

United States General Accounting Office Washington, DC 20548

Resources, Community, and Economic Development Division

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June 30, 2000

The Honorable Fred Thompson Chairman The Honorable Joseph I. Lieberman Ranking Member Committee on Governmental Affairs United States Senate

Subject: Observations on the Department of Transportation's Fiscal Year 1999
Performance Report and Fiscal Year 2001 Performance Plan

As you requested, we have reviewed the 24 Chief Financial Officers (CFO) Act agencies' fiscal year 1999 performance reports and fiscal year 2001 performance plans required by the Government Performance and Results Act of 1993 (GPRA). In essence, under GPRA, annual performance plans are to establish performance goals and measures covering a given fiscal year and provide the direct linkage between an agency's longer-term goals and day-to-day activities. Annual performance reports are to subsequently report on the degree to which those performance goals were met. This letter contains two enclosures responding to your request concerning key program outcomes and major management challenges at the Department of Transportation (DOT). Enclosure I to this letter provides our observations on DOT's fiscal year 1999 actual and fiscal year 2001 planned performance for the key outcomes that you identified as important mission areas for the Department. These key outcomes are (1) fewer transportation-related accidents, deaths, injuries, and property losses; (2) reduced flight delays through air traffic control (ATC) modernization; (3) less highway congestion and improved highway pavement condition; and (4) reduced availability and/or use of illegal drugs. Enclosure II lists the major management challenges facing the Department that we and DOT's Inspector General (IG) identified, how DOT's fiscal year 1999 performance report discusses the progress the Department made in resolving these challenges, and the applicable goals and measures in the fiscal year 2001 performance plan.

Results in Brief

For fiscal year 1999, DOT's progress in achieving fewer transportation-related accidents, deaths, injuries, and property losses varied. The Department met all of its fiscal year 1999 safety goals for pipelines and the transport of hazardous material, and its performance in most other modes—highway, marine, rail, and transit—was mixed. For example, for highways, the Department met its goal for reducing overall fatalities and injuries, and although it did not meet its fiscal year 1999 goal for reducing alcohol-related fatalities, it expects to reach the fiscal year 2000 goal because the overall trend for these fatalities is downward. However, the Department did not meet any of its aviation safety goals in fiscal year 1999. For several unmet goals in the areas of highway, aviation, and rail safety, performance worsened compared with fiscal year 1998. For example, in fiscal year 1998, there were six commercial aviation fatalities per 100 million flight hours. In fiscal year 1999, the commercial aviation fatality rate increased to 40. For all of its unmet goals except transit fatalities, the Department provides reasonable explanations for not meeting the goals as well as strategies to address the attributable factors. For example, DOT did not achieve its goal concerning recreational boating fatalities. The Department notes that most recreational boating fatalities are the result of accidents involving factors under the operator's control and that boaters tend to decline to wear life jackets, which would vastly improve their chance of surviving accidents. The strategy to achieve this goal in fiscal year 2000 includes boater education and research on life jackets to promote greater use. In fiscal year 2000, DOT expects to achieve all of its safety goals that were unmet in fiscal year 1999, except four. Two aviation safety goals—concerning operational errors and deviations for aircraft—will not be met because the year 2000 goals were set prior to improvements made in data collection that have increased the numbers of reported errors and deviations. The Department also does not expect to achieve its fiscal year 2000 aviation goal to reduce runway incursions because most of the initiatives in this area will take several years to show measurable results. Finally, the Department acknowledges that its goal to increase seat-belt usage was missed by a significant amount and that the agency will need to assess the success of its current initiatives in September 2000 to determine if further adjustments need to be made in fiscal year 2001.

DOT met its fiscal year 1999 goal to reduce the number of ATC-related delays. The Department did not meet its goal to increase the percentage of flight segments safely flown off ATC-preferred routes, but fell just short of the goal. The first goal is directly related to the key outcome concerning flight delays. However, the aim of the second goal—to allow aircraft to fly the most direct route rather than the ATC-preferred route—is to give increased flexibility to aircraft. This goal does not directly contribute to reducing flight delays but has the potential to improve efficiency in certain situations, especially in heavily traveled airspace. The measure for aviation delays was revised and expanded in fiscal year 2000 to include all causes of delays, including weather. The Department has strategies to achieve its future goals in these areas. For example, the strategy to achieve the fiscal year 2000 goal concerning aviation delays includes replacing the existing computer processing hardware for

ATC in 20 enroute centers and 3 oceanic centers. In October 1999, we reported that this project was on schedule.

DOT named reducing highway congestion and improving highway pavement condition as major performance goals for achieving the overall strategic goal of increasing the nation's mobility. DOT concluded that, based on fiscal year 1998 data for these two goals, it is likely that the fiscal year 1999 targets were met. The Department could not determine if it actually met its goal for highway congestion because fiscal year 1999 data were not available. Similarly, the Department could not determine whether it actually met its goal for improved highway pavement condition, which affects highway congestion because of its effect on vehicle speed, because data were not available for fiscal year 1999. The states are responsible for reporting the data used for both goals; however, the reporting cycle is too late for the data to be included in the Department's performance report. According to DOT officials, the Department has not yet determined whether it will make any changes to improve the currency of these data for future reports. The performance report also cautions that increasing traffic will make these goals more challenging. DOT met a goal that is indirectly related to highway congestion: to increase the integration of Intelligent Transportation Systems (ITS)—electronic information and communications technology designed to improve highway operations—in metropolitan areas. While the Department generally makes a good effort to explain the validity of all the data used to measure performance, it does not describe several problems with the pavement data. We found that the report fails to explain that states did not report the International Roughness Index (IRI) data, which are used to measure pavement condition, for 7 percent of the National Highway System and that they are not required to follow the Department's guidance on obtaining IRI measurements, resulting in variances in how they measured and reported the information. Although the performance report states that the Department performs annual reviews of states' processes for measuring IRI, we found this did not happen in all states. As a result, the percentage of pavement meeting the Department's standard could be higher or lower than reported. On the basis of its performance on these three goals, the Department does not plan significant changes in its programs for fiscal year 2000. It will continue to fund infrastructure improvement and ITS development and encourage ITS integration across metropolitan areas and the nation.

The Coast Guard is responsible, along with other federal agencies, for reducing the flow of illegal drugs into the United States, but in fiscal year 1999, the agency did not reach its goal in this area. To determine its success for this goal, the Department measured the percentage of cocaine smuggled in certain maritime routes that the Coast Guard seized in fiscal year 1999. The agency seized 12.2 percent of the cocaine smuggled in this manner, rather than the 12.5 percent it had established as a goal. However, the Department also noted that estimating the amount of cocaine that is smuggled each year is difficult and that the estimate may contain significant errors. The Department listed a number of reasons for not reaching the goal, including increased smuggling by sea, a change in the preferred smuggling routes, and

¹Transportation Infrastructure: Better Data Needed to Rate the Nation's Highway Conditions (GAO/RCED-99-264, Sept. 27, 1999).

smugglers' use of higher-speed vessels. Despite a new program designed to intercept high-speed vessels, the Department will be challenged in achieving the fiscal year 2000 goal—which is higher than the fiscal year 1999 goal—because the Coast Guard plans to devote fewer resources to drug interdiction in fiscal year 2000.

The Department's fiscal year 1999 performance report and fiscal year 2001 performance plan generally addressed most of the management challenges identified by us and DOT's IG. To highlight its responses to the challenges, the performance report includes a table identifying the management challenges and the pages in the report on which each is discussed.

