking and Reporting Subsystem (PTRS) contains data on all activities performed by inspectors, as well as the results of inspections of airlines, aircraft, repair stations, and other entities. ^a	
Security	Civil Aviation Security Information System (CASIS) was used until 1996 to track all security inspections and is still used to track hazardous materials inspections.	
	Airport/Air Carrier Information Reporting System (AAIRS) has been used since 1996 to track inspections of airports and air carrier stations.	

^aFlight Standards' activities cover the certification of airmen, aircraft, and companies. During any of these activities, a violation may be found.

Source: Database documentation from Flight Standards and Security.

Inspection Staff May Open Enforcement Cases

FAA's guidance on opening enforcement cases gives wide latitude to the agency's inspection staff. Since neither FAA Order 2150.3A nor any program office guidance specifies that a case must be initiated in response to a violation, the decision to open a case is discretionary and reflects the judgment of an individual inspector.

To initiate an enforcement case for a violation found during an inspection or reported to a program office through another means, such as a police report or a public complaint, an inspector first enters information about the violation into a separate database, the Enforcement Information System (EIS), which generates a case number. This system contains detailed information on the status and resolution of each enforcement case and allows field, regional, and headquarters staff to enter and retrieve data. The inspector next investigates the enforcement case, gathering and analyzing relevant facts, evidence, and documents. On the basis of this investigation, the inspector recommends a specific enforcement action. However, if the investigation produces insufficient evidence, the case will be closed and labeled as "no action."

Program and Legal Offices Resolve Enforcement Cases

If an inspector's investigation indicates that a violation has been committed, the field program office may pursue the case as an administrative action or refer the case for legal action. Later, if the

evidence proves insufficient to warrant further action, the case will be labeled no action.

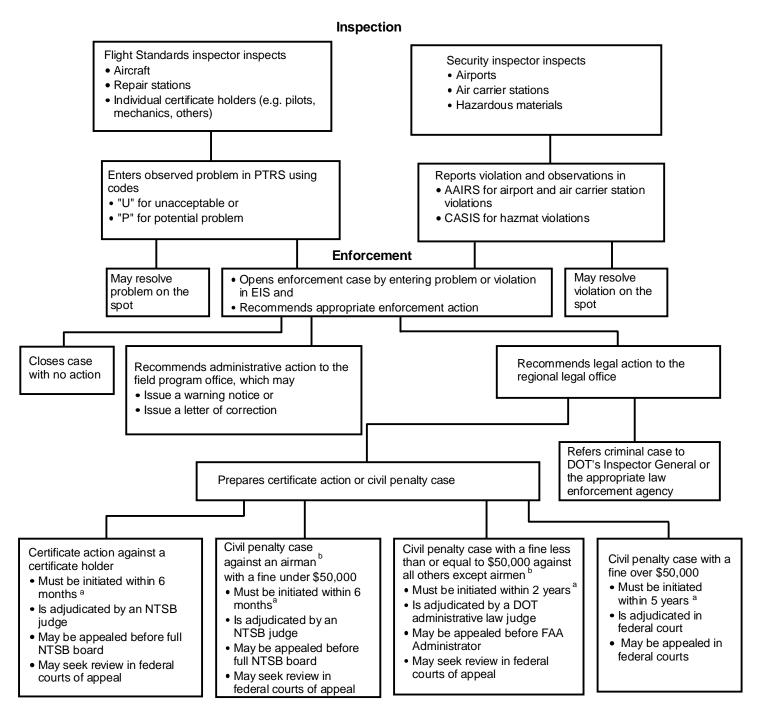
Administrative Actions

FAA uses administrative actions, which are either warning notices or letters of correction, to resolve minor violations. A warning notice identifies the incident and the regulation violated, states that the matter does not merit legal action, and requests future compliance. A letter of correction serves the same purpose as a warning notice but documents the corrective actions that the violator has taken or agreed to take. Administrative actions may not be used, for example, to resolve willful violations, cases of criminal conduct, or situations involving a lack of qualifications. Administrative actions do not result in findings of violation.

Legal Actions

Legal actions are FAA's strongest enforcement option. They include revocations or suspensions of certificates, civil penalties (fines), consent orders, and other actions, such as aircraft seizures or cease-and-desist orders. Legal actions vary in severity and may be used against individuals or against aviation entities. Although most cases are handled by legal staff in the regions, some are processed in headquarters. Orders amending, modifying, suspending, or revoking certificates and orders assessing civil penalties result in findings of violation. Findings of violation also may be made by federal courts or may be contained in other orders. Figure 1.1 shows the processing of cases from their initiation through their resolution.

Figure 1.1: Inspection Process and Steps for Initiating and Resolving Enforcement Cases



^aCases that are not initiated within the required time frames may be closed with no action.

^bAirmen include pilots, mechanics, flight engineers, and repairmen.

Source: Based on FAA Order 2150.3A and documents provided by FAA's Office of Chief Counsel.

Legal actions include certificate actions, civil penalties (fines), and potential criminal penalties.

- The certificate action is FAA's primary legal enforcement action against an individual certificate holder (e.g., pilot, mechanic, flight engineer). A suspension for a fixed period of time is used to deter further violations. For remedial purposes, a certificate can be revoked or it can be suspended for an indefinite period of time. When a certificate has been revoked, the former certificate holder loses the privileges of the certificate. When a certificate has been suspended, it may be reinstated after the certificate holder demonstrates that he or she is qualified to hold the certificate. For example, a revocation is appropriate when a certificate holder does not have the training or the skills to hold the certificate or lacks sufficient care, judgment, and responsibility. A suspension is issued temporarily until the holder can demonstrate that he or she is qualified to hold the certificate. When FAA determines that the public interest and safety require the immediate suspension or revocation of an operator's certificate, it can issue an emergency order to revoke or suspend a certificate.
- A civil penalty (fine) is also an option for FAA against an individual or an
 entity such as an air carrier, repair station, or airport that fails to comply
 with the applicable aviation safety or security regulations. FAA may
 administratively assess a fine of \$50,000 or less and may refer a case with a
 larger proposed fine to the appropriate U.S. attorney's office for
 prosecution.
- Potential criminal penalties are referred by FAA to DOT's Office of Inspector General or to the appropriate law enforcement agency.

Adjudication and Appeal

Legal actions are adjudicated and may be appealed. The avenue of appeal depends on the type and amount of the penalty. The type of penalty also determines the time limit for initiating the case. This limit is calculated from the date of violation until the date FAA initiates legal action. (See table 1.3.)

Table 1.3: Adjudication and Appeal of FAA's Enforcement Cases

Proposed sanction	Time period	Adjudicating body	Appeal options
Certificate action ^a	6 months ^b	National Transportation Safety Board (NTSB) judge	Full NTSB, federal courts
Civil penalty (\$50,000 or less) against airmen ^c	6 months ^b	National Transportation Safety Board (NTSB) judge	Full NTSB, federal courts
Civil penalty (\$50,000 or less and hazardous materials cases)	2 years	Department of Transportation's (DOT) administrative law judge	FAA Administrator (or designee), federal courts
Civil penalty (more than \$50,000)	5 years	Federal courts	Federal courts

^aBoard may modify revocation to civil penalty.

Source: FAA Order 2150.3A.

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Industry Supports FAA's Efforts to Achieve Compliance

FAA relies on the aviation industry to support its efforts to encourage and monitor regulatory compliance. The industry has a vested interest in aviation safety and security. In addition, under title 49 of the U.S. Code, the aviation industry shares FAA's responsibility for the safety of air passengers. Specifically, the airlines are responsible for operating their aircraft safely, aircraft manufacturers are responsible for designing and building aircraft that meet FAA's regulations, and airports are responsible for providing a safe operating environment. To carry out their aviation safety responsibilities, some regulated entities have their own training programs, internal reviews, and/or quality assurance programs. In addition, the industry works with FAA to achieve compliance through voluntary self-disclosure and partnership programs.

^bNTSB's 6-month time period is based on an NTSB rule; the time periods for civil penalties are statutory.

^cAirmen include pilots, mechanics, flight engineers, and repairmen.

The Aviation Industry Monitors Its Own Compliance Through Self-Disclosure and Partnership Programs Through voluntary self-disclosure and partnership programs, the aviation industry provides FAA with the results of its internal monitoring and takes steps to correct and prevent violations of the Federal Aviation Regulations. In exchange, FAA generally agrees not to take legal action in response to reported unintentional violations. The oldest self-disclosure program, the Aviation Safety Reporting Program (ASRP), was established in April 1975 for pilots and is administered by the National Aeronautics and Space Administration (NASA). Under the Voluntary Disclosure Program instituted in March 1990, FAA agrees not to impose a fine when a certificate holder promptly discloses a violation to FAA and takes immediate action to prevent its repetition.

Aviation Safety Action programs (ASAP) serve as alternatives to legal enforcement for correcting unintentional safety violations and identifying potential safety hazards. Panels consisting of airline, union, and FAA representatives review incidents to identify the causes of problems. Three air carriers—USAir (recently renamed US Airways), Alaska Airlines, and American Airlines—have participated in ASAP programs. USAir's Altitude Awareness Program, which was designed to eliminate unauthorized deviations in altitude by USAir flight crews, started in 1990 and ended in 1992. Alaska Airlines' 6-month Altitude Awareness Program focused pilots' attention on the same issue, from August 1994 through February 1995. The ongoing American Airlines' Safety Action Program, which began in 1994, encourages pilots to enter all types of potential flight safety problems into American's data system even when unintentional violations may have occurred.

Objectives, Scope, and Methodology

The Chairmen of the Senate Committee on Commerce, Science, and Transportation and its Subcommittee on Aviation asked us to provide them with a descriptive analysis of FAA's enforcement program as a means of achieving compliance with aviation safety and security regulations by answering the following questions:

- What were the outcomes of FAA's inspection process during fiscal years 1990 through 1996?
- What were the outcomes of FAA's enforcement process during this period?

⁴Voluntary self-reporting by the airline's pilots and mechanics continues through an informal partnership with FAA.

To perform our review, we gathered quantitative and qualitative information for fiscal years 1990 through 1996 from the following sources:

- Data from FAA's databases. To determine the number and types of inspections, we analyzed data from FAA's PTRS database for Flight Standards and CASIS and AAIRS databases for Security. We also obtained inspection data from other FAA program offices. To establish the source of enforcement cases by program office and the source of violation reports, as well as the number of cases initiated, the types of resolutions, the time required for resolution, and regional differences, we analyzed FAA's EIS database.
- Mail surveys. We conducted two nationwide mail surveys of Flight Standards inspectors and Security inspectors in February and March 1997. The surveys measured, for fiscal year 1996, their perceptions of the enforcement process, the extent to which they reported observed violations in their respective tracking systems, their reasons for not initiating enforcement cases in response to violations, and their reactions to suggested improvements to the enforcement process. We limited our surveys to these two FAA program offices because they conducted the most inspections and initiated about 90 percent of the enforcement cases in fiscal years 1990 through 1996.
- Interviews. We obtained information on the enforcement process through interviews with headquarters managers in all FAA program offices that initiate enforcement cases. We also interviewed the regional counsels involved in enforcement in each of FAA's nine regional legal offices and in headquarters, asking them about their workload, process for ranking cases, and perceptions of the enforcement process. In addition, we interviewed program office staff and reviewed program guidance to gain an overview of the types of inspections performed and the violations found. Finally, we interviewed National Transportation Safety Board officials to obtain their views on the process for adjudicating FAA's legal enforcement cases.
- Case studies. To gain an in-depth understanding of how FAA identifies and reports violations and processes enforcement cases, we selected two regions (Great Lakes and Southwest) for case studies. In these regions—which had moderate and higher levels of enforcement activity, respectively—we conducted in-person interviews with Flight Standards inspectors and Security inspectors, as well as with field and division

managers. We also reviewed case files in both regions to ascertain how different types of legal cases were resolved, what factors delayed cases, and why penalties were modified.

• <u>Literature and document review</u>. To understand FAA's enforcement process, we conducted a comprehensive review of the literature on aviation enforcement, applicable aviation enforcement regulations, and official FAA documents.

Chapter 2 describes FAA's inspection activities, including the numbers of inspections and the percentage of inspections that identified problems or violations. Chapter 3 provides information on the types of enforcement actions and penalties used. Appendix I provides information on the design and implementation of our surveys of FAA's inspection staff and on the database analyses we performed for our review. Appendix II presents data on modifications to recommended penalties and on the time taken to process enforcement actions in fiscal years 1990 through 1996. Appendix III provides data on regional variations in FAA's inspections and enforcement actions. Tabulated copies of the Flight Standards and Security surveys appear in appendixes IV and V, respectively. Appendix VI lists major contributors to this report. A list of our related reports and testimonies is included at the end of this report.

We conducted our work from July 1996 through November 1997 in accordance with generally accepted government auditing standards.

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FAA's Inspection Activities

While there are no direct measures of the aviation industry's compliance with aviation safety and security regulations, the results of FAA's inspections provide both an indirect measure of the industry's compliance and an early warning of potential safety and security problems. FAA conducted over 2 million aviation inspections in fiscal years 1990 through 1996. Although the agency performed fewer inspections during the latter half of this period, it completed a much larger proportion of required inspections (those identified as minimum and mandatory). Nevertheless, nearly 96 percent of the inspections conducted by Flight Standards and Security resulted in no reports of problems or violations. This percentage understates the actual incidence of problems or violations because many inspection staff do not consistently report observed violations and many inspections are not sufficiently thorough or structured to detect many violations. Additionally, FAA's inspection tracking systems do not distinguish major from minor violations. As a result, FAA cannot readily identify high-risk areas and allocate its inspection and enforcement resources accordingly, and the agency's ability to use the inspection program to serve as an early warning system is compromised. Our review identified several ways to strengthen the inspection process to better assess and encourage the aviation industry's compliance.

The Number of Inspections Began to Decline in Fiscal Year 1993

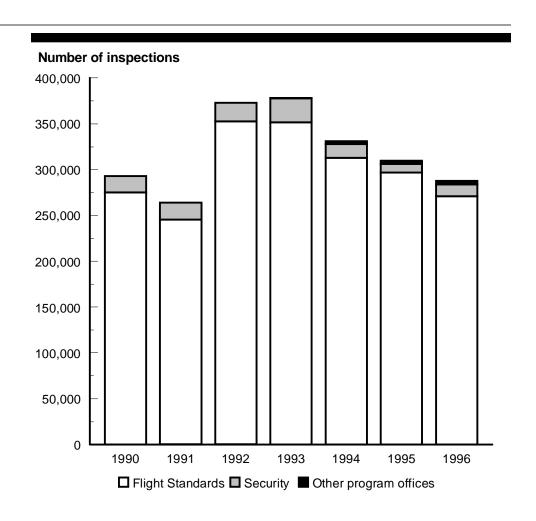
During fiscal years 1990 through 1996, FAA conducted a total of 2,244,130 inspections. Of these, Flight Standards performed 2,105,440, or 93.8 percent, and Security performed 127,376, or 5.7 percent. Of the inspections performed by Flight Standards, 511,339 (24 percent) were ramp inspections and another 246,935 (12 percent) were en route inspections. By comparison, in-depth inspections were rare; for example, in fiscal years 1993 through 1996, Flight Standards conducted 428 such inspections. In Security, two-thirds of the inspections (84,148) checked air carrier stations' compliance with security regulations and directives, while the remainder tested airport security or compliance with regulations for transporting hazardous materials by air. Of the Security inspections conducted in fiscal year 1996, 64 percent were supplemental inspections, 25 percent were comprehensive inspections, and the remaining 11 percent were supplemental assessments to test compliance with security directives.

The number of inspections conducted has fluctuated as much as 43 percent. While FAA conducted 292,888 inspections in fiscal year 1990, the number dropped to a low of 264,288 in fiscal year 1991 before rising to a high of 378,220 in fiscal year 1993. Subsequently, the number of

Chapter 2 FAA's Inspection Activities

inspections performed declined by about 24 percent to 287,909 in fiscal year 1996. For inspections conducted by Flight Standards, the number of inspections then decreased by 23 percent, from a peak of over 352,500 inspections in fiscal year 1992 to about 271,000 inspections in fiscal year 1996. The number of Security inspections also fluctuated by as much as 65 percent. Security conducted 17,728 inspections in fiscal year 1990 and peaked at just under 26,400 inspections in fiscal year 1993. The number of Security inspections subsequently decreased by 65 percent to fewer than 9,400 inspections in fiscal year 1995. In fiscal year 1996, the number of Security inspections increased to just over 12,900—about half the 1993 level and still well below the 1990 level. Figure 2.1 summarizes the number of inspections conducted, by program office. A discussion of the reasons for the fluctuations in the numbers of inspections follows.

Figure 2.1: Number of Inspections Conducted, by Program Office, Fiscal Years 1990-96



Note: Aviation Medicine did not begin conducting inspections until fiscal year 1991. FAA did not provide inspection data for Airports and Aircraft Certification for fiscal years 1990 through 1993 because these data were not readily available.

Source: FAA program offices and GAO's analysis of PTRS data.

According to the manager of the Evaluation and Analysis Branch in Flight Standards, the number of Flight Standards inspections increased in 1992 after a May 1992 Inspector General's report criticized FAA for not completing required safety inspections. The report noted that, in fiscal year 1989, FAA did not complete about 23,000 required inspections, while it completed 225,000 discretionary inspections. In response to the report, the manager of the Evaluation and Analysis Branch said, Flight Standards

¹Audit of Aviation Inspection Program: Federal Aviation Administration, DOT, Office of Inspector General (R6-FA-2-084, May 29, 1992).

Chapter 2 FAA's Inspection Activities

management tracked and emphasized the completion of inspections, especially required inspections. Additionally, FAA reduced the number of required inspections, from 103,000 in fiscal year 1990 to about 46,300 in fiscal year 1996. He explained that the number of required inspections had previously been set high at 35 percent of an inspector's workload. He said that FAA lowered the number of required inspections to give local offices more control in targeting inspections to aviation entities that required more oversight. For fiscal years 1993 through 1996, FAA completed all but 18 of 139,151 required inspections.

The decline since 1993 in the number of Flight Standards inspections is also attributable to staffing changes, according to FAA. Specifically, many experienced inspectors left the agency, and new inspectors, hired both to replace them and to fill 738 new positions authorized by the Congress in fiscal years 1995 through 1997,² have not yet been fully trained. At the end of this 3-year period, FAA expects to have hired nearly 1,000 new inspectors. As a result, about one-third of Flight Standards' inspection workforce will consist of recent hires. According to FAA, an inspector needs 2 to 4 years of training and experience to become fully effective. When the new inspectors are fully trained and can perform inspections independently—and the experienced inspectors can move from providing on-the-job training to performing inspections—the number of safety inspections can be expected to increase, according to Flight Standards' acting manager. In addition, he noted, many inspectors who usually perform frequent, routine inspections have recently been assigned to special intensive inspections and have therefore performed fewer inspections.

In Security, staffing decreases have contributed to a reduction in the number of inspections conducted. Although Security's staffing remained relatively stable at about 1,000 in the early 1990s, it fell sharply in 1994 and 1995, when the government offered financial incentives for early retirement, according to the Director of the Office of Civil Aviation Security Operations. Then, he said, Security's staffing remained at about 725 until after the 1996 crashes of ValuJet Flight 592 and TWA Flight 800, when the Congress authorized the hiring of 118 additional Security inspectors in fiscal year 1997 to focus on the transportation of hazardous materials. According to the Director of the Office of Civil Aviation Security Operations, more hazardous materials inspections can be expected after these inspectors have been hired and trained.

²P.L. 103-331, Sept. 30, 1994; P.L. 104-50, Nov. 15, 1995; P.L. 104-205, Sept. 30, 1996.

