

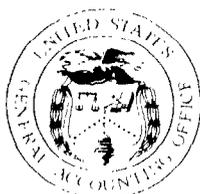
GAO

Report to Congressional Committees
and Subcommittees

April 1991

TRANSPORTATION

Status of GAO's Open Recommendations on Transportation Policies and Programs



Resources, Community, and
Economic Development Division

B-243009

April 10, 1991

Congressional Recipients

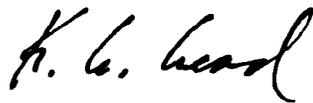
On January 16, 1991, the General Accounting Office (GAO) issued its annual report to the Chairmen of the House and Senate Committees on Appropriations entitled Status of Open Recommendations: Improving Operations of Federal Departments and Agencies (GAO/OP-91-1). The report summarized the findings and open recommendations resulting from GAO audits and other review work in federal departments and agencies on which satisfactory legislative or administrative actions had not been completed as of September 30, 1990. The report contained information on over 2,200 GAO recommendations that remained open at that time.

Although copies of the governmentwide report are available to your Committees and Subcommittees, this report on 142 open recommendations—138 in the Transportation Issue Area and 4 in related areas—is being issued as a separate document to focus attention on the matters that are of primary interest to the Committees and Subcommittees with transportation-related responsibilities. It also provides updates, where available, on changes in the status of action on the recommendations since September 30, 1990. The report includes

- discussions of the impact of our work in the transportation area over the past few years and the key open recommendations (see app. I);
- additional background information, not found in the governmentwide report, on the status of actions as of September 30, 1990, on recommendations in our products on transportation matters issued from January 1985 through September 1990 (see app. II);
- details (and updates, where available) on the 138 open recommendations in the Transportation Issue Area as of September 30, 1990, including (1) 52 on which action was in process; (2) 70, generally made in more recent reports, on which action had not been initiated; (3) 8 on which the action taken had not been fully responsive to the recommendation; and (4) 8 on which action on the recommendation is not intended (see app. III);
- details (and updates, where available) on the 4 open recommendations in related areas (see app. III); and
- indexes of the recommendation addressees (see app. IV) and committees of jurisdiction (see app. V) for the recommendations included in appendix III.

This report should be useful to your Committees and Subcommittees in your consideration and oversight of transportation-related matters. Details on the findings and recommendations summarized in appendix III can be found in the individual GAO reports and testimonies cited.

We are sending copies of this report to the Office of Management and Budget, the Department of Transportation, and the National Railroad Passenger Corporation. Copies are also being provided to the Ranking Minority Members of your Committees and Subcommittees and to the Senate and House Committees on Appropriations. Copies will be made available to others on request. If you have any questions, I can be reached at (202) 275-1000.



Kenneth M. Mead
Director, Transportation Issues

List of Recipients

The Honorable Ernest F. Hollings
Chairman, Committee on Commerce, Science, and Transportation
United States Senate

The Honorable Quentin N. Burdick
Chairman, Committee on Environment and Public Works
United States Senate

The Honorable John Glenn
Chairman, Committee on Governmental Affairs
United States Senate

The Honorable Robert A. Roe
Chairman, Committee on Public Works and Transportation
House of Representatives

The Honorable John D. Dingell
Chairman, Committee on Energy and Commerce
House of Representatives

The Honorable Walter B. Jones
Chairman, Committee on Merchant Marine and Fisheries
House of Representatives

The Honorable John Conyers, Jr.
Chairman, Committee on Government Operations
House of Representatives

The Honorable Frank R. Lautenberg
Chairman, Subcommittee on Transportation and Related
Agencies
Committee on Appropriations
United States Senate

The Honorable Wendell H. Ford
Chairman, Subcommittee on Aviation
Committee on Commerce, Science, and Transportation
United States Senate

The Honorable John B. Breaux
Chairman, Subcommittee on Merchant Marine
Committee on Commerce, Science, and Transportation
United States Senate

The Honorable J. James Exon
Chairman, Subcommittee on Surface Transportation
Committee on Commerce, Science, and Transportation
United States Senate

The Honorable Daniel P. Moynihan
Chairman, Subcommittee on Water Resources, Transportation
and Infrastructure
Committee on Environment and Public Works
United States Senate

The Honorable William Lehman
Chairman, Subcommittee on Transportation and Related Agencies
Committee on Appropriations
House of Representatives

The Honorable James L. Oberstar
Chairman, Subcommittee on Aviation
Committee on Public Works and Transportation
House of Representatives

The Honorable Norman Y. Mineta
Chairman, Subcommittee on Surface Transportation
Committee on Public Works and Transportation
House of Representatives

The Honorable Robert A. Borski
Chairman, Subcommittee on Investigations and Oversight
Committee on Public Works and Transportation
House of Representatives

The Honorable Al Swift
Chairman, Subcommittee on Transportation and Hazardous
Materials
Committee on Energy and Commerce
House of Representatives

The Honorable W. J. (Billy) Tauzin
Chairman, Subcommittee on Coast Guard and Navigation
Committee on Merchant Marine and Fisheries
House of Representatives

**The Honorable Barbara Boxer
Chairwoman, Subcommittee on Government Activities
and Transportation
Committee on Government Operations
House of Representatives**

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Abbreviations

AAS	Advanced Automation System
ARTS	Automated Radar Terminal System
ASR	Airport Surveillance Radar
ATC	air traffic control
CAB	Civil Aeronautics Board
CDL	commercial driver's license
CIP	Capital Investment Plan
CORN	Computer Resources Nucleus
DOT	Department of Transportation
DSO	designated senior official
EPA	Environmental Protection Agency
FAA	Federal Aviation Administration
FHWA	Federal Highway Administration
FRA	Federal Railroad Administration
FTC	Federal Trade Commission
GAO	General Accounting Office
GSA	General Services Administration
HMIS	Hazardous Materials Information System
ICC	Interstate Commerce Commission
ILS	instrument landing systems
IRM	information resource management
ISP	Interim Support Plan
ISSS	Initial Sector Suite System
MCSAP	Motor Carrier Safety Assistance Program

Contents

MIS	management information system
MLS	microwave landing systems
NAS	National Airspace System
NHTSA	National Highway Traffic Safety Administration
NPRM	Notice of Proposed Rulemaking
NTSB	National Transportation Safety Board
OIG	Office of Inspector General
OMB	Office of Management and Budget
OMC	Office of Motor Carriers
OSHA	Occupational Safety and Health Administration
OST	Office of the Secretary of Transportation
PIPP	Pipeline Inspection Priority Program
R&D	research and development
RPMS	Regional Project Management Information System
4R	Resurfacing, Restoration, Rehabilitation, and Reconstruction
RSPA	Research and Special Programs Administration
SEPTA	Southeastern Pennsylvania Transportation Authority
TDWR	Terminal Doppler Weather Radar
TRACON	Terminal Radar Approach Control
UMTA	Urban Mass Transportation Administration
VSCS	Voice Switching and Control System
WPMS	Work Program Management Subsystem

Impact of GAO's Work and Key Open Recommendations in the Transportation Issue Area

Transportation is critical to the nation's economic growth as well as to its ability to compete in a global environment. According to the Department of Transportation (DOT), Americans spend nearly \$800 billion for transportation products and services annually, or almost 19 cents of every consumer dollar. In one year, the nation records 3.5 trillion passenger-miles of travel and 3.4 trillion ton-miles of freight traffic. Transportation and transportation-related businesses employ one-tenth of America's work force. Mobility, however, has its price: transportation accidents result in almost 50,000 deaths annually. As a result, safety remains one of the highest national priorities.

Other challenges also face the transportation sector. Considerable portions of the nation's transportation infrastructure are obsolete or deteriorating. The aviation, highway, and waterway systems are increasingly congested. Concerns are raised about transportation-related environmental effects and the effectiveness of transportation security practices. The pressures of global business competition increase the need to strengthen American transportation to remain competitive. And, demands are increasing for more and better public transit and rail service. At the same time, severe fiscal constraints require increased reliance on private resources and more efficient use of public resources for meeting transportation needs.

To help meet transportation needs, the annual federal transportation budget has grown to over \$30 billion. For fiscal year 1992, the requested budget authority includes

- about \$20 billion for ground transportation activities, including federal-aid highways, highway safety, mass transit, railroads, and regulation;
- about \$10 billion for air transportation activities, including airports and airways, aeronautical research and technology activities, and air carrier subsidies; and
- about \$3.5 billion for water transportation activities, including marine safety and transportation programs and ocean shipping programs.

Impact of Our Work

Over the past few years, our reports and testimonies on transportation matters were designed to provide a better understanding of, and identify concrete actions needed to improve, aviation, rail, and highway safety and the efficiency and effectiveness of transportation policies and programs. These policies and programs have involved such activities and issues as

- airspace management; air traffic control system modernization; aging aircraft; airport security; and recruitment, training, and use of air traffic controllers and aircraft inspectors and maintenance personnel;
- preparation for and response to oil spills and clean up of hazardous waste sites;
- movement of hazardous materials by railroad and pipeline and transport of food in the same vehicles that haul garbage;
- alcohol abuse in the maritime industry;
- drug testing;
- effects of the Loma Prieta earthquake; and
- testing and licensing commercial drivers.

Other of our reports and testimonies have been or will be used in congressional and departmental examinations relating to problems associated with increasing airline industry concentration, threats to the benefits that have resulted from deregulation, deterioration of the nation's transportation infrastructure, reauthorization of the Highway Trust Fund, and proposed creation of a national scenic byways program. In particular, our recommendations have resulted in the Congress' requiring, and DOT and its modal administrations' implementing, corrective actions in the following critical areas.

Enhancing Management Effectiveness

To achieve greater success in enhancing all transportation safety programs and in promoting effective use of limited resources, we recommended that DOT improve the definition of safety program objectives and adopt appropriate measures of effectiveness and productivity standards.¹ In response to this recommendation, the Federal Aviation Administration (FAA) has established an organization responsible for identifying high-risk conditions and developing a comprehensive set of safety indicators. In addition, DOT issued its National Transportation Policy Statement² following the call in our Transition Series report on Transportation Issues³ that DOT formulate a national transportation plan articulating a coherent vision of the national transportation system and establishing an integrated set of policies and plans to achieve that vision.

¹Department of Transportation: Enhancing Policy and Program Effectiveness Through Improved Management (GAO/RCED-87-3, Apr. 13, 1987).

²Moving America: New Directions, New Opportunities, A Statement of National Transportation Policy (U.S. Department of Transportation, Feb. 1990).

³Transportation Issues (GAO/OCG-89-25TR, Nov. 1988).

Our review of FAA's air traffic control modernization program has also resulted in several improvements. For example, by revising its National Airspace System (NAS) Plan and developing the Aviation System Capital Investment Plan, which was issued in December 1990, FAA should improve the basis on which the Congress will make future funding decisions.⁴ In addition, the agency's establishment of an independent operational testing unit was responsive to our call for greater assurance that systems will meet operational needs before they are deployed.⁵ Further, FAA promptly issued operational procedures for the Airport Surveillance Radar's (ASR-9) weather channel so that controllers will issue standard messages to pilots to help them avoid dangerous areas of intense precipitation.⁶

Improving Transportation Safety and Security

Our work has provided convincing arguments for many safety-related improvements. For example, pursuant to our recommendation,⁷ the National Highway Traffic Safety Administration speeded up its rulemaking activities to require that passive restraints be installed on new light trucks and vans, an action that the agency estimates could save 2,000 lives each year. In aviation, our recommendations related to the aging aircraft challenge have prompted FAA to develop a comprehensive plan on how it will ensure the airworthiness of an aging airline fleet.⁸ On drug testing requirements, which affect about 4 million private sector transportation workers and involve six of DOT's modal administrations, our work has led DOT to create a departmental focal point for drug control policy and to take other actions to improve oversight and management of modal administrations' programs.⁹

Our testimony before the President's Commission on Airport Security and Terrorism, convened in response to the bombing of Pan Am Flight

⁴Air Traffic Control: Continued Improvements Needed in FAA's Management of the NAS Plan (GAO/RCED-89-7, Nov. 10, 1988).

⁵Air Traffic Control: FAA Needs to Implement an Effective Testing Program (GAO/IMTEC-89-62, Sept. 22, 1989).

⁶Aviation Weather: FAA Needs to Resolve Questions Involving the Use of New Radars (GAO/RCED-90-17, Oct. 12, 1989).

⁷Motor Vehicle Safety: Passive Restraints Needed to Make Light Trucks Safer (GAO/RCED-90-56, Nov. 30, 1989).

⁸Meeting the Aging Aircraft Challenge: Status and Opportunities (GAO/T-RCED-90-2, Oct. 10, 1989).

⁹Drug Testing: Management Problems and Legal Challenges Facing DOT's Industry Programs (GAO/RCED-90-31, Nov. 27, 1989).

103, underscored the need for major security improvements by FAA, such as establishing minimum training standards for extra security measures at high-risk foreign airports.¹⁰ Corrective actions are being implemented by FAA and DOT, including better coordination procedures with the Department of State.

Identifying Alternative Means of Financing

We focused attention on issues relevant to congressional debates over highway and aviation reauthorization bills, particularly the expanded use of transportation trust funds.¹¹ We found that the highway trust fund balance could support a one-time increase in federal-aid highway authorizations of \$3.4 billion, while retaining a \$3 billion "safety cushion." Similarly, we commented that a greater share of FAA's operational expenditures could be paid by the aviation trust fund without resorting to an increase in passenger ticket taxes. Reauthorization legislation, enacted during the 101st Congress, increased the fund's contribution to operational expenditures. While passenger ticket taxes were also increased, the intent of the increase was not to finance the increased contribution to operational expenditures, but to help reduce the federal deficit.

Enhancing Protection of the Environment

We testified that the federal response to the Exxon Valdez oil tanker grounding in Alaska was clearly inadequate to contain and recover the spilled oil.¹² We stated that no one was prepared to deal with a spill of that magnitude, and we advocated greater emphasis on the prevention of such spills by designating a single entity responsible for the development of an action plan. As a result of this and other oil spill reviews, the Congress, in the Oil Pollution Act of 1990, calls for the development of contingency plans. It also established a \$1 billion federal oil spill fund.

In addition, on the basis of our testimony and that of others, the Congress, in the Coast Guard Authorization Act of 1989, called for an expanded Coast Guard effort to clean up its hazardous waste sites and to comply with environmental laws.¹³

¹⁰Proactive Management of FAA's Security Program Needed (GAO/T-RCED-90-20, Dec. 18, 1989).

¹¹Operations of and Outlook for the Transportation Trust Funds (GAO/T-RCED-90-78, May 8, 1990) and Operations of and Outlook for the Highway Trust Fund (GAO/T-RCED-90-79, May 9, 1990).

¹²Adequacy of Preparation and Response Related to Exxon Valdez Oil Spill (GAO/T-RCED-89-59, Aug. 10, 1989).

¹³The Coast Guard's Cleanup of Hazardous Waste Sites (GAO/T-RCED-90-6, Nov. 1, 1989).

Key Open Recommendations

Despite the many actions and initiatives the Congress, DOT, and the modal administrations have taken in response to our recommendations, some important recommendations remain open and warrant priority attention.

Air Traffic Control Modernization

While FAA's new Capital Investment Plan is intended to more fully cover air traffic control modernization needs, FAA has not indicated that it will address our recommendation that the benefits, costs, and schedules of all needed projects be identified so that relative priorities can be set and other internal FAA plans can reflect the full scope and pace of modernization.¹⁴ In addition, FAA needs to complete its revision of air traffic controller staffing standards, which is particularly important for determining the number of controllers needed to support a modernized air traffic control system.¹⁵ To ensure the proper use of modernization funds, future procurements of system components such as microwave landing systems and Mode S radars need to be better justified and planned, and alternatives for meeting requirements need to be analyzed.¹⁶

Transportation Infrastructure

In the infrastructure area, the cost of meeting current and future needs for capital investment—an estimated \$315 billion through the year 2000 for highways and about \$50 billion for bridges—far exceeds available federal funding. Making the best use of available funds requires better information on needs and priorities, alternative strategies to address the needs, and refined mechanisms for targeting spending. We believe that, in considering reauthorization of the \$70 billion Federal-Aid Highway Program, the Congress should consider providing the states more flexibility to better address state needs.¹⁷

In addition, we have pointed out for congressional consideration several modifications that may be needed in federal funding and management of

¹⁴Air Traffic Control: Continued Improvements Needed in FAA's Management of the NAS Plan (GAO/RCED-89-7, Nov. 10, 1988).

¹⁵FAA Staffing: Improvements Needed in Estimating Air Traffic Controller Requirements (GAO/RCED-88-106, June 21, 1988).

¹⁶Microwave Landing Systems: Additional Systems Should Not Be Procured Unless Benefits Proven (GAO/RCED-88-118, May 16, 1988) and Air Traffic Control: Ineffective Management Plagues \$1.7-Billion Radar Program (GAO/IMTEC-90-37, May 31, 1990).

¹⁷Transportation Infrastructure: A Comparison of Federal and State Highway Laws (GAO/RCED-90-157, June 27, 1990).

interstate highway preservation activities to better ensure that the nation's \$100 billion investment in the Interstate Highway System is adequately protected.¹⁸ These modifications include establishing national goals for the maximum acceptable levels of poor and fair pavement, redefining activities eligible for funding to encourage more attention to maintenance activities and safety-related deficiencies, emphasizing priorities by linking the federal cost share to the number of beneficiaries, and requiring an assessment of the extent to which alternative transportation strategies are expected to alleviate the expected shortfall in lane widening and associated costs.

**Management
Improvements**

The Department needs to continue efforts to better plan and implement policy and safety program initiatives; manage and oversee grants programs; and strengthen financial, information, and procurement systems.¹⁹ In addition, the Coast Guard, which has taken some steps to improve program management, needs to fully develop and implement a performance management system capable of determining how efficiently it uses resources and how well its programs are achieving their objectives.²⁰

¹⁸Preserving the Interstate System (GAO/T-RCED-90-68, Apr. 24, 1990).

¹⁹Department of Transportation: Enhancing Policy and Program Effectiveness Through Improved Management (GAO/RCED-87-3, Apr. 13, 1987).

²⁰Coast Guard: Reorganization Unlikely to Increase Resources or Overall Effectiveness (GAO/RCED-90-132, July 12, 1990).

Status of Actions as of September 30, 1990, on Recommendations in GAO Products on Transportation Matters Issued From January 1985 Through September 1990

From January 1, 1985, through September 30, 1990, we published over 100 reports and testimonies that called attention to problems and opportunities for improvements in the programs and activities of the Department of Transportation (DOT), the DOT modal administrations, DOT's Office of Inspector General (OIG), the National Railroad Passenger Corporation (Amtrak), and the Interstate Commerce Commission (ICC). These products covered aviation safety and security programs; air traffic control modernization; highway, vehicle, and pipeline safety; surface transportation infrastructure management and funding; Coast Guard missions and roles; passenger rail service; urban mass transportation activities; drug testing; deregulation, competition, and consumer protection issues; and various other matters.

Of these published products, 107 contained 320 recommendations (or matters for congressional consideration) to bring about improvements or to correct deficiencies. Of the total, 289 recommendations were directed to DOT, its modal administrations, or its OIG; 28 recommendations or matters for consideration were directed to the Congress; 2 recommendations were made to Amtrak; and 1 recommendation was made to ICC. DOT, its modal administrations, and its OIG have made significant progress in implementing many of our recommendations. In addition, the Congress has enacted legislation incorporating several of our recommendations and suggestions.