- For two of the challenges, the report includes performance measures directly related to the management challenge and explains the progress the Department has made in addressing them. For example, we identified DOT's lack of accountability for its financial activities as a management challenge. The performance report includes goals for the Federal Aviation Administration (FAA) to achieve unqualified (clean) audit opinions in fiscal years 2000 and 2001 and describes activities to enhance financial management throughout DOT, including replacing its core accounting system by 2001. DOT made progress in this area and received clean audit opinions for FAA, the Highway Trust Fund, and DOT's consolidated financial statements for fiscal year 1999. However, achieving a clean opinion required FAA to use labor-intensive measures, and the audit report on DOT's consolidated financial statement for fiscal year 1999 identified seven control weaknesses that will require corrective action.
- For five of the challenges, the Department includes performance goals that were related to only portions of the challenge. For example, we identified the Department's need to strengthen aviation security and safety programs as a management challenge. The plan includes goals to decrease aviation fatalities and reports on progress toward those goals. However, it does not disclose that FAA's program to improve oversight of the aviation industry has been put on hold before covering the entire industry because of poor inspector training and a lack of coordination with existing data systems. For an additional challenge concerning FAA's ATC modernization program, DOT includes goals that pertain to one system that is part of the program, but the remaining systems are not specifically addressed.
- For one management challenge, the performance goals discussed in the report only indirectly address the challenge. We identified as a challenge for the Congress and the Department the poor financial condition of Amtrak, and while the goals and strategies are aimed at increasing Amtrak's revenues, they do not address Amtrak's continuing net losses and its ability to reach operational selfsufficiency by 2002.

Objectives, Scope, and Methodology

Our objectives concerning selected key agency outcomes were to (1) identify and assess the quality of the performance goals and measures directly related to a key

outcome, (2) assess the agency's actual performance in fiscal year 1999 for each outcome, and (3) assess the agency's planned performance for fiscal year 2001 for each outcome. Our objectives concerning major management challenges were to (1) assess how well the agency's fiscal year 1999 performance report discussed the progress it had made in resolving the major management challenges that we and DOT's IG had previously identified and (2) identify whether the agency's fiscal year 2001 performance plan had goals and measures applicable to the major management challenges. As agreed, in order to meet the Committee's tight reporting time frames, our observations were generally based on the requirements of GPRA, guidance to agencies from the Office of Management and Budget for developing performance plans and reports (OMB Circular A-11, Part 2), previous reports and evaluations by us and others, our knowledge of DOT's operations and programs, and our observations on DOT's other GPRA-related efforts. We did not independently verify the information contained in the performance report or plan. We conducted our review from April through May 2000 in accordance with generally accepted government auditing standards.

Agency Comments

We provided the Department of Transportation with a draft of this report for its review and comment. DOT generally agreed with the information presented in the draft report and stated that it was pleased with the favorable results of our review. DOT's comments are in enclosure III. DOT also provided technical clarifications, which we made as appropriate.

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As agreed with your office, unless you publicly announce its contents earlier, we plan no further distribution of this report until 30 days after the date of this letter. At that time, we will send copies of this report to the Honorable Rodney E. Slater, Secretary of Transportation, and make copies available to others upon request.

Please call me on (202) 512-2834 if you or your staff have any questions. Key contributors to this report were Phillis Riley, Katherine Siggerud, and Teresa Spisak.

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Enclosures - 3

Observations on the Department of Transportation's Fiscal Year 1999 Actual Performance and Fiscal Year 2001 Planned Performance Related to Key Outcomes

This enclosure contains our observations on the Department of Transportation's (DOT) fiscal year 1999 actual performance and fiscal year 2001 planned performance for key outcomes identified by the Senate Governmental Affairs Committee as important mission areas for the Department. The key outcomes for DOT are: (1) fewer transportation-related accidents, deaths, injuries, and property losses; (2) improved safety and reduced flight delays through air traffic control (ATC) modernization; (3) less highway congestion; (4) improved highway pavement condition; and (5) reduced availability and/or use of illegal drugs. As requested, we have identified the goals and measures directly related to each key outcome. Our observations are organized according to each key outcome and follow the goals and measures.

Key Agency Outcome: Fewer Transportation-Related Accidents, Deaths, Injuries, and Property Losses

<u>Fiscal Year 1999 Performance Goals and Measures for the Key Agency Outcome Related to Transportation Safety</u>

For the key DOT outcome concerning fewer transportation-related accidents, deaths, injuries, and property losses, DOT's performance report includes 21 goals and measures for fiscal year 1999. We have listed these safety goals and measures below under several categories—highway, aviation, marine, rail, transit, and pipelines and transport of hazardous material.

Highway

- 1. Number of highway fatalities per 100 million vehicle-miles traveled
 - Fiscal year 1999 goal: 1.6
 - Actual: 1.5 (goal met)
- 2. Number of highway-related injuries per 100 million vehicle-miles traveled
 - Fiscal year 1999 goal: 127
 - Actual: 119 (goal met)
- 3. Percentage of alcohol-related highway fatalities
 - Fiscal year 1999 goal: 36 percent
 - Actual: 38 percent (goal not met)
- 4. Percentage of front-seat occupants using seat belts
 - Fiscal year 1999 goal: 80 percent
 - Actual: 67 percent (goal not met)

Aviation

- 5. Number of fatal aviation accidents for commercial air carriers per 100,000 flight hours
 - Fiscal year 1999 goal: 0.034
 - Actual: 0.04 (goal not met)

6. Number of runway incursions²

• Fiscal year 1999 goal: 270

• Actual: 322 (goal not met)

7. Number of operational errors³ per 100,000 activities

• Fiscal year 1999 goal: 0.496 • Actual: 0.57 (goal not met)

8. Number of deviations⁴ per 100,000 activities

• Fiscal year 1999 goal: 0.099 • Actual: 0.18 (goal not met)

Marine

9. Number of recreational boating fatalities

• Fiscal year 1999 goal: 720

• Revised fiscal year 1999 goal: 763

• Actual: 729 (goal not met)

• Revised actual: 773

10. Percentage of mariners reported in imminent danger who are rescued

• Fiscal year 1999 goal: 93 percent

• Actual: 95 percent (goal met)

11. Number of fatalities per 100,000 workers aboard commercial vessels

• Fiscal year 1999 goal: 42

• Revised fiscal year 1999 goal: 34

• Actual: 28 (revised data) (goal met)

Rail

12. Number of rail-related crashes per million train-miles

• Fiscal year 1999 goal: 3.44 • Actual: 3.79 (goal not met)

13. Number of rail-related fatalities per million train-miles

• Fiscal year 1999 goal: 1.57 • Actual: 1.30 (goal met)

14. Number of highway-rail grade-crossing accidents divided by the product of million trainmiles and trillion vehicle-miles traveled

• Fiscal year 1999 goal: 2.19 • Actual: 2.00 (goal met)

² A runway incursion occurs when an aircraft, ground vehicle, or person occupies or crosses a runway that is in active use for takeoffs or landings.

³An operational error occurs when the separation between aircraft is less than the separation determined to be necessary for the specific phase of the flight.

⁴A deviation occurs when an aircraft enters airspace without prior coordination.