Chapter 2 FAA's Inspection Activities

Changes in Security's inspection procedures also resulted in fewer inspections. Starting in fiscal year 1995, Security moved to improve its inspections by requiring more rigorous, comprehensive security inspections of airports and air carrier stations. Security adopted the new procedures and established the AAIRS inspection tracking system to promote consistency in inspections and to increase its ability to track problems and analyze trends. In addition, Security began inspecting airports annually instead of quarterly.

Few Inspections Identified Problems or Violations

Nearly 96 percent of the inspections conducted by Flight Standards and Security in fiscal years 1990 through 1996 resulted in no findings of problems or violations. The rate of regulatory violations is probably higher than the reported rate because problems and violations are underreported. In addition, inspections do not detect all instances of noncompliance and test only a small fraction of the industry's operations.

Flight Standards inspectors reported no problems for 96 percent of the inspections they conducted. During fiscal years 1990 through 1996, the percentage of Flight Standards inspections with problems—findings coded "U" (unsatisfactory) or "P" (potential problem)—varied from 1 to 6 percent across the types of operators and certificate holders that FAA inspected most frequently. (See table 2.1.)

Table 2.1: Percentage of Flight Standards Inspections With Reported Problems, by Operator or Certificate Holder Inspected, Fiscal Years 1990-96

Type of operator (FAR part)	Number of inspections	Number of inspections with problems	Percentage of inspections with problems
Air carrier (121)	826,723	47,969	6%
Commuter (135)	689,307	24,870	4%
General aviation (91)	171,237	4,450	3%
Repair station (145)	127,221	4,584	4%
Pilot schools (141)	83,801	2,971	4%
Certification ^a (65)	59,727	369	1%
Designated representatives (183) ^b	43,551	601	1%
Other	103,873	3,098	3%
Total	2,105,440	88,912	4%

^aIncludes FAA's oversight of individuals with inspection authorizations who certify airmen or nonairmen

^bIncludes FAA's oversight of designated manufacturing and airworthiness representatives, pilot examiners, maintenance inspectors, medical examiners, technical personnel examiners, and engineering representatives.

Source: GAO's analysis of PTRS data.

Security inspectors recorded no violations for 91 percent of their inspections. For Security, the percentage of inspections with violations varied more widely across the different types of entities inspected than for Flight Standards. Airport security inspections consistently generated the highest percentage of violation reports, averaging 22 percent compared with 8 percent for air carrier station and hazardous materials inspections. According to the Director of the Office of Civil Aviation Security Operations, the emphasis on controlling points of access may have led to more airport inspections, and the numerous points of access at many larger airports increase the likelihood that violations will be found during airport inspections. He noted that a number of new procedures being conducted by air carriers, including profiling passengers and screening their baggage, will probably increase the chances that violations will be found during air carrier inspections. (See table 2.2.)

Table 2.2: Percentage of Security Inspections With Reported Violations, Fiscal Years 1990-96

Type of inspection	Total number of inspections	Number of inspections with violations	Percentage of inspections with violations
U.S. airport	8,121	1,799	22%
Air carrier station	84,148	6,343	8%
Hazardous materials	35,107	2,910	8%
All Security inspections	127,376	11,052	9%

Note: Fiscal year 1995 data on airports and air carrier stations were not available from CASIS.

Source: GAO's analysis of data from AAIRS and CASIS.

The percentage of inspections with reported problems or violations varied, sometimes substantially, among FAA's regional offices. For example, the rate of reported violations for hazardous materials inspections ranged from 5 percent in the Northwest Mountain and Central regions to 50 percent in the Southern region in fiscal year 1996 (see table III.2). The Director of the Office of Civil Aviation Security Operations, suggested that the regional differences in the rate of reported violations for hazardous materials inspections may be attributable to differences in (1) the level of knowledge of the regulations and the compliance disposition of shippers and forwarders and, to a lesser extent, of carriers located in those regions and (2) the volume of hazardous materials handled through those airports. We were unable to validate this explanation or to link such regional differences more directly to possible differences in workload or the types of entities located in these regions. The identification of regional differences in the rate of reported violations is most useful as a basis for discussions by headquarters and regional program office staff to better understand the reasons for these differences, to exchange information on effective ways to detect hazardous materials violations, and to promote consistency in FAA's response to violations of federal security regulations.

Observed Violations Are Not Consistently Reported in Inspection Tracking Systems Despite guidance requiring the entry of problems or violations into their respective program office's databases for tracking the results of inspections, inspectors do not consistently report violations. Many of those we interviewed and surveyed volunteered that they handle many violations informally and, if compliance can be achieved on the spot, may not enter violations into their tracking system.

Underreporting is not new: Previous GAO reports and those of DOT's Inspector General have noted that inspectors did not report all violations.³ Seventy percent of the Flight Standards inspectors and 78 percent of the Security inspectors we surveyed said they did not enter all of the violations they found into their respective inspection tracking system in fiscal year 1996, the year covered by our survey. Thirty percent of the Flight Standards inspectors and 22 percent of the Security inspectors said they entered all or virtually all of the violations they observed (96 to 100 percent). Of the inspectors surveyed, 5 percent of the Flight Standards inspectors and 7 percent of the Security inspectors said they did not enter any violations at all. (See table 2.3.)

Table 2.3: Reporting of Violations in Inspection Tracking Systems, by Type of Inspector

Proportion of violations reported	Percentage of Flight Standards inspectors ^a (number)	Percentage of Security inspectors ^a (number)
All or almost all (96-100%)	30 (128)	22 (21)
More than half (51-95%)	36 (152)	46 (45)
Half or less (1-50%)	30 (127)	25 (24)
None (0%)	5 (20)	7 (7)
Total	100 (427)	100 (97)

^aPercentages may not add to 100 because of rounding.

Source: GAO's surveys of Flight Standards inspectors and Security inspectors.

The faa inspection staff we interviewed held differing views on faa's reporting requirements. Some believed that their program office's guidance requires them to enter violations into their inspection tracking system, while others maintained that the shift in faa's enforcement philosophy has made entering violations unnecessary if compliance can be achieved informally. One operations inspector told us that he and other inspectors handle less serious violations, such as recordkeeping violations, informally because they do not have enough time to enter the violations into PTRS. He believed, however, that he is required to enter every violation into PTRS. According to the Associate Administrator for Regulation and Certification, underreporting of violations undermines the agency's ability to monitor compliance and target inspection and enforcement resources effectively.

³Aviation Safety: Problems Persist in FAA's Inspection Program (GAO/RCED-92-14, Nov. 20, 1991); Aviation Safety: Needed Improvements in FAA's Airline Inspection Program Are Underway (GAO/RCED-87-62, May 19, 1987); Federal Aviation Administration: Audit of Aviation Inspection Program DOT, Office of Inspector General (R6-FA-2-084).

Rate of Detection Is Lower for Routine Inspections Than for Inspections Using Structured Protocols The type and rigor of inspections can affect the percentage that identify problems or violations. Recent reviews of FAA's inspection programs suggest that FAA detects more problems or violations through rigorous, structured inspections than through routine inspections. In 1995, for example, Security developed new protocols for comprehensive inspections, which specified the tasks that teams must complete before such inspections can be counted as complete. After Security fully implemented these new protocols in fiscal year 1996, the average rate of reported violations more than doubled, from 9 percent for the 7-year period to 19 percent for fiscal year 1996, and the rates for inspections of airports, air carrier stations, and hazardous materials increased. The number of inspections with reported violations was also more than 27 percent higher than for any previous year, largely because more violations were found during inspections of air carrier stations. In addition, in fiscal year 1996, the percentage of reported violations was higher for comprehensive inspections and structured tests of compliance with security directives than for routine supplemental inspections. Specifically, 28 percent of the comprehensive inspections and 39 percent of the structured tests identified violations, compared with 13 percent of the supplemental inspections.

Security managers said that inspectors' use of the new inspection protocols resulted in more systematic, comprehensive, and consistent inspections. They also noted that Security followed up on its efforts, reviewing both the implementation of the new protocols and the new AAIRS inspection reports after 6 months. Security then provided additional guidance to inspectors, stressing the importance of reporting all violations and of differentiating clearly between violations and observations. Because the guidance was issued late in fiscal year 1996, insufficient data were available to determine the effect of the follow-up reviews and guidance on inspectors' reporting practices. Other possible reasons for the increase in the percentage of reported violations, according to the Director of the Office of Civil Aviation Security Operations, include Security's aggressive testing of compliance with security directives, which started in November 1995, and Security's extension of hazardous materials inspections from large air carriers to smaller carriers and freight forwarders, whose rates of noncompliance are often higher.

Recent analyses of Flight Standards inspections also suggest that rigorous team inspections identified more violations than routine inspections. At least some of these violations were systemic problems that could have been, but were not, observed during routine inspections. In April 1996,

DOT'S Office of Inspector General presented testimony that fewer than 1 percent of the 34,581 ramp inspections conducted in fiscal year 1995 identified problems that resulted in enforcement actions. The testimony contrasted this low rate of findings and enforcement actions with the results of 105 in-depth inspections of commercial operators that used more structured, standardized inspection procedures; disclosed nearly 2,300 findings; and resulted in the suspension of operations by four commercial operators.⁴ Reiterating a recommendation first made in 1992 but not yet adopted, the Inspector General called on Flight Standards to identify the tasks required for each type of inspection to ensure completeness and consistency.⁵ The Office of Inspector General suggested that FAA might be able to reduce the number of ramp inspections and improve the effectiveness of the inspection program by adopting a more structured methodology and by using inspectors who did not inspect the same operators day after day. The testimony concluded that FAA has the ability to do more realistic, unannounced, in-depth inspections and that such inspections would probably identify more violations and result in more enforcement cases.

Our recent review of FAA's oversight of repair stations also found that the standardization of inspection tasks through the use of checklists or other job aids is important in conducting effective inspections. Specifically, the use of such aids provides assurance that all areas have been adequately covered and that a repair station complies with the applicable regulations. While FAA does not require the use of a checklist for routine surveillance, teams are more likely than individual inspectors to use checklists or other job aids. According to FAA headquarters officials, such lists are provided to teams to encourage the development of good work processes by each inspector without removing the flexibility required to evaluate a repair station's compliance. In our view, the use of a checklist or other job aids would not diminish an inspector's flexibility during inspections but would help to ensure that comprehensive inspections are being performed. At a minimum, the use of such tools would remind inspectors to check the most safety-critical elements of a repair station or other aviation facility.

⁴The in-depth inspections were conducted as part of the National Aviation Safety Inspection Program. Statement of the Assistant Inspector General for Auditing, Office of Inspector General, U.S. Dept. of Transportation Before the Subcommittee on Oversight of Government Management and the District of Columbia, U.S. Senate (Apr. 30, 1996).

⁵Federal Aviation Administration: Audit of Aviation Inspection Program, DOT, Office of Inspector General (R6-FA-2-084, May 29, 1992).

⁶These special inspections included National Aviation Safety Inspection Program inspections and Regional Aviation Inspection Program inspections. Special inspections are performed by teams of inspectors that are independent of the district offices that have oversight responsibility for the carriers or facilities being inspected. Aviation Safety: FAA Oversight of Repair Stations Needs Improvement (GAO/RCED-98-21, Oct. 24, 1997).

Our review of repair stations also noted that individual inspectors generally identify far fewer deficiencies than teams do. Teams conducting 19 in-depth inspections of repair stations in fiscal years 1993 through 1996 identified a total of 347 deficiencies, only 15 (4 percent) of which had been identified and reported by individual inspectors in the 12 to 18 months preceding the in-depth inspections. Often, the deficiencies identified in the special inspections but not in the regular inspections were significant. For example, an inspection team found that a repair station was not segregating new and serviceable parts from those that were not serviceable. We concluded that although surveillance by a single inspector may be adequate for smaller or more specialized repair stations, it is less effective for large, complex facilities, where team inspections have identified more deficiencies. In addition, we concluded that team inspections were more independent, comprehensive, focused, and standardized than inspections conducted by a single inspector. Because the problems found during in-depth Flight Standards inspections are not recorded as "U"s or "P"s in PTRS, we could not readily compare the percentage of deficiencies reported for special inspections and for other types of inspections.

Security's experience with the new inspection protocols supports our observations and those of DOT's Inspector General that Flight Standards could benefit from the use of more structured team inspections. While certain types of security violations, such as the failure to display proper identification, may be easier to identify and document than violations by mechanics that may not be readily visible during inspections, more structured Flight Standards inspections could identify more violations. Both the Acting Deputy Manager of the Flight Standards Service and the Director of the Office of Civil Aviation Security Operations cautioned. however, that the types of inspections conducted should not be driven only by the percentage of violations detected. They stressed the importance of routine surveillance and some spot inspections in their inspection programs. In addition, in commenting on this report, DOT noted that Sandia National Laboratory recently completed an evaluation of Flight Standards' inspection and surveillance program in an effort to move toward the use of more systematized oversight, team inspections, and performance measures in evaluating the aviation industry's compliance with safety requirements.

Inspection Tracking Systems Do Not Distinguish Major From Minor Violations

FAA's databases for tracking inspections identify safety and security violations by indicating which parts of the Federal Aviation Regulations were violated. Thus, they generally indicate the number and type, but not the seriousness, of reported violations. According to inspectors we interviewed, the tracking systems quantify the numbers of violations but do not reflect their relative seriousness. Because the tracking systems do not allow FAA to distinguish major from minor violations, the agency cannot use the results of its inspections as an early warning system to identify the greatest potential risks to aviation safety and security and to target its inspections to addressing these risks.

Ten years ago, we reported that FAA needed to develop criteria for targeting safety inspections to airlines whose characteristics may indicate safety problems. In February 1995, we reported that FAA had developed a system for targeting Flight Standards inspections—the Safety Performance Analysis System (SPAS). However, as we reported then and in April 1996, the quality of the data on which this system depends is problematic. The data, which come from many FAA databases, including PTRS, are incomplete, in large part because of underreporting. Furthermore, according to the inspectors we interviewed for this report, SPAS does not distinguish major from minor violations. SPAS is, therefore, of limited use in setting risk-based priorities for inspections. For these and other reasons, none of the 14 inspectors we interviewed was using SPAS in the field to identify airlines with potential safety problems and to target their inspections accordingly.

In commenting on our draft report, DOT noted that while the historical information on inspection results in the inspection databases provides one indicator of risk, FAA also considers the level of risk and the extent of the public's exposure to it in allocating inspection resources. For example, DOT said that the Office of Civil Aviation Security analyzes risks to the aviation system on the basis of the system's vulnerabilities and uses threat analysis to deploy its inspection resources. DOT's response also stressed the importance of the training, knowledge, and judgment of its inspector workforce in overseeing the aviation industry's compliance. We concur that inspection results are only one of many factors appropriately considered in allocating FAA's inspection resources. While we agree that the expertise and diligence of inspectors are critical elements in the oversight process, the underreporting of problems and violations detected during inspections jeopardizes the reliability of analytical tools that inspectors rely on, in part, in forming their judgments about the industry's compliance. In addition, the lack of agency guidance on which violations

are major and have the greatest potential impact on safety leaves inspectors wide latitude in exercising judgment about how to handle violations. Such latitude and the exercise of discretion by inspectors and legal staff were cited by airline officials and private attorneys we interviewed as contributing to perceived inconsistencies in FAA's response to regulatory violations.

Conclusions

Although FAA inspectors conduct thousands of inspections annually, not all problems or violations they observe are entered into their respective program office's tracking system. In addition, Flight Standards allocates a large portion of FAA's inspection resources for unstructured inspections by individuals that typically produce few reports of problems. Finally, FAA's inspection tracking systems do not distinguish major from minor violations. For all of these reasons, FAA's information on compliance in the aviation industry is incomplete. Incomplete information compromises the accuracy of key databases available to FAA for identifying trends in violations and for targeting its resources to the greatest potential threats to aviation safety and security. In addition, FAA cannot readily use the results of its inspections as an early warning system.

Recommendations

To strengthen FAA's inspection process to provide more complete and accurate information on potential problems in aviation safety and security—so that information can provide early warning of potential risks and serve as a basis for allocating the agency's inspection resources—we recommend that the Secretary of Transportation direct the FAA Administrator to take the following actions:

- Revise FAA Order 2150.3A to require that FAA's inspection staff report all
 observed problems and violations in their respective program office's
 tracking system.
- Develop guidance for inspectors to distinguish major from minor violations, improve FAA's inspection databases to incorporate these distinctions, and develop a plan for focusing FAA's resources on the violations with the greatest potential impact on aviation safety and security.

Agency Comments

In written comments on our report, DOT suggested that the safety record of air carriers transporting passengers would be a better measure of the

aviation industry's compliance with regulations than inspection results. As we state in the report, there are no direct measures of the industry's compliance with safety and security regulations. Given the relatively rare occurrence of fatal air carrier crashes, we believe that inspection results and other indicators of safety problems are appropriate indirect measures of the industry's compliance with regulations that can provide early warning of potential safety risks and some sense of the industry's compliance with regulations. As air traffic increases in the next decade, FAA's inspections and other indicators will be critical to improving safety and avoiding the increase in fatal crashes that is projected if the current crash rate continues. In addition, DOT's response stressed the technical training and experience of FAA's inspection workforce and the judgment inspectors are expected to exercise on the basis of that expertise. While this report does not address FAA's training of inspectors, we have issued reports on the need for more technical training to enable inspectors to stay abreast of changing technologies and work assignments (see the list of related GAO products at the end of this report).

In response to DOT's comments, this chapter incorporates additional information on FAA's recent efforts to help systematize Flight Standards' inspection processes and on the factors FAA uses in assessing potential risk and in allocating the agency's resources, including the level of risk and the extent of the public's exposure to it. Dot also mentioned efforts by FAA and U.S. airlines to implement Flight Operational Quality Assurance programs in cooperation with the industry. We recently reported extensively on these programs, which use flight data to detect technical flaws, unsafe practices, or conditions outside of operating procedures early enough to allow timely intervention to avert accidents or incidents.⁷ In addition, we revised the report's wording where appropriate to respond to technical and legal comments provided separately by FAA. Although DOT did not comment explicitly on GAO's recommendations, DOT agreed that actions can be taken that will further strengthen its inspection programs, improve compliance with applicable requirements, and strengthen its analytical capability. DOT added that some actions have already been completed and others are under way. For example, more structured procedures are already in use for Security inspections, and evaluations were recently completed to help standardize Flight Standards inspections.

⁷See Aviation Safety: Efforts to Implement Flight Operational Quality Assurance Programs (GAO/RCED-98-10, Dec. 2, 1997).

FAA's Enforcement Actions

During fiscal years 1990 through 1996, FAA opened 109,866 enforcement cases in response to reported violations of aviation safety and security regulations. FAA's inspections generated the largest percentage of reports that led to enforcement cases, followed by sources outside FAA, and then other sources within FAA. Inspectors exercised discretion in opening enforcement cases in response to reported problems and violations. According to the inspection staff we surveyed, several factors discourage the opening of cases, including FAA's emphasis on compliance over enforcement, burdensome administrative tasks, and the outcomes of prior enforcement cases.