Despite the many actions that have been taken, we considered 138 of the 320 recommendations or matters for consideration by the Congress to be still open as of September 30, 1990. Included in the 138 were 123 recommendations to DOT or its modal administrations (see table II.1.); 13 recommendations/matters for the Congress (see table II.2); and the 2 recommendations to Amtrak. Of the 92 fiscal year 1990 open recommendations/matters for Congress, 26 were made in the last quarter of the fiscal year. These 26 were all to DOT.

**Appendix II
Status of Actions as of September 30, 1990,
on Recommendations in GAO Products on
Transportation Matters Issued From January
1985 Through September 1990**

Table II.1: Status of Action as of September 30, 1990, on Recommendations to DOT in GAO Products Issued January 1, 1985 - September 30, 1990

Status of action	Number of recommendations in fiscal year						Total
	1985 ^a	1986	1987	1988	1989	1990	
Closed:							
Action completed	17	16	36	22	19	12	122
Action completed, alternative action taken	3	2	4	2	3	0	14
Recommendation no longer applicable	0	0	2	0	3	0	5
Action taken not fully responsive	2	2	1	1	5	0	11
Recommendation valid/action not intended	4	0	4	5	1	0	14
Total closed	26	20	47	30	31	12	166
Open:							
Action not yet initiated	0	0	0	0	0	55	55
Action in process	0	0	5	12	13	22	52
Action taken not fully responsive	0	0	0	2	4	2	8
Recommendation valid/action not intended	0	0	6	0	0	2	8
Total open	0	0	11	14	17	81	123
Total recommendations	26	20	58	44	48	93	289

^aFrom January 1 through September 30, 1985.

Table II.2: Status of Action as of September 30, 1990, on Recommendations/Matters for the Congress in GAO Products Issued January 1, 1985 - September 30, 1990

Status of action	Number of recommendations in fiscal year						Total
	1985 ^a	1986	1987	1988	1989	1990	
Closed:							
Action completed	1	2	0	0	0	3	6
Recommendation no longer applicable	0	2	0	0	0	1	3
Recommendation valid/action not intended	1	3	0	0	0	2	6
Total closed	2	7	0	0	0	6	15
Open:							
Action not yet initiated	0	0	3	0	1	9	13
Other	0	0	0	0	0	0	0
Total open	0	0	3	0	1	9	13
Total recommendations/matters for consideration	2	7	3	0	1	15	28

^aFrom January 1 through September 30, 1985.

**Appendix II
Status of Actions as of September 30, 1990,
on Recommendations in GAO Products on
Transportation Matters Issued From January
1985 Through September 1990**

The details on the 123 open recommendations to DOT and the 13 open recommendations/matters for the Congress, as well as on 2 open recommendations to Amtrak, are in appendix III.

Open Recommendations on Transportation and Related Matters as of September 30, 1990

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Aviation Safety: Commuter Airports Should Participate in the Airport Certification Program

GAO/RCED-88-41, 11/18/87; GAO Contact: Kenneth M. Mead, (202) 275-1000

Background

In response to a congressional request, GAO evaluated the Federal Aviation Administration's (FAA) requirements for participation in its Airport Certification Program, particularly (1) its requirements for commuter airlines with 30 or fewer passenger seats, (2) the program's safety benefits and cost-effectiveness, and (3) alternative requirements and their impact on commuter airports.

Findings

GAO found that (1) airports that serve only commuter airlines with less than 31 passengers cannot acquire certification; (2) many currently certified airports could lose their certification because they no longer meet FAA participation requirements; (3) the program has increased airport safety by reducing the risk of accidents and enhancing airports' ability to deal with accidents; (4) airport certification costs ranged from \$25,000 to \$313,000 for capital costs, \$8,200 to \$77,000 for annual operating costs, and \$820 to \$2,100 for FAA inspection and recertification; (5) a grant program under the Airport and Airway Improvement Act of 1982 could cover most of airports' capital costs; and (6) implementation of alternative participation requirements would increase the number of certified commuter airports.

Open Recommendations to Agencies

Recommendation	The Secretary of Transportation should direct the Administrator, FAA, to change the participation requirements for the Airport Certification Program to require certification for all airports that receive regularly scheduled service. If the Secretary deems it necessary to resolve uncertainty over his authority to certify commuter airports, he should seek specific authority from the Congress.
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Status	Action in process. Estimated completion date: 12/91. In fall 1989, the Secretary of Transportation sought legislative authority. However, the Congress has not introduced legislation in this regard.
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Recommendation	The Secretary of Transportation should direct the Administrator, FAA, to develop a new category of certification for low-activity airports that would require full implementation of the risk-reduction features of the airport certification program and allow the use of alternatives for crash, fire, and rescue equipment.
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Status	Action in process. Estimated completion date: 12/91. The Department of Transportation (DOT) agreed with this recommendation, but needs changes in legislation which it is pursuing. DOT believes the Congress needs to give it statutory authority. The Congress has not yet introduced legislation.
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Aviation Services: Automation and Consolidation of Flight Service Stations

GAO/RCED-88-77, 02/08/88; GAO Contact: Kenneth M. Mead, (202) 275-1000

Background

Pursuant to a congressional request, GAO reviewed the Federal Aviation Administration's (FAA) program to consolidate and automate its flight service stations, focusing on (1) whether the new automated system is performing all FAA-required services and the quality of those services, (2) the effect of technical problems experienced at the automated stations, and (3) the effect of staff constraints on automated operations.

Findings

GAO found that the automated stations (1) are performing all FAA-required services, although the manner in which they provide services has changed; (2) do not provide weather observations; and (3) are experiencing technical problems involving computer systems, telephone lines, data lines, and telephone and radio communications. GAO also found that (1) FAA contracted for weather observation services in areas that permanently closed stations formerly served and (2) FAA is testing an automated weather observing system to replace the observers.

In addition, GAO found that staffing and consolidation constraints (1) have delayed achievement of anticipated productivity gains, (2) have increased the number of stations with reduced hours that FAA has not been able to close, and (3) will probably continue until consolidation is complete.

Open Recommendations to Agencies

Recommendation

The Secretary of Transportation should direct the Administrator, FAA, to not further reduce the flight service specialist work force until after the flight service stations are closed and performance standards and staffing levels can be developed for the automated stations.

Status as of September 30, 1990

Action in process. Estimated completion date: 12/94. Staffing standards for automated stations should be completed by April 1990. The FAA policy is that existing stations will not be consolidated until automated stations are equipped with Model 1 or Model 1 Full Capacity. As a result

of legislation, consolidation schedules for 40 stations have been modified to postdate delivery of Model 1 Full Capacity systems to the automated stations.

Update

According to an FAA official, the staffing standards for the flight service stations are still under development. He estimated that the standards would be issued in the next 2 to 3 months.

Recommendation

The Secretary of Transportation should direct the Administrator, FAA, to ensure that the automated weather observing systems, acquired to replace contracted weather observers for areas formerly served by stations that have been closed, meet all FAA weather forecasting operational requirements.

Status

Action in process. Estimated completion date: 12/94. FAA Advisory Circular 150/5220-16, Automated Weather Observing Systems for Non-Federal Applications, contains all the requirements for weather forecasting. FAA is ensuring that actions meet weather forecasting operational requirements.

**Airport Noise: FAA's
Enforcement of Noise
Rules at National
Airport**

GAO/RCED-88-117, 04/15/88; GAO Contact: Kenneth M. Mead, (202) 275-1000

Background

In response to a congressional request, GAO reviewed the Federal Aviation Administration's (FAA) monitoring and enforcement of aircraft noise rules at Washington National Airport.

Findings

GAO found that (1) between January 1982 and June 1987, FAA monitored all flights between 10 p.m. and 7 a.m. for compliance with the nighttime rule and imposed penalties for violations; (2) FAA exempted noncompliant operations which it determined were beyond operator control; (3) during the past 6 years, flights during peak traffic hours have exceeded high-density rule limits by up to 13 percent; (4) since its monitoring

equipment broke down in 1985, FAA has relied on voluntary operator compliance with the airport's noise abatement procedures; and (5) it was unable to determine the number of violations or the rate at which FAA imposed penalties, since FAA did not maintain adequate records. GAO noted that the Metropolitan Washington Airports Authority budgeted funds to purchase monitoring equipment as part of its responsibility for noise abatement.

Open Recommendations to Agencies

Recommendation

The Secretary of Transportation should direct the Administrator, FAA, to (1) monitor all—or a systematic, generalizable sample of—operations at high-density airports, including National Airport, for compliance with the high-density rule and (2) maintain a system of records of the violations identified and its disposition of them in a form that will enable FAA to evaluate its overall monitoring and enforcement effort.

Status as of September 30, 1990

Action taken not fully responsive. FAA does not intend to follow the first part of this recommendation. FAA is (1) monitoring air carrier and commuter flights to prevent scheduling of flights in excess of the number of slots held or flown outside hours of slots without detection by FAA and (2) maintaining records of enforcement actions and also inquiries into situations which may lead to enforcement.

Update

According to FAA, substantial diversion of resources to high-density rule monitoring is not supported by evidence of an existing compliance problem, and monitoring all operations would be an inefficient and unnecessary use of air traffic control and other enforcement resources. It said that all air carrier and commuter schedules are monitored and that no air carrier or commuter operator can schedule flights in excess of the number of slots held, or outside the hours of those slots, without detection by FAA. FAA added that it is not feasible for a carrier to operate a flight regularly at a different time than scheduled because the flight could not be marketed. Therefore, according to FAA, the check on schedules is a highly effective check on regular operations.

In addition, FAA said that there would be no real benefit to a systematic sample in lieu of the judgmental approach it was using. It said that, although FAA sampling does not necessarily monitor carriers in proportion to the number of operations they conduct, it is FAA's experience that the largest carriers are less likely to violate the rule than certain other operators. According to FAA, this may be due to the major carriers' large, experienced scheduling departments and long experience with compliance with the high-density rule.

Microwave Landing Systems: Additional Systems Should Not Be Procured Unless Benefits Proven

GAO/RCED-88-118, 05/16/88; GAO Contact: Kenneth M. Mead, (202) 275-1000

Background

Pursuant to a congressional request, GAO reviewed the Federal Aviation Administration's (FAA) National Airspace System Plan, focusing on (1) the justification and requirements for replacing improved instrument landing systems (ILS) with microwave landing systems (MLS), (2) potential MLS operational and economic benefits, (3) the MLS siting strategy, and (4) industry and user association views of ILS and MLS.

Findings

GAO found that FAA (1) first justified its need for MLS in 1969, citing concerns about ILS reliability and limitations and projected large increases in air traffic volume; (2) planned to replace ILS with MLS, although it did not reassess its needs by taking into consideration substantial ILS improvements and lower-than-projected traffic volumes; (3) experienced significant delays and increased program costs for MLS production and testing; (4) has not adequately assessed potential MLS benefits or identified its limitations; (5) requested \$20 million to initiate a second MLS procurement and to develop the avionics to demonstrate MLS benefits; (6) is developing plans to test MLS at two airports; and (7) developed its list of MLS implementation sites without considering test results, cost benefits, and user support.

GAO also found that (1) both national and international air carriers were generally satisfied with ILS capabilities, (2) regional and commuter airlines generally supported MLS, and (3) commercial and general aviation pilots' views toward MLS differed.

Open Recommendations to Agencies

Recommendation

The Secretary of Transportation should require the Administrator, FAA, to reassess the requirements to replace ILS with MLS, recognizing improvements to ILS and current and expected air traffic growth. The reassessment should consider (1) improved ILS reliability, (2) increases in the number of available ILS channels, (3) reduced ILS siting problems, and (4) the ability of aircraft to land using ILS in lower ceiling and visibility minimums than previously possible.

Status

Action in process. Estimated completion date: 12/91. FAA concurs in this recommendation. A detailed plan for the follow-on MLS procurement was approved by the Deputy Secretary on December 6, 1988, which provides for integration of the demonstration project into the overall MLS implementation strategy. A decision on whether to proceed with final production is targeted for the end of 1991.

Recommendation

The Secretary of Transportation should direct the Administrator, FAA, to demonstrate MLS benefits by testing the system in the challenging airport environments in which it is to be used. This should be done before proceeding with further MLS procurements. The operational tests should involve (1) wide-bodied aircraft, (2) landing at major hub airports having difficult and complex operating requirements, (3) both good and poor weather conditions, (4) both curved and segmented approaches, and (5) operating under the control of FAA traffic controllers and interfacing with the air traffic control environment.

Status

Action in process. Estimated completion date: 12/91. A detailed plan for the follow-on MLS procurement, approved by the Deputy Secretary on

December 6, 1988, provides for integration of the demonstration project into the overall MLS implementation strategy. The demonstration project consists of nine projects which are all underway, and a decision point for final production is targeted for the end of calendar year 1991.

Recommendation

The Secretary of Transportation should direct the Administrator, FAA, not to proceed with the planned second MLS procurement unless the assessment of ILS improvements and air traffic growth, as well as the operational testing of MLS, has been completed. In the interim, FAA must accept delivery of 178 MLS and should use them (1) in operational tests; (2) on some international runways, if internationally scheduled airlines are willing to acquire the necessary on-board avionics; (3) at locations that qualify for a precision landing system, but where FAA can clearly show that ILS cannot be sited because of terrain or obstacles in the approach or missed approach path; and (4) at heliports.

Status

Action in process. Estimated completion date: 12/91. The contract has been terminated for cause. Two replacement contracts for a limited number of commercial systems to satisfy the requirements for the demonstration program are underway. They will be deployed in the manner recommended by GAO.

Recommendation

The Secretary of Transportation should require the Administrator, FAA, to take the action necessary to maintain ILS as the primary landing system nationally and internationally until the assessment, analysis, and demonstrations have been completed.

Status

Action in process. Estimated completion date: 12/91. FAA continues to install and maintain ILS until a final decision is reached on MLS as a result of the demonstration program.

FAA Staffing: Improvements Needed in Estimating Air Traffic Controller Requirements

GAO/RCED-88-106, 06/21/88; GAO Contact: Kenneth M. Mead, (202) 275-1000

Background

Pursuant to a congressional request, GAO examined the Federal Aviation Administration's (FAA) standards for estimating its air traffic controller staffing requirements, focusing on (1) whether the standards reasonably projected staffing requirements, (2) how FAA used the standards, and (3) how FAA can improve the standards and their use.

Findings

GAO found that (1) FAA understated its staffing requirements, since its controller staffing standards did not adequately reflect work-load complexity, peak traffic conditions, actual operating conditions at terminals and centers, attrition, and training needs, and (2) it used orders rather than computer models to determine its other personnel needs.

GAO also found that (1) the Congress offset the possible impact of underestimated staffing needs by authorizing more staffing than FAA requested; (2) FAA adopted the current standards in 1981, but has not yet officially published or effectively communicated them to regional and facility managers; (3) FAA regional and facility managers used their own unvalidated processes and formulas for estimating staffing needs and did not use the current standards as management tools or for productivity measures; and (4) FAA has not revalidated or updated the current standards and has not established a process for doing so.

Open Recommendations to Agencies

Recommendation

The Secretary of Transportation should direct the Administrator, FAA, to revise the terminal and center staffing standards to better reflect actual field operations.

**Appendix III
Open Recommendations on Transportation
and Related Matters as of September 30, 1990**

Status as of September 30, 1990	Action in process. Estimated completion date: 06/91. New terminal radar approach standards will be reflected in the 1991 budget request. Updated center standards should be done and ready to use in the 1992 budget request. Terminal standards are still under revision with no date set for completion.
Update	Action still in process. Estimated completion date changed to 09/91. New terminal radar approach standards were reflected in the 1991 budget request. New center standards have been completed and used for the 1992 budget request. The tower cab standards are under revision and are to be completed by the end of fiscal year 1991.
Recommendation	The Secretary of Transportation should direct the Administrator, FAA, to base its overhead staffing requirements on operational needs and facility work load.
Status as of September 30, 1990	Action in process. Estimated completion date: 06/91. Revised standards reflect the current work load more accurately. Not all standards have been revised. The contractor is to provide updated staffing standard formulas in early fiscal year 1991 and FAA is to subsequently publish a new order to reflect revised staffing standards.
Update	Action still in process. Estimated completion date changed to 09/91. Action notices showing new terminal overhead and supervisory work load standards have been published. These revised standards reflect the current work load more accurately. The contractor is preparing updated standards for the tower cab personnel, which should be completed by the end of fiscal year 1991.
Recommendation	To improve the process it uses to determine air traffic controller staffing requirements, the Secretary of Transportation should direct the Administrator, FAA, to update the 1980 order on air traffic staffing standards to reflect the standards and process actually used by FAA.
Status as of September 30, 1990	Action in process. FAA issued a draft in the spring of 1989. However, it was never finalized. FAA will issue a new draft, but the completion date is unknown.

Update

Action still in process. Estimated completion date: 09/91. FAA is revising its staffing standard order into three separate orders—one each for terminals, centers, and flight service stations. The orders for the centers and terminals standards will be completed and used once revised overhead standards are finished. The order devoted to flight service stations is expected to be completed by the end of fiscal year 1991. According to FAA, a standard being used to set staff levels may often be revised and made obsolete before the standard has actually been published, because of delays in the publication process and the relatively frequent updating of staffing standards.

Aircraft Noise: Implementation of FAA's Expanded East Coast Plan

GAO/RCED-88-143, 08/05/88; GAO Contact: Kenneth M. Mead, (202) 275-1000

Background

Pursuant to a congressional request, GAO reviewed the Federal Aviation Administration's (FAA) implementation of its Expanded East Coast Plan, focusing on (1) agencies' responsibilities for assessing the environmental impact of revising air routes and flight procedures, (2) the plan's effects on noise and air routes, (3) how FAA measured aircraft noise, (4) reasons why FAA did not perform an environmental assessment of the plan, and (5) actions FAA took in response to citizens' complaints regarding increased aircraft noise.

Findings

GAO found that FAA (1) designed the plan to reduce air traffic delays by revising air traffic control routes and flight procedures; (2) had sole responsibility for assessing the plan's environmental impact and used a measure of day-night noise level (Ldn) to determine cumulative exposure to aircraft noise; (3) did not assess the plan's environmental impact, based on its long-standing policy to exempt routes and flight procedures carried out at over 3,000 feet from such assessment; and (4) concluded that the plan significantly reduced flight delays, but failed to link any delay reductions to specific plan components.

GAO also found that (1) the plan resulted in three new departure routes, two new arrival routes, and six realigned routes over New Jersey; (2)

New Jersey residents lodged numerous complaints about increased aircraft noise after the plan's implementation; (3) a 1-day FAA study in one affected area showed aircraft noise to be within FAA guidelines; and (4) in response to citizen complaints, FAA directed air traffic controllers to, when possible, direct flights along more varied paths to spread traffic over a wider area.

Open Recommendations to Agencies

Recommendation

The Secretary of Transportation should direct the Administrator, FAA, to improve the information base available on which to assess the merits of the Expanded East Coast Plan and other such major airspace changes by (1) preparing an environmental assessment of the effects of the plan and, if significant impacts from the plan are found, preparing an environmental impact statement; (2) making a qualitative determination of which portions of the reduced delays are due to the plan and which are due to other factors; and (3) preparing an environmental assessment of any major proposal for making widespread air route or flight procedure changes on the West Coast or in other areas of the country where delays and congestion warrant such changes.

Status as of September 30, 1990

Action taken not fully responsive. FAA does not concur with this recommendation; however, it intends to work with state and local authorities concerning the East Coast Plan and review local study results on the impact of the Expanded East Coast Plan. This falls short of performing an environmental assessment.

Update

Section 9119(a) of the Aviation Safety and Capacity Expansion Act of 1990 stipulated that FAA shall (1) issue an environmental impact statement pursuant to the National Environmental Protection Act on the effects of changes in flight patterns over New Jersey and (2) conduct an investigation to determine the effects on air safety of changes in aircraft flight patterns over New Jersey.