- 15. Number of rail-related trespasser fatalities divided by the product of million train-miles and billion U.S. population
 - Fiscal year 1999 goal: 2.58Actual: 2.46 (goal met)

Transit

- 16. Number of transit fatalities per 100 million passenger-miles traveled
 - Fiscal year 1999 goal: 0.50
 - Revised fiscal year 1999 goal: 0.507
 - Actual: 0.531 (goal not met)
- 17. Number of transit-injured persons per 100 million passenger-miles traveled
 - Fiscal year 1999 goal: 123.2Actual: 111.6 (goal met)

Pipelines and transport of hazardous material

- 18. Number of natural gas transmission pipeline failures
 - Fiscal year 1999 goal: 4,528
 - Actual: 4,467 (goal met)
- 19. Number of failures of hazardous liquid pipelines
 - Fiscal year 1999 goal: 171
 - Actual: 159 (goal met)
- 20. Number of pipeline incidents caused by outside force damage
 - Fiscal year 1999 goal: 137
 - Actual: 117 (goal met)
- 21. Number of serious hazardous material incidents in transportation
 - Fiscal year 1999 goal: 430Actual: 363 (goal met)

GAO's Observations on DOT's Fiscal Year 1999 Performance for the Key Agency Outcome Related to Transportation Safety

DOT's Progress in Achieving Fiscal Year 1999 Goals Varied

DOT met 12 of the 21 safety goals in fiscal year 1999 as shown above. Among the transportation categories, DOT had the best record and met all of its goals in the category of pipelines and transport of hazardous material. The Department did not meet any of its aviation goals, and its performance in the other categories was mixed. For three of the goals that the Department did not meet—alcohol-related highway fatalities, recreational boating fatalities, and transit fatalities—the Department indicates that the overall trend was good. This information is clearly articulated in the performance report, which provides summary tables listing the fiscal year 1999 goals, trend data, and checkmarks to indicate that the goal was met or, if the goal was not met, whether the trend was good.

Several measures had trends that indicated a lack of progress toward the fiscal year 1999 goals. For example, the seat-belt use rate was 67 percent in 1999, below the goal of 80 percent. According to preliminary estimates, seat-belt use declined from 70 percent in 1998

to 67 percent in 1999. DOT indicated that this decline is not statistically significant and may be attributable to a change in the methodology for collecting data. DOT explained the change in methodology, but the statistical significance of the decline from 1998 to 1999 cannot be determined because its report does not provide sampling errors for the estimates. In any case, however, seat belt use is well below the goal.

The Department did not meet its fiscal year 1999 goals, and performance worsened compared with 1998 for four other measures—commercial air carrier fatal accidents, operational errors for air traffic, aircraft deviations, and rail accidents. For example, in fiscal year 1998, there were six commercial aviation fatalities per 100 million flight hours. In fiscal year 1999, the commercial aviation fatality rate increased to 40. The Department acknowledges most of these trends (all except commercial aviation fatalities) and explains additional activities to address them. For example, DOT found that the increase in the train accident rate was attributable, in part, to accidents caused by human behavior. To counter the growing number of incidents involving human behavior, in 1999 the Federal Railroad Administration continued the research and development of fatigue countermeasures, and the administration has proposed legislation that would require railroads to develop and implement fatigue management plans.

The Department met its fiscal year 1999 goals, but performance worsened compared with fiscal year 1998 for three additional measures—rail grade-crossing accidents, failures of hazardous liquid pipelines, and failures of natural gas transmission pipelines. For both the pipeline measures, the performance report does not acknowledge these trends, and no change in strategy is mentioned. For the rate of rail grade-crossing accidents, the Department concluded that preliminary performance data for fiscal year 1999 continued a downward trend that began in 1987. The report's analysis is confusing because the preliminary data indicate that the rate increased from fiscal year 1998 to fiscal year 1999.

DOT Provides Comprehensive Discussion of Performance Information

Overall, DOT's safety goals and measures are meaningful, outcome-oriented, objective, measurable, and quantifiable. The fiscal year 1999 performance report clearly states the target levels and the actual performance for the 21 measures associated with transportation safety. However, in one case—the rate of fatal commercial aviation accidents—the Department measures accidents per flight hours. Since most commercial aviation accidents occur during takeoff or landing, we believe that accidents per departures are usually a better measure of exposure to risk than accidents per flight hours. According to Department officials, using flight hours or departures gives a similar result.

For the most part, DOT provides a clear and comprehensive discussion of performance data. For each performance measure, its report provides a definition of the measure, data limitations and their implications for assessing performance, procedures to verify and validate data, and the source database. The report also notes efforts to correct some data limitations. For example, it explains that reviews by the Coast Guard and DOT's Inspector General (IG) found that the public underreported data on recreational boating fatalities. As a result, the data and goal for fiscal year 1999 were revised upward. In addition, the Coast Guard indicated it plans to address the issue of unreported fatalities with the National Boating Safety Advisory Council in April 2000.

DOT also revised the fiscal year 1999 data and goal for fatalities among workers aboard commercial vessels and the goal for transit fatalities, but does not explain why. The report indicates that the original goal for worker fatalities was revised from 42 to 34 per 100,000 workers to more accurately reflect the fatality rate. No further explanation is provided. The fiscal year 1999 performance plan lists the goal for transit fatalities as 0.50 per 100 million passenger-miles. The performance report lists the goal as 0.507 fatalities per 100 million passenger-miles. DOT provides no explanation for the change or information on the implications of the change.

Finally, the report does not acknowledge the Department's efforts to correct problems concerning rail grade-crossing data identified by the IG. The IG noted (1) discrepancies in the accident data reported to the Federal Railroad Administration and DOT's National Response Center and (2) the fact that the national inventory of grade crossings is incomplete. According to the IG's report, the agency had actions under way to address these issues.⁵

<u>Unmet Fiscal Year 1999 Performance Goals and Measures for the Key Agency Outcome</u> <u>Related to Transportation Safety</u>

In fiscal year 1999, DOT did not meet nine performance goals related to transportation safety:

Highway

- 1. Percentage of alcohol-related highway fatalities
- 2. Percentage of front-seat occupants using seat belts

Aviation

- 3. Number of fatal aviation accidents for commercial air carriers per 100,000 flight hours
- 4. Number of runway incursions
- 5. Number of operational errors per 100,000 activities
- 6. Number of deviations per 100,000 activities

Marine

7. Number of recreational boating fatalities

Rail

8. Number of rail-related crashes per million train-miles

Transit

9. Number of transit fatalities per 100 million passenger-miles traveled

⁵Rail-Highway Grade Crossing Safety: Federal Railroad Administration (RT-1999-140, Sept. 30, 1999).

GAO's Observations on DOT's Unmet Fiscal Year 1999 Performance Goals and Measures Related to Transportation Safety

DOT did not meet 9 of its 21 goals for transportation safety in fiscal year 1999 (see above). For eight of the nine unmet goals (all except the transit fatalities goal), the Department provides reasonable explanations for not meeting the goals as well as strategies to address the attributable factors. For example, the report notes that most recreational boating fatalities are the result of accidents involving factors under the operator's control and that boaters tend to decline to wear life jackets, which would vastly improve their chance of surviving accidents. The Coast Guard's strategy to achieve its goal for fiscal year 2000 includes boater education and research on how to promote greater use of life jackets.

The Department does not adequately explain why it did not meet the transit fatality goal. The performance report states that ridership increased; however, because the measure is a rate that accounts for changes in ridership, an increase in the number of riders is not relevant.

In fiscal year 2000, the Department expects to achieve all of its goals that were unmet in fiscal year 1999 except four. It does not expect to achieve fiscal year 2000 goals for operational errors and deviations for aircraft because of improvements made in reporting in August 1998, which resulted in an increase in the number of errors and deviations reported. The fiscal year 2000 goals were set prior to the data correction. In addition, the Department does not expect to achieve its fiscal year 2000 goal for runway incursions because most of the initiatives that it is undertaking in this area will take several years to show measurable results. Furthermore, the Department acknowledges that a fourth goal—to increase seat-belt usage—was missed by a significant amount and that the agency will need to assess the success of its current initiatives in September 2000 to determine if further adjustments need to be made in fiscal year 2001.