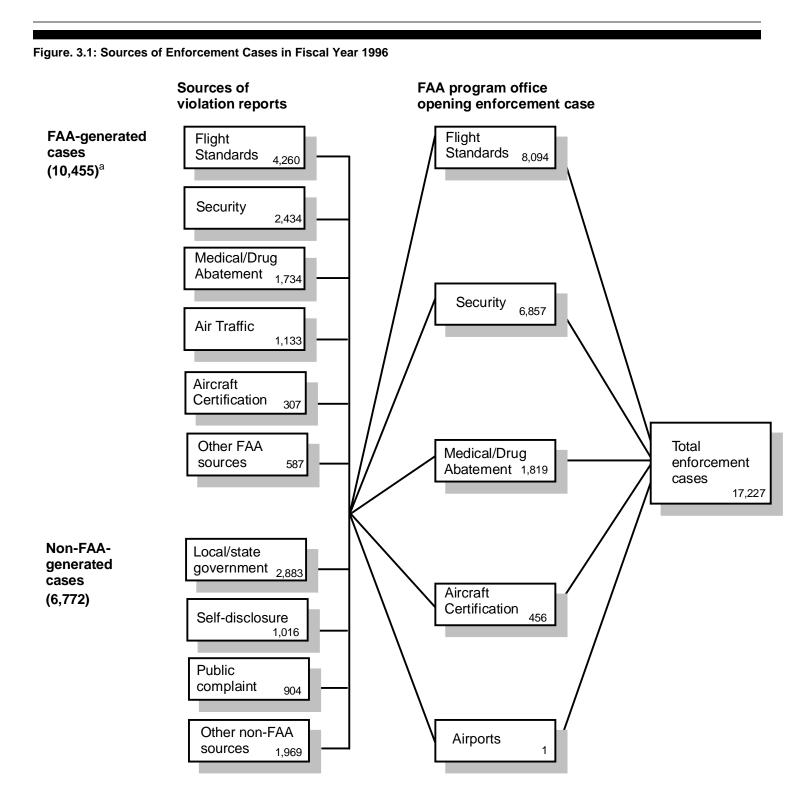
During the 7-year period of our review, FAA closed almost 121,000 enforcement cases, 1 using administrative action, legal action, and no action. Over this period, it increased its reliance on administrative action while decreasing its use of legal action. When FAA did use legal action, it typically lowered the penalties recommended by its inspection staff. In addition, it used different types of penalties to resolve cases against different types of aviation operators. For example, it used certificate actions, which can close down an operation, against small operators and individuals, but not against major or national air carriers. FAA's regional offices also varied in their handling of enforcement cases, sometimes substantially. Dot and FAA officials attributed these differences broadly to differences in regional enforcement philosophy or to variations in workload, the airlines or airports overseen, and community standards and laws.

Our review showed that both the sequence and the time for processing enforcement cases often depended on factors other than the cases' impact on aviation safety and security. In part because its enforcement database, like its inspection databases, does not distinguish major from minor cases, faa cannot readily set risk-based priorities for resolving enforcement cases.

Inspections Were the Largest Single Source of Reported Violations In fiscal years 1990 through 1996, faa's inspections generated 48,346 (45 percent) of the reports of aviation safety and security violations that led to the opening of 109,866 enforcement cases. Other faa sources, such as air traffic controllers, accounted for 14 percent of these reports, while outside sources—including state and local governments, the public, and the aviation industry—accounted for the remaining 41 percent. Violations

¹During the period we reviewed, the number of cases closed differed from the number of cases opened because some cases were opened before 1990.

identified by other FAA and outside sources are transferred to FAA's five program offices for investigation and processing. Figure 3.1 illustrates the sources and disposition of reports for fiscal year 1996, a year whose data were typical of the 7-year period reviewed. For example, in fiscal year 1996, sources other than inspections generated 49 percent of the violation reports that led to enforcement cases during that year, compared with 55 percent for the entire period of our review.



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Source: GAO's analysis of EIS data

Noninspection activities conducted by air traffic controllers and other FAA personnel can identify violations that result in violation reports and may lead to enforcement actions. FAA inspectors and all other staff who observe violations in areas that they are not responsible for investigating refer these violations to staff in the responsible program offices for investigation and, if appropriate, enforcement action. In fiscal year 1996, for example, Air Traffic referred 1,131 such reports to Flight Standards. The reported violations included deviations by pilots from their assigned altitudes that were observed by air traffic controllers. Inspectors said that the information provided by air traffic controllers and other FAA sources is generally sufficient to initiate and process enforcement cases. According to inspectors and program managers with whom we spoke, the violation transfer process generally works well within FAA.

Reports from sources outside FAA provided the basis for about 41 percent of the enforcement cases opened during the 7-year period we reviewed. Nonindustry sources, such as police reports and public complaints, accounted for 37 of the 41 percent. State and local governments—usually police called in to make arrests when weapons were detected at airport screening checkpoints—accounted for about one-fifth of the violation reports during this period. For example, violation reports from the police were the basis for 38 percent of the over 6,850 enforcement cases that Security initiated in fiscal year 1996. Security inspectors said that the information provided by the police is generally sufficient to initiate and process enforcement cases. In contrast, inspectors said that public complaints, which generated 5 percent of the violation reports that resulted in enforcement cases, sometimes do not provide specific information, such as the names and addresses of violators or aircraft numbers, needed to pursue cases. Public complaints and tips have, however, provided valuable leads. Recently, for example, a whistleblower's complaints led FAA to uncover an air carrier's falsification of flight and training records. In April 1997, FAA revoked the carrier's operating certificate. Reports of violations that were voluntarily self-disclosed by industry sources generated 4 percent of the enforcement cases opened during fiscal years 1990 through 1996.

The Aviation Industry's Voluntary Programs Have Grown in Importance, but FAA Has Not Evaluated Their Effectiveness

FAA has increased its reliance on the aviation industry's voluntary programs and is planning to expand its use of partnership programs. The number of violations reported through both types of programs has grown, from under 1 percent of the violations that led to enforcement cases in

fiscal year 1990 to nearly 6 percent in fiscal year 1996. In January 1997, FAA announced that it would make Aviation Safety Action programs available to air carriers and to repair stations, and it published policies and procedures for establishing a 2-year demonstration program. FAA's expansion of the use of partnership programs is consistent with the recommendations of the White House Commission on Aviation Safety and Security, which was formed in response to the crash of TWA Flight 800. The Commission endorsed the partnership approach and, in February 1997, called for extending it to airport security.

FAA and airline officials interviewed for this report varied in their views on whether and to what extent the agency should expand its use of partnership programs. Supporters said that such programs yield important safety information that would probably not surface through inspections, given the limited number of FAA inspectors. The FAA inspector and American Airlines official who oversee this airline's partnership program both said that the few FAA inspectors responsible for overseeing American Airlines had the potential to detect only a few of the problems reported through its partnership program. The participants in FAA's pilot partnership programs also attributed improvements to the programs. For example, safety officials from one airline cited corrections to the procedures used by ground and flight crews after new deicing equipment was installed at the Pittsburgh International Airport; these corrections responded to concerns identified through the partnership program. Other FAA and airline officials stressed the need for caution in expanding partnership programs to other aviation entities and to employees such as baggage handlers and security screeners. Some FAA officials questioned whether the partnership programs are being monitored closely enough to deter repeat violations.

In testifying on the challenges to implementing the White House Commission's recommendations, we cautioned that important considerations for partnership programs include how to determine which aviation entities are best suited to such partnership programs, how to monitor them, how to make effective use of the data they offer, and how to standardize and share such information across the aviation industry to maximize improvements in aviation safety.² Because it is still too early in the process, FAA has not yet formally evaluated the existing partnership programs to determine whether they are working as intended or should be

²Aviation Safety and Security: Challenges to Implementing the Recommendations of the White House Commission on Aviation Safety and Security (GAO/T-RCED-97-90, Mar. 5, 1997).

revised. FAA recognized the need to monitor partnership programs in its updated study on compliance and enforcement.³

Inspection Staff Exercise Discretion in Opening Enforcement Cases

Even when inspectors record problems or violations in their program office's inspection tracking system, they do not necessarily open enforcement cases. Neither faa Order 2150.3A nor faa's program office guidance generally requires them to do so. Instead, faa's guidance generally allows room for inspectors to exercise discretion in initiating enforcement cases. Dot's response to our draft report stressed that faa's inspection workforce is technically trained and experienced and is expected to exercise judgment based on expertise to select appropriate methods to achieve compliance. As discussed below, the judgment and discretion exercised by Flight Standards inspectors in determining whether to initiate enforcement cases in response to reported problems and violations appears to be greater than that exercised by Security inspectors. The exercise of discretion supported by Dot and allowed for in faa's guidance may, however, contribute to perceived inconsistencies in faa's response to regulatory violations.

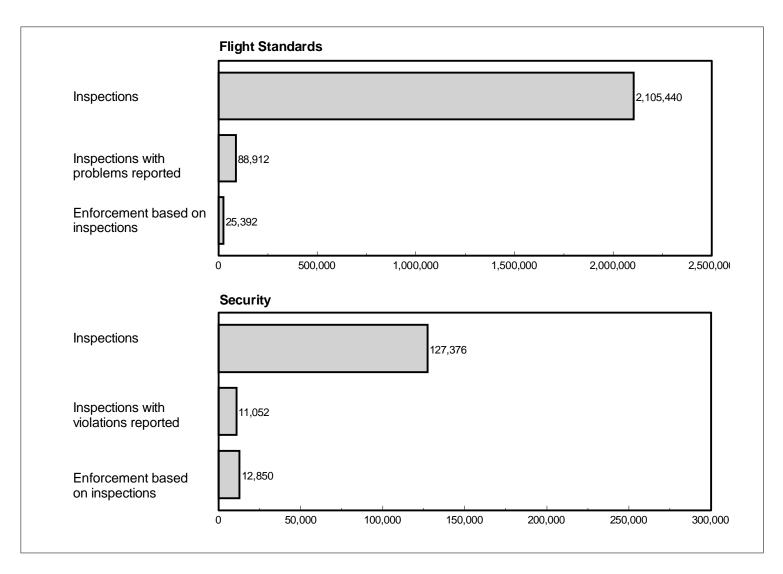
In fiscal years 1990 through 1996, the rate of initiating enforcement cases was much lower for Flight Standards than for Security. In Flight Standards, about one in four of the problems reported in PTRS became an enforcement case. Flight Standards conducted over 2.1 million inspections, reported problems for just under 89,000 (4 percent), and opened enforcement cases on the basis of 25,392 of its inspections with problems. Not all problems coded with a "U" or a "P" in the comment section of PTRS are violations of aviation safety regulations. According to the Acting Manager of the Flight Standards Service, some problems are not violations and may be resolved without an enforcement action. For example, an inspector may recommend additional training to correct a problem.

In contrast, the number of enforcement cases based on Security inspections exceeded the number of inspections with violations reported in AAIRS or CASIS in fiscal years 1990 through 1996. This was possible because a single violation found during an inspection of an air carrier station—the most common type of Security inspection—can result in cases against all of the carriers that share responsibility for that station. For example, if several carriers hire a contractor to screen passengers at an airport security checkpoint and the contractor fails to detect a

³Compliance and Enforcement Review, Report Update, FAA (May 1, 1997).

concealed weapon during an inspection, FAA could open enforcement cases against all of the carriers. During the 7-year period we reviewed, Security conducted nearly 127,400 inspections, reported violations for 11,052 (9 percent), and opened 12,850 enforcement cases on the basis of these reports. In fiscal year 1996, the percentage of inspections with reported violations increased to 19 percent, more than double the 9 percent reported in fiscal years 1990 through 1996. The Director of the Office of Civil Aviation Security Operations said that the percentage of enforcement cases opened in response to violations should be high because Security emphasizes the reporting of violations and requires that enforcement cases be opened for all violations of security directives. (See fig. 3.2.)

Figure 3.2: Numbers of Inspections, Inspections With Problems or Violations Reported, and Enforcement Cases Opened in Fiscal Years 1990-96



Source: GAO's analysis of data from EIS provided by FAA.

Because the percentage of inspections with reported problems or violations was substantially higher for Security than for Flight Standards, Security's contribution to FAA's enforcement caseload was

disproportionately high. Flight Standards, which conducted 94 percent of FAA's inspections, initiated over 53,600 enforcement cases, or just under half of FAA's enforcement workload during fiscal years 1990 through 1996. Security, which conducted about 2 percent of FAA's inspections and has about 10 percent as many inspection staff as Flight Standards, initiated about 41 percent of FAA's enforcement cases.

Several Factors Discourage the Opening of Enforcement Cases

Our surveys of 600 Flight Standards inspectors and 175 Security inspectors included questions about their overall perceptions of their own success in fostering compliance with the Federal Aviation Regulations and FAA's enforcement process as a method for fostering compliance. The surveys also included questions to determine what factors influence the opening of enforcement cases. We also discussed these questions in interviews with inspectors.

Fostering Compliance With the Federal Aviation Regulations

Inspectors rated their own efforts as significantly more successful than the agency's enforcement process in fostering compliance with the Federal Aviation Regulations. Specifically, 81 percent of the Flight Standards inspectors and 67 percent of the Security inspectors surveyed rated their own efforts in fostering compliance with the regulations in fiscal year 1996 as moderately or very successful. In contrast, over two-thirds of each group of inspectors surveyed rated FAA's enforcement process as no better than fair as a method of fostering compliance, and 31 percent of the Flight Standards inspectors and 37 percent of the Security inspectors rated the enforcement process as a poor or very poor method of fostering compliance.

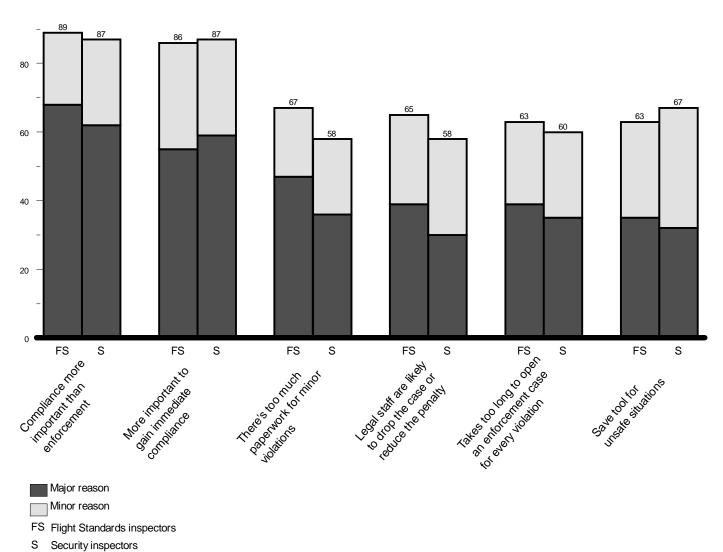
Emphasis on Gaining Compliance

The two reasons most frequently cited by inspectors for not opening enforcement cases stemmed from changes in FAA's enforcement philosophy. Nine out of 10 Flight Standards inspectors (89 percent) and Security inspectors (86 percent) cited the belief that compliance is more important in the long run than enforcement. Similarly, 9 out of 10 believe gaining immediate compliance is more important than taking enforcement action. (See fig. 3.3.)

Figure 3.3: Reasons for Not Initiating Enforcement Cases in Response to Violations

Percentage of inspectors





Source: GAO's surveys of Flight Standards inspectors and Security inspectors.

Impact of Violations on Aviation Safety and Security

The impact of violations on aviation safety and security was also a factor in whether enforcement cases were initiated. In response to our survey, two-thirds of the Flight Standards inspectors (63 percent) and Security inspectors (67 percent) said they do not always initiate enforcement cases because they want to save enforcement for situations that endanger public safety. In interviews, inspectors said they often do not report, or initiate a case for, a violation that does not present an immediate threat to safety and can readily be corrected. In 1992, DOT's Inspector General also reported that inspectors in four district offices said they did not initiate enforcement cases for such problems.

In responding to our surveys, inspectors linked a violation's impact on safety with two other factors in determining whether to initiate an enforcement case—the violator's attitude and the violator's prior enforcement history. All three of these factors are ones that FAA Order 2150.3A suggests be considered in deciding whether to use administrative or legal action to resolve a violation. Specifically, when a violation represents an immediate threat to safety, the violator shows an uncooperative attitude, and the violation is a repeat offense, 9 out of 10 of Flight Standards inspectors (93 percent) and Security inspectors (96 percent) said they would be very likely to initiate an enforcement case. Our analysis shows that none of the three factors is more likely to result in an enforcement case than the other two. The inspector is most likely to pursue enforcement if at least two of the three factors are present. If only one of the three factors is present, inspectors are less likely to pursue enforcement. If none of the three factors is present, most Flight Standards inspectors (62 percent) and Security inspectors (75 percent) are unlikely to open enforcement cases.

Burdensome Administrative Tasks

The amount of paperwork involved in enforcement cases also deters their initiation. In response to our survey, well over half of the Flight Standards inspectors (66 percent) and Security inspectors (58 percent) said they do not initiate enforcement cases because doing so entails too much paperwork, especially for minor violations. In their view, the paperwork is not worth the effort for many violations.

In interviews, inspectors also elaborated on their concerns about the amount of paperwork. One inspector emphasized that the time spent on paperwork is time taken away from his primary job of providing on-site inspections. Another inspector saw a trade-off between monitoring and inspections, on the one hand, and paperwork, on the other. Believing that

his time was better spent on monitoring and inspections, he often chose not to report violations in his program office's inspection tracking system if he could achieve compliance on the spot.

A 1995 FAA study identified the burdensome administrative tasks associated with using EIS as particular obstacles to the opening of enforcement cases. Because EIS is not linked to the program offices' inspection tracking systems, the results of inspections must be entered manually a second time for violations that result in enforcement cases. In addition, EIS is outdated and difficult to use. As a result, according to the study, "data entry does not occur in a timely manner." Furthermore, the gaps between the program offices' inspection tracking systems and EIS make the status of reported violations and enforcement cases difficult for inspectors to track. The study contained recommendations for making EIS more user friendly and determined that the cost of streamlining several enforcement processes and creating interfaces to transfer information automatically from the program offices' inspection tracking systems to EIS would be around \$2.8 million. The study concluded that the savings from these changes, which would eliminate the need to enter the same data twice and would increase the system's accuracy, would pay for the changes in a little over a year. Flight Standards, which is responsible for financing and maintaining EIS, did not implement the changes because, according to the Acting Manager of the Flight Standards Service, other projects received higher priorities for funding.

Outcomes of Legal Cases

Finally, the outcomes of legal cases were cited as a major reason for not opening enforcement cases. Well over half of the Flight Standards inspectors (66 percent) and Security inspectors (59 percent) we surveyed said they do not initiate enforcement cases because the region's legal staff are likely to drop the cases or reduce the penalties recommended by the inspection staff.⁴ About the same number of Flight Standards inspectors (63 percent) and Security inspectors (59 percent) said they do not initiate cases because resolution takes too long. In interviews, inspectors stressed that they prefer to achieve compliance on the spot, if possible, rather than rely on a lengthy and uncertain enforcement process. A number of the program managers we interviewed also expressed these same concerns.

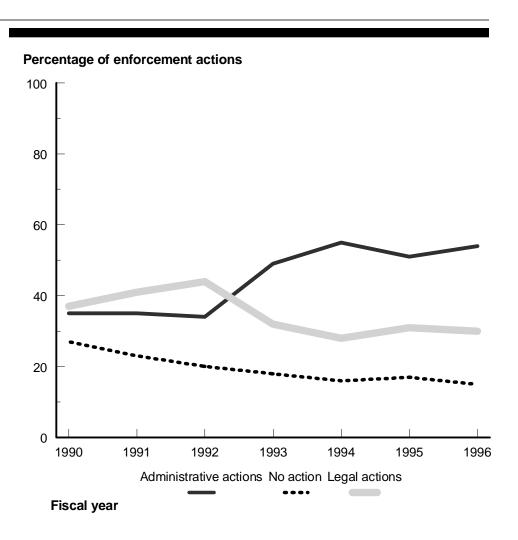
⁴For the reasons cited by FAA legal staff for dropping cases or reducing penalties, see page 58.

FAA Is Resolving More Cases Through Administrative Actions

In fiscal years 1990 through 1996, FAA closed an average of nearly 17,400 enforcement cases per year, resolving 46 percent through administrative actions, 34 percent through legal actions, and 19 percent through no action. FAA's use of administrative actions increased from 35 percent in fiscal years 1990 through 1992 to 49 percent in fiscal year 1993, the peak year for both the number of inspections conducted and the number of enforcement cases closed. From fiscal year 1994 through fiscal year 1996, FAA resolved more than 50 percent of its cases each year through administrative actions. (See fig. 3.3.) This increased reliance on administrative actions reflects FAA's emphasis, since 1990, on using alternatives to legal enforcement and on cooperating with the aviation industry to achieve compliance.