Airspace Use: FAA Needs to Improve Its Management of Special Use Airspace

GAO/RCED-88-147, 08/05/88; GAO Contact: Kenneth M. Mead, (202) 275-1000

Background

In response to a congressional request, GAO evaluated the Federal Aviation Administration's (FAA) management of special-use airspace set aside for military training, focusing on its (1) approval process for special-use proposals and (2) monitoring of existing special-use airspace.

Findings

GAO found that FAA (1) lacked adequate data to effectively manage special-use airspace areas and did not require military services to provide such data, (2) did not establish guidance for its regions to reduce or eliminate inappropriate use of special airspace areas, and (3) planned to discuss its role in evaluating military environmental assessments in special-use proposals with the Council on Environmental Quality. GAO noted that, in 1987, two Navy staff studies on special-use airspace utilization showed that the Navy (1) lacked a standard, centralized system for documenting and reporting its airspace usage and (2) inefficiently and inappropriately used special airspace areas.

Open Recommendations to Agencies

Recommendation

The Secretary of Transportation should direct the Administrator, FAA, to establish standards for measuring the effectiveness of special-use airspace utilization to develop a starting point for all regional discussion of modification or disestablishment of special-use airspace.

Status as of September 30, 1990

Action in process. Estimated completion date: 02/91. Guidance is being developed which will establish threshold usage levels triggering a detailed review of continued need considering frequency of use and

types of activities performed for the purpose of determining airspace modification or revocation.

Update

Action still in process. Estimated completion date changed to 09/91. Guidelines are being developed for use in evaluating special use airspace utilization. Inputs have been received from all regional air traffic divisional offices. A contractor will assist in developing the actual criteria and standards to be applied. When development of these criteria is completed, which is expected in fiscal year 1991, the criteria will be incorporated into FAA Order 7400.2C.

Air Traffic Control: Continued Improvements Needed in FAA's Management of the NAS Plan

GAO/RCED-89-7, 11/10/88; GAO Contact: Kenneth M. Mead, (202) 275-1000

Background

In response to a congressional request, GAO evaluated the Federal Aviation Administration's (FAA) National Airspace System (NAS) Plan to determine (1) the additional resources that modernization would require before realizing its benefits, (2) the causes and effects of development delays that the most costly and complex NAS Plan projects have experienced, and (3) FAA weaknesses in managing the plan.

Findings

GAO found that (1) although FAA awarded contracts to develop or produce 80 of the 92 projects, including 8 of the major systems needed to upgrade the air traffic control (ATC) system, the projects were an average of 3 years behind schedule; (2) because new projects and changes to existing projects expanded the extent of modernization, FAA would need at least \$25 billion in appropriations by the year 2000; (3) FAA lacked experience in developing and integrating large-scale systems and put several of its major systems into full production without adequate testing and evaluation; (4) FAA underestimated the size and complexity of the development effort, which led to additional performance requirements and software design difficulties; and (5) FAA overstated

some projects' benefits, which made trade-offs difficult among projects whose benefits had high passenger-time-savings components.

GAO also found that (1) FAA runs the risk that the planned testing of its major systems will not be objective due to program managers' competing goals of achieving a timely, working system within budget; (2) FAA implemented a long-range planning policy to ensure that it would effectively integrate the separate plans for the interrelated NAS components; and (3) the NAS Plan needed revisions to include all the projects for modernization, correctly estimate many project benefits, and better coordinate the NAS Plan with other FAA plans for building airports, making airspace changes, and managing human resources.

Open Recommendations to Agencies

Recommendation

The Secretary of Transportation should direct the Administrator, FAA, to revise the ATC modernization plan by (1) identifying all needed projects and their associated benefits, costs, and schedules so that relative priorities can be set on the basis of benefit-cost ratios, mission need, or safety considerations and (2) reflecting in project schedules and quantity requirements the results of other agencywide plans for airspace changes, airport development, and human resource management.

Status as of September 30, 1990

Action in process. Estimated completion date: 01/91. FAA stated that the original NAS Plan will become part of a new, more comprehensive Capital Investment Plan, now scheduled for release in January 1991. The new plan will distinguish between near-term planning and longer range planning (5 to 15 years). FAA believes this plan will satisfy the intent of GAO recommendations.

Update

FAA issued the Aviation System Capital Investment Plan (CIP) in December 1990. The CIP, which replaces the NAS Plan, encompasses the remaining projects of the original NAS Plan and contains projects that are required to update and maintain the U.S. aviation control system. It distinguishes between (1) near-term planning for those projects to which

FAA is firmly committed and has well-established strategies and (2) far-term planning for those projects that require further definition before full commitment.

Air Traffic Control: FAA Should Define the Optimal Advanced Automation System Alternative

GAO/IMTEC-89-5, 11/30/88; GAO Contact: JayEtta Z. Hecker, (202) 275-9675

Background

Pursuant to a congressional request, GAO reviewed the Federal Aviation Administration's (FAA) plans to acquire the Advanced Automation System (AAS), focusing on FAA compliance with congressional direction to (1) obtain more technical information and modify test plans before awarding the AAS acquisition contract and (2) conduct a cost-benefit study.

Findings

GAO found that FAA complied with congressional direction to obtain more technical information regarding AAS by (1) directing design contractors to perform risk-reduction activities and demonstrate how their chosen hardware and software technologies would meet performance requirements, (2) requiring the completion of additional tests before authorizing full controller work station production, and (3) reviewing the need to simulate advanced en route automation functions and deciding not to simulate them before awarding the contract.

GAO also found that the FAA cost-benefit study (1) stated that modernizing the air traffic control computer system was a good investment; (2) concluded that the most cost-beneficial approach was to close about 180 terminal control facilities and consolidate their functions at 23 large centers; (3) did not fully analyze or properly compare a full range of alternatives, including nonconsolidation approaches, to its preferred system; (4) used an unsound methodology to estimate AAS benefits; (5) addressed potential safety improvements qualitatively; (6) estimated that AAS contract costs could total \$3.3 billion, \$1.7 billion less than an independent cost analysis estimated; and (7) did not successfully control AAS design

costs and opposed suggestions to adopt a design-to-cost goal to help control costs.

Open Recommendations to Agencies

Recommendation

To ensure that FAA completes a credible cost-benefit analysis and retains the flexibility to acquire the optimal alternative, the Secretary of Transportation should direct the Administrator, FAA, to conduct an analysis to determine the optimal terminal control alternative (1) using the data supporting the recently completed cost-benefit study and (2) comparing a full range of alternative system configurations, capabilities, and locations.

Status

Action in process. FAA is continuing to develop criteria for terminal control consolidation and examine operational performance and benefit-cost issues.

Recommendation

To ensure effective cost control on the multi-billion dollar AAS acquisition, the Secretary of Transportation should review FAA cost control processes to determine whether improvements, including establishing design-to-cost goals, should be implemented.

Status

Action in process. DOT agreed to work with FAA to review potential cost control strategies, including design-to-cost goals.

Air Traffic Control: Voice Communications System Continues to Encounter Difficulties

GAO/IMTEC-89-39, 06/01/89; GAO Contact: JayEtta Z. Hecker, (202) 275-9675

Background

Pursuant to a congressional request, GAO evaluated the Federal Aviation Administration's (FAA) efforts to implement its Voice Switching and Control System (VSCS), a computer-controlled voice system designed to significantly improve air traffic controllers' communications capabilities.

Findings

GAO found that (1) FAA continues to encounter significant cost, schedule, and technical difficulties in implementing VSCS, with cost estimates tripling from \$258 million in 1982 to over \$786 million, and up to 6-year schedule slippages; (2) the two prototype contractors continue to experience difficulties in designing hardware and software capable of meeting VSCS performance requirements; (3) delays in implementing VSCS will adversely affect implementation of the Advanced Automation System, intended to replace work stations and some computer hardware and software to increase controller efficiency and effectiveness; and (4) FAA reduction in VSCS prototype testing requirements, intended to facilitate an earlier award of a production contract, could result in higher costs and longer delays if it is later determined that the equipment does not meet performance requirements.

Open Recommendations to Agencies

Recommendation

The Secretary of Transportation should direct the Administrator, FAA, not to award the VSCS production contract until, at a minimum, the agency has (1) the results of complete factory acceptance testing to ensure that prototypes meet system requirements; (2) an independent verification of the results of the contractors' testing, including an assessment of the system's performance under maximum work loads; and (3) an assessment of the operational suitability of the system.

Status

Action in process. The Department of Transportation (DOT) stated that FAA will, prior to awarding the VSCS production contract, require certain factory acceptance tests to be conducted, witness and evaluate test results, and conduct two sets of controller tests.

GAO/RCED-89-92, 06/28/89; GAO Contact: Kenneth M. Mead, (202) 275-1000

Air Traffic Control: FAA's Implementation of Modernization Projects in the Field

Background

Pursuant to a congressional request, GAO evaluated the Federal Aviation Administration's (FAA) progress in implementing the National Airspace System (NAS) Plan, focusing on (1) the adequacy of FAA headquarters planning for regional installation and integration of NAS equipment and (2) whether FAA regions had sufficient information to perform those tasks within established schedules.

Findings

GAO found that (1) some headquarters implementation plans did not adequately identify regional tasks or project requirements; (2) FAA headquarters changed project requirements after regions began implementation; and (3) all of the projects it reviewed experienced some delivery delays, but in at least four cases, the delays allowed the regions sufficient time to prepare for implementation.

GAO also found that (1) the regions used separate information systems to manage various implementation tasks, and the systems frequently yielded data different from data that the headquarters systems produced; (2) regional information systems included inaccurate data on delivery dates and could not accurately estimate staffing needs; (3) regional and headquarters project milestones were not comparable; and (4) FAA had no clear timetable for implementing the Regional Project Management Information System (RPMS), which it will require in order to estimate staffing for future regional NAS implementation projects.

Open Recommendations to Agencies

Recommendation

The Secretary of Transportation should direct the Administrator, FAA, to ensure that project implementation plans conform to established FAA planning standards before they are issued.

Status as of September 30, 1990

Action in process. FAA has developed a first-site implementation concept to deal with problems noted in the report. Detailed audit work on the approximately 150 modernization projects will be needed to see if FAA action is responsive. A follow-up assignment is planned to start in fiscal year 1991. The agency's expected completion date is not known.

Update

Because of continued delays in production, delivery of new systems to the field has been delayed. Accordingly, the follow-up assignment has been deferred because there would be little against which to measure progress.

Recommendation

The Secretary of Transportation should direct the Administrator, FAA, to ensure that RPMS is available in time to develop the fiscal year 1991 budget request.

Status as of September 30, 1990

Action in process. Estimated completion date: 12/90. RPMS will not be in place until at least the fall, 1990.

Update

According to FAA's program manager for RPMS, the system is now complete. He said that RPMS was used to generate budget needs for FAA's fiscal year 1992 budget request.

Airline Competition: DOT's Implementation of Airline Regulatory Authority

GAO/RCED-89-93, 06/28/89; GAO Contact: Kenneth M. Mead, (202) 275-1000

Background

Pursuant to a congressional request, GAO examined the effectiveness of the Department of Transportation's (DOT) airline oversight activities, focusing on how DOT (1) developed and implemented its policy for approving airline mergers and (2) protected airline passengers from unfair and deceptive trade practices.

Findings

GAO found that (1) major changes occurred in the airline industry between 1979, when the Civil Aeronautics Board (CAB) formed its assumptions about airline contestability, and 1985, when DOT used CAB assumptions to approve mergers; (2) airlines developed such new strategies as frequent-flyer programs and computerized reservations systems to compete for business and limit new competition; (3) DOT studied the roles of potential competitors, rather than the combined effects of the new strategies on competition; and (4) DOT considered such physical barriers as airports' capacity to handle take-offs and landings as the only meaningful measure of whether a merger would significantly limit competition.

GAO also found that (1) although the DOT merger authority under the CAB Sunset Act should have expired in 1988, an act anomaly allowed DOT to continue its authority to bring administrative proceedings against airline mergers that violated antitrust laws and (2) although the Federal Trade Commission (FTC) and the Department of Justice continued to receive premerger notification, DOT and Justice would be the only two agencies that could stop mergers.

In addition, GAO found that (1) DOT improved some aspects of its consumer protection functions; (2) DOT resolved almost 41,000 consumer complaints in 1987 and conducted 378 investigations in 1988 that resulted in \$174,500 in fines for violations; (3) although DOT stated that a major priority of the investigative effort was to look for violation patterns, it failed to follow up on several companies' deceptive trade practices; and (4) DOT policies on deceptive advertising caused confusion and prompted state actions to establish other advertising guidelines.

Open Recommendations to Congress

Recommendation	To treat airline mergers like mergers in most other industries, the Congress may wish to consider amending 15 U.S.C. 21 and 45 and 49 U.S.C. 1381 to ensure that only the Department of Justice and FTC, rather than DOT, have jurisdiction over airline mergers.
Status	Action not yet initiated.
Congressional Action	Judiciary Committee staff have talked about developing a bill, but no action has been taken due to pressing business.

Open Recommendations to Agencies

Recommendation	To make better use of its limited resources, the Secretary of Transportation should ensure that DOT coordinates its consumer affairs functions with state offices. Such coordination could include a strategy for sharing information and coordinating rulemaking and enforcement activities with the states.
Status	Action in process. DOT has stated that it intends to hold a conference with state consumer protection officials to improve coordination. DOT maintains a continuous and ongoing relationship with state agencies and will consider this recommendation as funding permits. The expected completion date is unknown.

Air Traffic Control: Computer Capacity Shortfalls May Impair Flight Safety

GAO/IMTEC-89-63, 07/06/89; GAO Contact: JayEtta Z. Hecker, (202) 275-9675

Background

Pursuant to a congressional request, GAO evaluated the Federal Aviation Administration's (FAA) computer systems capability to minimize the possibility of near mid-air collisions, focusing on (1) how FAA managed computer capacity in existing terminal systems and (2) if FAA assessed capacity limitation in terminal systems that could preclude effective implementation of planned safety enhancements intended to reduce near mid-air collisions.

Findings

GAO found that (1) there were widespread computer shortfalls at terminal area facilities that FAA did not recognize until controllers began experiencing lost, flickering, or delayed data on their displays; (2) the shortfalls occurred because FAA lacked a computer capacity and performance management program to monitor Terminal Radar Approach Control (TRACON) system performance and to determine future requirements; and (3) FAA concluded that it did not need the program because it believed that the existing systems would meet requirements until an advanced system would replace it in the next decade.

GAO also found that (1) FAA could not predict computer shortfalls, since it did not measure computer utilization or test software enhancements under the heaviest work loads; (2) FAA improved software and postponed some less critical functions in an attempt to alleviate capacity shortfalls at some terminals; (3) FAA did not adequately assess the resources necessary to accommodate future traffic growth, the Mode C Intruder function, and additional Mode C-equipped aircraft; and (4) the current sole-source contract to increase computer capacity was not an ideal solution, since it included purchasing equipment that was no longer manufactured and might not meet FAA needs.

Open Recommendations to Agencies

Recommendation

To address existing shortfalls that currently threaten the ability of controllers to maintain separation of aircraft, the Secretary of Transportation should direct the Administrator, FAA, to take necessary actions to ensure that critical air traffic control functions are not interrupted by capacity shortfalls. Initially, this involves gathering and reporting important capacity-related data, identifying quickly those TRACON that have the most urgent problems and, in concert with TRACON officials, identifying potential solutions to the problems. Identification of potential solutions should include considering those temporary measures that have been successfully used at selected TRACON, as well as other approaches to reduce work loads.

Status

Action in process. FAA has taken some actions in response to this recommendation, including assessing computer processing inefficiencies, identifying the busiest TRACON, directing the busiest TRACON to develop contingency plans to respond to capacity shortfalls, and procuring solid-state memories. Other actions in response to the recommendation are currently in process.

Recommendation

The Secretary of Transportation should direct the Administrator, FAA, to implement a computer capacity and performance management program for TRACON computer systems, including analyzing trends in data processing work loads to determine when existing system capacities will be saturated.

Status

Action taken not fully responsive. FAA has implemented a software performance monitor at 49 of its 63 largest sites. This will provide FAA with some data on current work loads, but this is not a complete computer capacity and performance management program.

Recommendation

The Secretary of Transportation should direct the Administrator, FAA, to implement a computer capacity and performance management program

for TRACON computer systems, including conducting comprehensive analyses of the utilization, processing capacity, and input/output rates of present and projected work loads. Analyses of future work loads should include the full impact of the expanded Mode C rule.

Status

Action taken not fully responsive. DOT stated that, while FAA studies were not as formal as GAO expects, it believed that FAA had already thoroughly analyzed short-term and long-term capacity requirements. However, FAA had not thoroughly analyzed these requirements. DOT also stated that FAA had recently developed a performance monitoring tool that is to be incorporated at each facility in order to begin gathering necessary data.

Recommendation

The Administrator, FAA, should ensure that the FAA Technical Center test facility uses configurations that more accurately replicate the processors, displays, and traffic at the busiest operational sites to ensure that approved software functions will work.

Status

Action in process. The Department of Transportation (DOT) stated that the capabilities of the Technical Center would be increased to ensure that a sufficient number of displays can be configured into the system.

Recommendation

After implementing the program and identifying the work-load requirements for TRACON, the Secretary of Transportation should direct the Administrator, FAA, to ensure that all future procurements of hardware and software are determined by these requirements.

Status

Action in process. DOT stated that FAA plans to use the results of the newly developed monitoring tool and any other performance management system it develops as a basis for all future procurements.

Recommendation

Because a new advanced system is not scheduled to replace existing TRACON systems until the mid-to-late 1990s, the Secretary of Transportation should direct the Administrator, FAA, to perform a complete analysis of all available alternatives for meeting the larger TRACON air traffic requirements for at least the next 10 years. Recognizing that the existing Automated Radar Terminal System (ARTS) IIIA design is over 15

years old, this analysis should seek to identify the most cost-effective solution for meeting FAA requirements.

Status

Action taken not fully responsive. DOT stated that an analysis of alternatives had already been done in 1987. In addition, DOT stated that an analysis was being conducted to determine the need to upgrade ARTS IIIA systems for consolidated TRACON under development.

**Aviation Weather:
FAA Needs to Resolve
Questions Involving
the Use of New Radars**

GAO/RCED-90-17, 10/12/89; GAO Contact: Kenneth M. Mead, (202) 275-1000

Background

Pursuant to a congressional request, GAO provided information about the Federal Aviation Administration's (FAA) progress in disseminating hazardous weather data from three new weather-related systems, focusing on (1) FAA progress in preparing the necessary operational procedures for the Airport Surveillance Radar (ASR-9) weather channel and the Terminal Doppler Weather Radar (TDWR) and (2) the status and availability of weather services FAA intended to provide through the Aeronautical Data Link.

Findings

GAO found that FAA (1) did not implement formal procedures for transmitting ASR-9 weather data from controllers to pilots, although the first ASR-9 radar was operational and FAA planned to deploy additional radars; (2) believed that controllers needed to experience basic changes in ASR-9 precipitation detection capabilities before it issued formal procedures, and did not believe that the absence of operational procedures hindered controllers' use of ASR-9, although controllers lacked guidance regarding how often to use ASR-9 or how to interpret the precipitation display; and (3) did not require controllers to use ASR-9 weather information to reroute planes, although the improved weather detection capability could help controllers anticipate the need to reroute planes around adverse weather.