<u>Fiscal Year 2000 Performance Goals and Measures for the Key Agency Outcome Related to Transportation Safety</u>

For fiscal year 2000, DOT added five new measures, discontinued four measures, and revised two goals related to transportation safety, as shown below.

Highway

- 1. Number of highway fatalities per 100 million vehicle-miles traveled
 - Fiscal year 2000 goal: 1.5
- 2. Number of highway-related injuries per 100 million vehicle-miles traveled
 - Fiscal year 2000 goal: 116
- 3. Number of fatalities involving large trucks (new measure)
 - Fiscal year 2000 goal: 4,934
- 4. Number of injured persons involving large trucks (new measure)
 - Fiscal year 2000 goal: 125,000
- 5. Percentage of alcohol-related highway fatalities
 - Fiscal year 2000 goal: 35 percent

- 6. Percentage of front-seat occupants using seat belts
 - Fiscal year 2000 goal: 85 percent

Aviation

- 7. Number of fatal aviation accidents (U.S. commercial air carriers) per 100,000 flight hours
 - Fiscal year 2000 goal: 0.033
- 8. Number of fatal general aviation accidents (new measure)
 - Fiscal year 2000 goal: 379
- 9. Number of runway incursions
 - Fiscal year 2000 goal: 248
- 10. Number of operational errors per 100,000 activities
 - Fiscal year 2000 goal: 0.486
- 11. Number of deviations per 100,000 activities
 - Fiscal year 2000 goal: 0.097

Marine

- 12. Number of recreational boating fatalities
 - Fiscal year 2000 goal: 720
 - Fiscal year 2000 revised goal: 763
- 13. Percentage of mariners reported in imminent danger who are rescued
 - Fiscal year 2000 goal: 93 percent
- 14. Percent of property reported in imminent danger saved (**new measure**)
 - Fiscal year 2000 goal: 80 percent
- 15. Number of high-risk passenger vessel casualties per 1,000 vessels (new measure)
 - Fiscal year 2000 goal: 47
 - Revised fiscal year 2000 goal: 53
- 16. Number of fatalities per 100,000 workers aboard commercial vessels (**measure discontinued**)

Rail

- 17. Number of rail-related crashes per million train-miles
 - Fiscal year 2000 goal: 3.38
- 18. Number of rail-related fatalities per million train-miles
 - Fiscal year 2000 goal: 1.30
- 19. Number of highway-rail grade crossing accidents divided by the product of million trainmiles and trillion vehicle-miles traveled
 - Fiscal year 2000 goal: 1.57
- 20. Number of rail-related trespasser fatalities divided by the product of million train-miles and billion U.S. population (measure discontinued)

Transit

- 21. Number of transit fatalities per 100 million passenger-miles traveled
 - Fiscal year 2000 goal: 0.502
- 22. Number of transit-injured persons per 100 million passenger-miles traveled
 - Fiscal year 2000 goal: 121.9

Pipelines and transport of hazardous material

- 23. Number of natural gas transmission pipeline failures
 - Fiscal year 2000 goal: 4,451
- 24. Number of failures of hazardous liquid pipelines (measure discontinued)
- 25. Number of pipeline incidents caused by outside force damage (measure discontinued)
- 26. Number of serious hazardous material incidents in transportation
 - Fiscal year 2000 goal: 411

GAO's Observations on DOT's Fiscal Year 2000 Planned Performance for the Key Agency Outcome Related to Transportation Safety

DOT provides reasonable explanations for changing some transportation safety measures in fiscal year 2000. For example, in fiscal year 2000, the Department added performance measures for fatalities and injuries from accidents involving large trucks to focus attention on commercial truck safety. The performance report explains that large trucks are overrepresented in fatal crashes—13 percent of the people killed in motor vehicle accidents died in crashes involving large trucks, yet trucks represent only 3 percent of the registered vehicles and 7 percent of the vehicle-miles traveled. As another example, the measure concerning rail-related trespasser fatalities was discontinued in fiscal year 2000, because the information will be reported as a component of the measure for overall rail-related fatalities. Reasons for discontinuing the two measures related to pipeline failures were not reported. However, the report referred to a similar measure of pipeline failure that will continue in fiscal year 2000. This measure is described in the section of the report devoted to environmental goals.

The Department also explains why it revised two goals for fiscal year 2000. The goal for the number of recreational boating fatalities was originally set at 720 and was revised to 763. The goal was adjusted to account for underreporting and the agency's revised estimates of the number of fatalities each year. In addition, the goal for the number of casualties on high-risk passenger vessels per 1,000 vessels was originally set at 47 and was revised to 53 because the agency modified the methodology used to estimate casualties.

For each measure listed above, the report briefly assesses the effect of the fiscal year 1999 performance on estimated performance levels for fiscal year 2000. The Department describes clear and adequate revisions to its means and strategies to achieve the fiscal year 2000 performance goals. For example, despite an overall decline in the number of highway fatalities in 1999, motorcycle fatalities increased 11 percent. To address the increase in motorcycle fatalities, the agency, in partnership with the Motorcycle Safety Foundation and others, plans to complete the development of a National Agenda for Motorcycle Safety, which will provide specific recommendations to improve motorcycle safety.

All the new measures, except general aviation fatalities, indicate meaningful progress toward the outcome of improved safety. The Department has set a goal of 379 general aviation fatalities for fiscal year 2000, which is higher than the 354 general aviation fatalities that occurred in fiscal year 1999. Furthermore, there has been a generally downward trend in this measure since fiscal year 1988. As a result, DOT's goal for general aviation may not be sufficiently challenging.

<u>Fiscal Year 2001 Performance Goals and Measures for the Key Agency Outcome Related to Transportation Safety</u>

In fiscal year 2001, the Department added one new measure and discontinued three measures as shown below.

Highway

- 1. Number of highway fatalities per 100 million vehicle-miles traveled
 - Fiscal year 2001 goal: 1.5
- 2. Number of highway-related injuries per 100 million vehicle-miles traveled
 - Fiscal year 2001 goal: 113
- 3. Number of fatalities involving large trucks
 - Fiscal year 2001 goal: 4,830
- 4. Number of injured persons involving large trucks
 - Fiscal year 2001 goal: 122,000
- 5. Percentage of alcohol-related highway fatalities
 - Fiscal year 2001 goal: 34 percent
- 6. Percentage of front-seat occupants using seat belts
 - Fiscal year 2001 goal: 86 percent

Aviation

- 7. Number of fatal aviation accidents (U.S. commercial air carriers) per 100,000 flight hours
 - Fiscal year 2001 goal: 0.031
- 8. Number of fatal general aviation accidents
 - Fiscal year 2001 goal: 379
- 9. Number of runway incursions
 - Fiscal year 2001 goal: 241
- 10. Number of operational errors per 100,000 activities
 - Fiscal year 2001 goal: 0.5
- 11. Number of deviations per 100,000 activities (measure discontinued)

Marine

- 12. Number of recreational boating fatalities
 - Fiscal year 2001 goal: 749
- 13. Percentage of mariners reported in imminent danger who are rescued **(measure discontinued)**
- 14. Percentage of property reported in imminent danger saved (measure discontinued)
- 15. Percentage of all mariners in imminent danger who are rescued (new measure)
 - Fiscal year 2001 goal: 85 percent
- 16. Number of high-risk passenger vessel casualties per 1,000 vessels
 - Fiscal year 2001 goal: 46
 - Revised fiscal year 2001 goal: 52