⁵The resolution could not be determined for 1 percent of the enforcement cases because of missing data.

Figure 3.4: Options Used to Resolve Enforcement Cases, Fiscal Years 1990-96



Note: In EIS, the 121,757 cases reported as closed and the 55,665 cases reported as resolved through administrative actions are slightly understated because one program office, Airports, does not report its administrative actions in EIS. As a result, FAA cannot track its full enforcement workload or determine the full extent of its reliance on administrative actions. According to the Manager of the Airport Safety and Operations Division, Airports does not report its administrative actions in EIS because the system is cumbersome, outdated, and difficult to use. Airports provided available data showing that it processed 872 administrative actions in fiscal years 1994 through 1996.

Source: GAO's analysis of data from EIS.

It is difficult to assess whether compliance or corrective action is being achieved through the increased use of administrative actions or through any type of FAA enforcement action. We, the National Transportation Safety Board (NTSB), and DOT'S Inspector General have identified follow-up

to ensure the completion of corrective action as a problem for FAA. In November 1991, for example, we reported that FAA inspectors had identified 9,115 problems that were, or had the potential to be, in noncompliance with either regulations or other safe operating practices but that FAA headquarters did not know how many of these problems had been corrected because inspectors were not required to account for the disposition of identified problems. In September 1989, NTSB reported that poor flight crew discipline and coordination contributed to a Delta Air Lines accident involving 14 fatalities and 26 serious injuries. According to NTSB, FAA inspectors had consistently observed these deficiencies but had not then required corrective actions. NTSB cited the lack of sufficiently aggressive action by FAA in ensuring the correction of these deficiencies as a contributing cause of the accident. In addition, in May 1992, DOT's Inspector General reported that inspectors did not properly follow up on deficiencies identified during ramp inspections and that, in two district offices, airlines had not properly corrected deficiencies. Finally, in September 1996, we reported that although FAA generally concurred with the recommendations of GAO, NTSB, and DOT'S Inspector General, its tracking systems showed corrective actions as completed before safety initiatives had been completed to fully resolve the safety problems that gave rise to the recommendations. Because of these long-standing problems with follow-up, it is difficult to determine whether FAA's administrative or legal actions have achieved compliance or corrective action.

Legal Staff Reduced Penalties Recommended by Inspection Staff

In closing cases in fiscal years 1990 through 1996, attorneys in the regions and in headquarters routinely reduced the penalties recommended by inspectors. Specifically, they reduced the fines in 79 percent of the 20,179 civil penalty cases settled during these 7 years, settling for a median fine of 25 cents on the proposed penalty dollar. In one-third of the civil penalty cases, they settled for no fine at all. (See table II.1.) The attorneys also reduced the recommended suspensions in 58 percent of the 11,658 certificate actions settled during fiscal years 1990 through 1996, accepting a median suspension of 30 days instead of the median 60 days recommended by inspectors. In 27 percent of the certificate action cases, they settled for no suspension at all. (See table II.2.) Officials cited a number of reasons for these reductions in penalties.

The percentage of cases with reductions in recommended penalties was lower for certificate actions than for civil penalty cases because, according to the Acting Director of the Flight Standards Service, the violations that

result in certificate actions often involve errors in flight operations and are generally viewed as serious. The recommended penalties are therefore more likely to be sustained. Furthermore, as faa has made administrative options available for handling cases against general aviation pilots, the number of certificate actions has declined. Now, when cases are handled as certificate actions, the recommended penalties are more likely to be sustained than in the past.

The nine regional counsels we interviewed offered several reasons for deciding to settle cases for less than the inspection staff had recommended. One regional counsel said that FAA does not have the legal resources to try all cases. Other regional counsels said that the original evidence may not be strong enough to sustain a good case, mitigating evidence may emerge, and limits on the violator's ability to pay or other circumstances may warrant reducing the original penalty. In addition, according to several regional counsels, U.S. attorneys have been reluctant to pursue or have allowed aviation cases under their jurisdiction (those with penalties over \$50,000) to sit.⁶ Finally, the regional counsels raised questions about the appropriateness of the penalties initially recommended by FAA's inspection staff. They said, for example, that inspectors sometimes have difficulty calculating appropriate penalties for multiple infractions from the table of sanctions in FAA Order 2150.3A, which presents ranges of penalties for single infractions. In addition, the regional counsels said that the penalties suggested in the order's guidance on sanctions are often higher than the penalties awarded in court, particularly by NTSB judges. As a result, they said, they often need to lower the recommended penalties. Our analysis showed, however, that the penalties initially recommended by the legal staff were similar to those recommended by the inspection staff and that the reductions in penalties generally occurred after the legal staff's review—that is, in the course of preparing cases, negotiating settlements, or resolving cases in court.

Our review of 33 files from cases closed in the Great Lakes region in fiscal year 1996 and in the Southwest region in fiscal year 1995 confirmed many of the reasons cited by the regional counsels for reducing penalties. Civil penalty cases showed reductions because violators were unable to pay or because adjustments were needed to bring the penalties in line with those recently awarded in similar court cases. FAA also reduced penalties in accordance with its new procedures for expediting the resolution of certain Security weapons cases. Finally, FAA dropped some cases after determining that they were not appropriate to pursue.

⁶49 U.S.C. 46107 (b) and 49 U.S.C. 46301 (d) (4).

Frustration over the legal staff's handling of enforcement cases surfaced repeatedly in the comments of inspectors and program managers, both in interviews and in responses to our surveys. About three-quarters of the inspection staff surveyed favored requiring the legal staff to obtain their concurrence on changes to recommended penalties. In addition, several inspectors reported being discouraged when, after spending many hours preparing cases, the cases were dropped or the penalties lowered. As one inspector said, "legal [is likely to] water [the case] down, delay it for an embarrassingly long time, or simply drop it altogether." Another inspector added that it "is very damaging to the inspector in the field when the violator is expecting to get some kind of penalty for his actions and then all of a sudden they are [off] scott free."

The inspectors we interviewed were also frustrated by the lack of feedback from legal staff on the status of their cases and on the reasons why recommended penalties were reduced. Several reported losing track of their cases once the cases went to the regional legal offices. To correct perceived problems in communication, at least four-fifths of the inspection staff responding to our survey favored increasing coordination with the legal staff, encouraging direct contact between the legal staff and the inspection staff for advice, and improving feedback to the inspectors on the outcomes of legal cases.

FAA is revising the table of sanctions in FAA Order 2150.3A, which may indirectly improve communication between the agency's inspection and legal staff on modifying recommended penalties. A preamble to the draft revised table explains the appropriate reasons for imposing or revising penalties. FAA's draft revision also attempts to align the suggested penalties more closely with the penalties resulting from recent court decisions. This draft revision should help inspectors recommend penalties that are more likely to be sustained in negotiations or in court. However, the draft revision provides general guidance rather than the specific feedback on the disposition and resolution of individual cases sought by inspectors.

⁷To prevent inspectors from becoming frustrated with lowered penalties, two of the Flight Standards district offices in FAA's Alaska region are now forwarding cases to the region's legal office without recommending penalties, leaving their determination up to the attorneys. According to the regional counsel, this approach helps to focus the inspectors on preparing their cases and to keep them from becoming emotionally fixated on the penalties.

Penalties Varied for Different Types of Operators

According to a number of inspectors, FAA regional counsels, and private attorneys we interviewed, FAA treats major air carriers more favorably than smaller operators during the enforcement process. To evaluate these claims, we analyzed the civil penalties and certificate actions taken in fiscal years 1990 through 1996 against (1) major air carriers (those with annual operating revenues of more than \$1 billion), (2) national air carriers (those with annual operating revenues of \$100 million to \$1 billion), (3) other smaller commercial operators (those who hold an operating certificate from FAA and have a four-letter code indicating the type of certificate), and (4) individuals (for example, pilots or mechanics who hold an operating certificate from FAA but do not have a four-letter code or individuals who are arrested for trying to carry weapons through security screening checkpoints).

Our analysis showed that FAA handles enforcement cases against major and national air carriers differently from those against other commercial operators and individuals. In the cases closed during fiscal years 1990 through 1996, FAA consistently used civil penalties (fines) against all categories of operators but certificate actions (suspensions or revocations) only against other commercial operators and individuals. Specifically, the agency suspended or revoked the certificates of 52 commercial operators and more than 11,600 individuals. Under Order 2150.3A, FAA may use a civil penalty against a certificate holder when it determines that the disruption in service caused by a certificate action—which can close an operation—would have a substantial adverse impact on the public interest and that this impact would not be outweighed by safety considerations. For example, according to the order, FAA may take a certificate action against an individual certificate holder and a civil penalty action against an air carrier as warranted. In effect, according to FAA's Deputy Chief Counsel, carriers that provide a significant portion of the air service or sole service to certain destinations receive civil penalties instead of certificate actions when violations occur.

According to several private aviation attorneys we interviewed, FAA sometimes handles cases against national carriers and other smaller

⁸As of December 1996, the Bureau of Transportation Statistics listed the following as major air carriers: Alaska, America West, American, Continental, Delta, Federal Express, Northwest, Southwest, Trans World, United Parcel, and USAir.

⁹The Bureau listed the following as national air carriers as of December 1996: Air Transport, Air Wisconsin, Aloha, American International, American Trans Air, Arrow, Atlantic Southeast, Atlas, Business Express, Carnival, Continental Express, Continental Micronesia, DHL Airways, Emery, Evergreen, Executive, Hawaiian, Horizon Air, Kiwi, Markair, Mesa, Midwest Express, Polar Air, Reno, Rich, Simmons, Southern Air, Sun Country, Tower, Trans States, USAir Shuttle, ValuJet, and World.

operators by allowing them to "voluntarily" surrender their operating certificates rather than face emergency revocations of the certificates. 10 Questioning whether the types of alleged violations warranted potential emergency action, one attorney suggested that the threat of emergency action might be a way for FAA to avoid the due process that would be required for a nonemergency certificate action or for a civil penalty case. This attorney noted that in an emergency case, no independent person evaluates the facts and judgments made by FAA before it determines to revoke or suspend the certificate, whereas, in a civil penalty case or nonemergency certificate action, such due process rights are afforded. Another attorney also questioned whether major carriers were being allowed to continue operating after committing similar types of violations for which they were not penalized by FAA. According to the regional counsel for FAA's Enforcement Division, FAA has allowed carriers to voluntarily cease operations so that they can correct problems and return to compliance. He characterized this approach as less harsh than revoking a carrier's certificate—an approach that could have more serious, long-term economic consequences for the carrier because it must reapply to begin operations after its certificate has been revoked.

While FAA limited its use of certificate actions to other commercial operators and individuals in fiscal years 1990 through 1996, it imposed fines on violators in all four categories. Although FAA reduced the recommended fines in about 80 percent of the cases against violators in all four categories during this 7-year period, it settled for a median fine of around 30 cents on the recommended penalty dollar in cases against major air carriers, national carriers, and individuals while settling for a median fine of 9 cents on the dollar in cases against other commercial operators. (See table II.3.) In fiscal year 1993, FAA experienced a significant increase in its enforcement caseload and a corresponding decrease in the amounts for which it settled. In this year, when FAA had 104 cases against national carriers, it assessed them a median fine of 12.4 cents on the dollar, compared with a median fine of 99.6 cents on the dollar in fiscal year 1990 when it had 33 cases against these carriers. In fiscal year 1996, FAA reduced about 80 percent of the fines against all types of operators and settled for a median of 50 cents on the dollar in cases against major carriers, national carriers, and individuals, while settling for a median fine of 25 cents on the dollar in cases against other commercial operators. The recommended

¹⁰FAA's use of emergency revocation orders is the subject of proposed legislation to require FAA to show just cause for bringing an emergency revocation action against a certificate holder. S. 842, proposed on June 5, 1997, and H.R. 1846, proposed on June 10, 1997, also have procedures for expedited appeals by airmen and require that NTSB hear the arguments for such appeals within 48 hours and decide if a true emergency exists within 5 days.

fines averaged about \$17,000 for major air carriers, \$35,600 for national air carriers, \$14,400 for other commercial operators, and \$6,000 for individuals in fiscal year 1996.

Regions Varied in Their Handling of Enforcement Cases

FAA's regional offices varied in their handling of enforcement cases, in some instances substantially. While some variation in the types of enforcement options used and in the extent of the reductions in penalties could reasonably be anticipated, given the differences in the types of aviation entities monitored and the types of cases pursued, some of these regional variations were substantial and could not be explained by FAA officials. Such variations include the following:

- Regional variations in the types of enforcement actions taken, respectively, by Flight Standards and Security were pronounced. In fiscal year 1996, for example, the use of administrative actions to close Security cases ranged from a low of 33 percent in the Central region to a high of 70 percent in the Western Pacific region, while the use of legal actions ranged from a low of 23 percent in the Eastern region to a high of 65 percent in the Central region. (See table III.5.)
- The extent to which penalties were reduced varied substantially from region to region. In fiscal year 1996, for example, the New England region settled for the lowest median penalty (13 cents on the dollar), while five other regions settled for the highest median penalty (50 cents on the dollar). (See table III.7.)
- For all four categories of aviation operators, FAA's regions varied both in the percentage of cases with reductions in the recommended penalties and in the extent of these reductions. For example, in civil penalty cases against national carriers closed in fiscal years 1990 through 1996, the New England and Alaska regions settled for a median penalty of zero dollars, while the Northwest Mountain region settled for a median penalty of 67 cents on the recommended penalty dollar. (See table III.11.)

Appendix III presents the regional data for each of our analyses.

DOT officials suggested that regional differences in FAA's use of enforcement actions were broadly attributable to variations in workload, the entities overseen, and community standards and laws. The Department's response specifically cited differences in the size of the region, the number of major airports or airlines managed in the region, and

such unique factors as the level and types of activities and local laws. DOT's response also cited, for example, the need for inspectors to consider community norms and laws and the level of activity at a given airport or other entity and to use judgment in determining the appropriate level of action necessary to achieve compliance. In interviews and written comments, FAA officials also attributed regional differences in the use of enforcement actions to differences in enforcement philosophy among FAA's regions. These explanations were too broad to permit any verification of specific links between these factors and the regional variations in enforcement actions. Such regional variations and the discretion exercised by inspectors and legal staff were cited by airline officials and private attorneys interviewed as contributing to perceived inconsistencies in FAA's response to regulatory violations.

Several Factors Affect Processing Priorities and Time

FAA's regional program and legal offices set their own priorities for processing enforcement cases. FAA has not established national guidance for ranking enforcement cases because, according to FAA officials, regional priority-setting allows for flexibility in handling cases. Emergency certificate revocation cases are usually addressed first—often within 24 hours—followed by cases that must be initiated within certain time limits.

While delegating the responsibility for setting enforcement priorities to the regions provides them with flexibility, it does not necessarily allow FAA headquarters to target the agency's resources to the greatest risks nationwide. The regional counsel for the Eastern region stressed the importance of such targeting, which is practiced by major police departments and by the Federal Bureau of Investigation to address serious crime. FAA currently has no way to set national enforcement priorities, as its September 1996 internal study, called the 90-Day Safety Review, recognized:

There is currently no enforcement plan of action which prioritizes violations discovered by inspectors that will allow the FAA to most effectively apply investigative and legal resources. This leads to a wide range of violations that may not have a significant safety impact and may require more legal resources to prosecute than are available. At the same time, prosecution of these violations may detract resources from fully investigating or prosecuting more complex cases or cases which have a greater safety impact.

The study recommended that FAA develop a strategy for targeting its inspection and legal resources to the areas with the most major safety violations and cases. As discussed below, FAA has formed a workgroup to develop a strategy for identifying major cases.

EIS does not contain the information that FAA needs to systematically rank enforcement cases and to set risk-based processing priorities among them. Although it contains basic information on violators, the types of violations committed, and the status and resolution of cases, it does not distinguish major from minor cases—just as PTRS, AAIRS, and CASIS do not distinguish major from minor violations.

An FAA workgroup has begun to develop agencywide guidance for identifying major cases. The workgroup, which includes program and legal staff, produced a draft statement on major cases in March 1997 that is undergoing internal review. The draft statement acknowledges the potential variation in the impact of different violations on aviation safety or security, stresses the need to identify serious violations, and supports the development of a program to help direct the agency's inspection and legal resources to major cases. The statement proposed the development of an annual targeted enforcement plan under which areas would be targeted for enhanced surveillance and prompt handling by legal staff. The areas would be developed by both program office and legal staff through analyses of safety and security data and trends. Such analyses could, however, be undermined by incomplete information resulting from the underreporting of violations and the performance of incomplete inspections. While the plan would identify major cases nationally, it would leave room to emphasize regional problems and issues. The workgroup's efforts, though just beginning, could assist FAA in deploying its resources to the cases with the greatest potential impact on aviation safety and security.

During fiscal years 1990 through 1996, the time taken to resolve individual cases ranged from less than 1 month to almost 23 years. (See table II.4.) The average time varied with the type of action taken; overall, cases closed with administrative actions averaged 5 months while cases closed with no action averaged 16 months. In general, legal actions took longer: Certificate actions averaged 15 months, civil penalty cases averaged a little over 2 years, and consent orders averaged nearly 3 years to negotiate. The only legal cases that took less time were certain weapons case, which

¹¹Consent orders include both global settlements of civil penalty cases and consent orders negotiated when carriers voluntarily cease operations.

Security processed using streamlined procedures introduced in fiscal year 1995. In fiscal years 1995 and 1996, these cases averaged under 4 months—less time than administrative actions.

From region to region, the average time taken to process all types of enforcement actions varied widely. For example, the average time for processing certificate actions ranged from 6 months in the Alaska region to 24 months in the New England region; one certificate action took FAA headquarters more than 5 years to process. (See table III.13.)

In fiscal year 1996, faa closed 16,169 enforcement cases, resolving 80 percent in less than 1 year. However, 833 cases took 3 years or longer. (See table 3.1.)

Table 3.1: Processing Time for Cases Closed in Fiscal Year 1996

Processing time	Number of cases	Percentage of all cases ^a
Less than 1 year	12,946	80.1
From 1 year up to 3 years	2,390	14.8
From 3 years up to 6 years	606	3.7
From 6 years up to 24 years	227	1.4
Total	16,169	100

^aPercentages may not add to 100 because of rounding.

Source: GAO's analysis of data from EIS.

Besides the type of enforcement action taken, several factors—some of which were outside FAA's control—affected the time for processing cases. Some of these factors also influenced processing priorities.

Enforcement and Nonenforcement Caseload Historically, FAA's enforcement caseload has influenced the time required to resolve cases, and increases in the number of cases have generally slowed their processing. For example, when the number of consent orders grew from 10 in fiscal year 1991 to 189 in fiscal year 1995, the average processing time increased from 17 months to 55 months. A few of the regional counsels we interviewed acknowledged that their enforcement workload has decreased somewhat with FAA's increased use of administrative actions, self-disclosure programs, and remedial training—all of which have shifted responsibilities from the legal to the program offices. However, some regional counsels in FAA's regions expressed concern that their workload might significantly increase and that they might not have enough attorneys to deal with the potential influx

of new cases that is likely to result from the hiring of the 738 Flight Standards inspectors.

FAA's legal offices have nonenforcement responsibilities that influence both the number of enforcement cases they can handle and the priority they can give to them. According to FAA's regional counsels, enforcement cases represent from 40 to 80 percent of the legal workload, depending on the region, and all of the attorneys work on enforcement cases only part of the time. Some regional counsels noted that their nonenforcement caseload has grown significantly to include environmental issues, procurement matters, and contract disputes. Furthermore, some types of nonenforcement cases, such as Freedom of Information Act (FOIA) requests, have mandatory time frames that require prompt handling even though such cases may not have much impact on FAA's aviation safety and security missions.