GAO also found that FAA (1) planned to install the first TDWR unit by June 1993, and install 47 additional units over the following 3 years; (2) is

evaluating data dissemination procedures as part of its TDWR operational testing, since it and the airline industry are concerned about the adequacy of using its current, less capable weather system's procedures to alert pilots of events identified by TDWR; and (3) planned to provide hazardous weather advisories through its Aeronautical Data Link, although its significant delay, due to its reliance on other delayed information systems, could require additional operational testing.

Open Recommendations to Agencies

Recommendation

The Secretary of Transportation should direct the Administrator, FAA, to evaluate, during subsequent operational tests of TDWR, the impact and efficiency of having controllers direct aircraft around microbursts. The agency could then resolve the policy question concerning the dissemination of microburst warnings and therefore implement the most effective operational procedures.

Status

Action not yet initiated. FAA is awaiting final evaluations from the National Aeronautics and Space Administration's Ames Research Laboratory on this issue.

Aviation Safety: FAA's Safety Inspection Management System Lacks Adequate Oversight

GAO/RCED-90-36, 11/13/89; GAO Contact: Kenneth M. Mead, (202) 275-1000

Background

Pursuant to a congressional request, GAO evaluated the Federal Aviation Administration's (FAA) internal controls and management practices to ensure district offices' compliance with national work program guidance

regarding aircraft maintenance and pilot training inspection requirements.

Findings

GAO found that FAA (1) developed the computer-based Work Program Management Subsystem (WPMS) to serve as a management tool for recording inspection requirements, plans, and results; (2) lacked adequate oversight to detect district offices' inadequate implementation of national inspection guidance, failure to follow FAA inspection policies and practices, and entry of inaccurate and incomplete information into WPMS; (3) used inaccurate and incomplete WPMS data in reporting its inspection accomplishments to the Congress; (4) district staff did not enter into WPMS half of the inspections required for national work goals; (5) lacked adequate management oversight to ensure that district offices correctly entered data into WPMS; (6) planned to enhance WPMS hardware and software that did not address data accuracy problems; and (7) inspectors and supervisors who lack confidence in WPMS as an effective management tool to plan and record inspections have established their own handwritten or computer systems to perform the functions WPMS should perform.

Open Recommendations to Agencies

Recommendation

The Secretary of Transportation should direct the Administrator, FAA, to provide adequate supervision, as required by internal control standards, to ensure that national FAA inspection policies are followed by local FAA staff who are responsible for implementing the required national work program. To aid in this supervision, the Secretary should direct the Administrator to establish adequate checks of data entered into WPMS to ensure that the information on inspections in the system is complete and accurate.

Status as of September 30, 1990

Action not yet initiated. According to a Department of Transportation official, FAA believes that congressional approval of a request to reprogram funds is needed before it can implement the recommendation.

Update

Action in process. Estimated completion date: 09/94. To help ensure that inspection information is complete and accurate, FAA is in the process of replacing old computer equipment with upgraded equipment. In fiscal year 1990, \$6 million was spent to replace the old equipment; in fiscal year 1991, \$4 million has been earmarked for this effort. FAA expects to have all the new equipment in place by the end of fiscal year 1994.

Aging Aircraft: FAA
Needs Comprehensive
Plan to Coordinate
Government and
Industry Actions

GAO/RCED-90-75, 12/22/89; GAO Contact: Kenneth M. Mead, (202) 275-1000

Background

GAO assessed the Federal Aviation Administration's (FAA) efforts to ensure the safety of aging commercial aircraft.

Findings

GAO found that FAA (1) sponsored a June 1988 international conference on aging aircraft after an accident involving an aging aircraft's structural failure; (2) and the airline industry initiated many promising actions to respond to conference recommendations and hosted a second conference to discuss those actions; (3) lacked a comprehensive plan for coordinating and evaluating initiatives to ensure participants' awareness of all activities and facilitate oversight of joint initiatives; and (4) could use its resources more effectively by developing hands-on aircraft inspection approaches to supplement paperwork reviews of maintenance records, analyzing trend data on aircraft maintenance and repair, and assessing the impact of the potential capacity shortage in the aircraft repair industry on the FAA inspection work force.

Open Recommendations to Agencies

Recommendation

The Secretary of Transportation should direct the Administrator, FAA, to develop a plan describing present and anticipated actions to meet the aging aircraft challenge, their time frames, and the resources necessary to complete those actions.

Status as of September 30, 1990

Action in process. Estimated completion date: 12/90. FAA is developing a plan that describes industry and government actions underway to meet the aging aircraft challenge.

Update

Estimated completion date changed to 07/91. FAA's plan has fallen behind schedule. FAA now expects to publish the plan in July 1991. GAO reviewed the draft plan and found that it lacked critical information, such as staffing levels; resource and capacity limitations of regulatory action, such as structural airworthiness directives; and airline progress in making required repairs.

Recommendation

The Secretary of Transportation should direct the Administrator, FAA, to report periodically to the Congress on the progress toward accomplishing the plan's goals.

Status as of September 30, 1990

Action in process. Estimated completion date: 12/90. FAA will update the plan on an annual basis and provide copies to the Congress.

Update

Estimated completion date changed to 07/91.

**Aviation Safety:
Management
Improvement Needed
in FAA's
Airworthiness
Directive Program**

GAO/RCED-90-94, 02/16/90; GAO Contact: Kenneth M. Mead, (202) 275-1000

Background

Pursuant to a congressional request, GAO reviewed the Federal Aviation Administration's (FAA) oversight of its Airworthiness Directive Program, focusing on (1) whether FAA oversight is sufficient to determine airlines' compliance with directives and (2) how FAA safety information could be used to make the program more effective.

Findings

GAO found that (1) the National Transportation Safety Board's (NTSB) accident investigations and FAA special inspections have shown significant noncompliance with airworthiness directives; (2) during routine inspections, FAA personnel were not always verifying compliance, since FAA inspection guidelines allowed inspectors too much discretion; (3) because inspectors reported only noncompliance, FAA did not have information on the number of program requirements applied by inspectors or the extent of compliance throughout the airline industry; and (4) FAA was not effectively using safety data to focus its limited resources on high-risk areas during routine inspections.

**Open
Recommendations to
Agencies**

Recommendation

To improve FAA management and oversight of the airworthiness directive program, the Secretary of Transportation should direct the Administrator, FAA, to require a systematic testing for airworthiness directive compliance as part of each routine airline inspection.

Status as of September 30,
1990

Action in process. Estimated completion date: 01/91. FAA plans to code appropriate inspections into its reporting system to allow monitoring and analysis of compliance with airworthiness directives.

Update

Action still in process. A new completion date has not been estimated. According to FAA, it concurs in systematic airworthiness directive testing but believes that performing airworthiness directive testing as part of each airline inspection is not possible. FAA believes that, of the 21 types of routine airline inspections, 3 are appropriate: aircraft records, airworthiness directive implementation or modification, and spot inspections. GAO believes that airworthiness directive compliance monitoring would be beneficial for at least 4 more types of inspections. These are major repairs and alterations, deferred maintenance programs, contract maintenance, and conformity inspections.

Recommendation

To improve FAA management and oversight of the airworthiness directive program, the Secretary of Transportation should direct the Administrator, FAA, to require inspectors to report which airworthiness directives are tested and the extent of airline compliance found during each inspection.

Status as of September 30,
1990

Action in process. Estimated completion date: 01/91. FAA drafted an action notice with a requirement for inspectors to report on the extent of compliance observed during inspections. The new requirement, expected to be implemented in about 90 days, provides a standard reporting format for identifying and tracking compliance with airworthiness directives.

Update

Action completed. The action notice, issued May 9, 1990, contained a requirement for inspectors to report on the extent of compliance observed during inspections and provided a standard reporting format for identifying and tracking compliance with airworthiness directives.

Recommendation

To improve FAA management and oversight of the airworthiness directive program, the Secretary of Transportation should direct the Administrator, FAA, to maintain and analyze compliance information to determine the extent of airworthiness directive noncompliance and any

additional actions necessary to ensure that airlines comply with airworthiness directives.

Status as of September 30, 1990

Action in process. Estimated completion date: 01/91. FAA revised its management information system to provide for better tracking and analysis of airworthiness directive compliance. The change, coupled with the action notice to be implemented in 90 days, will allow FAA to determine what follow-up actions are needed to ensure airline compliance with airworthiness directives.

Update

Action still in process. A new completion date has not been estimated. FAA will specifically code the three inspection areas referred to under the first recommendation—aircraft records, airworthiness directive implementation or modification, and spot inspections—in its management information system for airworthiness directive monitoring and analysis. Also, a data base on airworthiness directive compliance and noncompliance will be built for use at the local and national levels. As stated under the first recommendation, however, GAO believes that airworthiness directive compliance monitoring would be beneficial for at least four additional types of inspection.

Recommendation

The Secretary of Transportation should direct the Administrator, FAA, to analyze and use available aircraft safety data as a management tool to focus the limited FAA inspection work force.

Status as of September 30, 1990

Action in process. Estimated completion date: 01/91. FAA believes its revised management information system will provide a multitude of aircraft safety data, which will help focus inspection resources.

Update

Action still in process. The estimated completion date has been changed to 09/91. FAA announced in September 1990 that it would use and analyze available aircraft safety data to help focus its inspection effort. FAA estimates that, by September 1991, it will have a prototype system in place to accomplish this.

FAA Procurement: Major Data-Processing Contract Should Not Be Awarded

GAO/IMTEC-90-38, 05/25/90; GAO Contact: JayEtta Z. Hecker, (202) 275-9675

Background

Pursuant to a congressional request, GAO reviewed the Federal Aviation Administration's (FAA) Computer Resources Nucleus (CORN) project.

Findings

GAO found that (1) FAA did not properly justify and plan CORN, which had major unresolved problems; (2) FAA claims about the causes of perceived problems with its Common System were poorly supported, as were its future requirements, raising doubts about the projects' justifications; (3) the FAA methodology for evaluating project technical and cost aspects was flawed and could have cost ramifications; (4) FAA cost estimates for the software conversion to CORN and the amount of support needed for the conversion were unreliable; (5) the estimated time frame for the conversion doubled from 18 months to 3 years, which led to more cost growth; and (6) the conversion would not result in better management information.

Open Recommendations to Agencies

Recommendation

Because the CORN acquisition has not been adequately justified or planned and has major unresolved problems, the Secretary of Transportation should direct that the CORN contract not be awarded.

Status as of September 30, 1990

Action not yet initiated. The FAA Administrator requested an independent review of the CORN project, scheduled for completion by late 1990. The General Services Administration (GSA) suspended its delegation of procurement authority for the CORN project on September 17, 1990, until it performs a review of current DOT plans.

**Appendix III
Open Recommendations on Transportation
and Related Matters as of September 30, 1990**

Update	The review of the CORN project was completed as scheduled.
Recommendation	The Secretary of Transportation should direct the Administrator, FAA, to ensure that future procurements of this type and magnitude are properly justified and planned prior to contract award.
Status	Action not yet initiated.
Recommendation	Before proceeding with a comprehensive procurement similar to CORN, the Administrator, FAA, should ensure that existing system deficiencies are accurately and completely identified and a solution is designed that addresses those deficiencies. Direct, periodic, systemwide monitoring, accomplished through the implementation of a computer capacity and performance management program for FAA general-purpose systems, should be used to determine the presence, extent, and causes of such performance problems as poor response times.
Status	Action not yet initiated.
Recommendation	Before proceeding with a comprehensive procurement similar to CORN, the Administrator, FAA, should ensure that the evaluation of vendors' proposals involves the use of a representative work-load sample.
Status	Action not yet initiated.
Recommendation	Before proceeding with a comprehensive procurement similar to CORN, the Administrator, FAA, should ensure that planning for conversion includes an accurate inventory of the existing applications, an assessment of their continued need, and complete estimates of the cost and employee-years needed to support the conversion, including the extent to which qualified staff are available.
Status	Action not yet initiated.

**Air Traffic Control:
Ineffective
Management Plagues
\$1.7-Billion Radar
Program**

GAO/IMTEC-90-37, 05/31/90; GAO Contact: JayEtta Z. Hecker, (202) 275-9675

Background

Pursuant to a congressional request, GAO reviewed the Federal Aviation Administration's (FAA) Mode Select (Mode S) air traffic control surveillance and communication program.

Findings

GAO found that (1) it had previously questioned FAA procurement practices and cited Mode S as a system for which FAA prematurely awarded a production contract; (2) FAA has not resolved Mode S technical problems, but expects the contractor to deliver the first fully capable system for deployment in 1993, 5 years later than planned; (3) technical problems have led to extensive schedule delays; (4) FAA officials did not fully appreciate the severity of the problems until 1989; (5) FAA failed to analyze its requirements prior to buying 259 additional systems; and (6) FAA did not justify its investment in Mode S, because it did not properly analyze its requirements, consider alternatives, or evaluate system benefits and costs.

**Open
Recommendations to
Agencies**

Recommendation

The Secretary of Transportation should independently evaluate the economic, operational, and technical risks involved in continuing the Mode S contract. Based on the results of this evaluation, the Secretary should direct the Administrator, FAA, to take appropriate and timely action to ensure that additional government funds are not wasted.

Status

Action not yet initiated.

Recommendation

The Secretary of Transportation should direct the Administrator, FAA, to cancel plans to replace remaining beacon radars with Mode S and to perform a thorough analysis of requirements, alternatives, benefits, and costs. If the analysis supports replacing remaining beacon systems with Mode S, no decision to acquire additional Mode S systems should be made until the system is demonstrated to work and provide anticipated benefits.

Status

Action not yet initiated.

Recommendation

The Secretary of Transportation should report the FAA contract administration and major system procurement processes as containing material internal control weaknesses under the Federal Managers' Financial Integrity Act.

Status

Action not yet initiated.

**Serious Shortcomings
in FAA's Training
Program Must Be
Remedied**

T-GAO/RCED-90-86, 06/06/90; GAO Contact: Kenneth M. Mead, (202) 275-1000

Background

GAO discussed the Federal Aviation Administration's (FAA) training of its safety-related work forces, focusing on FAA progress in implementing its Flight Plan for Training. GAO noted that (1) in 1989, 28,000 FAA employees attended training; (2) an increase in staff, the modernization of the air traffic system, and new safety inspection requirements resulted in a greater need for FAA to conduct training and improve its training methods; (3) so far, the FAA Flight Plan for Training, which cost \$406 million, has made little progress, primarily due to limited funding and the need for plan revisions; (4) internal appraisals and audits indicated that FAA did not evaluate training contracts promptly, which resulted in inadequate contractor performance and wasted money; and (5) FAA was not fully using its training capability, since it had not established accountability for class attendance.

Open Recommendations to Agencies

Recommendation

The Secretary of Transportation should direct the Administrator, FAA, to develop criteria for determining priorities for its training modernization program, Flight Plan for Training.

Status as of September 30, 1990

Action in process. Estimated completion date: 12/90. FAA is currently updating its Flight Plan for Training, which will include a prioritization strategy that addresses how adjustments can be made if less than full funding is made available for implementing the Flight Plan. The strategy will emphasize key safety-related projects and those that have high potential for reducing training and recruiting program operating costs.

Update

Action still in process. Estimated completion date changed to 09/91. All projects in the draft revised Flight Plan for Training have been prioritized into three categories: high, medium, and low. The priority of each project and the strategy for applying the priorities to determine funding allocations have been coordinated with the major organizations that have requirements represented in the plan. FAA expects to finalize the Plan by the end of fiscal year 1991.

Recommendation

The Secretary of Transportation should direct the Administrator, FAA, to clearly designate management accountability for ensuring the use of training slots.

Status as of September 30, 1990

Action in process. Estimated completion date: 12/90. FAA is completely overhauling the policy that governs the administration of its training program. The new policy, which will become effective in late 1990, clearly assigns regional training managers and operating division managers the responsibility to ensure that employees are appropriately assigned to training, unneeded training slots are released, and the failure to attend training is minimal.

Update

Action still in process. Estimated completion date changed to 09/91. FAA's new policy governing the administration of its training program, which is a complete overhaul of the existing policy, will contain provisions that clearly assign responsibility to regional training managers and operating division managers for ensuring that (1) employees are appropriately assigned to attend training, (2) unneeded training slots are released on a timely basis, and (3) failure of employees to attend scheduled training is kept to a minimum.

The revised Flight Plan for Training and the Training Policy Manual are in review, pending the results of three work groups studying various issues. The last group is not scheduled to complete its work until 08/91.

FAA Procurement: Competition for Major Data-Processing Project Was Unjustifiably Limited

GAO/IMTEC-90-71, 06/11/90; GAO Contact: JayEtta Z. Hecker, (202) 275-9675

Background

Pursuant to a congressional request, GAO reviewed the Federal Aviation Administration's (FAA) acquisition approach for its Computer Resources Nucleus (CORN) project, focusing on whether a key design requirement may have unnecessarily limited competition.

Findings

GAO found that (1) the agency's original objective for the CORN procurement was to achieve full and open competition and innovative vendor proposals; (2) FAA decided to require a single architecture solution that would reduce operational costs and provide a technical data-base platform; (3) a single architecture would not meet these objectives; (4) the CORN solicitation did not define key functional requirements for achieving its objectives, such as those pertaining to data accessibility; (5) FAA unjustifiably limited competition and restricted the range of solutions that vendors could offer; and (6) FAA dictated a system design that might not satisfy its needs.

Open Recommendations to Agencies

Recommendation

The Secretary of Transportation should direct the Administrator, FAA, to first fully specify FAA functional requirements that may need to be specified, including single entry of data, interrogation, accessing, and interchanging of data, and porting of software among different equipment. In doing this, if FAA determines that the procurement should have restrictive provisions, then it should justify their inclusion. FAA should then allow the vendors to propose systems that they believe will best meet its requirements.

Status

Action not yet initiated.

Recommendation

FAA should plan to adequately test and evaluate vendors' proposals to determine how well they meet the stated requirements, at a reasonable cost and acceptable risk to the government.

Status

Action not yet initiated.

Air Traffic Control: Smaller Terminal Systems' Capacity Requirements Need to Be Defined

GAO/IMTEC-90-50, 06/25/90; GAO Contact: JayEtta Z. Hecker, (202) 275-9675

Background

Pursuant to a congressional request, GAO reviewed the Federal Aviation Administration's (FAA) automated safety enhancements for air traffic controllers at smaller terminal radar approach control (TRACON) facilities, focusing on (1) the extent of and reasons for delays in developing, testing, and deploying the Automated Radar Terminal System (ARTS IIA)

hardware and software and (2) whether FAA adequately identified current and future computer capacity requirements for smaller TRACON.

Findings

GAO found that FAA did not (1) properly manage the installation of safety enhancements at smaller TRACON, which caused a 3-year delay in ARTS IIA implementation; (2) require the ARTS IIA production contractor to perform integrated tests to determine whether various portions of the system worked together; (3) have a computer capacity and performance management program for smaller TRACON; and (4) understand current computer utilization or future computer capacity requirements for smaller TRACON.

GAO also found that FAA (1) awarded the production contract before completing system development and continued to change the system requirements after it awarded the contract, (2) had not established a capacity management program because smaller TRACON had not encountered capacity shortfalls, and (3) was uncertain whether ARTS IIA would meet the needs of smaller TRACON.

Open Recommendations to Agencies

Recommendation

Experience gained in implementing the ARTS IIA project can be used to prevent similar problems from occurring on future projects. The Secretary of Transportation should direct the Administrator, FAA, to improve management of future TRACON automation projects by awarding production contracts only after development is complete, controlling changes to operational software during system development and production, and requiring contractors to perform integrated testing.

Status

Action not yet initiated.