Rail

- 17. Number of train accidents per million train-miles
 - Fiscal year 2001 goal: 3.29

- 18. Number of rail-related fatalities per million train-miles
 - Fiscal year 2001 goal: 1.23
- 19. Number of highway-rail grade-crossing accidents divided by the product of million trainmiles and trillion vehicle-miles traveled
 - Fiscal year 2001 goal: 1.39

Transit

- 20. Number of transit fatalities per 100 million passenger-miles traveled
 - Fiscal year 2001 goal: 0.497
- 21. Number of transit-injured persons per 100 million passenger-miles traveled
 - Fiscal year 2001 goal: 120.7

Pipelines and transport of hazardous material

- 22. Number of natural gas transmission pipeline failures
 - Fiscal year 2001 goal: 4,375
- 23. Number of serious hazardous material incidents in transportation
 - Fiscal year 2001 goal: 401

GAO's Observations on DOT's Fiscal Year 2001 Planned Performance for the Key Agency Outcome Related to Transportation Safety

DOT provides a reasonable explanation for changing some transportation safety measures in fiscal year 2001. The Department discontinued the measure for mariners <u>reported</u> in imminent danger who are rescued. This measure was replaced with a new, broader measure for <u>all</u> mariners in imminent danger who are rescued. The new measure provides a clear statement of intended performance and the goal defines the level of performance. The performance report provides no explanation for discontinuing the measures concerning aircraft deviations and property reported to be in imminent danger that is saved.

With respect to the new measure concerning mariner rescues, the Department addresses the only relevant weakness that we observed in previous plans. Previous plans did not consistently explain coordination strategies with outside agencies. For the new measure, the fiscal year 2001 plan explains coordination of rescue activities with the U.S. Navy and Air Force.

Key Agency Outcome: Improved Safety and Reduced Flight Delays Through Air Traffic Control Modernization

<u>Fiscal Year 1999 Performance Goals and Measures for the Key Agency Outcome Related to Flight Delays</u>

For the key DOT outcome concerning improved safety and reduced flight delays through ATC modernization, DOT's performance report includes two goals and measures for fiscal year 1999:

- 1. Number of ATC volume- and equipment-related delays per 100,000 flight operations
 - Fiscal year 1999 goal: 30.7
 - Actual: 30.37 (**goal met)**
- 2. Percentage of flight segments safely flown off ATC-preferred routes
 - Fiscal year 1999 goal: 80 percent
 - Actual: 77.4 percent (goal not met)

The first goal directly measures a portion of flight delays. The aim of the second measure—to allow aircraft to fly the most direct route rather than the ATC-preferred route—is to give increased flexibility to aircraft. This measure does not directly contribute to improved safety or reduced flight delays but has the potential to improve efficiency in certain situations, especially in heavily traveled airspace.

GAO's Observations on DOT's Fiscal Year 1999 Performance for the Key Agency Outcome Related to Flight Delays

DOT met its goal to reduce flight delays and failed to meet its goal for flight route flexibility. However, the Department indicates that the trend for the latter goal was good. This information is clearly articulated in the performance report, which provides summary tables listing the fiscal year 1999 goals, trend data, and checkmarks to indicate that the goal was met or, if the goal was not met, that the trend was good.

The Department provides a clear and comprehensive discussion of the performance information. For both measures, the performance report provides a definition of the measure, data limitations and their implications for assessing performance, procedures to verify and validate data, and the source database. For example, the report indicates that information for aviation delays is collected in 15-minute intervals, which means the agency does not capture the total amount of system delay, but only the most significant delays. In addition, DOT's performance report clearly states the target levels and the actual performance for the two measures associated with this outcome.

⁶The Federal Aviation Administration (FAA) is undertaking an ambitious and costly program to modernize its air traffic control system. Under this program, FAA is acquiring new surveillance, data-processing, navigation, and communications equipment in addition to new facilities and support equipment. The total cost of the program is estimated to be \$41 billion.

<u>Unmet Fiscal Year 1999 Performance Goal and Measure for the Key Agency Outcome</u> <u>Related to Flight Delays and GAO's Observations on Them</u>

In fiscal year 1999, DOT did not meet its performance goal concerning the percentage of flight segments safely flown off ATC-preferred routes. DOT reports that it fell just short of this goal and that the trend was good. As a result, the Department indicates that no changes in planned strategies and initiatives are needed to achieve the fiscal year 2000 goal.

<u>Fiscal Year 2000 Performance Goals and Measures for the Key Agency Outcome Related to Flight Delays</u>

For fiscal year 2000, DOT revised both measures related to flight delays. These measures are:

- 1. Aviation delays per 100,000 activities⁷ (measure revised)
 - Fiscal year 2000 goa 171
- 2. Percentage of flights that aircraft are able to fly off ATC-preferred routes (measure revised)
 - Fiscal year 2000 goal: 80 percent

GAO's Observations on DOT's Fiscal Year 2000 Planned Performance for the Key Agency Outcome Related to Flight Delays

DOT's revised measures for flight delays provide clear statements of intended performance, and the fiscal year 2000 goals define the levels of performance. The measure for aviation delays was revised and expanded in fiscal year 2000 to include all causes of delay, including weather. The strategies for achieving the fiscal year 2000 goal include replacing existing computer processing hardware for air traffic control in 20 enroute centers and 3 oceanic centers. In October 1999, we reported that this project was on schedule.⁸

The Department also changed the fiscal year 2000 measure for flight route flexibility, so that the unit became "flights" rather than "flight segments" and the reference to safety was eliminated. The report provided no explanation for the revision.

For both measures, DOT briefly assesses the effect of fiscal year 1999 performance on estimated performance levels for fiscal year 2000. The Department expects to achieve both goals in fiscal year 2000 without revising its strategies and initiatives.

⁷ "Activities" are total FAA facility activities, as defined in *Aviation System Indicators 1997 Annual Report.* An example of an activity is an air traffic controller providing guidance to a pilot who needs to make an instrument landing.

⁸ Air Traffic Control: Status of FAA's Implementation of the Display System Replacement Project (GAO/T-RCED-00-19, Oct. 11, 1999). As of April 2000, all 20 enroute centers were operating with the new equipment.

<u>Fiscal Year 2001 Performance Goals and Measures for the Key Agency Outcome Related to Flight Delays</u>

The two measures concerning flight delays were not revised further for fiscal year 2001. The measures and their fiscal year 2001 goals are:

- 1. Aviation delays per 100,000 activities
 - Fiscal year 2001 goal: 171
- 2. Percentage of flights that aircraft are able to fly off ATC-preferred routes
 - Fiscal year 2001 goal: 80 percent

GAO's Observations on DOT's Fiscal Year 2001 Planned Performance for the Key Agency Outcome Related to Flight Delays

With respect to the two measures for flight delays, the fiscal year 2001 performance plan addresses the only relevant weakness that we observed in previous plans. Previous plans did not consistently explain coordination strategies with outside agencies. The fiscal year 2001 plan explains, for example, that DOT is working with the Department of Defense to allow more direct flights through restricted flight areas that are not in use.