Actions of Accused Violators

The time needed to resolve legal enforcement cases can also be lengthened by the actions of accused violators. According to inspection staff and regional counsels, by requesting informal conferences, copies of information, prolonged negotiations, and appeals—all of which are within their rights—accused violators can increase the time needed to resolve cases and thus influence FAA's processing priorities. Several private aviation attorneys confirmed that they attempt to delay cases. These attorneys believe that the longer a case is delayed, the more FAA is likely to settle for less and the judge is likely to award a lower penalty. An attorney for one major carrier also said that the airline's policy is to "delay as long as possible" and that the airline waits to settle until just before the hearing date to take full advantage of the time value of money. FAA's enforcement procedural guidelines are set forth in regulations and allow for requests of records, informal meetings, and hearings in order to provide due process for the accused.

Legal Requirements

Deadlines for initiating cases and other statutes of limitation can affect processing priorities. Efforts to finish processing cases before they "go stale" and can no longer be prosecuted sometimes push cases with less impact on aviation safety and security ahead of those with more impact. Such time limits may apply to both certificate actions and civil penalty cases, as discussed in chapter 1 (see table 1.3). Stale cases posed more of a problem for FAA in the past than they do today. Both in the mid-1980s,

 $^{^{12}}$ A case is said to be stale if the alleged violator is not notified of the violation within the prescribed time, which is calculated from the date of the violation to the date that FAA sends the violator a notice of proposed certificate action. The time depends on the type of violation, the identity of the violator, the type of penalty, and/or the amount of the proposed penalty. (See table 1.3.)

after the air traffic controllers' strike, and in August 1992, when the agency was faced with "an unacceptable backlog of open cases," FAA dropped thousands of cases that were no longer legally prosecutable or had no deterrent value. By contrast, in fiscal year 1996, at least 166 cases went stale and were closed with no action. These cases represented about 3 percent of the enforcement cases handled by FAA's legal staff during that year. ¹³

To determine why cases go stale, we interviewed the regional counsels in all nine FAA regions and legal staff from headquarters, as well as program managers and inspectors from the nine regions. While the legal staff cited deficiencies in the evidence developed and in the investigative skills displayed by the inspection staff, the inspection staff considered the legal staff's requests for information excessive and maintained that the attorneys were reluctant to try cases. FAA's legal staff said they need to prosecute cases they believe they can win because, if they lose, FAA may be liable for the violators' legal fees under the Equal Access to Justice Act. In addition, FAA's legal staff cited the reluctance of U.S. attorneys to pursue aviation safety cases and the competing demands of nonenforcement responsibilities as further reasons why cases go stale. Finally, legal staff identified NTSB's 6-month rule for initiating the certificate actions it adjudicates as a factor in cases going stale.

Several regional counsels maintained that U.S. attorneys have been reluctant to pursue or have allowed aviation safety cases under their jurisdiction—that is, cases with penalties over \$50,000—to sit. ¹⁴ Our review did not determine how frequently U.S. attorneys have declined to pursue such cases or how often such cases have gone stale. Neither did it assess the impact of these cases on aviation safety and security.

Under NTSB's rule, an allegation against an individual airman, mechanic, or other certificate holder generally must be dismissed after 6 months if the individual's qualifications are not at issue. According to both inspection and legal staff, the rule does not allow enough time to investigate cases, especially those involving maintenance violations, which may take several months to discover. Several regional counsels said that the rule allows significantly less time for processing than comparable federal statutes of limitation. According to several regional counsels, the 6-month time limit

¹³Of the 2,476 cases closed with no action, 166 (7 percent) were closed because they had gone stale. The reason for closing another 143 cases with no action could not readily be determined; hence, these cases may or may not have gone stale. For 118 of the stale cases, the violations occurred in fiscal year 1994 or more recently; for 7 cases, the violations dated from the 1980s.

¹⁴⁴⁹ U.S.C. 46107 (a) and 49 U.S.C. 46301 (d) (4).

encourages FAA to process affected cases ahead of cases with more impact on safety or security and longer statutes of limitation. In addition, they said, FAA has not bothered processing cases when it has learned of violations close to or after the 6-month date, regardless of the safety concerns raised. Of the 166 cases that went stale in fiscal year 1996, 21 (about 13 percent) were certificate actions that fell under NTSB's 6-month rule.

We discussed the 6-month rule with NTSB's Deputy General Counsel, who explained that the time limit, which has existed for decades, is designed to protect both the alleged violator and FAA from the erosion of evidence that can occur over time. According to the Deputy General Counsel, when FAA learns of a violation more than 6 months after it has occurred, FAA is responsible for demonstrating that the agency has expedited the investigation and processing of the case. He said that this requirement has been in place since 1981 but that he could not recall an instance in which FAA had provided specific examples of what it had done to expedite such cases. To seek a change in the rule, he said, FAA would probably need to initiate a petition for a rulemaking change, which would then undergo formal public notice and comment. He added that FAA would be responsible for demonstrating why the 6-month limit should be extended.

Recent Actions Could Expedite Processing and Improve Priority-Setting

Recent and proposed changes in FAA's enforcement processes could reduce the time needed to resolve cases and help FAA target its resources more effectively to those with the greatest potential impact on safety and security. The use of warning tickets, recently pilot-tested by Flight Standards in one region, and the use of streamlined procedures for handling weapons cases, adopted by Security in fiscal year 1995, have already reduced processing time.

Warning Tickets

In June 1996, Flight Standards initiated a 4-month pilot program to test the use of tickets, or warning notices, in FAA's Anchorage Flight Standards District Office. Under this program, an inspector issues a ticket on the spot to a violator who claims to have no prior violations. The draft FAA report evaluating the ticket program indicated that using tickets expedited the recording and processing of violations, increased the number of violations reported by participating inspectors, and was well received by both inspectors and violators. According to participating inspectors and ticket recipients, the tickets reduced workload, raised safety awareness, and deterred noncompliance. The regional counsel in the Northwest Mountain region said that ticketing was designed to reduce the enforcement process

to an appropriate size for minor violations. He also said that inspectors liked tickets because using them saved time and violators liked them because they eliminated the uncertainty and worry that could last for months with administrative actions. The Anchorage Flight Standards District Office has finished evaluating the pilot ticket program and hopes to implement the program regionwide once it has been reviewed and approved by FAA management.

Using warning tickets could expedite FAA's handling of administrative actions for simple, straightforward minor violations. Like administrative actions, tickets are appropriate for violations that do not have a serious impact on safety or security, are not willful or deliberate, and are committed by individuals without a prior history of violations. Tickets could provide immediate feedback on and document the nature of a violation without involving a monetary fine or a finding of violation. While administrative actions take about 4 months to process and close out, tickets could be issued immediately, recorded in FAA's inspection and enforcement tracking systems, and closed out. More than four-fifths of the Flight Standards inspectors and Security inspectors we surveyed favored the use of warning tickets for minor violations. In addition, over three-quarters of the inspectors favored the use of tickets with fines for minor violations.

Streamlined Procedures for Weapons Cases

To expedite its handling of certain weapons cases, Security offered to reduce the fines of those who paid their fine within 30 days of receiving their notice of violation. These undisputed cases were against individuals who violated FAA's regulations by carrying weapons through screening checkpoints or onto aircraft. According to the Security managers we interviewed, about 90 percent of the violators accept the offer, in part because the arresting officer's case file and witnesses' statements usually present clear-cut evidence against the violator. In addition, the reduced fine and opportunity to clear the record create incentives for violators to settle promptly. Security inspectors also like the procedures because they take less time and involve less paperwork than legal enforcement procedures.

Security's streamlined procedures for handling weapons cases against individuals have reduced the time needed to process these legal actions to about as much time as is needed for administrative actions—4 months in fiscal year 1996. Security officials made two suggestions for further streamlining the processing of weapons cases. First, a field office manager suggested that Security inspectors prepare only the initial part of the case

paperwork instead of the entire legal case before issuing a notice of violation, since most violators accept FAA's offer of a reduced fine in exchange for prompt payment. Later, if the violator rejected FAA's offer, the rest of the legal paperwork could be completed. Second, a regional counsel suggested that, when FAA's offer is accepted, the authority to issue the order assessing a civil penalty be delegated from the regional legal office to the regional Security office. If a violator did not pay within 30 days, the case could then be transferred to the legal office.

Security's streamlined procedures for handling weapons cases could be extended to other types of Security violations. Of the Security inspectors responding to our survey, 66 percent favored applying the process to certain hazardous materials cases, 90 percent to airport violations, and 87 percent to air carrier violations. Like weapons violations, many hazardous materials violations are inadvertent. For example, someone may mail a flammable can of hair spray without knowing that it presents a potential hazard if transported by aircraft. Furthermore, both types of cases are often clear-cut and uncontested. Several Security inspectors we interviewed suggested that the streamlined process could readily be applied to such inadvertent hazardous materials violations.

The streamlined process might also be applied to certain safety violations handled by Flight Standards. Specifically, legal cases against individuals arising from inadvertent actions that are serious enough to warrant a finding of violation and a fine might be candidates for this approach. However, the idea of offering lower fines for uncontested violations met with less universal support from Flight Standards inspectors than from Security inspectors, perhaps because they have not had the experience with this program that Security inspectors have had. Still, 53 percent of the Flight Standards inspectors responding to our survey favored the idea. Several FAA workgroups are currently reviewing ways to further streamline Security's weapons cases and are considering the applicability of this process to other types of Security and Flight Standards cases.

Conclusions

The disconnect between FAA's inspection and enforcement tracking systems not only discourages the opening of enforcement cases but also hinders the systematic tracking of a violation from its identification during an inspection through its resolution as an enforcement case. Furthermore, the lack of distinction between major and minor cases in FAA's enforcement tracking system hampers the targeting of enforcement resources to the cases with the greatest potential impact on aviation safety

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and security. Newly developed guidance on identifying major cases could assist FAA in setting risk-based priorities for allocating its enforcement resources. In addition, extending the use of warning tickets and other streamlined procedures for minor, uncomplicated cases could expedite the enforcement process and free resources for major cases with an important impact on aviation safety or security.

Linking FAA's inspection and enforcement tracking systems could streamline FAA's enforcement processes and help to provide inspectors with the information they seek on the status of cases they have initiated. Feedback from FAA's legal staff, particularly on their reasons for altering the penalties recommended by the inspection staff, could supplement this information and enhance the inspection staff's interest in reporting all violations.

Recommendations

To strengthen FAA's enforcement process and the agency's capacity to better encourage and monitor compliance with aviation safety and security regulations, we recommend that the Secretary of Transportation direct the FAA Administrator to take the following actions:

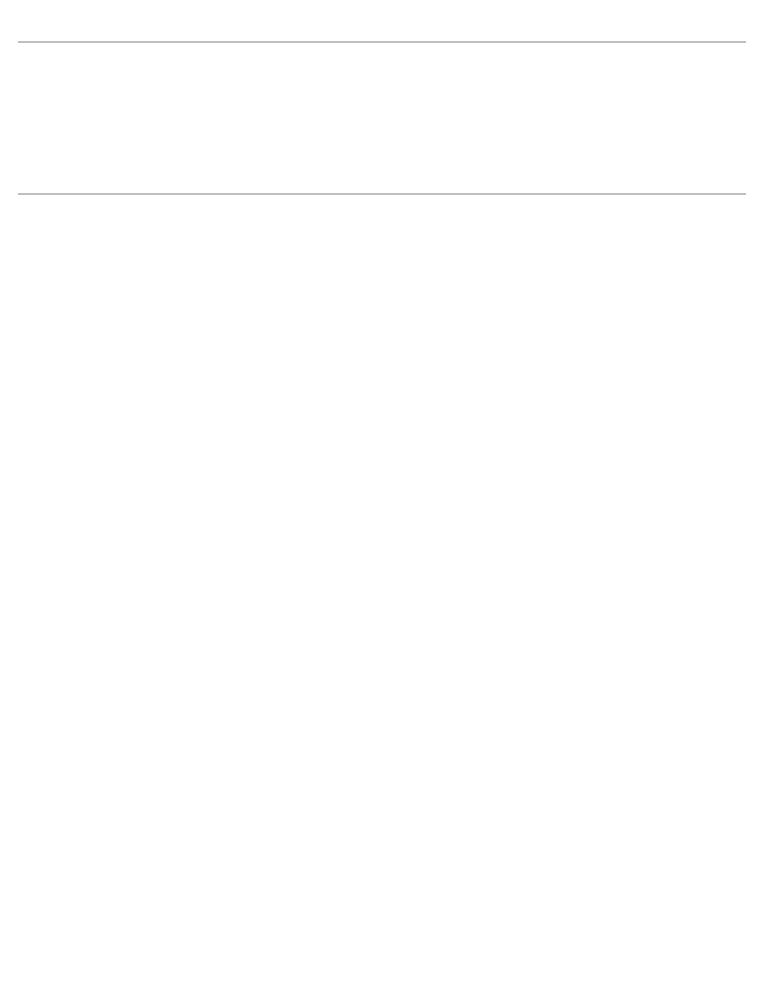
- Take steps to improve the usefulness of FAA's databases for identifying and targeting enforcement resources to the most serious aviation safety and security problems by (1) updating the cost estimates to directly link FAA's inspection and enforcement tracking systems and moving forward on this initiative if it would prove cost-effective and could streamline the enforcement process and (2) developing a process for distinguishing major from minor enforcement cases and for focusing FAA's resources on the cases with the greatest potential impact on aviation safety and security.
- Require legal staff to inform inspectors periodically of the status of cases and to explain why penalties are reduced.

Agency Comments

In its written comments, dot suggested that we include in the body of our report data from our surveys on self-assessments by inspectors of their efforts to foster compliance with the Federal Aviation Regulations. We incorporated into the report survey data showing that the vast majority of inspectors rated their own efforts to foster compliance with the regulations as moderately or very successful. We also included related data showing that over two-thirds of the inspectors surveyed rated FAA's enforcement process as no better than fair as a method of fostering

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compliance. Our report noted that FAA's regional offices varied in their handling of enforcement cases, in some instances substantially. DOT attributed these regional variations broadly to differences in regional enforcement philosophy or to variations in workload, the airlines or airports overseen, and community standards and laws. These explanations were too broad to permit any verification of specific links between these factors and the regional variations in enforcement actions. We also added DOT'S reasons for relying on inspectors' judgment and discretion in determining appropriate methods of achieving compliance. DOT identified a number of actions that have already been taken or are under way to improve the effectiveness of its compliance and enforcement program. Many of these efforts, such as plans to identify and prioritize major cases, as well as the use of warning tickets and streamlined procedures to expedite the processing of Security weapons cases, are discussed in this report. We also revised the report's wording where appropriate to respond to technical and legal comments provided separately by FAA. Although DOT did not comment explicitly on GAO's recommendations, DOT agreed that actions can be taken that will further strengthen its inspection programs, improve compliance with applicable requirements, and strengthen its analytical capability.



Methodology

This appendix provides additional technical information on our surveys of FAA's inspection staff and on the database analyses we performed for our review of FAA's enforcement.

Surveys

To examine FAA's initial processing of enforcement cases, we surveyed the two largest program offices with responsibility for inspections—inspectors within the Flight Standards Service (Flight Standards) and special agents within the Office of Civil Aviation Security (Security). We mailed our surveys to two random samples of employees (Flight Standards inspectors and Security inspectors) classified in FAA's personnel databases as working in these jobs. The surveys asked respondents for their opinions on their own performance in conducting surveillance, the reasons why some violations do not result in enforcement cases, and improvements that might be considered for the enforcement process. Our response rates for the two surveys were 89 percent for Flight Standards inspectors and 86 percent for Security inspectors. The responses to the two surveys are summarized in appendixes II and III of this report.

FAA provided two databases that included 2,368 Flight Standards inspectors and 348 Security inspectors. From these, we drew two random samples—one of 600 Flight Standards inspectors and the other of 175 Security inspectors. These sample sizes were originally designed to provide sampling errors of no more than 5 percent at the 95-percent confidence level. For the Security inspectors, we based the size of our sample on Security's statement that 243 inspectors conducted inspections in fiscal year 1996. However, the database supplied by Security for mailing purposes included 348 inspectors who were involved in inspections at the time the database was created. Our sampling errors, based on the true population of 348, are therefore somewhat higher than 5 percent for some estimates.

Since we used samples (called probability samples) to develop our estimates, each estimate has a measurable precision, or sampling error, which may be expressed as a plus/minus figure. A sampling error indicates how closely we can reproduce from a sample the results that we would obtain if we were to take a complete count of the universe using the same measurement methods. By adding the sampling error to and subtracting it from the estimate, we can develop upper and lower bounds for each estimate. This range is called a confidence interval. Sampling errors and confidence intervals are stated at a certain confidence level—in this case,

95 percent. For example, a confidence interval, at the 95-percent confidence level, means that in 95 out of 100 instances, the sampling procedure we used would produce a confidence interval containing the universe value we are estimating.

Tables I.1 and I.2 describe the sampling errors for our two surveys.

Table I.1: Sampling Errors for Selected Percentages of Flight Standards Inspectors

Percentage	Sampling error
5	± 1.8
10	± 2.4
20	± 3.2
20 30 40	± 3.7
40	± 4.0
50	± 4.1
60	± 4.0
70	± 3.7
80	± 3.2
90	± 2.4
95	± 1.8

Note: Sampling errors are calculated for the 95-percent confidence level using the finite population correction factor and 438 cases, the smallest number of valid cases for questions with finite categories. The sampling errors for questions with more cases are smaller than those reported here.

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Table I.2: Sampling Errors for Selected Percentages of Security Inspectors

Percentage	Sampling error ^a (N=114)	Sampling error ^a (N=100)
5	± 2.8	± 3.0
10	± 3.9	± 4.2
20	± 5.2	± 5.6
30	± 6.0	± 6.4
40	± 6.4	± 6.8
50	± 6.5	± 6.9
60	± 6.4	± 6.8
70	± 6.0	± 6.4
80	± 5.2	± 5.6
90	± 3.9	± 4.2
95	± 2.8	± 3.0

 $^{\rm a}$ Sampling errors are calculated for the 95-percent confidence level using the finite population correction factor. The sampling errors based on 114 cases are representative of most questions in the survey. The sampling errors based on 100 cases are a conservative representation of the sampling errors for percentages reported in the body of the report, which do not include nonresponsive answers such as "no basis to judge." Question 7n, however, was answered by only 89 of the 114 respondents; the sampling errors for it range from \pm 3.2 for 5 percent to \pm 7.2 for 40 percent.

We designed two questionnaires for our two surveys, one for Flight Standards inspectors and one for Security inspectors. While the wording for many of the questions was identical, some questions were modified to reflect differences in the employees' jobs. Questions on potential improvements to FAA's enforcement process also differed for the two surveys. (See apps. IV and V for the exact wording of the questions.) We conducted 35 pretests of our surveys in three of FAA's nine regions, 24 with Flight Standards inspectors and 11 with Security inspectors. In each pretest, a single employee filled out the questionnaire in the presence of two GAO observers. Then, the employee was interviewed by the observers to ensure that (1) the questions were readable and clear, (2) the terms were precise, (3) the survey did not place an undue burden on FAA employees that would discourage participation, and (4) the survey appeared independent and unbiased in its point of view. The final survey was revised to reflect the results of the pretests.

In addition to pretesting the surveys, we obtained reviews of our questionnaires from Flight Standards and Security managers in Washington, D.C. We also received comments from a survey research psychologist at FAA's Training and Organizational Research Laboratory in Oklahoma City and from officials of the union representing the FAA

inspectors we surveyed. We incorporated comments from these reviews as appropriate.

During pretesting, it became evident that we needed procedures to protect the privacy of the respondents and to guarantee the complete anonymity of all survey responses. To guarantee privacy, we mailed every survey to the home address of the respondent. To guarantee anonymity, we retained no means of identifying the respondent on the survey booklet or the return envelope. This procedure prevented us from knowing the identity of any respondent for the surveys returned to us. The use of a separate return postcard for follow-up purposes allowed us to track which respondents did and did not mail back their survey response.