Recommendation

The Secretary of Transportation should direct the Administrator, FAA, to implement a computer capacity and performance management program for ARTS IIA systems. This program should include an analysis of current

system performance and future work loads, including predicted traffic levels and additional software functions to determine system requirements, as well as the potential performance of the enhanced system.

Status Action not yet initiated.

Recommendation The Secretary of Transportation should direct the Administrator, FAA, to report the lack of a computer capacity and performance management program as a material control weakness under the Federal Managers' Financial Integrity Act until a program has been implemented.

Status Action not yet initiated.

Recommendation The Secretary of Transportation should direct the Administrator, FAA, to delay exercising the expansion contract option to procure additional computers until a computer capacity and performance management program is implemented and future capacity requirements are adequately defined.

Status Action not yet initiated.

Air Traffic Control: Inadequate Planning Increases Risk of Computer Failures in Los Angeles

GAO/IMTEC-90-49, 07/16/90; GAO Contact: JayEtta Z. Hecker, (202) 275-9675

Background

Pursuant to a congressional request, GAO reviewed the Federal Aviation Administration's (FAA) project to consolidate four terminal radar approach control (TRACON) facilities in the Los Angeles basin area by 1995, focusing on FAA plans to meet the automation needs of the Los Angeles basin area's terminal airspace.

Findings

GAO found that (1) the airspace in the Los Angeles basin area has experienced more near-midair collision reports than any other location in the United States; (2) the four TRACON facilities in the Los Angeles area had previously reported computer capacity shortfalls resulting in the loss of aircraft identification information from controllers' screens; (3) FAA reacted to those shortfalls with stopgap measures designed to keep current, aging systems operating; (4) the FAA plan for a consolidated facility did not allow for steep growth in air traffic and assumed that an advanced system would be implemented on schedule; and (5) due to its lack of a computer capacity and performance management program, FAA did not know if its automation plan for the consolidated facility would meet future needs.

Open Recommendations to Agencies

Recommendation

To help ensure that future computer capacity needs of the Los Angeles basin are met and that continued air safety is ensured, the Secretary of Transportation should direct the Administrator, FAA, to institute a computer capacity and performance management program to determine the current and future requirements for the Los Angeles area. As part of this program, the Secretary of Transportation should direct the Administrator, FAA, to analyze the current demand on systems during peak work-load periods, determine the expected growth in demand for computer capacity and processing resources for at least the next 10 years, and determine what computer resources will be required to meet the expected growth and ensure continued air safety.

Status

Action not yet initiated.

Recommendation

Because of the many uncertainties surrounding the capability of the Automated Radar Terminal System to adequately support the consolidated Los Angeles facility through the 1990s, the Secretary of Transportation direct the Administrator, FAA, to conduct a complete and documented assessment of all viable alternative hardware and software

solutions for addressing future capacity and processing needs. This evaluation should not be constrained by discarding without analysis any alternative that involves software development.

Status

Action not yet initiated.

Recommendation

In view of the critical impact that insufficient computer capacity could have on safe air travel nationwide, and because the Department of Transportation has not acted expeditiously in response to a prior GAO report on the FAA lack of a computer capacity management program, this area must be closely monitored by high-level agency officials. The Secretary of Transportation should direct the Administrator, FAA, to assess the efficacy of FAA actions to date to address capacity shortfalls in TRACON nationwide.

Status

Action not yet initiated.

**Air Traffic Control:
Continuing Delays
Anticipated for the
Advanced Automation
System**

GAO/IMTEC-90-63, 07/18/90; GAO Contact: JayEtta Z. Hecker, (202) 275-9675

Background

Pursuant to a congressional request, GAO reviewed the Federal Aviation Administration's (FAA) efforts to develop the Advanced Automation System (AAS), focusing on whether FAA was effectively managing the first key AAS phase, the Initial Sector Suite System (ISSS), in order to minimize program delays.

Findings

GAO found that (1) FAA estimated that AAS would cost \$5 billion; (2) FAA intended AAS to replace aging air traffic control computer systems with new hardware, software, and controller workstations; (2) 8 months after beginning work, FAA and the contractor task force reported a minimum 10-month delay in the ISSS software schedule, primarily due to

unresolved requirements issues and inadequate schedule estimates, but thereafter amended the delay projection to 13 months; and (3) FAA and the contractor had not modified the contract to reflect the delay.

GAO also found that (1) additional delays are likely, since FAA has still not resolved requirements issues and has identified new requirements; (2) FAA and the contractor planned to perform early demonstrations of software capabilities, but software delays made it difficult to fully realize the benefits of such demonstrations; (3) by failing to run early demonstrations, the contractor might not be able to identify problems and resolve them in a timely manner; and (4) FAA expects ISSS delays to negatively impact subsequent AAS phases.

Open Recommendations to Agencies

Recommendation

The Secretary of Transportation should direct the Administrator, FAA, to establish, with IBM, a new and realistic schedule for AAS development and delivery. An analysis should be conducted immediately that assesses remaining tasks and determines realistic time frames for IBM to complete the development and delivery of ISSS, as well as the remainder of AAS. The analysis should include an appropriate safety factor, such as the time needed to conduct retesting and tuning of the system to meet performance requirements. The analysis should also explore the feasibility of revising the order of AAS implementation to expedite modernization of larger terminal radar approach control facilities.

Status

Action not yet initiated.

Air Traffic Control: The Interim Support Plan Does Not Meet FAA's Needs

GAO/RCED-90-213, 09/11/90; GAO Contact: Kenneth M. Mead, (202) 275-1000

Background

Pursuant to a congressional request, GAO evaluated the Federal Aviation Administration's (FAA) planning and analysis in support of its Interim Support Plan (ISP), focusing on whether (1) FAA adequately identified its requirements when developing ISP and (2) the program was progressing in a manner that reflected its stated urgent nature.

Findings

GAO found that (1) FAA inadequately identified ISP requirements; (2) FAA did not conduct a requirements analysis, as required by federal regulations and its own procedures; (3) FAA considered ISP as urgently needed, but ISP procurement and installation were behind schedule, indicating that FAA set unrealistic procurement and installation schedules; (4) FAA did not complete ISP assessment and approval until over a year after seeking congressional funds; (5) FAA recently concluded that ISP was insufficient and was initiating programs costing at least another \$126 million to further expand capacity; and (6) since FAA was about 1 year behind its contracting schedule and about 3 years behind its installation schedule, it will be 1998 before the travelling public can benefit from ISP equipment.

Open Recommendations to Agencies

Recommendation

Because FAA has been developing additional interim projects, the Secretary of Transportation should direct the Administrator, FAA, to ensure that FAA properly applies its assessment and approval process and the Federal Information Management Resources Regulation, including conducting requirements analyses, to future projects before submitting them to the Congress for funding.

Status

Action not yet initiated.

Recommendation

Because FAA has been developing additional interim projects, the Secretary of Transportation should direct the Administrator, FAA, to develop specific capacity, reliability, and maintainability requirements and goals for planning and assessing interim programs.

Status Action not yet initiated.

Traffic Congestion: Trends, Measures, and Effects

GAO/PEMD-90-1, 11/30/89; GAO Contact: Kwai-Cheung Chan, (202) 275-1370

Background

Pursuant to a congressional request, GAO reviewed traffic congestion in large and small metropolitan areas, focusing on (1) the forces that affect traffic congestion, and how they shape its nature and severity, (2) how the Federal Highway Administration (FHWA) measured traffic congestion, (3) the credibility of FHWA urban freeway delay estimates, and (4) whether FHWA measured the effects of traffic congestion.

Findings

GAO found that (1) the forces that shaped traffic congestion included trends in suburban development, the economy, the labor force, automobile use, truck traffic, and the highway infrastructure; (2) traffic congestion problems have increasingly occurred in suburban and outlying rural areas; (3) random interruptions in traffic flow may have a greater effect on traffic delays than recurring congestion during peak traffic periods; and (4) federal, state, and local transportation agencies measured traffic flow conditions through traffic density, average travel speeds, maximum service flow rates, traffic flow to facility capacity ratios, average daily traffic volume, and daily vehicle travel miles.

GAO also found that (1) FHWA used an urban freeway delay model to estimate present and future congestion levels nationally and to rank the most severely congested metropolitan areas; (2) the model's omission of capacity improvements and its sensitivity to changes in freeway capacity raised questions about its accuracy; (3) information on potential environmental, economic, and human stress effects was limited; (4) FHWA assigned dollar values to time and fuel wasted in traffic delays to quantify economic effects; and (5) laboratory tests on the health and environmental effects of motor vehicle emissions have shown that motor vehicles emit high levels of some pollutants under conditions associated with traffic congestion, while some studies have linked traffic congestion with physiological and behavioral changes.

Open Recommendations to Agencies

Recommendation

The Secretary of Transportation should direct the Administrator, FHWA, to review and, where appropriate, modify the collection, use, and analysis of traffic congestion data to ensure that accurate statistics on congestion are available for policy decisions regarding freeway mobility.

Status

Action in process. FHWA is still in the process of developing recommendations to improve its analytical capabilities.

Truck Safety: States' Progress in Testing and Licensing Commercial Drivers

GAO/RCED-90-78, 03/12/90; GAO Contact: Kenneth M. Mead, (202) 275-1000

Background

Pursuant to a congressional request, GAO reviewed federal and state efforts to implement the Commercial Motor Vehicle Safety Act of 1986.

Findings

GAO found that (1) at least 33 states indicated that they would have difficulty testing and licensing commercial truck drivers by the April 1, 1992 deadline; (2) most states experienced problems in making computer changes needed to connect to the national driver information system; (3) the Federal Highway Administration (FHWA) did not develop specific action plans to ensure that states established commercial driver's license (CDL) programs and completed testing and licensing on time; (4) FHWA needed measures to ensure that drivers were not unduly penalized because states failed to meet the deadline; and (5) as of October 1989, only two states were testing and licensing commercial drivers under the new standards.

Open Recommendations to Agencies

Recommendation	The Secretary of Transportation should be prepared to protect drivers who may not be tested and licensed because their states did not meet the April 1992 deadline. The Secretary could use the Commercial Motor Vehicle Safety Act's waiver authority to protect those drivers from fines and penalties until their states have completed testing and licensing.
Status	Recommendation valid/action not intended. FHWA considers it inappropriate to prepare plans to protect drivers not licensed. FHWA believes such a plan would dissipate the momentum of states to meet the 1992 date.

Preserving the Interstate System

T-GAO/RCED-90-68, 04/24/90; GAO Contact: Kenneth M. Mead, (202) 275-1000

Background

GAO discussed federal and state efforts to preserve the interstate highway system. GAO noted that (1) in 1988, the Department of Transportation (DOT) classified the condition of 57 percent of interstate pavement as good, 31 percent as fair, and 12 percent as poor; (2) deteriorated pavement resulted in such societal costs as traffic delays, increased fuel costs, decreased productivity, and the potential for increased accidents, injuries and vehicle damage; and (3) although states were responsible for maintaining interstate pavement, some did not adequately fund or perform maintenance.

GAO also noted that (1) the Federal Highway Administration did not always ensure that states corrected identified maintenance deficiencies, even though some were safety-related; (2) states increasingly used Interstate Resurfacing, Restoration, Rehabilitation, and Reconstruction (4R) Program funds for reconstruction and lane widening to respond to worsening congestion; and (3) DOT estimated that states would use 50 percent of the \$4.7 billion to \$6.1 billion needed annually in federal and state funds for interstate widening.

Open Recommendations to Congress

Recommendation	As the House Committee on Public Works and Transportation's Subcommittee on Surface Transportation deliberates the reauthorization of highway programs, it may wish to consider establishing national goals for the maximum acceptable levels of poor and fair pavement.
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Status	Action not yet initiated.
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Recommendation	As the House Committee on Public Works and Transportation's Subcommittee on Surface Transportation deliberates the reauthorization of highway programs, it may wish to consider redefining the range of activities eligible for Interstate 4R funding to encourage states to give more attention to maintenance activities directed at preserving the interstate pavement or resolving safety-related deficiencies.
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Status	Action not yet initiated.
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Recommendation	As the House Committee on Public Works and Transportation's Subcommittee on Surface Transportation deliberates the reauthorization of highway programs, it may wish to consider emphasizing interstate priorities through maintaining the 90-percent federal cost share on those projects that have numerous beneficiaries, and decreasing the cost share on those projects that have a limited number of beneficiaries.
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Status	Action not yet initiated.
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Recommendation	As the House Committee on Public Works and Transportation's Subcommittee on Surface Transportation deliberates the reauthorization of highway programs, it may wish to consider requiring an assessment of the extent to which alternative transportation strategies are expected to
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alleviate the expected shortfall in interstate lane widening and associated costs.

Status

Action not yet initiated.

Congressional Action

Reauthorization of the federal-aid highway enabling legislation occurs in the next congressional session, during 1991.

**Transportation
Infrastructure: States
Benefit From Block
Grant Flexibility**

GAO/RCED-90-126, 06/08/90; GAO Contact: Kenneth M. Mead, (202) 275-1000

Background

Pursuant to a congressional request, GAO reviewed 5 states' experiences in participating in the Federal Highway Administration's (FHWA) Combined Road Plan demonstration program, focusing on (1) how states benefited from the plan's funding flexibility, (2) the plan's administrative advantages, and (3) how states' administration of the federal-aid highway program compared with federal program administration.

Findings

GAO found that (1) the ability to use pooled funds enabled three states to target funds toward higher-priority highway and bridge needs, but states would like the program expanded to include funds from other highway programs; (2) the demonstration gave states the latitude to determine where and how they would spend selected federal funds, but certain legislative restrictions remained tied to the pooled funds; and (3) the Congress enacted spending requirements to ensure a minimum amount of state funding to certain systems or areas, and state officials believed that having to comply with those limitations inhibited their ability to target pooled funds to their priority needs.

GAO also found that (1) states benefited by saving time and paperwork because of streamlined processes for approving, implementing, and completing federal aid projects; (2) states established a review process for exception requests that met FHWA approval, but since design exception

approvals relied heavily on judgment, the impact of states' safety activities depended upon a qualitative assessment of actual state decisions; and (3) FHWA officials believed that there was little safety risk in having the states perform final inspections, but believed states needed to strengthen their final inspection process to prevent negative safety impacts.

Open Recommendations to Congress

Recommendation

To maximize the funding and administrative flexibility provided by the Combined Road Plan demonstration program and to more closely approximate the block grant concept, the Congress may wish to consider (1) removing some or all of the title 23 legislative restrictions attendant to the use of funds eligible for the demonstration and (2) expanding the list of eligible programs for the demonstration.

Status

Action not yet initiated.

Open Recommendations to Agencies

Recommendation

The Secretary of Transportation should direct the Administrator, FHWA, to evaluate, on a test basis, the impact of states' actions on safety by evaluating the appropriateness of states' final inspection and design exception decisions.

Status as of September 30, 1990

Action in process. Estimated completion date: 01/91. FHWA headquarters directed its affected field offices to conduct reviews of final inspection and design exception decisions on a sample of projects by December 31, 1990.

Update

Estimated completion date changed to 04/91. According to an FHWA official, two of the five states included in the sample have completed their reviews. The other three are expected to complete their reviews by the end of April 1991.

Transportation
Infrastructure: A
Comparison of Federal
and State Highway
Laws

GAO/RCED-90-157, 06/27/90; GAO Contact: Kenneth M. Mead, (202) 275-1000

Background

Pursuant to a congressional request, GAO compared federal and state wage, environmental protection, disadvantaged business, and highway design laws to determine whether state laws offered protections in areas equal to protections afforded by federal laws.

Findings

GAO found that (1) all five states have laws that parallel the Davis-Bacon Act, with minor variations; (2) three of the five states have laws that parallel the Environmental Policy Act; (3) all five states established disadvantaged business contracting programs intended to encourage disadvantaged business participation in public works contracts; and (4) neither federal nor state statutes contain substantive operative standards for highway design.

Open
Recommendations to
Congress

Recommendation

The Congress may wish to consider maintaining the status quo, not exempting states from any of the federal compliance requirements that are currently a precondition for obtaining federal funding.

Status

Action not yet initiated.

Recommendation	The Congress may wish to consider excusing states completely from compliance requirements, entrusting each state with the freedom to administer the federal funds according to whatever rules and laws that state deems appropriate.
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Status	Action not yet initiated.
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Recommendation	The Congress may wish to consider waiving some or all of the requirements for compliance with the laws but requiring states to demonstrate that they are providing an acceptable level of protection to such concerns, as labor, the environment, minority businesses, and highway safety.
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Status	Action not yet initiated.
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Recommendation	The Congress may wish to determine what level of protection it is comfortable with and what safeguards would be necessary to ensure that states continue to enforce laws and programs that satisfy this standard.
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Status	Action not yet initiated.
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**Truck Transport:
Little Is Known About
Hauling Garbage and
Food in the Same
Vehicles**

GAO/RCED-90-161, 06/28/90; GAO Contact: Kenneth M. Mead, (202) 275-1000

Background

Pursuant to a congressional request, GAO examined the practice of transporting municipal solid waste in multipurpose trucks that may also be used to carry consumer goods, such as food.

Findings

GAO found that (1) over the past 2 years, municipalities in the Northeast have dramatically increased the amount of waste trucked to out-of-state landfills; (2) New Jersey reported that at least 32 out-of-state landfills have accepted truckloads of its garbage; (3) multipurpose trucks transport about 85 percent of all meat and fresh fruits and vegetables consumed in the United States; and (4) as the number and capacity of local landfills decrease, the demand for long-distance transport of garbage increases, and with it the likelihood of cross-hauling food and garbage.

GAO also found that (1) federal health and food officials said they have no knowledge of any documented contamination having occurred in the United States from transporting food in trucks that previously carried garbage; (2) federal health and food officials said that because they have found no instances of transport-related contaminants, their inspectors do not test trucks for contaminants; and (3) inspectors focus where experience has shown that food contamination might likely occur, such as food preparation, and would test a truck only if contamination were linked to it.

Open Recommendations to Agencies

Recommendation

The Secretary of Transportation should take the steps needed, including seeking authorizing legislation if necessary, to develop regulations requiring that truckers maintain specific records of commodities carried in trucks that carry food. This recordkeeping could help food shippers identify trucks that may need more thorough inspections and facilitate any future research that the Congress may require into the extent and nature of health risks.

Status as of September 30, 1990

Action not yet initiated. The Department of Transportation agrees with the report's findings but believes that the Food and Drug Administration, the Environmental Protection Agency, and the Department of Agriculture should have the lead role in developing food safety regulations and standards.

Update On November 3, 1990, the President signed the Sanitary Food Transportation Act of 1990, which directed the Secretary of Transportation to issue, within 270 days, regulations requiring appropriate recordkeeping for trucks hauling both garbage and food.

Recommendation The Secretaries of Agriculture and Health and Human and Services, in consultation with the Secretary of Transportation and the Administrator, Environmental Protection Agency, should develop standards and guidelines for truck cleaning. Those measures would help minimize the potential risk of food contamination.

Status as of September 30, 1990 Action not yet initiated.

Update The regulations to be issued pursuant to the Sanitary Food Transportation Act of 1990 are to provide appropriate decontamination, removal, disposal, and isolation standards for ensuring the safe transport of food in trucks that haul both garbage and food.

**Railroad Safety: DOT
Should Better Manage
Its Hazardous
Materials Inspection
Program**

GAO/RCED-90-43, 11/17/89; GAO Contact: Kenneth M. Mead, (202) 275-1000

Background

Pursuant to a congressional request, GAO evaluated the (1) effectiveness of the Federal Railroad Administration's (FRA) hazardous materials inspection program and (2) extent to which the Department of Transportation's (DOT) Research and Special Programs Administration (RSPA) improved its Hazardous Materials Information System (HMIS) and established a program to register hazardous materials shippers.