Key Agency Outcome: Less Highway Congestion

<u>Fiscal Year 1999 Performance Goals and Measures for the Key Agency Outcome Related to Highway Congestion</u>

For the key DOT outcome to reduce highway congestion, DOT's performance report includes three goals and measures for fiscal year 1999:

- 1. Hours of delay per 1,000 vehicle-miles traveled on federal-aid highways
 - Fiscal year 1999 goal: 9.1
 - Revised fiscal year 1999 goal: 8.1
 - Actual: not available (unknown whether goal met)
- 2. Percentage increase in the level of Intelligent Transportation System (ITS)⁹ integration in six metropolitan areas
 - Fiscal year 1999 goal: 20 percent
 - Actual: 37 percent (goal met)
- 3. Percentage of miles on the National Highway System that meet pavement performance standards for an acceptable ride
 - Fiscal year 1999 goal: 91.5 percent
 - Actual: not available (unknown whether goal met)

The first goal—hours of delay—measures congestion directly. In addition, the Department states that its goal of deploying ITS in metropolitan areas will reduce congestion by allowing these areas to operate their highway systems more efficiently. For the third goal, DOT explains that pavement condition influences congestion by affecting vehicle speed.

GAO's Observations on DOT's Fiscal Year 1999 Performance for the Key Agency Outcome Related to Highway Congestion

The goal for ITS integration was met. The Department cannot determine whether it reached its goals for the other two measures associated with this outcome, because fiscal year 1999 data were not available. According to DOT officials, states are required to report data on these highway conditions on a cycle that does not match the timing of its performance report, and the agency has not yet determined whether it will make any changes to improve the currency of these data in future years. For these goals, DOT uses older information to indicate its progress. For the highway congestion goal, DOT revised its approach to calculating highway congestion and therefore revised its goal for fiscal year 1999 and following years. Performance information indicates that the fiscal year 1999 goal was already met in 1998. As a result, the Department concluded that the fiscal year 1999 goal will be met while also noting that the number of miles traveled on highways is increasing faster than highway capacity. Similarly, DOT concluded that, although fiscal year 1999 performance data are not available, trends in the performance measure for pavement

⁹ITS uses electronic information and communications technology to improve highway operations. One of the ITS program goals is to improve the capacity of the existing highway system.

condition indicate that this goal will be met. However, the Department also indicates that current upward trends in the amount of traffic on highways, particularly large trucks, will increase the rate of pavement deterioration. Nevertheless, all the performance information is clearly articulated in the performance report, which provides summary tables listing the 1999 goals, trend data, and checkmarks to indicate whether the goals were met.

DOT's report discusses the credibility of the information for each performance measure. For example, the report explains that the primary source of uncertainty in the highway congestion measure is determining the number of miles that vehicles travel annually and discloses that the measure does not include delays due to incidents such as car accidents. However, for two of the performance measures, DOT omitted important information. DOT's performance report does not indicate when data on fiscal year 1999 performance will be available for the highway congestion measure. For the highway pavement measure, the performance report does not disclose that states reported no information for about 7 percent of the miles on the National Highway System, varied in their approaches to measuring and reporting the statistic used to indicate pavement performance, the International Roughness Index (IRI), and do not follow uniformly DOT's guidance for making these measurements. Also, the report states that DOT performs annual reviews of states' processes for gathering IRI data and equipment calibration. We found this was not done for some states. As a result, the percentage of roads meeting the pavement standard could be higher or lower than DOT reported.

<u>Unmet Fiscal Year 1999 Performance Goals and Measures for the Key Agency Outcome</u> <u>Related to Highway Congestion and GAO's Observations on Them</u>

DOT cannot determine whether it achieved its goals to reduce hours of delay and improve pavement conditions because fiscal year 1999 performance data are not available. DOT concluded that the goals were likely to be met on the basis of previous years' performance.

<u>Fiscal Year 2000 Performance Goals and Measures for the Key Agency Outcome Related to Highway Congestion</u>

For fiscal year 2000, DOT's performance report includes three goals and measures related to highway congestion:

- 1. Hours of delay per 1000 vehicle-miles traveled on federal-aid highways
 - Fiscal year 2000 goal: 8.0
- 2. Number of metropolitan areas where integrated ITS infrastructure is deployed (measure revised)
 - Fiscal year 2000 goal: 51
- 3. Percentage of miles on the National Highway System that meet pavement performance standards for an acceptable ride
 - Fiscal year 2000 goal: 91.8 percent

¹⁰Transportation Infrastructure: Better Data Needed to Rate the Nation's Highway Conditions (GAO/RCED-99-264, Sept. 27, 1999).

GAO's Observations on DOT's Fiscal Year 2000 Planned Performance for the Key Agency Outcome Related to Highway Congestion

DOT changed the measure for ITS integration in its fiscal year 2000 performance plan and did not provide any explanation other than that it is an "improved measure." Rather than focusing the measurement of ITS deployment in a small number of cities, the new measure focuses more broadly on all metropolitan areas. The revised measure provides a clear statement of intended performance, and the goal defines the level of performance.

Although the goal for ITS integration was revised for fiscal year 2000, DOT provided information on the fiscal year 1999 performance related to the revised goal. On the basis of that performance, DOT expects to achieve the fiscal year 2000 goal. For the other two measures, the Department briefly assesses the effect of fiscal year 1999 performance on estimated performance levels for fiscal year 2000. DOT expects to achieve these goals without significant revisions to its strategies.

<u>Fiscal Year 2001 Performance Goals and Measures for the Key Agency Outcome Related to Highway Congestion</u>

The three measures concerning highway congestion were not revised for fiscal year 2001. The measures and their fiscal year 2001 goals are the following:

- 1. Hours of delay per 1,000 vehicle-miles traveled on federal-aid highways
 - Fiscal year 2001 goal: 7.9
- 2. Number of metropolitan areas where integrated ITS infrastructure is deployed
 - Fiscal year 2001 goal: 56
- 3. Percent of miles on the National Highway System that meet pavement performance standards for an acceptable ride
 - Fiscal year 2001 goal: 91.9 percent

GAO's Observations on DOT's Fiscal Year 2001 Planned Performance for the Key Agency Outcome Related to Highway Congestion

With respect to the measures concerning highway congestion, the fiscal year 2001 performance plan addresses the only relevant weakness we observed in previous plans. Previous plans did not consistently explain coordination strategies with outside agencies. While DOT concluded there were few coordination issues associated with these goals and measures, the fiscal year 2001 plan explains the coordination efforts that were relevant. For example, the Department explains that it is working with the Environmental Protection Agency to identify the effects of ITS deployment on the environment.

Key Agency Outcome: Improved Highway Pavement Condition

<u>Fiscal Year 1999 Performance Goal and Measure for the Key Agency Outcome</u> <u>for Highway Pavement Condition</u>

For the key DOT outcome concerning improved conditions for highway pavement, DOT's performance report includes the following goal and measure for fiscal year 1999:

- 1. Percentage of miles on the National Highway System that meet pavement performance standards for an acceptable ride
 - Fiscal year 1999 goal: 91.5 percent
 - Actual: not available (unknown whether goal met)

This goal and measure is also directly related to the agency outcome of less highway congestion and is discussed under that key outcome.

<u>GAO's Observations on DOT's Fiscal Year 1999 Performance for the Key Agency Outcome</u> for Highway Pavement Condition

DOT cannot determine whether it accomplished its goal to improve highway pavement condition because 1999 performance data are not available. According to DOT officials, states are required to report data on pavement condition on a cycle that does not match the timing of its performance report, and the agency has not yet determined whether it will make any changes to improve the currency of these data in future years. The Department concluded that performance data from fiscal year 1998 indicate that the fiscal year 1999 goal was achieved in that year and that there is an upward trend in this measure. However, the report also notes that current increases in the amount of traffic on highways, particularly by large trucks, will increase the rate of pavement deterioration. All the performance information is clearly articulated in the performance report, which provides a summary table listing the fiscal year 1999 goals, trend data, and checkmarks to indicate whether the goals were met.