To increase the rate of response to our survey, we mailed a prenotification letter to the respondents 1 week before we mailed the survey itself on February 7, 1997. We also used three mailings after the survey, including (1) a reminder postcard 1 week after mailing the survey, (2) a reminder letter to nonrespondents 18 days after mailing the survey, and (3) a replacement survey to nonrespondents 4 weeks after mailing the survey. We received the last survey included in our analysis on March 28, 1997.

We received responses to our survey from 536 Flight Standards inspectors and 151 Security inspectors, for response rates of 89 percent and 86 percent, respectively. Of those responding, 474 Flight Standards inspectors and 114 Security inspectors were conducting inspections during fiscal year 1996. Only these respondents completed our survey, and only their responses are included in the results presented in this report. Table I.3 summarizes the survey returns.

Table I.3: Summary of Survey Returns

	Inspectors surveye	d
_	Flight Standards	Security
Population size	2,368	243
Total sample size	600	175
Surveys returned ^a	536	151
Eligible	474	114
Not eligible	62	37
Surveys not returned	66	24
Undeliverable	4	4
No response ^b	62	20
Response rate ^c	89%	869

^aDoes not include surveys that were returned but not filled out.

Database Analyses

A significant part of our review has involved obtaining and analyzing data from the databases maintained by FAA's program offices to track their inspections and from the agencywide database—the Enforcement Information System (EIS)—maintained by Flight Standards to track all enforcement cases. Because about 90 percent of FAA's enforcement cases are initiated by Flight Standards or Security, detailed analyses focus on entries for these two program offices. While Security analyzed the data from its Airport/Air Carrier Information Reporting System (AAIRS) and Civil Aviation Security Information System (CASIS), we analyzed the data from Flight Standards' Program Tracking and Reporting Subsystem (PTRS) and EIS.

While we were unable to independently verify the accuracy of all the data FAA provided, we did undertake a number of validation procedures to ensure the quality of the data. First, we performed extensive checks of the internal consistency of the databases FAA provided. In several cases, we uncovered blank fields and coding errors. We discussed the resolution of these discrepancies with FAA database personnel. In addition, we reviewed available information from internal FAA studies on EIS and other databases, as well as inaccuracies in the data noted in prior reports by GAO and by the Department of Transportation's (DOT) Inspector General, in evaluating the reliability of the data we used.

blncludes surveys returned blank, surveys received after our deadline, and surveys not received.

^cEquals the number of surveys returned divided by the number mailed.

Before performing our analyses, we met with FAA database and program office specialists responsible for these databases and discussed the proposed analyses, the specific database fields needed to conduct the analyses, and any unusual features of the databases. We consulted periodically with these specialists to resolve the handling of blank fields and other problematic data entries. After completing our preliminary analyses, we documented our procedures in a detailed memorandum to responsible managers in Flight Standards, Security, and the Office of Chief Counsel. We received written confirmation from each manager that the analyses had been properly performed using the appropriate data fields. In June 1997, we met again with FAA officials from the two program offices and the Office of Chief Counsel to discuss the results of our surveys and database analyses and to obtain their insights on the resulting findings.

Program Tracking and Reporting Subsystem

The PTRS data we analyzed represented the results of all completed inspections that were not canceled or terminated and were surveillance inspections for operations, maintenance, or avionics or for the more intensive National, Regional, or Office Aviation Safety Inspection Program inspections. We used these data to determine the number of flight-related inspections conducted by FAA overall and by each FAA region, the number of these inspections in which inspectors noted a problem or a violation, and the types of operations and air carriers inspected. While performing our analyses, we determined that the data tapes supplied to us by FAA did not include any information for the Western Pacific region for fiscal year 1991. FAA was unable to supply the missing data by our April 1, 1997, deadline. Hence, the PTRS data we analyzed for fiscal year 1991 understate the number of inspections and "P" and "U" codes entered by inspectors because they do not include the data for the Western Pacific region. We estimate that the missing data account for only about 2 percent of the total inspections performed by Flight Standards in fiscal years 1990 through 1996. Therefore, the absence of these data does not affect the report's findings for all FAA regions and program offices for the 7-year period reviewed.

Enforcement Information System

We performed a number of analyses of EIS data to determine the types of enforcement actions used to resolve cases, the time taken to resolve cases, and the reductions made in penalties initially recommended by inspectors.

Types of Enforcement Actions Used to Resolve Cases

We used these data to determine the number and types of cases opened in fiscal years 1990 through 1996. We also analyzed the types of violations associated with the cases opened during this period. For enforcement cases closed from fiscal years 1990 through 1996, we analyzed trends in the numbers of cases closed and trends in the enforcement actions used to close them (administrative actions, no action, and various types of legal actions). We also analyzed differences in the use of these enforcement actions by region and by program office (Flight Standards and Security), as well as any regional differences in their use by these program offices.

Time Taken to Resolve Cases

We performed a number of analyses to determine the time taken to process cases from the date of the violation to the date of closure. For cases closed from fiscal years 1990 through 1996, we determined the average and median time taken to adjudicate cases. We analyzed overall trends in the time taken to process cases and to complete each enforcement action (administrative actions, no action, civil penalties, certificate actions, consent orders, and other legal actions). We also performed analyses to determine the impact of Security's streamlined procedures for handling weapons cases on the time taken to process civil penalty cases. We analyzed the processing time for each enforcement action by program office (Flight Standards, Security, and other FAA program offices) to determine whether the type of violation affects the processing time. We also examined the cases closed with no action in fiscal year 1996 to determine how many and what types of cases had "gone stale" by exceeding the relevant statutes of limitation for processing or NTSB's 6-month rule. For the stale cases, we also determined which legal offices processed the cases and which types of cases were involved.

Reductions Made in Recommended Penalties

We conducted a series of analyses to determine whether FAA modifies the penalties recommended by inspectors when cases are initiated. We determined the average, median, and total monetary and nonmonetary penalties associated with various types of cases and violators. Because the average settlement can be affected greatly by the outcome of one or more cases with large recommended penalties, we also computed the median settlement, which more closely reflects the outcome of typical cases. The median is the number representing the point dividing the upper half of the responses from the lower half. We separately analyzed the civil penalty cases in which the initial and final penalties were expressed in dollars (fines) and the certificate action cases in which the initial and final penalties were expressed in days (suspensions or revocations). We also

analyzed regional variations in the percentage of penalties modified and in the percentage of the original penalty assessed in the final action. After discussions with FAA, we deleted consolidated cases—in which FAA accepts a reduced fine to settle a series of cases with an airline or other entity—from our analysis of civil penalty cases. In EIS, the entire fine may be applied to the lead case—and may exceed the recommended fine for that case—while no fine may appear for the remaining cases. The overall effect of removing consolidated cases from our analysis is to decrease the percentage of cases with modified penalties. Because we used the median dollar amount to measure the extent to which penalties were modified, the exclusion of the consolidated cases has no effect on our finding.

We also analyzed whether penalties against certain types of violators were handled differently from those against other types of violators or individuals in fiscal years 1990 through 1996. We used definitions from the Bureau of Transportation Statistics to categorize violators as major air carriers (annual revenues of more than \$1 billion) or national air carriers (annual revenues of \$100 million to \$1 billion). We categorized the remaining violators as other commercial operators with FAA codes and individuals, such as private pilots, passengers who interfere with flight operations, or people who are caught with weapons at airport screening checkpoints. We analyzed (1) the types of penalties used for these four categories (major air carriers, national air carriers, other commercial operators, and individuals); (2) the percentage of penalties that were modified for each group; and (3) the percentage of the recommended fines and suspensions that were assessed in the final action. Additionally, we determined the extent of regional variation in the modification of penalties for each of the four categories.

Case Studies

To gain a better understanding of the complex enforcement process, we also reviewed 33 enforcement cases from the Great Lakes and Southwest regions. In the Great Lakes region, we focused our work on understanding the different types of case outcomes—administrative actions, no action, civil penalties, and certificate actions. We asked Flight Standards and Security managers and inspection staff to suggest recently closed cases that they felt had resulted in efficient processing and appropriate resolutions. We also asked them to suggest cases whose processing or outcomes presented concerns. We asked them to include cases with each type of resolution in both groups.

In the Southwest region, we focused our work on cases with reduced penalties to learn more about why reductions occur. To select specific cases for review, we analyzed EIS data to identify cases that were closed in fiscal year 1995 and had reduced penalties. Because FAA had not provided us with EIS data for fiscal year 1996 before we visited the Southwest region, we selected cases with reduced sanctions from fiscal year 1995 data. From among these cases, we selected those with civil penalties as follows:

- all cases (9) with initial recommended penalties of over \$100,000;
- 5 cases with initial recommended penalties of \$10,000 to \$100,000;
- 3 cases with initial recommended penalties of \$7,500, \$5,000, and \$2,500; and
- 1 case with an initial recommended penalty of \$500.

Similarly, we selected certificate actions as follows:

- all cases (12) with initial recommended suspensions of 180 or more days,
- 2 cases with initial recommended suspensions of 90 days, and
- 2 cases with initial recommended suspensions of 30 days.

Not all requested cases were available for our review: Some files were in use, some cases against individuals had been expunged after 2 years as FAA requires, and some cases had been initiated in the region but processed by legal staff in FAA headquarters. In all, we reviewed 12 cases closed in the Great Lakes region in fiscal year 1996 and 21 cases closed in the Southwest region in fiscal year 1995.

Penalty Modifications and Time Frames for Enforcement Cases, Fiscal Years 1990-96

Fiscal year	Number of civil penalty cases	Percentage of cases with reductions in fines	Recommended fine (dollars in millions)	Actual fine (dollars in millions)	Percentage reduction in fine	Median settlement in cents on the dollar
1990	1,367	72	\$5.7	\$1.9	68	\$0.30
1991	2,979	75	\$14.0	\$3.5	75	\$0.30
1992	3,359	77	\$21.5	\$5.9	73	\$0.25
1993 ^a	4,621	86	\$33.8	\$7.1	79	\$0.10
1994	2,721	77	\$20.2	\$5.8	71	\$0.24
1995	2,739	77	\$23.7	\$8.0	66	\$0.50
1996	2,393	79	\$22.2	\$7.5	66	\$0.50

^aFAA's enforcement workload peaked during this year. From fiscal year 1990 through fiscal year 1993, the number of inspections increased and the number of civil penalty cases tripled while the staffing levels in FAA's legal offices remained unchanged.

Source: GAO's analysis of data from EIS.

Fiscal year	Number of certificate actions	Percentage of cases with reductions in suspensions	Total recommended suspension days (in thousands)	Total actual suspension days (in thousands)	Percentage reduction in suspension days	Median suspension days
1990	2,095	58	144	83	42	30 of 60
1991	1,622	66	117	58	50	30 of 60
1992	1,836	63	136	72	47	30 of 60
1993	2,175	57	154	86	44	30 of 60
1994	1,541	54	114	64	44	30 of 60
1995	1,198	54	94	56	40	30 of 60
1996	1,191	50	100	64	36	30 of 60

Appendix II Penalty Modifications and Time Frames for Enforcement Cases, Fiscal Years 1990-96

Type of operator	Number of cases re	Percentage of cases with ductions in fines	Total recommended fines (dollars in millions)	Total actual fines (dollars in millions)	Percentage reduction in fines	Median settlement in cents on the dollar
Major air carrier	1,586	85	\$23.8	\$9.0	62	\$0.33
National air carrier	506	83	\$12.1	\$3.1	74	\$0.35
Other commercial operator	2.595	84	\$41.7	\$8.2	80	\$0.09
Individual ^a	15,486	77	\$63.4	\$19.3	70	\$0.27

^aIn fiscal year 1995, FAA introduced streamlined procedures for handling certain weapons violations, reducing fines by half in exchange for payment within 30 days. At FAA's request, we examined the impact of these procedures on the reductions in recommended fines against individuals in fiscal years 1995 and 1996. Our analysis showed that because streamlined weapons cases accounted for only 12 percent of the cases against individuals during these 2 years, the reductions in penalties for these cases had little impact on the reductions in penalties assessed in all cases against individuals. In fiscal year 1996, for example, individuals were assessed an average fine of 26 cents on the recommended penalty dollar when the weapons cases are excluded, compared with 27 cents on the dollar when the weapons cases are included.

Source: GAO's analysis of data from EIS.

Table II.4: Time Taken to Process Various Types of Enforcement Actions, Fiscal Years 1990-96

Time in months				
Type of action	Number of cases	Average processing time	Median processing time	Maximum processing time
Administrative	55,612	5	2	132
No action	23,241	16	7	256
Certificate action	18,589	15	10	291
Civil penalty	20,029	26	20	272
Consent order	525	36	32	89
Other	2,552	20	9	132

Regional Variation in FAA's Enforcement Actions and Their Outcomes

Table III.1: Percentage of Flight Standards Inspections With Reported Problems, by Office, Fiscal Year 1996

Office	Number of inspections	Number of inspections with one or more problems	Percentage of inspections with one or more problems
Region			
Alaska	12,153	529	4
Central	20,559	596	3
Eastern	36,150	3,432	9
Great Lakes	40,859	2,564	6
New England	13,094	1,001	8
Northwest Mountain	24,768	2,009	8
Southern	48,015	1,790	4
Southwest	33,251	1,069	3
Western Pacific	41,552	1,642	4
Other			
Aeronautical Center	180	1	1

Source: GAO's analysis of data from PTRS.

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Table III.2: Percentage of Security Inspections With Reported Violations, by Type of Inspection and by Region, Fiscal Year 1996

Type of inspection/region	Number of inspections	Number of inspections with one or more violations	Percentage of inspections with one or more violations
Airport	-		
Alaska	46	1	2
Central	78	6	8
Eastern	155	40	26
Great Lakes	126	14	11
New England	21	1	5
Northwest Mountain	131	8	6
Southern	123	43	35
Southwest	92	14	15
Western Pacific	108	18	17
Total	880	145	16
Air carrier			
Alaska	130	10	8
Central	745	44	6
Eastern	1,369	197	14
Great Lakes	904	104	12
New England	165	12	7
Northwest Mountain	797	73	9
Southern	1,276	199	16
Southwest	864	100	12
Western Pacific	1,588	172	11
Total	7,930	922	12
Hazardous materials			
Alaska	464	80	17
Central	136	7	5
Eastern	180	15	8
European	40	2	5
Great Lakes	384	117	30
New England	57	12	21
Northwest Mountain	332	16	5
Southern	400	201	50
Southwest	292	23	8
Western Pacific	401	37	9
Total	2,686	510	19

Source: GAO's analysis of data from AAIRS and CASIS.

Table III.3: Types of Enforcement Actions Used to Close Cases, by Office Percentage of cases in which type of enforcement action was used Administrative No action Fiscal years Fiscal year Fiscal years Fiscal year Fiscal years Fiscal year Office 1990-96 1990-96 1990-96 Region Alaska Central Eastern **Great Lakes** New England Northwest Mountain Southern Southwest Western Pacific Other Aeronautical Center Europe Headquarters

Appendix III Regional Variation in FAA's Enforcement Actions and Their Outcomes

Table III.4: Types of Enforcement Actions Used to Close Flight Standards Cases, by Office, Fiscal Year 1996

Percentage of cases in which type of enforcement action was used Legal Number of Certificate Consent Office cases Administrative No action action Civil Penalty order Other Region 300 13 15 7 0 Alaska 64 а 31 25 25 17 1 Central 355 19 9 3 Eastern 1,063 58 11 0 9 **Great Lakes** 784 49 16 14 11 1 9 30 15 New England 244 44 1 11 Northwest Mountain 708 47 24 15 1 1 Southern 1,317 46 22 17 13 0 2 2 22 9 8 3 Southwest 1,242 55 2 Western Pacific 1,013 46 21 16 15 0 Other а Aeronautical Center а а а European 3 33 33 33 а а Headquarters

Note: An additional 990 self-disclosure cases were handled by Flight Standards in fiscal year 1996. Self-disclosure cases are grouped together, not by the region processing the case.

^aNot applicable.

Table III.5: Types of Enforcement Actions Used to Close Security Cases, by Office, Fiscal Year 1996

Percentage of cases in which type of enforcement action was used Legal Administrative Certificate Number of Consent Office cases action No action action Civil penalty order Other Region Alaska 122 42 11 3 43 0 2 38 а Central 213 33 27 0 Eastern 549 11 9 14 0 66 19 9 **Great Lakes** 464 41 32 а 43 15 1 41 New England 86 Northwest Mountain 563 43 8 10 39 0 Southern 811 35 12 10 41 а 1 а 11 45 1 Southwest 783 38 4 Western Pacific 1,362 70 11 5 14 0 Other Aeronautical Center 1,029 18 8 2 63 а а а European 32 88 13 а а а а а Headquarters

^aNot applicable.

	Fiscal year							
Office	1990	1991	1992	1993	1994	1995	1996	Average
Region								
Alaska	75	76	70	70	81	60	72	72
Central	65	68	74	80	75	73	82	74
Eastern	77	81	80	84	86	77	85	81
Great Lakes	66	76	75	88	82	82	86	81
New England	80	78	79	84	89	81	83	82
Northwest Mountain	71	75	68	77	64	76	81	73
Southern	78	71	80	86	69	70	72	76
Southwest	57	61	73	90	81	84	82	80
Western Pacific	78	83	84	89	85	79	69	83
Other								
Aeronautical Center	а	100	75	100	88	86	92	86
European	100	80	70	78	83	100	100	83
Headquarters	0	а	100	100	100	100	100	99
All offices	72	75	77	86	77	77	79	79

^aNot applicable.

Fines in median cents on the r	ecommended penalt	y dollar							
		Fiscal year							
Office	1990	1991	1992	1993	1994	1995	1996		
Region									
Alaska	\$0.26	\$0.40	\$0.25	\$0.27	\$0.27	\$0.53	\$0.27		
Central	\$0.50	\$0.50	\$0.40	\$0.20	\$0.25	\$0.43	\$0.50		
Eastern	\$0.00	\$0.10	\$0.35	\$0.10	\$0.18	\$0.50	\$0.44		
Great Lakes	\$0.32	\$0.25	\$0.45	\$0.00	\$0.08	\$0.50	\$0.40		
New England	\$0.13	\$0.23	\$0.40	\$0.00	\$0.00	\$0.00	\$0.13		
Northwest Mountain	\$0.50	\$0.40	\$0.50	\$0.28	\$0.60	\$0.50	\$0.50		
Southern	\$0.27	\$0.30	\$0.20	\$0.17	\$0.25	\$0.33	\$0.50		
Southwest	\$0.75	\$0.50	\$0.20	\$0.00	\$0.20	\$0.50	\$0.50		
Western Pacific	\$0.17	\$0.14	\$0.20	\$0.10	\$0.16	\$0.19	\$0.50		
Other									
Aeronautical Center	а	\$0.15	\$0.15	\$0.28	\$0.00	\$0.18	\$0.00		
European	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.31	\$0.00		
Headquarters	\$1.00	а	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		

^aNot applicable.

Appendix III Regional Variation in FAA's Enforcement Actions and Their Outcomes

Table III.8: Percentage of Certificate Actions With Reductions in Recommended Suspensions, by Office, Fiscal Years 1990-96

			Fis	scal year				Average
Office	1990	1991	1992	1993	1994	1995	1996	
Region								
Alaska	49	65	48	47	54	50	63	53
Central	51	62	60	62	57	49	48	56
Eastern	72	81	78	74	68	70	60	74
Great Lakes	59	79	65	79	71	71	64	71
New England	49	50	70	60	61	67	73	61
Northwest Mountain	51	63	52	50	54	55	57	54
Southern	58	63	68	75	69	69	68	66
Southwest	54	55	57	68	56	49	45	56
Western Pacific	56	64	61	61	61	60	67	61
Other								
Aeronautical Center	а	27	59	35	36	39	34	40
European	50	а	100	100	100	а	100	88
Headquarters	50	а	а	а	а	а	а	50
All offices	58	66	63	57	54	54	50	58

^aNot applicable.