Findings

GAO found that FRA inspectors' hazardous materials enforcement manual included outdated and contradictory inspection goals and guidance, did

not describe ways for inspectors to identify and target high-risk shippers, and did not clearly delineate when inspectors should cite shippers and railroads for noncompliance or inspectors' authority to issue violations at shippers' facilities.

GAO also found that (1) FRA did not use information available from its sources or HMIS to target inspection resources at high-risk shippers and railroad facilities; (2) FRA inspectors generally focused on inspecting individual cars carrying hazardous materials, rather than reviewing the adequacy of shippers' or railroads' safety procedures; and (3) FRA lacked adequate staffing to accomplish its objective of ensuring that shippers and railroads complied with RSPA regulations.

In addition, GAO found that (1) FRA cited budget restrictions as the primary reason for not actively seeking to fill six position vacancies or adding more positions; (2) FRA has not sought statutory authority to certify state inspectors to participate in its hazardous materials inspection program, although some states have adopted federal standards and shown an interest in assisting FRA; (3) HMIS did not include data about 23 of 96 railroad hazardous materials releases GAO reviewed; and (4) RSPA did not require shippers to submit reports of hazardous materials releases, require post-investigation report updates, share accident and enforcement data with other agencies, or require major hazardous materials shippers to register.

Open Recommendations to Agencies

Recommendation

The Secretary of Transportation should direct the Administrator, FRA, to update the enforcement manual to (1) provide consistent guidance, including agencywide goals and objectives, and (2) clarify inspectors' authority to write violations at shipper facilities before rail cars are transferred to railroads for transportation.

Status as of September 30, 1990	Action in process. Estimated completion date: 12/90. A revised enforcement manual is still under review. GAO areas of concern have been addressed and incorporated into the manual, including a revised approach to conducting shipper/consignee and rail carrier inspections.
Update	Action completed. FRA issued a revised enforcement manual in January 1991.
Recommendation	The Secretary of Transportation should direct the Administrator, FRA, to establish a new inspection approach that (1) includes identifying high-risk shippers and railroads, and targets them for inspection, and (2) emphasizes concentrating on reviewing safety procedures and secondarily inspecting tank cars.
Status as of September 30, 1990	Action in process. Estimated completion date: 12/90. FRA is using the Quality Improvement Program to ensure that inspections are consistent with the enforcement manual and National Inspection Plan, and targeting high-risk carriers. FRA also created a Hazardous Materials Division. The communications and training program manager, hired in July 1990, will develop a comprehensive strategic training program for FRA and state inspectors.
Update	The estimated completion date of 12/90 was not met; a new completion date has not been estimated.
Recommendation	The Secretary of Transportation should direct the Administrator, FRA, to initiate a study of the staffing needs for realistic program implementation, considering the changes in objectives and procedures developed as a result of the recommendations in this report.
Status as of September 30, 1990	Action in process. Estimated completion date: 12/90. FRA is modifying the staffing model to better project needs and allocate resources. Thirteen hazardous materials inspectors have been hired since November 1989.

**Appendix III
Open Recommendations on Transportation
and Related Matters as of September 30, 1990**

Update

The estimated completion date of 12/90 was not met; a new completion date has not been estimated.

Recommendation

The Secretary of Transportation should direct the Administrator, FRA, to perform a comprehensive survey of states with railroad inspection programs to determine the degree of interest in allowing state inspectors to perform hazardous materials inspections. If so indicated by the results, DOT should request legislative changes that would authorize state participation in the federal hazardous materials inspection program.

**Status as of September 30,
1990**

Action in process. Estimated completion date: 12/90. FRA is discussing with the states the possibility of expanding the state safety participation program to include hazardous materials inspections. A bill, H.R. 3520, is before the Congress that would require states to adopt federal hazardous materials regulations into their own programs. DOT recommends that rail transportation remain an exclusive federal jurisdiction, with expanded state participation.

Update

Action taken not responsive. FRA did not conduct a comprehensive survey of states. Rather, through limited telephone contacts, FRA determined that the states do not want to participate in hazardous materials inspections unless financial remuneration is provided.

The Hazardous Materials Transportation Uniform Safety Act of 1990 (Public Law 101-615, Nov. 16, 1990), which incorporated several provisions of H.R. 3520 (101st Cong., 1st sess.), did not include the provision referred to above.

Recommendation

The Secretary of Transportation should direct the Administrator, RSPA, to improve the completeness of the hazardous materials incident reporting system by requiring that hazardous materials incident reports be submitted by all firms, such as shippers, involved with any aspect of transportation as defined in the Hazardous Materials Transportation Act.

Status

Action taken not fully responsive. The RSPA response to this recommendation stated specifically that it did not concur. It disagreed that loading and unloading by the shipper is within RSPA jurisdiction, unless a carrier

reports a spill. GAO has taken the position that loading and unloading at shipper facilities are covered by RSPA regulations and are therefore within RSPA jurisdiction.

Recommendation

The Secretary of Transportation should direct the Administrator, RSPA, to improve the completeness of the hazardous materials incident reporting system by establishing a procedure to routinely compare HMIS data with similar data in other systems, such as FRA data on railroad accidents involving hazardous materials releases. This would (1) improve the accuracy and completeness of HMIS data and (2) identify nonreporters. Where nonreporters are identified, appropriate enforcement action should be taken.

Status

Action taken not fully responsive. RSPA has not agreed to do anything more than what it did before the GAO report. The report specified that RSPA efforts were not sufficient. RSPA stated that FRA voluntarily provided it with copies of accident reports where hazardous materials were released. The fact that RSPA is examining the utility and compatibility of similar Federal Highway Administration (FHWA) data does not appear to be a commitment to change.

Recommendation

The Secretary of Transportation should direct the Administrator, RSPA, to improve the completeness of the hazardous materials incident reporting system by requiring reporters of hazardous materials incidents to submit revised incident reports if significant changes occur in previously submitted reports.

Status

Recommendation valid/action not intended. RSPA extended its reporting deadline from 15 days to 30 days as of January 1, 1990, and stated that this would allow reporters to gather more accurate data the first time. This action was discussed in the report, but GAO concluded that additional action was needed. RSPA plans no further action.

Railroad Safety: More FRA Oversight Needed to Ensure Rail Safety in Region 2

GAO/RCED-90-140, 04/27/90; GAO Contact: Kenneth M. Mead, (202) 275-1000

Background

Pursuant to a congressional request, GAO reviewed the effectiveness of the Federal Railroad Administration's (FRA) Region 2 hazardous materials inspection program.

Findings

GAO found that FRA Region 2 (1) did not establish inspection frequency goals and maintain complete, updated lists of hazardous materials inspection points; (2) did not inspect 70 percent of its inspection points in 1987 and 1988; (3) did not have enough inspectors to effectively carry out its inspection program; (4) inspectors prioritized inspections depending on risk, volume, type of hazardous materials, and safety history; and (5) inspectors did not have sufficient knowledge of the scope of FRA inspection responsibilities or information on hazardous materials shippers.

GAO also found that (1) rail system assessments required more resources to evaluate rail safety training and operations, (2) routine inspections most often identified such problems as improper shipping documentation and tank car unloading and identification, (3) FRA relied on the rail industry to enforce speed rules and provided little oversight of railroad speed enforcement actions, and (4) FRA based its hazardous materials routing policy on whether the advantages of reducing public exposure outweighed the disadvantages of diverting traffic to unsafe tracks.

Open Recommendations to Agencies

Recommendation

The Secretary of Transportation should direct the Administrator, FRA, to reemphasize in Region 2 that inspectors add newly identified inspection points to their inspection point lists and keep those lists updated so that

the inspection goals and priorities can be set to maximize the use of scarce inspector resources.

Status as of September 30, 1990 Action not yet initiated.

Update Action in process. DOT expects to reconfigure the National Inspection Plan and use the Quality Improvement Program to maximize the use of scarce resources. The completion date is not known.

Recommendation The Secretary of Transportation should direct the Administrator, FRA, to establish a policy of enforcing train speed limits by citing railroads for exceeding speed limits permitted by the declared classification or track's curvature.

Status as of September 30, 1990 Action not yet initiated.

Update DOT's December 17, 1990, written statement indicated that FRA does not plan to take action on this recommendation.

Recommendation The Secretary of Transportation should direct the Administrator, FRA, to increase oversight of railroad speed enforcement actions by (1) requiring railroads to report information on the amount their speed limits are exceeded in failed tests and the number and types of disciplinary actions taken against employees who speed and (2) establishing standards for acceptable failure rates in speed tests conducted by railroads, how speed tests should be conducted, and what types of disciplinary action should be taken when failures occur.

Status as of September 30, 1990 Action not yet initiated.

Update

DOT's December 17, 1990, written statement indicated that FRA does not plan to take action on this recommendation.

Railroad Safety: New Approach Needed for Effective FRA Safety Inspection Program

GAO/RCED-90-194, 07/31/90; GAO Contact: Kenneth M. Mead, (202) 275-1000

Background

Pursuant to a congressional request, GAO reviewed the Federal Railroad Administration's (FRA) railroad safety inspection program, focusing on (1) inspection coverage standards, (2) how FRA used data to target railroads for inspection, (3) follow-up actions taken on inspection results, and (4) uniformity in the application of safety regulations.

Findings

GAO found that FRA did not (1) provide assurance that railroads were operating safely under the safety inspection program; (2) establish minimum inspection coverage standards defining the frequency of railroad inspections or standards for the size of the territory an inspector was expected to cover; (3) analyze existing inspection and accident data to target railroads for inspection; (4) require railroads to report actions taken to correct safety defects; (5) routinely perform follow-up inspections to determine whether safety defects were corrected; and (6) uniformly apply safety regulations, which resulted in FRA regions filing different numbers of violations for the same defective safety conditions.

Open Recommendations to Agencies

Recommendation

In order to make the FRA railroad safety inspection program more effective in ensuring that the nation's railroads are operating safely, the Secretary of Transportation should direct the Administrator, FRA, to establish a minimum inspection coverage standard for each of its inspection disciplines and determine the number of inspectors necessary to

achieve this standard of coverage. In determining the number of inspectors needed, FRA needs to determine the projected size of the state inspector work force and include this in its coverage analysis.

Status as of September 30,
1990

Action not yet initiated.

Update

Action in process. FRA is developing general coverage standards for each inspection discipline (track, motive power and equipment, signals, operating practices, and hazardous materials). Also, FRA is quantifying the number of inspection points and the volume of activity at each point. These data will be used to determine inspector allocations and overall staffing needs. The completion date is not known.

Recommendation

In order to make the FRA railroad safety inspection program more effective in ensuring that the nation's railroads are operating safely, the Secretary of Transportation should direct the Administrator, FRA, to resolve communication and coordination problems with the states by routinely exchanging inspection plans and periodically meeting with state directors and inspectors to discuss their inspection activities.

Status as of September 30,
1990

Action not yet initiated.

Update

Action in process. FRA expects to provide guidance to its regional management to ensure that states are appropriately participating in FRA's safety program. Also, clear lines of communications with state program managers are being developed, including periodic meetings with top state officials. The completion date is not known.

Recommendation

In order to make the FRA railroad safety inspection program more effective in ensuring that the nation's railroads are operating safely, the Secretary of Transportation should direct the Administrator, FRA, to improve its National Inspection Plan by developing a methodology that incorporates past inspection results and prioritizes inspections on the volume of traffic on passenger and hazardous materials routes.

Status as of September 30, 1990 Action not yet initiated.

Update Action in process. FRA has changed its approach to the National Inspection Plan for 1991. On the basis of past safety data and coverage standards, a discipline-specific plan will be developed for large railroads, and a separate plan will be developed for smaller railroads. The completion date is not known.

Recommendation In order to make the FRA railroad safety inspection program more effective in ensuring that the nation's railroads are operating safely, the Secretary of Transportation should direct the Administrator, FRA, to use its safety data to target high-risk railroads and locations for routine inspections.

Status as of September 30, 1990 Action not yet initiated.

Update Action in process. FRA has changed its approach to routine safety inspections. On the basis of safety data, FRA will develop a risk profile for each railroad and quantify inspection priorities for the railroad. FRA will also develop a National Inspection Plan for each discipline based on its safety data. The completion date is not known.

Recommendation In order to make the FRA railroad safety inspection program more effective in ensuring that the nation's railroads are operating safely, the Secretary of Transportation should direct the Administrator, FRA, to redefine the approach to system assessments by using existing inspection data to detect known areas of weakness and assign inspector resources to determine the underlying causes of those weaknesses.

Status as of September 30, 1990 Action not yet initiated.

Update	Action in process. FRA is changing its approach to system assessments by conducting focused assessments of the larger railroads. In conducting the smaller scale assessments, FRA will use its safety data to target problem areas within the railroad. The completion date is not known.
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Recommendation	In order to make the FRA railroad safety inspection program more effective in ensuring that the nation's railroads are operating safely, the Secretary of Transportation should direct the Administrator, FRA, to complete system assessment follow-up reviews within the time frames established by FRA criteria.
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Status as of September 30, 1990	Action not yet initiated.
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Update	Action in process. FRA is changing its approach to system assessments by conducting limited assessments of large railroads that focus on specific problem areas (procedures or systems) identified by FRA inspection data. FRA believes that, because future system assessments will be smaller in scale and will focus on limited areas, follow-up will not take as long as in the past. The completion date is not known.
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Recommendation	In order to make the FRA railroad safety inspection program more effective in ensuring that the nation's railroads are operating safely, the Secretary of Transportation should direct the Administrator, FRA, to establish an effective follow-up program that would include (1) requiring railroads to report actions taken on FRA inspection findings, (2) determining what reinspection levels are needed to ensure that railroads are responding to inspection findings, and (3) attaching civil penalties for failure to report corrective actions.
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Status as of September 30, 1990	Action not yet initiated.
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Update	Recommendation valid/action not intended. FRA does not believe that railroads should report corrective actions taken for motive power and equipment, hazardous materials, and operating practices violations.
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However, FRA plans to use current inspection data to target safety problems in all disciplines, which it believes is a form of follow-up.

Recommendation

In order for FRA to ensure better uniformity of inspections, the Secretary of Transportation should direct the Administrator, FRA, to increase training, especially for new inspectors, and to issue formal guidance to inspectors reemphasizing the need for uniformity in citing violations.

Status as of September 30, 1990

Action not yet initiated.

Update

Action in process. FRA recently hired a Director of Training and Communication to establish a program for newly hired and existing inspectors. Major focuses of the training will be consistency among inspectors conducting similar activities and in citing violations. Also, FRA is revising its enforcement manuals to provide better guidance for the exercise of inspector judgment in the enforcement process. The completion date is not known.

**Motor Vehicle Safety:
Passive Restraints
Needed to Make Light
Trucks Safer**

GAO/RCED-90-56, 11/30/89; GAO Contact: Kenneth M. Mead, (202) 275-1000

Background

Pursuant to a congressional request, GAO reviewed the National Highway Traffic Safety Administration's (NHTSA) activities regarding light truck safety.

Findings

GAO found that (1) NHTSA estimated that passive restraints in light trucks could save 1,500 lives annually; (2) NHTSA light truck data for 1982 through 1987 show a 22-percent increase in fatalities; (3) restraints would provide significant benefits, since 65 percent of light truck fatalities occurred from accidents in which the occupants were ejected; and

(4) NHTSA data also showed that light truck occupants tended not to use their manual belts.

GAO also found that (1) only one of five major automobile manufacturers had plans to provide passive restraints for light trucks in the near future; (2) light truck manufacturers cited technical problems in installing passive restraints, and proposed a phased-in approach for passive restraints; and (3) a major air bag supplier stated that it would need 2 to 3 years to expand its manufacturing capacity to meet a mandated passive restraint requirement.

In addition, GAO found that (1) NHTSA was developing a rule for requiring passive restraints in light trucks, but needed to avoid undue delays in establishing the requirement; (2) by October 1989, NHTSA had applied eight car standards to light trucks; and (3) NHTSA implemented new manual restraint testing, extended rear-seat restraint requirements for light trucks, and was studying the feasibility of additional rollover safety standards.

Open Recommendations to Agencies

Recommendation

The Secretary of Transportation should direct the Administrator, NHTSA, to establish a timetable for promptly moving the light truck passive restraint proposal through the rulemaking process and to periodically report on its progress to the Secretary.

Status as of September 30, 1990

Action in process. Estimated completion date: 12/90. NHTSA established a timetable as GAO recommended. A Notice of Proposed Rulemaking (NPRM) was issued in January 1990, the NPRM comment period closed March 12, 1990, and NHTSA review and forwarding of the rulemaking to the Office of the Secretary is targeted for October 1990. NHTSA estimates that the final rule will be issued in December 1990.

Update

Estimated completion date changed to 03/91. As of February 7, 1991, the proposed rule was being reviewed in the Office of the Secretary, according to a NHTSA official.

**Motor Vehicle Safety:
NHTSA Should
Resume Its Support of
State Periodic
Inspection Programs**

GAO/RCED-90-175, 07/05/90; GAO Contact: Kenneth M. Mead, (202) 275-1000

Background

Pursuant to a congressional request, GAO evaluated the National Highway Traffic Safety Administration's (NHTSA) state motor vehicle inspection program, to determine whether (1) a 1989 NHTSA report accurately represented the safety benefits of state inspection programs, (2) available evidence indicates that state inspection programs reduce accidents, and (3) NHTSA appropriately carried out its responsibilities regarding inspection programs.

Findings

GAO found that (1) periodic inspection programs improve the condition of the safety-related components of vehicles subject to inspection; (2) accidents involving vehicle defects occur less often in states requiring periodic inspections; (3) state periodic inspection programs reduce the number of poorly maintained vehicles; (4) NHTSA issued a standard requiring states to inspect vehicles at least annually, and in 1973 issued specific standards for vehicle inspection; and (5) NHTSA intends to resume supporting periodic vehicle inspections.

**Open
Recommendations to
Agencies**

Recommendation

The Secretary of Transportation should direct NHTSA to support periodic motor vehicle inspection through such actions as sponsoring research

**Appendix III
Open Recommendations on Transportation
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that would assist states considering the initiation or reinstatement of inspection programs.

**Status as of September 30,
1990**

Action not yet initiated.

Update

NHTSA has contracted with the American Association of Motor Vehicle Administrators to develop and implement an action plan for improving and updating periodic motor vehicle inspection guidelines.

Recommendation

The Secretary of Transportation should direct NHTSA to support periodic motor vehicle inspection through such actions as assisting inspection states so that they share their experiences and adapt to changing automotive technology.

**Status as of September 30,
1990**

Action not yet initiated.

Update

The action plan being developed by the contractor is expected to include provisions for carrying out this recommendation.

Recommendation

The Secretary of Transportation should direct NHTSA to support periodic motor vehicle inspection through such actions as promoting public awareness of the need to properly maintain the safety-critical components of vehicles.

**Status as of September 30,
1990**

Action not yet initiated.

Update

The action plan being developed by the contractor is expected to include provisions for carrying out this recommendation.

Truck Safety: Need to Better Ensure Correction of Serious Inspection Violations

GAO/RCED-90-202, 09/28/90; GAO Contact: Kenneth M. Mead, (202) 275-1000

Background

Pursuant to a congressional request, GAO evaluated Federal Highway Administration (FHWA) and state actions to ensure that commercial motor vehicles correct identified safety violations.

Findings

GAO found that (1) neither FHWA nor the states comprehensively tracked corrections of many out-of-service violations; (2) preliminary results from FHWA-funded studies showed an overall noncompliance rate of 12 percent, and individual state noncompliance rates varied from 9 to 53 percent; (3) internal control procedures to ensure compliance with out-of-service orders included reinspection, verification, and carrier certification; (4) most states failed to use adequate control procedures and document results, and only five states used all three control procedures; and (5) FHWA emphasized roadside inspections over control procedures.