The Department discusses the credibility of its performance information but fails to disclose important sources of variation in the data. The report defines the measure and discusses some data limitations and their implications for assessing performance, procedures to verify and validate data, and the source database. However, our review of the IRI, the statistic used to indicate pavement condition, demonstrated that states reported no information on 7 percent of the miles on the National Highway System, varied in their approaches to measuring and reporting the IRI, and do not follow uniformly DOT's guidance for making these measurements. Also, the report states that DOT performs annual reviews of states' processes for gathering IRI data and equipment calibration. We found this was not done for some states. The report does not explain these sources of variation in the performance data. As a result, the percentage of miles meeting the pavement standard could be higher or lower than DOT reported.

¹¹Transportation Infrastructure: Better Data Needed to Rate the Nation's Highway Conditions (GAO/RCED-99-264, Sept. 27, 1999).

<u>Unmet Fiscal Year 1999 Performance Goal and Measure for the Key Agency Outcome</u> <u>for Highway Pavement Condition and GAO's Observations on Them</u>

DOT cannot determine whether it accomplished its goal for highway pavement condition because fiscal year 1999 performance data are not available. The Department concluded that the goal was likely to be met on the basis of previous years' performance.

<u>Fiscal Year 2000 Performance Goal and Measure for the Key Agency Outcome for Highway</u> Pavement Condition and GAO's Observations on Them

For fiscal year 2000, DOT had the following goal and measure related to highway pavement condition:

- 1. Percent of miles on the National Highway System that meet pavement performance standards for an acceptable ride
 - Fiscal year 2000 goal: 91.8 percent

This measure is unchanged from fiscal year 1999. DOT's performance report states that the Department expects to achieve its goal for fiscal year 2000 based on fiscal year 1999 performance.

<u>Fiscal Year 2001 Performance Goal and Measure for the Key Agency Outcome for Highway Pavement Condition and GAO's Observations on Them</u>

For fiscal year 2001, DOT had the following goal and measure related to highway pavement condition:

- 1. Percent of miles on the National Highway System that meet pavement performance standards for an acceptable ride
 - Fiscal year 2001 goal: 91.9 percent

DOT did not change this measure for fiscal year 2001. With respect to this measure, the fiscal year 2001 performance plan addresses the only relevant weakness we observed in previous plans. Previous plans did not consistently explain coordination strategies with outside agencies. The fiscal year 2001 plan explains that no other agencies have similar strategies or goals to address pavement condition.

Key Agency Outcome: Reduced Availability and/or Use of Illegal Drugs

<u>Fiscal Year 1999 Performance Goal and Measure for the Key Agency Outcome Related to Illegal Drugs</u>

The Coast Guard is responsible, along with other federal agencies, for reducing the flow of illegal drugs into the United States. For the key outcome to reduce the availability and/or use of illegal drugs, DOT's performance report includes the following goal and measure for fiscal year 1999:

- 1. Seizure rate of illegal drugs in maritime routes
 - Fiscal year 1999 goal: 12.5 percent or higher
 - Actual: 12.2 percent **(goal not met)**

GAO's Observations on DOT's Fiscal Year 1999 Performance for the Key Agency Outcome Related to Illegal Drugs

DOT failed to meet its fiscal year goal concerning the seizure of illegal drugs. The report indicates that the amount and rate of seizures increased from the previous year; however, DOT concluded that increased smuggling and changed routes contributed to the agency's difficulty in achieving the goal. This information was clearly articulated in the performance report, which provides summary tables listing the fiscal year 1999 goals, trend data, and checkmarks to indicate whether goals were met.

The report provides a clear and comprehensive discussion of the performance information. The report defines the measure, discusses data limitations and their implications for assessing performance, and the source of the data. For example, the report describes the difficulty of estimating the amount of cocaine that is smuggled each year, and the effect of this difficulty on the accuracy of this measure. The Office of National Drug Control Policy refines and improves this estimate each year.

DOT's performance report clearly states the target level and the actual performance for the measure concerning illegal drugs. However, the measure could be described more clearly as it refers only to the seizure rate for cocaine and not for all drugs, as the wording implies.

<u>Unmet Fiscal Year 1999 Performance Goal and Measure for the Key Agency Outcome</u> <u>Related to Illegal Drugs and GAO's Observations on Them</u>

The Department did not meet its fiscal year 1999 goal to increase the seizure rate of illegal drugs in maritime routes. DOT's performance report explains that an increased flow of cocaine in fiscal year 1999 that offset the increase in seizures, smugglers' use of high-speed vessels, and DOT's lack of control over the supply and demand for illegal drugs contributed to the Department's failure to meet the goal. In response to this performance, the Coast Guard implemented a new program in 1999 that is expected to increase the agency's ability to intercept high-speed smuggling vessels.

<u>Fiscal Year 2000 Performance Goal and Measure for the Key Agency Outcome Related to Illegal Drugs and GAO's Observations on Them</u>

For fiscal year 2000, DOT had the following goal and measure related to illegal drugs:

- 1. Seizure rate for illegal drugs of the total amount shipped (wording revised)
 - Fiscal year 2000 goal: 13 percent

Although the wording of this goal changed slightly between the fiscal year 1999 and the fiscal year 2000 performance plans, it is the same measure. DOT's discussion of data validity issues in the fiscal year 2000 performance plan makes it clear that the measure refers to cocaine seized in maritime routes and not to all drugs smuggled into the United States. Despite the change in wording, the goal still does not clearly convey what is being measured.

Given its fiscal year 1999 performance, DOT will have difficulty achieving the increased fiscal year 2000 goal. The Department acknowledges this difficulty. While the performance report describes several programs and improvements in technology that are meant to help the agency achieve the fiscal year 2000 goal, it also indicates that the Coast Guard's level of antidrug activity will decline in comparison with fiscal year 1999, raising doubts about the agency's ability to achieve the increased goal for fiscal year 2000.

<u>Fiscal Year 2001 Performance Goal and Measure for the Key Agency Outcome Related to Illegal Drugs and GAO's Observations on Them</u>

For fiscal year 2001, DOT has the following goal and measure related to illegal drugs:

- 1. Seizure rate for cocaine that is shipped through the transit zone (wording revised)
 - Fiscal year 2001 goal: 15 percent

While the wording of this goal changed from the fiscal year 1999 and 2000 goals, it is the same measure. DOT's discussion of data validity issues in the fiscal year 2000 and 2001 performance plans makes it clear that the measure has always referred specifically to cocaine and not to all illegal drugs, and that the "transit zone" refers to maritime routes.

The fiscal year 2001 performance plan addresses the only weakness relevant to this outcome that we observed in previous plans. We observed that previous plans did not consistently explain coordination strategies with outside agencies. The fiscal year 2001 plan explains that the Coast Guard's efforts are part of an overall strategy to reduce the illegal drug supply entering the United States. The plan describes the Coast Guard's coordination with the Office of National Drug Control Policy, which leads these efforts.

Observations on the Department of Transportation's Efforts to Address Its Major Management Challenges

The following table identifies the major management challenges confronting DOT. The first column lists the management challenges identified by our office ¹² and DOT's Inspector General (IG). ¹³ The second column discusses what progress, as discussed in its fiscal year 1999 performance report, DOT made in resolving its major management challenges. The third column discusses the extent to which DOT's fiscal year 2001 performance plan includes performance goals and measures to address the management challenges that we and DOT's IG identified.

Major management challenge

The acquisition of major aviation and U.S. Coast Guard systems lacks adequate management and planning.