Suspensions in days							
	Median neg	otiated suspe	nsion compare	ed with recomi	mended suspe	ension for fisca	al year
Office	1990	1991	1992	1993	1994	1995	1996
Region							
Alaska	10 of 10	5 of 10	10 of 10	10 of 10	7 of 10	9 of 10	6 of 10
Central	7 of 10	7 of 10	5 of 10	5 of 10	7 of 10	10 of 10	10 of 10
Eastern	5 of 10	1 of 10	3 of 10	3 of 10	5 of 10	5 of 10	7 of 10
Great Lakes	5 of 10	3 of 10	5 of 10	0 of 10	0 of 10	5 of 10	5 of 10
New England	10 of 10	9 of 10	5 of 10	5 of 10	5 of 10	5 of 10	5 of 10
Northwest Mountain	8 of 10	6 of 10	8 of 10	9 of 10	8 of 10	7 of 10	8 of 10
Southern	7 of 10	5 of 10	3 of 10	2 of 10	3 of 10	3 of 10	5 of 10
Southwest	7 of 10	5 of 10	5 of 10	2 of 10	7 of 10	10 of 10	10 of 10
Western Pacific	7 of 10	5 of 10	5 of 10	5 of 10	5 of 10	5 of 10	5 of 10
Other							
Aeronautical Center	а	10 of 10	5 of 10	10 of 10	10 of 10	10 of 10	10 of 10
European	8 of 10	а	0 of 10	0 of 10	0 of 10	а	0 of 10
Headquarters	8 of 10	а	а	а	а	а	

^aNot applicable.

Appendix III Regional Variation in FAA's Enforcement Actions and Their Outcomes

Table III.10: Percentage of Civil Penalty Cases With Reductions in Recommended Fines for Different Types of Operators, by Office, Fiscal Years 1990-96

		Type of or	perator	
Office	Major air carrier	National air carrier	Other commercial operator	Individual
Region				
Alaska	87	83	83	68
Central	92	88	83	69
Eastern	86	85	85	79
Great Lakes	88	94	88	79
New England	88	87	86	79
Northwest Mountain	76	71	71	73
Southern	82	84	81	75
Southwest	85	92	85	79
Western Pacific	85	81	85	82
Other				
Aeronautical Center	а	а	а	86
European	92	71	100	79
Headquarters	а	100	99	100
Total	85	83	84	77

^aNot applicable.

Table III.11: Fines Negotiated for Different Types of Operators, by Office, Fiscal Years 1990-96

Fines in cents on the recommended penalty dollar

				Type of	operator			
	Major ai	r carrier	National	air carrier	Other comme	rcial operator	Indiv	ridual
Office	Median fine	Average fine	Median fine	Average fine	Median fine	Average fine	Median fine	Average fine
Region								
Alaska	\$0.46	\$0.61	\$0.00	\$0.25	\$0.25	\$0.45	\$0.40	\$0.36
Central	\$0.38	\$0.35	\$0.41	\$0.20	\$0.40	\$0.27	\$0.40	\$0.25
Eastern	\$0.30	\$0.78	\$0.56	\$0.46	\$0.16	\$0.12	\$0.20	\$0.35
Great Lakes	\$0.00	\$0.45	\$0.10	\$0.12	\$0.00	\$0.14	\$0.24	\$0.37
New England	\$0.28	\$0.22	\$0.00	\$0.03	\$0.00	\$0.34	\$0.10	\$0.27
Northwest Mountain	\$0.67	\$0.50	\$0.67	\$0.51	\$0.50	\$0.27	\$0.50	\$0.57
Southern	\$0.40	\$0.26	\$0.06	\$0.15	\$0.02	\$0.36	\$0.25	\$0.24
Southwest	\$0.33	\$0.42	\$0.40	\$0.36	\$0.00	\$0.13	\$0.33	\$0.20
Western Pacific	\$0.24	\$0.22	\$0.18	\$0.13	\$0.10	\$0.14	\$0.20	\$0.29
Other								
Aeronautical Center	٤	a a	8	a 8	a 8	a a	\$0.05	\$0.10
European	\$0.00	\$0.11	\$0.00	\$0.30	\$0.22	\$0.05	\$0.00	\$0.19
Headquarters	8	а	\$0.00	\$0.00	\$0.00	\$0.01	\$0.00	\$0.04

^aNot applicable.

Table III.12: Suspensions Negotiated for Different Types of Operators, by Office, Fiscal Years 1990-96

Suspensions in da	ys			
			perator	
	Other commercia	l operator	Individu	al
	Negotiated comp		Negotiated comprecommended su	
Office	Median	Average	Median	Average
Region				
Alaska	0 of 10	0 of 10	7 of 10	6 of 10
Central	9 of 10	9 of 10	7 of 10	6 of 10
Eastern	0 of 10	0 of 10	4 of 10	4 of 10
Great Lakes	0 of 10	3 of 10	3 of 10	4 of 10
New England	а	а	5 of 10	6 of 10
Northwest Mountain	6 of 10	5 of 10	8 of 10	6 of 10
Southern	0 of 10	2 of 10	5 of 10	5 of 10
Southwest	0 of 10	5 of 10	5 of 10	5 of 10
Western Pacific	0 of 10	4 of 10	5 of 10	6 of 10
Other				
Aeronautical Center	a	а	10 of 10	7 of 10
European	0 of 10	0 of 10	0 of 10	2 of 10
Headquarters	а	а	8 of 10	8 of 10

Note: No major air carrier or national air carrier received a suspension or revocation during the 7-year period.

^aNot applicable.

Table III.13: Time Taken to Process Enforcement Actions, by Office, Fiscal Years 1990-96

Time in months

			Type of enforce	ement action		
Office	Administrative action	No action	Certificate action	Civil penalty	Consent order	Othera
Region						
Alaska	2	7	6	16	b	6
Central	2	5	8	14	b	9
Eastern	11	23	14	19	4	36
Great Lakes	4	16	12	21	33	12
New England	5	23	24	23	52	12
Northwest Mountain	4	5	23	12	8	5
Southern	4	13	18	16	11	30
Southwest	3	9	14	12	8	10
Western Pacific	4	12	16	28	11	10
Other						
Aeronautical Center	4	19	7	17	b	b
European	9	26	b	b	b	88
Headquarters	7	8	66	21	b	b

^aIncludes criminal sanctions, cease and desist orders, aircraft seizures, and other penalties.

^bNot applicable.

Survey of FAA Inspectors

U.S. General Accounting Office

GAO Survey of FAA Inspectors

Introduction

The U.S. General Accounting Office (GAO), an independent agency of the U.S. Congress, is surveying inspectors in the Federal Aviation Administration's (FAA's) Flight Standards Service to gather information on the enforcement process. The answers to this survey will be used to report to the Congress on problems and solutions in tracking violations of Federal Aviation Regulations (FARs) observed during surveillance inspections. This survey contains questions about your experiences in handling violations of various types. It also contains questions on the aspects of the enforcement process that affect the decisions you make as an inspector.

This survey is completely anonymous. There is no way to tie you to this questionnaire. You are asked only to return a separate postcard so that we will know which inspectors participated in our survey. There is no information that can link the postcard with your completed questionnaire.

Your cooperation is vital to the accuracy of our study. If we do not get responses from enough inspectors, we will not be able to depict the true opinions of inspectors.

Please return the survey in the enclosed envelope within the next 2 weeks to help us avoid costly follow-up mailings. If the envelope is missing, please return your survey to:

> Ms. Monique C. Austin U.S. General Accounting Office 441 G Street NW, Room 1826 Washington, DC 20548-0001

Please call Ms. Austin collect at (202) 512-6565 if you have questions about this survey.

		_	fiscal year 1996 (Oct. 1, 199	•
19	96),	did	your job responsibilities incl	ude inspection
du	ties'	? (C	heck one.) N=474	
		00%		
1.	[]	Yes> Please continue	with question 2.
2.	[]	No> Please stop here survey in the en	
2.	Co	nside	ering the surveillance you pe	rformed in fiscal
			how successful were you in	
			with Federal Aviation Regu	
	•			nations: (Check
on	e.)	N=4	7/3	
1.	[]	Very successful	38%
2.	[]	Moderately successful	43%
3.	[]	Somewhat successful	15%
4.	[]	Not very successful	3%
5.	[]	No basis to judge	1%

 Regulations? (Check one.)
 N=472

 1. [] Excellent
 4%

 2. [] Good
 25%

3. Considering the types of inspections that you perform,

how do you rate FAA's enforcement process currently as a method for fostering compliance with Federal Aviation

2. [] Good
 3. [] Fair
 4. [] Poor
 5. [] Very poor
 9%

No basis to judge

Note: Numbers may not add to 100 due to rounding.

4. Considering your surveillance, how likely are you to open an enforcement case in each of the types of violations listed below. (Check one for each row.)

Type of violation	Very likely (1)	Somewhat likely (2)	Not likely (3)	No basis to judge (4)
Violations that do <i>not</i> represent an immediate threat to safety				
a. First-time violation/cooperative attitude N=453	10%	27%	61%	2%
b. First-time violation/uncooperative attitude N=453	45%	45%	8%	2%
c. Repeated violation/cooperative attitude N=452	53%	39%	6%	2%
d. Repeated violation/uncooperative attitude N=452	89%	5%	4%	2%
Violations that represent an immediate threat to safety				
e. First-time violation/cooperative attitude N=454	60%	31%	8%	1%
f. First-time violation/uncooperative attitude N=452	86%	10%	4%	1%
g. Repeated violation/cooperative attitude N=453	83%	13%	3%	2%
h. Repeated violation/uncooperative attitude N=452	92%	3%	4%	1%

5. Of all the violations you observed during surveillance in fiscal year 1996 (Oct. 1, 1995, to Sept. 30, 1996), what percentage did you report in PTRS, including comment codes? Please include all observed violations under the FARs, even those minor situations that you might consider "technical violations." (Check one.)

[PTRS is the Performance Tracking and Reporting Subsystem.] $N\!\!=\!\!453$

Percent reported in PTRS

1.	[]	None	4%
2.	[]	1 - 10 percent	13%
3.	[]	11 - 20 percent	5%
4.	[]	21 - 30 percent	4%
5.	[]	31 - 40 percent	1%
6.	[]	41 - 50 percent	6%
7.	[]	51 - 60 percent	3%
8.	[]	61 - 70 percent	3%
9.	[]	71 - 80 percent	7%
10.	[]	81 - 90 percent	9%
11.	[]	91 - 95 percent	12%
12.	[]	96 - 100 percent	28%
13.	[]	No basis to judge	6%

6. For each of the statements below, please indicate how much of a reason (if at all) it is for why you do not open enforcement cases in certain situations. (Check one for each row. If you do not feel this series of questions applies to you, please skip to the next page.)

	Major reason (1)	Minor reason (2)	Not a reason (3)	No basis to judge (4)
a. Compliance is more important in the long run than enforcement. N=442	67%	20%	10%	2%
b. It's more important to gain immediate compliance. N=443	54%	30%	14%	2%
c. Enforcement cases take too much of my time away from inspections. N=442	25%	24%	50%	1%
d. It's better to save enforcement as a tool for situations that endanger public safety. N=442	34%	27%	36%	2%
e. Constant enforcement loses its deterrent value for non-safety violations. N=443	30%	24%	42%	5%
f. FAA headquarters stresses compliance over enforcement. N=440	13%	27%	47%	13%
g. My region stresses compliance over enforcement. N=442	11%	22%	55%	12%
h. My supervisor stresses compliance over enforcement. N=442	12%	24%	57%	7%
i. The region's legal staff are likely to drop the case or reduce the penalty. N=444	38%	25%	33%	4%
j. The system couldn't handle processing every violation. $N=441$	28%	20%	47%	6%
k. Air carriers and airports complain to Congress or FAA headquarters if too many violations are filed. N=441	16%	14%	61%	9%
1. It's not worth the effort to open an enforcement case for every violation. N=439	26%	30%	42%	3%
m. I'd rather handle the situation myself than turn it over to the legal staff. N=441	22%	32%	44%	3%
n. It takes too long for an enforcement case to get resolved. N=441	39%	23%	37%	2%
o. There's too much paperwork for a minor violation. N=444	46%	19%	33%	1%
p. It's too much work to enter violations into both PTRS and EIS (Enforcement Information System) . N=442	12%	19%	67%	3%

Improvements to the Enforcement Process

7. Please indicate whether you favor or oppose each of the following ideas for improving the effectiveness of the enforcement process. (Check one for each row.)

	i	i	1	1	i	1
	Strongly favor (1)	Generally favor (2)	Neither favor nor oppose (3)	Generally oppose (4)	Strongly oppose (5)	No basis to judge (6)
a. Hire more inspectors at this facility. N=468	24%	27%	31%	11%	7%	1%
b. Hire more administrative or clerical staff at this facility. N=471	37%	26%	24%	7%	6%	1%
c. Hire more legal staff. N=468	27%	28%	28%	6%	4%	7%
d. Improve legal staff's knowledge regarding aviation matters. N=468	53%	26%	14%	1%	1%	5%
e. Locate lawyers at this facility. N=466	27%	16%	34%	11%	9%	4%
f. Hire paralegal staff at this facility to help process enforcement cases. N=467	38%	26%	20%	9%	5%	3%
g. Issue laptop computers to all inspectors for recording inspections and violations. N=467	32%	17%	26%	12%	11%	2%
h. Have Congress resolve inconsistencies in the FARs to clarify enforcement cases. N=467	59%	17%	12%	5%	5%	2%
 i. Allow warning tickets for minor violations. N=469 	59%	23%	9%	3%	4%	2%
j. Allow tickets with fines for minor violations. N=469	54%	22%	11%	8%	4%	2%
k. Streamline paperwork for uncontested violations. N=469	71%	20%	7%	а	a	2%
Offer lower fines for uncontested violations. N=469	31%	22%	28%	12%	6%	1%
m. Increase coordination between legal staff and the inspector for decisions made during the enforcement process. N=468	53%	31%	13%	1%	а	2%

^aRepresents 0.5% or less.

(continued on the next page)

	Strongly favor (1)	Generally favor (2)	Neither favor nor oppose (3)	Generally oppose (4)	Strongly oppose (5)	No basis to judge (6)
n. Require concurrence from the inspector for changes to penalties/sanctions. N=452	58%	26%	13%	3%	a	a
o. Improve feedback to inspectors on outcome of legal cases. N=453	68%	23%	8%	0%	0%	1%
 p. Encourage inspectors to contact legal staff directly for advice. N=452 	58%	30%	10%	0%	0%	1%
 q. Improve link between information systems (for example, enable data to be transferred directly from PTRS to EIS). N=451 	49%	28%	19%	1%	1%	3%

 $^aRepresents\ 0.5\ \%$ or less.

your inspe	of the following were included in the following were included	fiscal year				h of the following best describes young fiscal year 1996? (Check one.)	
	heck all that apply.) N=467 General aviation (part 91		1.	[]	Operations	43%
1. []	•		2.	[]	Maintenance	40%
2. [] 3. []	Air carrier (parts 121 and Repair station (part 145)		3.	[]	Avionics	9%
o. []	Repair station (part 143)	4270	4.	[]	Both avionics and maintenance	7%
	of the following best descr duties? (Check one.) N=4		5.]]	Other (Please specify.)	1%
1. []	Geographic	20%	12	Λ	s of	September 30, 1996, what was yo	ur GS
2. []	Certificate	68%				heck one.) N=458	ur OS
3. []	Other (Please specify.)	12%	1.	[]	GS-11	2%
10 How	many total years have you	carvad ac	2.	[]	GS-12	15%
	nspector? (Check one.) N=		3.	[]	GS-13	53%
1. []	Fewer than 5 years	26%	4.	[]	GS-14	29%
2. []	5 - 10 years	49%	5.	[]	GS-15	>.5%
3. []	11 - 20 years	20%	6.	[]	Other (Please specify.)	>.5%
4. []	Over 20 years	5%					
			13.	. P	lease	e add any additional comments belo	ow.
				N:	=474	ı	48%

Survey of FAA Security Special Agents

U.S. General Accounting Office

GAO

Survey of FAA Security Special Agents

Introduction

The U.S. General Accounting Office (GAO), an independent agency of the U.S. Congress, is surveying special agents in the Federal Aviation Administration's (FAA's) Office of Civil Aviation Security regarding the enforcement process. The answers to this survey will be used to report to the Congress on problems and solutions in tracking violations of Federal Aviation Regulations (FARs) observed during assessment activity (inspections). This survey contains questions about your experiences in handling violations of various types. It also contains questions on the aspects of the enforcement process that affect the decisions you make as a special agent.

This survey is completely anonymous. There is no way to tie you to this questionnaire. You are asked only to return a separate postcard so that we will know which special agents participated in our survey. There is no information that can link the postcard with your completed questionnaire.

Your cooperation is vital to the accuracy of our study. If we do not get responses from enough agents, we will not be able to depict the true opinions of special agents.

Please return the survey in the enclosed envelope within the next 2 weeks to help us avoid costly follow-up mailings. If the envelope is missing, please return your survey to:

> Ms. Monique C. Austin U.S. General Accounting Office 441 G Street NW, Room 1826 Washington, DC 20548-0001

Please call Ms. Austin collect at (202) 512-6565 if you have questions about this survey.

- During fiscal year 1996 (Oct. 1, 1995, to Sept. 30, 1996), did your job responsibilities include assessments of airports and/or air carriers? (Check one.) N=114
 100%
 Yes--> Please continue with question 2.

 No --> Please stop here and return the survey in the enclosed envelope.
- 2. Considering the surveillance you performed in fiscal year 1996, how successful were you in fostering compliance with Federal Aviation Regulations? (Check one.) N=114

1.	[]	Very successful	27%
2.	[]	Moderately successful	40%
3.	[]	Somewhat successful	26%
4.	[]	Not very successful	7%
5.	[1	No basis to judge	0%

3. Considering the types of assessments that you perform, how do you rate FAA's enforcement process currently as a method for fostering compliance with Federal Aviation Regulations? (Check one.) N=114

1.	L	J	Excellent	2%
2.	[]	Good	29%
3.	[]	Fair	33%
4.	[]	Poor	26%
5.	[]	Very poor	10%
6.	ſ	1	No basis to judge.	0%

Note: Numbers may not add to 100 due to rounding.

Appendix V Survey of FAA Security Special Agents

4. Considering your surveillance, how likely are you to open an enforcement case in each of the types of violations listed below. (Check one for each row.)

Type of violation	Very likely (1)	Somewhat likely (2)	Not likely (3)	No basis to judge (4)
Violations that do <i>not</i> represent an immediate threat to safety				
a. First-time violation/cooperative attitude N=100	2%	23%	75%	0%
b. First-time violation/uncooperative attitude N=101	45%	48%	8%	0%
c. Repeated violation/cooperative attitude N=101	57%	35%	8%	0%
d. Repeated violation/uncooperative attitude N=101	90%	9%	1%	0%
Violations that represent an immediate threat to safety				
e. First-time violation/cooperative attitude N=101	50%	39%	12%	0%
f. First-time violation/uncooperative attitude N=101	86%	10%	4%	0%
g. Repeated violation/cooperative attitude N=101	86%	11%	3%	0%
h. Repeated violation/uncooperative attitude N=101	96%	3%	1%	0%

5. Of all the violations you observed during assessment activities in fiscal year 1996 (Oct. 1, 1995, to Sept. 30, 1996), what percentage did you report in AAIRS or CASIS? Please include all observed violations under the FARs, even those minor situations that you might consider "technical violations." (Check one.)