GAO also found that (1) drivers left unattended at inspection sites were more likely to honor out-of-service orders, (2) states failed to reinspect due to limited resources and operational restraints, (3) FHWA had limited ability to enforce carrier certification regulations due to the voluntary nature of the Motor Carrier Safety Assistance Program (MCSAP), and (4) only about 40 percent of 1988 and 1989 inspection data was available due to multiple problems at the federal and state level. In addition, GAO found that actions to increase compliance included (1) timely, state entry of data into a federal information system; (2) a 1-year license disqualification for the first offense; and (3) recording reinspection activity on inspection forms.

is moving towards full implementation of the departmental accounting system scheduled for completion in September 1992.

Recommendation

Because change management and strategic human resource management require sustained effort and attention over the long term, the Secretary of Transportation should take additional steps to focus on human resource management DOT-wide. These steps should provide visibility and tangible evidence of top management commitment by establishing a prominent organizational focus for strategic human resource management at both the operating administration and Office of the Secretary of Transportation levels.

Status

Recommendation valid/action not intended. According to DOT, focus and management commitment to an effective human resources management program is being carried out through the existing organizational structure.

Recommendation

Because change management and strategic human resource management require sustained effort and attention over the long term, the Secretary of Transportation should take additional steps to focus on human resource management DOT-wide. These steps should develop a DOT-wide awareness of the importance and value of change management and strategic human resource management.

Status

Action in process. According to DOT, it is considering a number of new initiatives as part of phase 2 of the National Transportation Policy. The expected completion date is not known.

Recommendation

Because change management and strategic human resource management require sustained effort and attention over the long term, the Secretary of Transportation should take additional steps to focus on human resource management DOT-wide. These steps should develop the selection, appraisal, reward, and development functions needed to support human resources management activities and spur management improvement.

Recommendation

The Secretary of Transportation should direct the Administrator, FHWA, to expand planned FHWA procedures for states not transmitting any Safetynet data to include those states not consistently transmitting complete and timely Safetynet inspection data. This should include development of individual state action plans and periodic progress reports to the Secretary of Transportation on the overall status of Safetynet completion in MCSAP states.

Status

Action not yet initiated.

Recommendation

The Secretary of Transportation should direct the Administrator, FHWA, to direct FHWA officers in the states not transmitting complete and timely Safetynet inspection data to forward copies of all inspections with out-of-service violations to the carriers' home state to supplement carrier information.

Status

Action not yet initiated.

Recommendation

The Secretary of Transportation should direct the Administrator, FHWA, to initiate a rulemaking procedure to add noncompliance with out-of-service orders to the Commercial Driver's License serious traffic offense provisions that require a license disqualification.

Status

Action not yet initiated.

Recommendation

The Secretary of Transportation should direct the Administrator, FHWA, to modify inspection forms to accept reinspection information and to require separate repair person certification of out-of-service violations to provide more specific information on the correction of those violations.

Status

Action not yet initiated.

Open Recommendations to Agencies

Recommendation

To enhance and sustain the progress DOT has achieved in improving its management of safety programs and resources, the Secretary of Transportation should direct that operational measures of effectiveness be developed and applied for safety programs throughout DOT to link the overall goal of safer transportation with ongoing program activities and to provide the basis for setting program objectives, monitoring performance, and allocating resources.

Status

Recommendation valid/action not intended. Overall measures of effectiveness have not been developed, and DOT has not indicated that it intends to develop them. This recommendation will remain open pending completion of the review of the DOT recommendation response system.

Recommendation

To enhance and sustain the progress DOT has achieved in improving its management of safety programs and resources, the Secretary of Transportation should require that productivity standards, including the definition and use of standards of quality, timeliness, and efficiency for delivery of services, be used to integrate productivity improvement with safety program planning throughout DOT and to establish and implement annual productivity improvement goals.

Status

Recommendation valid/action not intended. DOT has not indicated that action will be taken to implement this recommendation. This recommendation will remain open pending completion of the review of the DOT recommendation response system.

Recommendation

To enhance and sustain the progress DOT has achieved in improving its management of safety programs and resources, the Secretary of Transportation should ensure that current and accurate staffing standards (e.g., standard hours for completing program tasks) are used in formulating safety program budgets throughout DOT.

Open Recommendations to Agencies

Recommendation

The President of Amtrak should periodically provide the Congress with financial information on actual and projected results of revenue enhancement activities.

Status as of September 30,
1990

Action not yet initiated.

Update

Amtrak believes that it is not subject to the provisions of 31 U.S.C. 720, which requires federal agencies to submit written statements to the House and Senate Appropriations Committees, the House Committee on Government Operations, and the Senate Committee on Governmental Affairs explaining actions taken or planned in response to GAO recommendations made to the heads of agencies. Accordingly, Amtrak has not provided a statement on the actions taken or planned on this recommendation.

Recommendation

The President of Amtrak should implement management controls to ensure that Amtrak competes fairly and on an equal basis with the private sector by using the most up-to-date and accurate cost data in developing bids and subsequently fully assign costs after contracts are awarded.

Status as of September 30,
1990

Action not yet initiated.

Update

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Open Recommendations to Agencies

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Status

Recommendation valid/action not intended. Overall measures of effectiveness have not been developed, and DOT has not indicated that it intends to develop them. This recommendation will remain open pending completion of the review of the DOT recommendation response system.

Recommendation

To enhance and sustain the progress DOT has achieved in improving its management of safety programs and resources, the Secretary of Transportation should require that productivity standards, including the definition and use of standards of quality, timeliness, and efficiency for delivery of services, be used to integrate productivity improvement with safety program planning throughout DOT and to establish and implement annual productivity improvement goals.

Status

Recommendation valid/action not intended. DOT has not indicated that action will be taken to implement this recommendation. This recommendation will remain open pending completion of the review of the DOT recommendation response system.

Recommendation

To enhance and sustain the progress DOT has achieved in improving its management of safety programs and resources, the Secretary of Transportation should ensure that current and accurate staffing standards (e.g., standard hours for completing program tasks) are used in formulating safety program budgets throughout DOT.

**Appendix III
Open Recommendations on Transportation
and Related Matters as of September 30, 1990**

Recommendation

The Secretary of Transportation should direct the Administrator, FHWA, to expand planned FHWA procedures for states not transmitting any Safetynet data to include those states not consistently transmitting complete and timely Safetynet inspection data. This should include development of individual state action plans and periodic progress reports to the Secretary of Transportation on the overall status of Safetynet completion in MCSAP states.

Status

Action not yet initiated.

Recommendation

The Secretary of Transportation should direct the Administrator, FHWA, to direct FHWA officers in the states not transmitting complete and timely Safetynet inspection data to forward copies of all inspections with out-of-service violations to the carriers' home state to supplement carrier information.

Status

Action not yet initiated.

Recommendation

The Secretary of Transportation should direct the Administrator, FHWA, to initiate a rulemaking procedure to add noncompliance with out-of-service orders to the Commercial Driver's License serious traffic offense provisions that require a license disqualification.

Status

Action not yet initiated.

Recommendation

The Secretary of Transportation should direct the Administrator, FHWA, to modify inspection forms to accept reinspection information and to require separate repair person certification of out-of-service violations to provide more specific information on the correction of those violations.

Status

Action not yet initiated.

is moving towards full implementation of the departmental accounting system scheduled for completion in September 1992.

Recommendation

Because change management and strategic human resource management require sustained effort and attention over the long term, the Secretary of Transportation should take additional steps to focus on human resource management DOT-wide. These steps should provide visibility and tangible evidence of top management commitment by establishing a prominent organizational focus for strategic human resource management at both the operating administration and Office of the Secretary of Transportation levels.

Status

Recommendation valid/action not intended. According to DOT, focus and management commitment to an effective human resources management program is being carried out through the existing organizational structure.

Recommendation

Because change management and strategic human resource management require sustained effort and attention over the long term, the Secretary of Transportation should take additional steps to focus on human resource management DOT-wide. These steps should develop a DOT-wide awareness of the importance and value of change management and strategic human resource management.

Status

Action in process. According to DOT, it is considering a number of new initiatives as part of phase 2 of the National Transportation Policy. The expected completion date is not known.

Recommendation

Because change management and strategic human resource management require sustained effort and attention over the long term, the Secretary of Transportation should take additional steps to focus on human resource management DOT-wide. These steps should develop the selection, appraisal, reward, and development functions needed to support human resources management activities and spur management improvement.

Truck Safety: Need to Better Ensure Correction of Serious Inspection Violations

GAO/RCED-90-202, 09/28/90; GAO Contact: Kenneth M. Mead, (202) 275-1000

Background

Pursuant to a congressional request, GAO evaluated Federal Highway Administration (FHWA) and state actions to ensure that commercial motor vehicles correct identified safety violations.

Findings

GAO found that (1) neither FHWA nor the states comprehensively tracked corrections of many out-of-service violations; (2) preliminary results from FHWA-funded studies showed an overall noncompliance rate of 12 percent, and individual state noncompliance rates varied from 9 to 53 percent; (3) internal control procedures to ensure compliance with out-of-service orders included reinspection, verification, and carrier certification; (4) most states failed to use adequate control procedures and document results, and only five states used all three control procedures; and (5) FHWA emphasized roadside inspections over control procedures.

GAO also found that (1) drivers left unattended at inspection sites were more likely to honor out-of-service orders, (2) states failed to reinspect due to limited resources and operational restraints, (3) FHWA had limited ability to enforce carrier certification regulations due to the voluntary nature of the Motor Carrier Safety Assistance Program (MCSAP), and (4) only about 40 percent of 1988 and 1989 inspection data was available due to multiple problems at the federal and state level. In addition, GAO found that actions to increase compliance included (1) timely, state entry of data into a federal information system; (2) a 1-year license disqualification for the first offense; and (3) recording reinspection activity on inspection forms.

Findings

GAO found that (1) ICC had eight ancillary trucking regulatory functions, for which it spent about 483 staff years in fiscal year (FY) 1985; (2) the ICC labor effort has decreased by 13 percent and was expected to decrease an additional 5 percent in FY 1988; and (3) the budgetary effects of deregulation would depend on which functions the Congress eliminated and how other agencies met those responsibilities.

GAO also found that (1) while there is broad support for continued Department of Transportation (DOT) regulation of the trucking industry's safety practices and insurance coverage, there is little evidence of how ICC improves safety through its limited monitoring role; (2) the existing disparities in insurance coverage requirements for private carriers and for-hire carriers may not have merit, since insurance requirements promote safety; (3) there was no consensus on the continuing value of ICC promulgation and enforcement of rules regarding liability responsibility for cargo damage; and (4) neither DOT nor the Office of Management and Budget (OMB) plan to collect the needed truck data if the Congress eliminates the ICC data-gathering role.

Open Recommendations to Congress

Recommendation

If the Congress acts favorably on proposed deregulatory legislation, it may wish to consider revising the provisions in section 30 of the Motor Carrier Act of 1980, which specify insurance requirements for motor carriers, so as to make the requirements for private and for-hire carriers identical.

Status

Action not yet initiated.

Recommendation

If the Congress takes further action on deregulatory legislation, it may wish to consider either retaining the Carmack Amendment as statutory law, or replacing by statute both the statutory and common law cargo damage liability requirements, leaving such requirements solely to contractual agreements between the carrier and the shipper.

Status Action not yet initiated.

Recommendation The Congress may also wish to consider, in any deregulatory legislation, the need to restructure the collection of data on the trucking industry in the federal government to ensure that public and private needs for data are met in the most cost-effective manner if the ICC role in data collection is terminated. The Congress may wish to mandate that DOT act to coordinate such a restructuring along the lines described above.

Status Action not yet initiated.

Congressional Action The GAO recommendations concerning congressional action were conditional on congressional action on trucking deregulation. Since there has been no congressional action on trucking deregulation, the recommendations do not currently require action.

Open Recommendations to Agencies

Recommendation The Secretary of Transportation should direct appropriate department officials to develop a long-term assessment of requirements for and costs of data on truck transportation, based on the needs of various users in the federal and state governments and in the private sector, and, in conjunction with OMB, coordinate data gathering among DOT, ICC, Census, and other truck transportation data-gathering agencies.

Status Recommendation valid/action not intended. DOT does not believe that further action is needed. There has been no change in its position as of September 1990.

Drug Testing: Management Problems and Legal Challenges Facing DOT's Industry Programs

GAO/RCED-90-31, 11/27/89; GAO Contact: Kenneth M. Mead, (202) 275-1000

Background

Pursuant to a congressional request, GAO examined the approach that the Department of Transportation (DOT) used to implement its transportation industry drug-testing program, focusing on (1) six transportation agencies' development of economic evaluations and the status of their programs, (2) whether the Office of the Secretary of Transportation (OST) provided sufficient guidance to DOT agencies to ensure effective program implementation, (3) the legal issues of the implementing regulations, and (4) how proposed legislation compared with DOT drug-testing regulations.

Findings

GAO found that (1) although regulations required transportation employers to begin drug testing by the end of 1989, three of the six agencies moved their implementation dates back from 1 to 4 months and (2) although the agencies' drug-testing programs covered similar types of safety-sensitive employees, they did not include such practices as providing comprehensive guidance to employers, reviewing employers' submission of drug-testing plans, and monitoring employer programs.

GAO also found that (1) two of the six agencies' programs included each of those practices, while one did not include any of them; (2) one agency planned to monitor employer compliance but provided limited guidance to employers and did not plan to review employer drug-testing plans; and (3) the other two agencies provided employer guidance and planned to monitor employer compliance, but did not plan to review employers' programs.

In addition, GAO found that (1) the Office of the Secretary of Transportation (OST) did not provide the agencies with guidance on what program information to gather from employers in order to evaluate overall program success, (2) most of the union and employee association challenges to DOT drug-testing regulations ranged from the constitutionality of random drug testing to DOT basic statutory authority to mandate

private-sector employee drug testing, and (3) the key differences between the proposed legislation and DOT regulations concerned requirements for alcohol testing and penalties for employers who failed to comply with regulations.

Open Recommendations to Agencies

Recommendation

The Secretary of Transportation should direct each administration to publish a specific penalty schedule for employers who do not comply with the drug-testing regulations.

Status

Action in process. OST is still developing a program compliance plan and reviewing several options in monitoring employer guidance and enforcement actions for noncompliance and will consider the GAO recommendation. The completion date is not known.

Pipeline Safety: New Risk Assessment Program Could Help Evaluate Inspection Cycle

GAO/RCED-89-107, 03/07/89; GAO Contact: Kenneth M. Mead, (202) 275-1000

Background

In response to a congressional request, GAO examined the Department of Transportation's (DOT) Office of Pipeline Safety's development of the inspection cycle for natural gas and hazardous liquid pipelines, focusing on whether the (1) office based the pipeline inspection cycle on sound risk assessments and (2) Pipeline Inspection Priority Program (PIPP) would identify pipelines with the greatest potential safety risks.

Findings

GAO found that (1) in 1987, the office determined that it should inspect each pipeline inspection unit every 2.5 years; (2) although the office

believed that the 2.5-year cycle was reasonable, it did not consider variations in relative safety conditions among individual units; (3) regional chiefs believed that the cycle was too ambitious because of the time required to perform other important compliance activities; and (4) the office expected its field inspectors to conduct 32 investigations per year at an average of 2.5 days per inspection, while field chiefs believed that inspectors needed between 2.5 and 7.5 days to complete an inspection.

GAO also found that (1) the office developed PIPP to identify the relative risk of pipeline companies and units on the basis of weighted safety factors; (2) the office could not ensure the reliability of program data, since it did not provide sufficient training on how to access the computer system or how to assign unit inspection priority codes; (3) pipeline inspectors had no consistent guidance on how to assign unit safety risk priority codes; and (4) the office did not plan to use program data to evaluate its inspection cycle or staffing level.

Open Recommendations to Agencies

Recommendation

To ensure that PIPP identifies and prioritizes pipeline inspections on the basis of a sound assessment of risk, the Secretary of Transportation should direct the Administrator, Research and Special Programs Administration (RSPA), to (1) provide training to field staff on how to access and validate the pipeline priority program data and (2) issue guidance to regions on how to characterize the pipeline units' safety risks.

Status

Action taken not fully responsive. RSPA recognized the need to train regional staff. Also, RSPA hired a senior engineer whose major responsibilities will include the management of PIPP and the development of guidance and training for regional staff. RSPA has not issued guidance on how to characterize a pipeline unit's safety risk to regional staff.

Recommendation

Once the pipeline priority program becomes operational, the Secretary of Transportation should direct the Administrator, RSPA, to use the information on the number and regional location of high-risk pipelines to

determine whether its pipeline inspection cycle and current inspector staffing level are appropriate.

Status as of September 30, 1990

Action in process. Estimated completion date: 12/90. Additional guidance and training has been provided to field personnel on using risk analysis as a basis for inspection planning and scheduling. Phase I PIPP data provided by operators has improved to a level that makes it useful as a management tool. Phase II PIPP data provided by agency inspectors is being developed to allow full operation by December 1990.

Update

According to a RSPA official, phase II of PIPP became operational November 1990—1 month sooner than originally scheduled—and is being used by regional staff. The official said that PIPP will continue to be revised and to evolve as additional data becomes available from pipeline companies. In addition, an issue paper has been prepared to document both (1) the guidance provided regional staff to characterize a pipeline unit's safety risk and (2) how PIPP is being implemented.

Mass Transit Grants: UMTA Needs to Improve Procurement Monitoring at Local Transit Authority

GAO/RCED-89-94, 03/31/89; GAO Contact: Kenneth M. Mead, (202) 275-1000

Background

Pursuant to a congressional request, GAO evaluated the Urban Mass Transportation Administration's (UMTA) oversight of the Southeastern Pennsylvania Transportation Authority's (SEPTA) procurement operations.

Findings

GAO found that (1) an UMTA-hired independent consultant concluded that SEPTA procurement practices did not comply with federal requirements; (2) SEPTA established a task force to address problems the consultant identified, including lack of autonomy, inadequate written procedures,

and competition restriction; and (3) UMTA planned to continue conducting pre-award reviews of proposed SEPTA contracts and will require SEPTA to report on its corrective actions.

GAO also found that UMTA did not adequately monitor SEPTA procurement operations, since it (1) lacked adequate documentation to show that it conducted appropriate analyses and pre-award reviews of proposed SEPTA procurements; (2) limited its pre-award reviews to ensuring that SEPTA submitted the required supporting documentation and written justifications; (3) approved proposed procurements on the basis of the specific contract and did not review procurements for compliance with other procurement requirements; (4) concluded, from a triennial review that did not focus on procurement practices, that SEPTA maintained a competitive procurement system; and (5) did not require SEPTA annual audits to report on compliance with its procurement requirements.

Open Recommendations to Agencies

Recommendation

The Secretary of Transportation should direct the Administrator, UMTA, to increase the emphasis on the procurement area during triennial reviews at SEPTA by including the reviews and tests of selected procurements needed to determine that proper procurement procedures are in place and being followed.

Status as of September 30, 1990

Action in process. Estimated completion date: 12/90. Triennial review at SEPTA was conducted in January 1990, but the final report has not been published. It is expected to be issued shortly.

Update

As of February 5, 1991, the final report had not been issued.

Recommendation

The Secretary of Transportation should direct the Administrator, UMTA, to increase the scope of pre-award reviews of SEPTA contracts to include the analyses needed to identify procurement weaknesses and problems in complying with UMTA procurement requirements.

Status

Action in process. UMTA is working with SEPTA to improve the procurement program. UMTA has not decided whether it will increase the scope of its preaward review. The completion date is not known.

Mass Transit Grants:
UMTA Needs to
Increase Safety Focus
at Local Transit
Authority

GAO/RCED-90-41, 12/01/89; GAO Contact: Kenneth M. Mead, (202) 275-1000

Background

Pursuant to a congressional request, GAO reviewed the Urban Mass Transportation Administration's (UMTA) oversight of the Southeastern Pennsylvania Transportation Authority (SEPTA), focusing on (1) trends in SEPTA safety conditions, (2) UMTA monitoring of SEPTA transit system safety, and (3) factors UMTA considered in approving grant assistance to SEPTA.

Findings

GAO found that (1) UMTA primarily provided mass transportation assistance through its Section 3 Discretionary Grant and Section 9 Formula Grant programs, with SEPTA receiving 27 section 3 grant obligations totalling \$339 million, and 10 section 9 grant obligations totalling \$398 million, between fiscal years 1984 and 1988; (2) SEPTA reported a total of 23,328 accidents, resulting in 19,491 injuries and 137 fatalities, between 1984 and 1988; and (3) SEPTA safety data indicated safety improvements and fewer accidents in its commuter rail and rapid rail systems, but an increase in accident and injury rates for its motor bus, trolley bus, and street car operations.

GAO also found that, although UMTA believed that section 22 of the Urban Mass Transportation Act of 1964 provided it with broad authority regarding transit safety, UMTA oversight did not (1) adequately assess the SEPTA safety conditions; (2) did not collect complete accident, injury, and fatality data; (3) did not emphasize safety in its triennial review of SEPTA operations; and (4) limited its section 22 safety investigation to one of three SEPTA rapid rail lines.

In addition, GAO found that (1) UMTA had little assurance that its grants were being used to improve safety conditions, since it did not consider safety in reviewing or approving the SEPTA annual program of projects; (2) SEPTA did not implement a formal project planning process that assessed the safety importance of proposed projects until 1989; and (3) UMTA could not explain why its grant funding decisions differed from SEPTA project priorities, since it did not document its selection criteria for grant awards.

Open Recommendations to Agencies

Recommendation

The Secretary of Transportation should direct the Administrator, UMTA, to obtain more complete and accurate information on SEPTA accidents and injuries and their causes and use this information in (1) evaluating SEPTA safety conditions during triennial reviews at SEPTA, (2) determining whether further safety investigation at SEPTA is warranted, (3) approving the SEPTA annual program of projects, and (4) making section 3 grant funding decisions.

**Status as of September 30,
1990**

Action not yet initiated.

Update

Action in process. UMTA has modified the section 15 safety information reporting requirements for 1990, but the data will not be published for at least a year. It is still unclear how UMTA will use the data in focusing its oversight efforts.

Recommendation

The Secretary of Transportation should direct the Administrator, UMTA, to follow up on the safety problems identified by the section 22 investigation and by other sources during the next triennial review at SEPTA.

Status as of September 30, 1990 Action not yet initiated.

Update Action in process. The triennial review at SEPTA was conducted in January 1990, but the final report had not been published as of February 5, 1991.

Recommendation The Secretary of Transportation should direct the Administrator, UMTA, to maintain documentation of the section 3 grant awards process and provide an explanation to SEPTA when funding decisions differ from SEPTA priorities.

Status Action not yet initiated.

Coast Guard: Better Process Needed to Justify Closing Search and Rescue Stations

GAO/RCED-90-98, 03/06/90; GAO Contact: Kenneth M. Mead, (202) 275-1000

Background

Pursuant to a legislative requirement, GAO assessed the Coast Guard's process and criteria for closing search and rescue stations.

Findings

GAO found that the Coast Guard (1) developed a list of 34 candidate stations for closure or reduction, basing its recommendations on past studies; (2) did not complete or maintain information on alternative sources of search and rescue assistance; (3) used misleading data in assessing stations' effectiveness in saving lives; and (4) used incorrect information on stations' ability to maintain a 2-hour response time. GAO noted that the Coast Guard's decisions regarding station closures and reductions have historically been politically sensitive and difficult to defend.

Open Recommendations to Agencies

Recommendation	The Secretary of Transportation should improve the process used in deciding on search and rescue station closure and reductions by establishing formal instructions which identify the criteria to be applied in making closure decisions, direct decisionmakers to apply selection criteria consistently to all stations under consideration for closure, and require complete documentation on the basis of the selections.
Status	Action in process. According to a Coast Guard official, the Coast Guard will fully document the process on search and rescue closings. The expected completion date is not known.
Recommendation	The Secretary of Transportation should improve the criteria used in the selection process by adding, at a minimum, to the criteria a measurement of the impact that closures and reductions have on saving lives and carrying out other Coast Guard missions.
Status	Action in process. According to a Coast Guard official, the Coast Guard will include a measurement of the impact to the criteria used in the selection process. The expected completion date is not known.
Recommendation	The Secretary of Transportation should require that complete, current, and accurate data be made available and used in the application of the criteria.
Status	Action in process. Estimated completion date: 06/91. According to a Coast Guard official, the Search and Rescue Program has under consideration the establishment of a computerized facility data base that will include information used in decisions affecting search and rescue stations. A mid-1991 completion date is expected.

**Coast Guard: Strategic
Focus Needed to
Improve Information
Resources
Management**

GAO/IMTEC-90-32, 04/24/90; GAO Contact: JayEtta Z. Hecker, (202) 275-9675

Background

Pursuant to a congressional request, GAO reviewed the Coast Guard's (1) management of major automated systems and (2) development of information resource management (IRM) policies and procedures.

Findings

GAO found that (1) the Coast Guard had difficulty getting basic information that it needed to carry out its mission, since information was not readily available or easily transferable among Coast Guard units; (2) the Coast Guard spent over \$500 million on the development, purchase, operation, and maintenance of its information systems, but automated systems continued to impede program operations and management; (3) the lack of top-level leadership and a strategic IRM plan made it difficult to ensure that current and proposed system development would support Coast Guard missions and goals; (4) inadequate policies, standards, and procedures jeopardized the development, evaluation, implementation, and review of information systems; and (5) the Coast Guard focused its system modernization efforts on correcting technology problems without reassessing the basic purposes and uses of its information systems.

**Open
Recommendations to
Agencies**

Recommendation

The Secretary of Transportation should direct the Commandant of the Coast Guard to clarify the role and authority of the senior IRM official and restructure the way in which the Coast Guard is managing the modernization of its information systems. The restructuring should include a

clear statement of the Coast Guard's needs and the ways in which information technology can serve those needs, a strategic IRM plan that supports this view, and comprehensive policies, standards, and procedures to guide implementation.

Status

Action in process. The agency has promulgated 2 directives. One gives the designated senior IRM official (DSO) project oversight responsibilities for all cross-mission information systems, implements IRM planning as part of normal planning processes, and assigns a higher budget priority to cross-mission systems. The other requires IRM training for managers, a strategic IRM plan, and an advisory role for DSO.

Recommendation

The Commandant of the Coast Guard should consider creating a centralized IRM steering committee comprised of the Coast Guard's top management to provide direction for IRM strategic planning, policy, and procedures. This committee could be supported by an IRM advisory committee made up of program and project managers, technical staff, and system end-users to make policy recommendations and develop procedures and recommendations on operational standards.

Status

Action not yet initiated. Currently, it is unclear how the agency is planning to respond to this recommendation.

**Coast Guard:
Magnitude of Alcohol
Problems and Related
Maritime Accidents
Unknown**

GAO/RCED-90-150, 05/24/90; GAO Contact: Kenneth M. Mead, (202) 275-1000

Background

Pursuant to a congressional request, GAO examined the Coast Guard's efforts to reduce alcohol problems on commercial vessels, focusing on its (1) procedures to screen merchant mariner applicants for alcohol abuse and (2) readiness to enforce intoxication regulations. GAO also identified the number of (1) applicants the Coast Guard rejected because of alcohol abuse and (2) maritime accidents attributable to alcohol.

Findings

GAO found that (1) the Coast Guard's documentation and licensing process, which allowed it to screen merchant mariner applicants, was limited due to gaps in its legislative authority and insufficient procedures for collecting and verifying relevant information during the screening process and (2) the Coast Guard's readiness to enforce intoxication regulations on vessels was limited because officers did not have the appropriate training or equipment to administer timely intoxication tests. In addition, the Coast Guard could not determine the number of applications rejected because of alcohol abuse, the number of alcohol-related accidents, or other data on alcohol problems, due to its lack of a reporting system.

GAO also found that (1) the Coast Guard did not require applicants or physicians to report medical problems resulting from alcohol use and (2) over a recent 3-year period, 4,247 licensed merchant mariners were reported for drunk-driving violations. GAO also noted similarities and differences among the Coast Guard's and two other Department of Transportation (DOT) agencies' intoxication regulations.

Open Recommendations to Agencies

Recommendation

The Secretary of Transportation should direct the Commandant, U.S. Coast Guard, to improve procedures for identifying alcohol abusers in processing merchant mariner applications by requiring verification of all applications with the Federal Bureau of Investigation and by asking for information on alcohol use on medical reports.

Status

Action in process. Estimated completion date: 04/91. The Coast Guard plans to make changes to its existing data collection procedures to collect this type of information.

Recommendation

The Secretary of Transportation should direct the Commandant, U.S. Coast Guard, to provide investigators with the necessary training and testing equipment so that they are prepared to enforce the intoxication regulations.

Status Action not yet initiated. The Coast Guard will determine the feasibility of implementing this recommendation.

Recommendation The Secretary of Transportation should direct the Commandant, U.S. Coast Guard, to improve management information and program effectiveness by collecting data on applications denied because of alcohol use, accidents in which alcohol was a contributing factor, violations of intoxication regulations, and results from reasonable-cause testing.

Status Action in process. Estimated completion date: 04/91. The Coast Guard will add to its physical exam form a section to collect information on medical problems as a result of alcohol use.

Recommendation The Secretary of Transportation, in conjunction with the Department of Transportation's rulemaking process for the prevention of alcohol abuse, should determine whether existing differences in procedures among the transportation modes are reasonable or whether more effective results could be achieved by making the regulations more uniform.

Status Action not yet initiated.

**Coast Guard
Acquisitions: Formal
Criteria Needed to
Ensure Project
Manager
Qualifications** GAO/RCED-90-178, 06/19/90; GAO Contact: Kenneth M. Mead, (202) 275-1000

Background GAO assessed the Coast Guard's actions to increase the qualifications and tenure of acquisitions personnel.

Findings GAO found that (1) since 1985, the Coast Guard has taken steps to improve its managers' experience and training, but did not ensure that

its project managers had the necessary skills to successfully manage major acquisitions; (2) in 1986, the Coast Guard established a panel to select project managers and focus on maintaining high standards of professionalism, ensuring that top performers received major projects, and enhancing project managers' prestige; and (3) the panel had not yet formalized the selection criteria for project managers.

GAO also found that (1) the Coast Guard took several steps to improve project managers' awareness of statutes, regulations, policies and procedures, and program management, primarily by ensuring that all project managers took a 20-week management course, but had not established a formal training requirement; (2) the Coast Guard's tenure guidelines did not differentiate between project manager and other headquarters assignments, but project managers' tours were generally less than 4 years; and (3) since the Coast Guard experienced frequent turnover for project managers, it was working to establish civilian deputy project manager positions to provide more continuity, since civilians were not subject to military rotation policies.

Open Recommendations to Agencies

Recommendation

The Secretary of Transportation should direct the Commandant of the Coast Guard to formalize the selection criteria regarding prior experience and education to ensure that, along with management skills necessary to ensure effective performance, all future project managers selected have acquisition experience or acquisition training.

Status as of September 30,
1990

Action not yet initiated.

Update

Action in process. Estimated completion date: 11/91. The Coast Guard's Office of Acquisition is developing a project manager competency model that will be used to establish project manager selection criteria. The Office plans to establish formal selection criteria by October 1991 and

have the criteria used by the next project manager selection panel, which will be held in November 1991.

Recommendation

The Secretary of Transportation should direct the Commandant of the Coast Guard to institute a formal requirement that, once selected, all project managers have relevant training, consistent with their educational background and acquisition experience, before their tours begin.

Status as of September 30, 1990

Action not yet initiated.

Update

Action in process. Estimated completion date: 10/91. The Coast Guard's Office of Acquisition is developing a project manager competency model that will be used to establish training requirements for project managers. The Office plans to establish formal training requirements by October 1991.

**Coast Guard:
Reorganization
Unlikely to Increase
Resources or Overall
Effectiveness**

GAO/RCED-90-132, 07/12/90; GAO Contact: Kenneth M. Mead, (202) 275-1000

Background

Pursuant to a congressional request, GAO reviewed the proposals for alternative organizational placement of the U.S. Coast Guard, focusing on (1) the organizational alternatives in terms of their likely impact on the Coast Guard's essential character, multimission capabilities, and funding and (2) the actions the Coast Guard has taken and will need to take to ensure optimal use of available resources.

Findings

GAO found that (1) the Coast Guard's budget increased from \$1.7 billion to \$3.1 billion between fiscal years 1980 and 1989; (2) the Coast Guard's budget growth was attributable to substantial funding assistance from sources outside the transportation appropriation, most notably funds

appropriated for national defense and drug interdiction; (3) while moving the Coast Guard or making it independent might enhance its effectiveness in certain functional areas, such steps were not likely to increase its available resources or enhance its overall effectiveness; and (4) the Coast Guard has yet to fully develop and implement a performance management system capable of determining how efficiently it uses resources and how well its programs are achieving their objectives.

Open Recommendations to Agencies

Recommendation

The Coast Guard has taken steps to develop performance measures to improve the use of available resources. However, because of weaknesses in the design of many of those measures and an absence of follow-up by management to ensure their refinement and implementation, the measures are not currently used in a significant way in the management of the Coast Guard's activities or in top-level decision-making.

Accordingly, the Secretary of Transportation should direct the Coast Guard to continue to improve its performance measures and use them in both the day-to-day management of programs and in higher-level decision-making for planning, programming, and budgeting. With a well-developed system of performance measure in place and serving as a foundation for an integrated planning, evaluation, and resource allocation system, the Coast Guard would be in a much better position both to ensure the most effective and efficient use of the limited resources at its disposal and to more accurately determine and persuasively argue its future resource requirements.

Status

Action not yet initiated.

**Transportation Noise:
Federal Control and
Abatement
Responsibilities May
Need to Be Revised**

GAO/RCED-90-11, 10/12/89; GAO Contact: Richard L. Hembra, (202) 275-6111

Background

Pursuant to a congressional request, GAO examined aircraft, highway, and railroad noise, focusing on the (1) extent of the transportation noise problem; (2) status of the Environmental Protection Agency's (EPA) noise control activities and plans when it eliminated its program; and (3) current federal, state, and local noise control activities.

Findings

GAO found that (1) an estimated 3.2 million people lived in areas generally incompatible for residential use because of aircraft noise, and aircraft, railroad, and highway noise levels significantly interfered with sleep, conversation, and relaxation in normal environments; (2) under its noise program, EPA issued noise emission standards for trucks, motorcycles, and interstate motor and rail carriers, proposed aircraft noise regulations, and assisted state and local governments in noise program development; and (3) prior to eliminating its noise program, EPA planned to further lower transportation noise levels through additional regulations and more effort in assisting localities in land-use planning around transportation facilities.

GAO also found that (1) the Federal Aviation Administration had a program that included aircraft noise standards, operating controls, and noise abatement assistance to airports, while the Federal Highway Administration required states to consider noise in planning and designing federally aided highway projects and provided funds for noise barrier construction along federal-aid highways; (2) state and local governments could not adopt their own noise controls for equipment and operations where EPA standards remained in effect; and (3) some states did not expand their noise control offices to assist localities with noise problems.

Open Recommendations to Congress

Recommendation

The Congress may wish to reexamine the federal role with regard to transportation noise control and abatement. Key considerations for the Congress are the extent of the transportation noise problem, local needs for assistance in dealing with them, and the cost of additional activities to carry out an increased federal role.

Status as of September 30,
1990

Action not yet initiated.

Congressional Action as of
September 30, 1990

The Subcommittee on Aviation, House Committee on Public Works and Transportation, plans to hold hearings on the economic impacts of a national aircraft noise policy. The Research and Development Subcommittee also plans to hold hearings on aircraft noise in late 1990. These are initial hearings that may lead to reexamining the federal role.

Update

The Aviation Safety and Capacity Expansion Act of 1990 (Public Law 101-508, 11/05/90), among other things, directed DOT to establish a federal noise policy, the key feature of which will be the phased reduction and elimination by 2003 of the entire U.S. fleet of about 2,300 older, noisy Stage 2 aircraft.

Air Pollution: EPA Needs More Data From FHWA on Changes to Highway Projects

GAO/RCED-90-72, 03/20/90; GAO Contact: Richard L. Hembra, (202) 275-6111

Background

Pursuant to a congressional request, GAO addressed the states' implementation of a Clean Air Act requirement that federally funded highway projects conform to plans designed to reduce air pollution.

Findings

GAO found that (1) the Clean Air Act did not specify how state conformity should be determined, (2) the Environmental Protection Agency (EPA) and the Federal Highway Administration (FHWA) disagreed on whether air quality analyses were needed to determine conformity for individual projects, (3) FHWA declined to perform additional air quality analyses that EPA needed to determine the extent of state compliance, (4) local planning agencies did not inform EPA of changes in project plans that could have affected air quality, (5) FHWA officials believed that project traffic forecasts did not show travel induced by new construction to be a significant causal factor for increased ozone pollution, and (6) the Department of Transportation and EPA needed better information on implementing transportation control measures.

Open Recommendations to Agencies

Recommendation

The Administrator, EPA, should work with the Administrator, FHWA, to develop procedures for reporting on the status of major highway projects.

Status

Action in process. EPA has agreed to implement this recommendation. EPA plans to do so as it implements changes required by the proposed Clean Air Act amendments.

Recommendation

The Administrator, EPA, should take actions to ensure the timely receipt of information on progress in implementing transportation control measures.

Status

Action in process. EPA has agreed to implement this recommendation. EPA plans to do so as it implements changes required by the proposed Clean Air Act amendments.

Whistleblowers: Management of the Program to Protect Trucking Company Employees Against Reprisal

GAO/GGD-88-123, 09/22/88; GAO Contact: Bernard L. Ungar, (202) 275-5074

Background

Pursuant to a congressional request, GAO reviewed the Occupational Safety and Health Administration's (OSHA) management of the Whistleblower Protection Program for trucking company employees who allege safety violations by employers.

Findings

GAO found that OSHA (1) has not devoted enough management attention to the Whistleblower Protection Program; (2) did not fully comply with the statutory requirement that it investigate and issue findings on whistleblower complaints within 60 days; (3) inadequately publicized the program; and (4) plans to have a new management information system in operation by January 1989, which will provide direct access to data maintained in OSHA regional offices. GAO also found that the Department of Transportation's (DOT) Office of Motor Carriers (OMC) and OSHA did not have procedures to provide OMC with information from complaints alleging motor carrier safety violations.

Open Recommendations to Agencies

Recommendation

The Secretary of Labor should direct the Assistant Secretary for Occupational Safety and Health to ensure that the management information system (MIS) being developed will provide accurate and up-to-date information on the current status of section 405 cases.

Status

Action in process. OSHA is (1) redesigning MIS, (2) increasing staff to do investigations, and (3) finding better ways to publicize the program. The

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and Related Matters as of September 30, 1990**

redesign of MIS has been delayed. OSHA has been delegated additional whistleblower protection responsibility under two statutes and may be delegated more. OSHA is waiting for a decision on this before it sets up MIS.

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