[AAIRS is the Airport/Air Carrier Information Reporting System. CASIS is the Civil Aviation Security Information System. Please consider a violation as being reported in AAIRS or CASIS whether you recorded it as an "observation" or a "violation."] N=100

Percent reported in AAIRS or CASIS

1.	[]	None	7%
2.	[]	1 - 10 percent	6%
3.	[]	11 - 20 percent	2%
4.	[]	21 - 30 percent	6%
5.	[]	31 - 40 percent	4%
6.	[]	41 - 50 percent	6%
7.	[]	51 - 60 percent	6%
8.	[]	61 - 70 percent	2%
9.	[]	71 - 80 percent	8%
10.	[]	81 - 90 percent	20%
11.	[]	91 - 95 percent	9%
12.	[]	96 - 100 percent	21%
13.	[]	No basis to judge	3%

6. For each of the statements below, please indicate how much of a reason (if at all) it is for why you do not open enforcement cases in certain situations. (Check one for each row. If you do not feel this series of questions applies to you, please skip to the next page.)

	Major reason (1)	Minor reason (2)	Not a reason (3)	No basis to judge (4)
a. Compliance is more important in the long run than enforcement. $N\!\!=\!\!110$	61%	25%	14%	1%
b. It's more important to gain immediate compliance. $N=111$	59%	28%	14%	0%
c. Enforcement cases take too much of my time away from assessments. $N=111$	16%	21%	62%	1%
 d. It's better to save enforcement as a tool for situations that endanger public safety. N=111 	32%	34%	32%	2%
e. Constant enforcement loses its deterrent value for non-safety violations. $N=111$	30%	28%	40%	3%
f. FAA headquarters stresses compliance over enforcement. N=110	21%	31%	40%	8%
g. My region stresses compliance over enforcement. N=109	20%	28%	48%	5%
h. My supervisor stresses compliance over enforcement. N=108	22%	20%	52%	6%
i. The region's legal staff are likely to drop the case or reduce the penalty. $N=111$	29%	27%	40%	5%
j. The legal system couldn't handle processing every violation. N=111	16%	23%	52%	8%
 k. Air carriers and airports complain to Congress or FAA headquarters if too many violations are filed. N=112 	16%	18%	58%	8%
1. It's not worth the effort to open an enforcement case for every violation. $N=110$	17%	37%	45%	1%
m. I'd rather handle the situation myself than turn it over to the legal staff. N=111	21%	23%	54%	2%
n. It takes too long for an enforcement case to get resolved. N=112	34%	24%	40%	2%
o. There's too much paperwork for a minor violation. $N=112$	36%	21%	42%	1%
p. It's too much work to enter violations into both AAIRS or CASIS and EIS (Enforcement Information System. N=111	15%	23%	60%	2%

Improvements to the Enforcement Process

7. Please indicate whether you favor or oppose each of the following ideas for improving the effectiveness of the enforcement process. (Check one for each row.)

	T	1		T	 	1
	Strongly favor (1)	Generally favor (2)	Neither favor nor oppose (3)	Generally oppose (4)	Strongly oppose (5)	No basis to judge (6)
 a. Hire more special agents at this facility. N=114 	48%	27%	16%	4%	3%	3%
b. Hire more administrative or clerical staff at this facility.N=114	43%	30%	23%	2%	1%	2%
c. Hire more legal staff. N=114	29%	25%	33%	4%	2%	9%
d. Improve legal staff's knowledge regarding aviation matters. N=114	40%	25%	24%	0%	1%	11%
e. Locate lawyers at this facility. N=114	16%	19%	45%	7%	8%	5%
f. Hire paralegal staff at this facility to help process enforcement cases. N=114	18%	26%	35%	5%	9%	6%
 g. Issue laptop computers to all special agents for recording assessments and violations. N=114 	47%	20%	21%	4%	5%	4%
h. Increase training for new security directives, initiatives, and FARs. N=114	64%	20%	11%	0%	2%	3%
 i. Have Congress resolve inconsistencies in the FARs to clarify enforcement cases. N=114 	65%	14%	9%	5%	4%	4%
j. Issue updates for FAR 107 and FAR 108. N=113	74%	16%	4%	0%	0%	5%
k. Allow warning tickets for minor violations. N=114	70%	15%	7%	3%	3%	3%
 Broaden use of NOVs (such as Notices of Violation for gun possession) to include airports. N=114 	61%	23%	4%	3%	4%	7%

(continued on the next page)

Appendix V Survey of FAA Security Special Agents

		1		ı		<u> </u>
	Strongly favor (1)	Generally favor (2)	Neither favor nor oppose (3)	Generally oppose (4)	Strongly oppose (5)	No basis to judge (6)
m. Broaden use of NOVs to include air carriers. N=114	60%	20%	4%	4%	4%	8%
n. Broaden use of STEP to include hazardous materials.N=107	34%	22%	21%	4%	4%	17%
 Assign individual responsibility for violations in addition to corporate responsibility. N=111 	48%	25%	13%	5%	2%	8%
 p. Increase coordination between legal staff and special agents for decisions made during the enforcement process. N=111 	41%	39%	19%	0%	0%	2%
q. Require concurrence from special agents for changes to penalties/sanctions. N=111	43%	29%	21%	2%	3%	3%
r. Improve feedback to special agents on outcome of legal cases. N=111	56%	31%	9%	2%	0%	3%
s. Encourage special agents to contact legal staff directly for advice. N=111	49%	34%	9%	4%	2%	3%
t. Improve link between information systems (for example, enable data to be transferred directly from AAIRS to EIS). N=111	68%	23%	4%	1%	1%	5%

(continued on the next page)

8. How ma	any total years have you al agent? (Check one.)	a served as an
1. []	Fewer than 5 years	N=112 13%
2. []	5 - 10 years	68%
3. []	Over 10 years	20%
o. []	Over 10 years	20%
As of Slevel? (Ch	eptember 30, 1996, who eck one.) N=112	nt was your GS
1. []	GS-5	0%
2. []	GS-7	5%
3. []	GS-9	1%
4. []	GS-11	0%
5. []	GS-12	61%
5. []	GS-13	24%
7. []	GS-14	8%
8. []	Other (Please specify.)	1%
10 Dlagge	add ann additional assu	arrente belovi
N=114	add any additional com	51%

Comments From the Department of Transportation



Assistant Secretary for Administration

400 Seventh St., S.W. Washington, D.C., 20

January 26, 1998

Mr. Gerald L. Dillingham Associate Director, Transportation Issues U.S. General Accounting Office 441 G Street, N.W. Washington, D.C. 20548

Dear Mr. Dillingham:

Enclosed are two copies of the Department of Transportation's comments concerning the U.S. General Accounting Office draft report, "Aviation Safety: Weaknesses in Inspection and Enforcement Limit FAA in Identifying and Responding to Risks," RCED-98-6.

Thank you for the opportunity to review this report. If you have any questions concerning our reply, please contact Martin Gertel on 366-5145.

Sincerely,

Meurse Saturble.
Melissa Spillenkothen

Enclosures

Department of Transportation
Comments on GAO Draft Report
Aviation Safety: Weaknesses in Inspection
and Enforcement Limit FAA
in Identifying and Responding to Risk

Overview

The Department has significant concerns regarding the GAO draft report and its unduly negative portrayal of FAA's efforts to oversee compliance with Federal Aviation Regulations. The GAO draft report's conclusions can be attributed, at least in part, to its use of inappropriate performance measures and its selectivity in reporting results from its extensive surveys of FAA field personnel. FAA has effective systems for overseeing compliance that are competently implemented through our expert field staff. While the potential for further improvement always exists, FAA's inspection and enforcement programs have contributed significantly to aviation safety and the status of our efforts is far more positive than one might perceive from reading the draft report.

The GAO draft report poses the question of whether the number of inspections conducted by Flight Standards and Security, and their associated findings, are a measure of the aviation industry's compliance with regulations. The answer is no. Although the GAO report implies that the outcome of FAA's compliance programs should be findings, violations, and enforcement actions, the intended outcome of any oversight program is compliance with the regulations. While measuring the success of FAA's oversight efforts may be difficult, we consider a clear measure of success to be our ability to help ensure that passengers arrive safely at their destinations. During the period GAO evaluated the FAA's inspection and enforcement programs, 3.6 billion passengers aboard 54.6 million scheduled air carrier departures arrived safely. These outcome measures attest to the value of FAA's oversight program. Merely using the number of inspection findings and enforcement actions raises the question of whether greater compliance is demonstrated by more or fewer findings and enforcement actions.

Other potential measures regarding the efficacy of FAA's safety inspection programs can be derived from the results of GAO's survey of FAA's field personnel. For example, the draft report's data show that 96 percent of FAA safety inspectors consider their efforts successful in fostering compliance with the Federal Aviation Regulations. In Security, 93 percent of the special agents queried considered their surveillance efforts successful. Yet these measures are not featured in the draft report, which instead focuses on the one third of inspectors who, the draft report says, may not record every single inspection finding observed into FAA's tracking system, regardless of whether they were able to achieve immediate compliance or whether the finding was significant. The FAA's inspection workforce is technically trained and experienced, and is expected to excercise judgment based on expertise. FAA expects its inspectors to focus on

appropriate methods to achieve compliance, particularly on those issues of greatest potential significance to aviation safety.

The report also unduly focuses on the systems used to track inspectors' activities and enforcement measures as a means of evaluating the effectiveness of the oversight system. This is not an appropriate measure. Our tracking systems provide important information for assisting in managing our activities, but they are not our only means for identifying priorities. As described more fully below, FAA has applied consideration of risk and risk exposure to its inspection activities and resource allocation, and will continue to do so in the future. Analysis of data in these tracking systems is but one tool at our disposal for assessing risk. These systems are good now and we are working to make them even better. Many improvements we have made over time were in direct response to earlier GAO recommendations. FAA is making effective use of all the tools at our disposal to ensure that it is keenly aware of the compliance of the aviation industry, and the challenges we face.

Notwithstanding the current effectiveness of the program, we agree that actions can be taken that will further strengthen our inspection programs, improve compliance with applicable requirements, and strengthen our analytical capability. Some of these actions have already been implemented, others, including several of the recommendations in the draft report, are underway. While many of these actions are recognized in the body of the report, we ask that they be more clearly reflected in the executive summary in order to ensure that those who read only the executive summary receive a balanced presentation of FAA's efforts. The reader should understand that FAA's efforts at overseeing aviation safety and security have been successful to date, although it recognizes that challenges remain, and it is addressing those challenges.

FAA Applies Risk Management to Oversight

The FAA considers risk and risk exposure in allocating its scarce inspection resources and focusing its activities for safety and security oversight. While tools such as the Safety Performance and Analysis System (SPAS), and the Airport and Air carrier Information Reporting System (AAIRS), offer the potential to assist FAA in further fine-tuning oversight resource allocation, FAA continues to allocate inspectors and in-depth inspection activities based on consideration of the level of risk and the extent of the public's exposure to it. The identification of risks to aviation safety and security necessarily involves considerations far beyond trend analysis of past inspection results. No matter how thorough the data entry and how consistent the basis of inspections, analysis of this information presents only an extrapolation of history. While this information provides one useful indicator, past performance is not necessarily indicative of present events and future results. That is why the FAA's inspection and security workforce is composed of highly trained individuals with extensive knowledge of airline and security operations. It is the combination of data

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analysis, awareness of present events and the impact of ongoing changes, combined with the expert judgement formed through years of practical experience in the aviation industry that FAA employs to oversee compliance with safety and security regulations and requirements.

In order to allocate inspection resources as effectively as possible, FAA examines a number of factors that go beyond previously reported inspection findings and enforcement actions. For example, the Office of Civil Aviation Security applies a careful analysis of risks to the aviation system based on consideration of system vulnerabilities together with a threat analysis in order to appropriately deploy its resources and focus its activities. Because of the varying nature of these factors, it is both necessary and appropriate for some regional variation to occur as Security focuses its efforts on specific risks identified in particular areas.

Regional Variation in Enforcement Reflects Differences in Size, Complexity, and Local Factors

The differences among regions in the amount and type of enforcement activity noted in the GAO draft report are related to factors including the size of the region, the number of major airports or airlines managed in the region, and a number of factors unique to each region, including variations in the level and types of activities, and local laws. For example, the size of a region and regional factors reflecting community variation can mean the difference between experiencing 100 firearms violations in one region and only 10 in another. Special agents must consider what kind of enforcement actions will deter future violations. Numerous factors are considered in determining whether to pursue a legal versus administrative enforcement action. As a result, regional variation in the number of legal as compared to administrative enforcement actions can be affected by the extent of activities that occur at an airport in comparison to others, community norms and laws, and consideration of the appropriate level of action necessary to achieve compliance. It is not necessarily indicative of the quality of program implementation. Similar considerations apply to the implementation of safety compliance and enforcement programs. The appropriate level of enforcement action to be pursued in any given situation depends on a multitude of factors and a determination, based on the expert judgement of our field personnel, on the appropriate level of actions necessary to encourage compliance.

FAA Is Working With the Aviation Industry to Further Enhance Safety

FAA has been working with the aviation industry on numerous programs intended to assist the industry in further improving its already strong safety record. For example, FAA is working with air carriers to develop Aviation Safety Action Programs (ASAP), also known as partnership programs, to identify safety problem areas with their operations. These programs are developed for each individual air carrier, together with

its cognizant Certificate Management Office. Rather than relying exclusively on punitive measures such as those available under traditional enforcement programs, these efforts initially rely on cooperative efforts on the part of the airline, its labor unions, and the FAA to correct the identified problems.

Another joint effort by FAA and the aviation industry with great promise for addressing safety issues before they become problems is the Flight Operations Quality Assurance (FOQA) program. In this joint effort between major airlines and the FAA, airlines will routinely provide data for analysis from their flight data recorders aboard aircraft. This program holds great potential for identifying issues with flight procedures, safety systems, and aircraft performance. Since this is a proactive program, concerns can be identified, and corrective actions can be developed and implemented before a mishap occurs.

Ongoing FAA Programs Will Further Strengthen Industry Oversight

The FAA has actions underway that could substantially modify the nature of its oversight programs. For example, the Office of Aviation Security has made its inspections more aggressive, more standardized, and more focused on security measures that are the most important, and on regulated parties that fail to perform properly. Security's information systems are making it easier for special agents to record data. Milestones have been set and are being met to make AAIRS a mobile, portable system that will enable special agents to record and process inspection data, quickly, accurately, and on-the-spot. The Flight Standards Service, after having its surveillance program thoroughly evaluated by Sandia National Labs, has embarked on an effort to more thoroughly systematize oversight efforts through the use of teams and performance measures for evaluating the industry's compliance with safety requirements. Flight Standards has also moved forward with SPAS, which utilizes data from a number of databases to supplement the formal basis for FAA's analysis of safety trends. Recently, FAA began implementation of SPAS II which adds additional data bases into its analytical framework and provides inspectors with more user-friendly tools for analysis. Finally, Security and Regulation and Certification are working with the Office of the Chief Counsel to create more efficient options for processing enforcement actions.

FAA Refining Compliance and Enforcement Programs

The GAO report could better recognize that FAA is refining the effectiveness of its compliance and enforcement programs by pursuing more efficient methods to handle enforcement actions. For example, the FAA's lines of business are working with the Office of the Chief Counsel to streamline and improve the quality of the Enforcement Investigative Report and to develop a more efficient method of taking administrative action that will facilitate minor violation documentation.

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FAA also has a Compliance Review Team (CRT), comprised of individuals from Regulation and Certification, Security, and the Office of the Chief Counsel, which has been analyzing data related to trends in enforcement, safety, and inspection activities. The CRT is pursuing several initiatives including changes to FAA Order 2150.3A to update enforcement criteria for taking administrative action and incorporating further provisions for Consent Orders, Cease and Desist Orders, and Orders of Denial. In addition, there is an ongoing effort to establish a priority case policy which may include a targeted enforcement concept. Using this concept, FAA will identify the areas with the greatest impact on safety and target its surveillance and enforcement activities to address these areas. In addition, the Office of Civil Aviation Security has prioritized its enforcement actions. For example, violations of Security Directives, which are essentially temporary emergency measures, are given the highest enforcement priority. Most violations involving single points of failure, which are points in the system where there is no back-up system to double check the original process, are also given higher enforcement priority.

FAA Preparing New Compliance and Enforcement Tools

FAA has been experimenting with a new administrative enforcement mechanism known as a Ticket. This program is in some ways similar to the enforcement program used by highway law enforcement officers around the country, in that inspectors and special agents may issue these warnings to violators on-the-spot at the time a violation of Federal Aviation Safety Regulations is identified. It is anticipated that this program will save substantial time for inspectors and special agents by eliminating the need to fill out paperwork and mail letters back and forth. It also offers the benefit of providing immediate feedback to the regulated entity regarding the nature of the problem and the actions needed to rectify it. The new ticket form will be entered into the Enforcement Information System (EIS), saving additional time and paperwork. We anticipate that the program will be generally available to field inspectors by the summer of 1998.

FAA is also pursuing other innovations in attempt to further strengthen its compliance and enforcement programs. For example, FAA has prepared a Notice of Proposed Rulemaking to implement a streamlined legal enforcement process for additional security violations and certain industry drug testing violations. In addition, Security is training its field personnel on the expansion of the voluntary disclosure program for airports, so that FAA and industry can work closely together in avoiding the pitfalls of some of the more routine violations that may be encountered. Flight Standards is pursuing an effort to overhaul its safety surveillance programs. As currently envisioned, this effort would result in the formation of certificate management teams which act proactively in a coordinated, dynamic manner, to oversee airline operations. This approach would more closely link system analysis with surveillance planning, staffing and training.

Individuals Who Reviewed GAO'S Draft Report on FAA's Inspection and Enforcement Program

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Related GAO Products

Human Factors: FAA's Guidance and Oversight of Pilot Crew Resource Management Training Can Be Improved (GAO/RCED-98-7, Nov. 24, 1997).

Aviation Safety: Efforts to Implement Flight Operational Quality Assurance Programs (GAO/RCED-98-10, Dec. 10, 1997).

Aviation Safety: FAA Oversight of Repair Stations Needs Improvement (GAO/RCED-98-21, Oct. 24, 1997).

Aviation Safety and Security: Challenges to Implementing the Recommendations of the White House Commission on Aviation Safety and Security (GAO/T-RCED-97-90, Mar. 5, 1997).

Aviation Safety: New Airlines Illustrate Long-Standing Problems in FAA's Inspection Program (GAO/RCED-97-2, Oct. 17, 1996).

Aviation Safety: Targeting and Training of FAA's Safety Inspector Workforce (GAO/T-RCED-96-26, Apr. 30, 1996).

Aviation Safety: Data Problems Threaten FAA Strides on Safety Analysis System (GAO/AIMD-95-27, Feb. 8, 1995).

FAA Technical Training (GAO/RCED-94-296R, Sept. 26, 1994).

Aviation Safety: FAA and the State Department Can Better Manage Foreign Enforcement Cases (GAO/RCED-94-87, Mar. 17, 1994).

Aviation Safety: Progress on FAA Safety Indicators Program Slow and Challenges Remain (GAO/IMTEC-92-57, Aug. 31, 1992).

Aviation Safety: FAA Needs to More Aggressively Manage Its Inspection Program (GAO/T-RCED-92-25, Feb. 6, 1992).

Aviation Safety: Problems Persist in FAA's Inspection Program (GAO/RCED-92-14, Nov. 20, 1991).

Aviation Safety: Emergency Revocation Orders of Air Carrier Certificates (GAO/RCED-92-10, Oct. 17, 1991).

Aviation Safety: FAA's Safety Inspection Management System Lacks Adequate Oversight (GAO/RCED-90-36, Nov. 13, 1989).

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Aviation Training: FAA Aviation Safety Inspectors Are Not Receiving Needed Training (GAO/RCED-89-168, Sept. 14, 1989).

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Aviation Safety: Needed Improvements in FAA's Airline Inspection Program Are Underway (GAO/RCED-87-62, May 19, 1987).

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