- The Federal Aviation
 Administration's (FAA) \$41 billion
 air traffic control modernization
 program has experienced cost
 overruns, delays, and performance
 shortfalls.
- The Coast Guard needs to more thoroughly address the justification and affordability of its \$9.8 billion Deepwater Project to replace/modernize its ships and aircraft.

(DOT's IG identified air traffic control modernization as a management issue in 1998 and added the Deepwater

Progress in resolving major management challenge, as discussed in the fiscal year 1999 performance report

The report acknowledges that development of the Wide Area Augmentation System, which is part of the air traffic control modernization program, has fallen behind schedule and that production of new approaches has been slowed by limited resources. The report provides no specifics to judge performance during fiscal year 1999.

The report indicates that DOT met its fiscal year 1999 goal for FAA volume-and equipment-related delays per 100,000 activities. DOT attributes this progress, in part, to establishing the National Operations Control Center in January 1999. A primary focus of the center is to mitigate aviation delays due

Applicable goals and measures in the fiscal year 2001 performance plan

To address the specific performance issues associated with developing the Wide Area Augmentation System, FAA has set the following goals:

- establish a panel of satellite navigation experts by December 2000 to identify the changes necessary for the system to be sufficiently reliable,
- meet with aviation associations by February 2001 to discuss the panel's results, and
- develop an updated project schedule by April 2001.

These goals are directly applicable to the management challenge but only cover one of the modernization projects.

¹²Major Management Challenges and Program Risks: Department of Transportation (GAO/OCG-99-13, Jan. 1999).

¹³Top Ten Management Issues: Department of Transportation (TW-1999-031, Dec. 9, 1998).

Project as a management issue in 1999.)

to FAA's equipment. This activity is only indirectly applicable to our concerns about modernizing the air traffic control equipment.

The report indicates that the Coast Guard has taken steps to minimize risks associated with the Deepwater Project and achieve the efficiencies of a systems approach. For example, the Coast Guard has employed a team of specialized technical experts to assist in overseeing the project and evaluating the proposals. The report, however, does not indicate when these steps were taken.

The plan acknowledges that air traffic control modernization is a management issue and lists initiatives that DOT is committed to undertake in 2001 to address the challenge—using FAA's Acquisition Management System to award contracts promptly, establishing baselines for all major projects, and using Earned Value Management for appropriate new large acquisition projects.

The plan includes a performance goal to reduce aviation delays per 100,000 activities, which includes delays due to FAA's air traffic control equipment. This goal is indirectly applicable to our concerns about modernizing the equipment.

The plan includes a performance goal to have certain Coast Guard equipment (high- and medium-endurance cutters, patrol boats, and port security units that support the Defense Department's operational plans) maintain a combat readiness rating of two or better all the time. This goal is indirectly applicable to the management challenge concerning the Coast Guard.

In addition, the plan identifies the agency's Deepwater acquisition project as a management issue and describes activities to address it in 2001,

Important challenges remain in resolving FAA's Year 2000 risks. (The IG also identified this area as a management issue.)	The report indicates that DOT met all of its Year 2000 goals and states that all DOT's mission-critical information technology systems were Year 2000 compliant.	including employing a team of specialized technical experts to assist in overseeing the project and evaluating the design proposals, which are due by July 2001. Not applicable because it is no longer deemed a major management challenge.
FAA and the nation's airports face funding uncertainties. DOT and the Congress face a challenge in reaching agreement on the amount and source of long-term financing for FAA and airports. (The IG also identified this area as a management issue.)	Not discussed. However, in April 2000, the Congress enacted the Wendell H. Ford Aviation Investment and Reform Act for the 21 st Century, which authorized \$45 billion for federal aviation programs through fiscal year 2003.	None.
 Aviation safety and security programs need strengthening. Shortcomings in aviation safety programs include the need for FAA to improve its oversight of the aviation industry, record complete information on inspections and enforcement actions, provide consistent information and adequate training for users of weather information, and resolve data protection issues to enhance the proactive use of recorded flight data to prevent accidents. FAA has encountered delays in implementing security initiatives at 	 The report states that DOT did not meet its fiscal year 1999 goals for the fatal accident rate for commercial air carriers, number of runway incursions,^a number of operational errors and deviations,^b and detection rate for explosives and weapons that may be brought aboard aircraft. According to the report, in fiscal year 1999, under the Safer Skies initiative, FAA began implementing safety interventions concerning uncontained engine failures, controlled flight into 	 The plan includes performance goals to reduce the rate of fatal aviation accidents for commercial air carriers and the number of general aviation fatalities; reduce the number of runway incursions; reduce the rate of operational errors; increase the detection rate for explosive devices and weapons that may be brought aboard aircraft; accredit 75 facilities in accordance with the requirements of FAA Order 1600.69, "Facility Security Management Program";

airports. • FAA's computer security of its air traffic control systems is weak. (The IG also identified aviation safety and transportation security as management issues.)	terrain, and cabin safety education. FAA also revised guidance in areas such as fuel tank safety. To improve oversight of the aviation industry, FAA made changes to its prioritization of inspections and its automated data systems. However, we found that the system designed to implement these changes was so hampered by poor inspector training and lack of coordination with existing data systems that its full coverage of the aviation industry has been put on hold. The report acknowledges that in fiscal year 1999, FAA continued to experience delays in deploying equipment to screen for explosives and weapons at airports.	 adopt and implement procedures to ensure that every FAA system is being assessed, certified, and accredited as fully meeting security standards at least every 3 years; and get information on terrorist threats concerning the U.S. transportation system to those who need to act within 24 hours. The plan also established DOT-wide security goals in response to Presidential Decision Directive 63 and the Office of Management and Budget's Circular A-130. These goals include completing risk assessments, remediation, and testing on critical information technology (IT) assets, as well as developing security plans, providing security awareness training, and certifying that IT systems are adequately protected. The goals to detect explosive devices and weapons, accredit facilities, and adopt and implement procedures concerning the security of FAA systems are directly applicable to the aviation security issue we raised. The remaining goals are indirectly applicable to the management challenge.
A lack of aviation competition	According to the report, DOT met its	The plan includes performance goals ^d
contributes to high fares and poor	goals to serve the communities eligible	to
service for some communities.	for essential air service. Under the	ensure that all subsidized

Increasing competition and improving air service will entail a range of solutions by DOT, the Congress, and the private sector.	Essential Air Service Program, the Department subsidizes an air carrier to provide scheduled air service if no carrier is willing to provide the service subsidy-free. In 1999, 75 communities (outside of Alaska) received subsidized air service. However, this activity is not sufficient to address our concerns about aviation competition, which encompass communities in addition to those receiving essential air service and other issues, such as air carriers' access to airports.	communities (outside of Alaska) receive at least two round trips per day, 6 days per week and • ensure that 75 percent of the subsidized communities (outside of Alaska) receive at least three round trips per day, 6 days per week. These goals are directly applicable to the management challenge but are not sufficient to address our concerns, which encompass communities in addition to those receiving essential air service and other issues, such as air carriers' access to airports.
DOT needs to continue improving its oversight of surface transportation projects. Many highway and transit projects continue to incur cost increases, experience delays, and have difficulties acquiring needed funding. (The IG also identified this area as a management issue.)	Not discussed. However, in fiscal year 1999, the Federal Transit Administration (FTA) began conducting financial capacity reviews of transit grant recipients before awarding grants.	 The plan includes goals to reduce the percentage of deficiencies found in oversight reviews of transit grantees' compliance with federal regulations and increase the number of such deficiencies resolved within 90 days. These goals are directly applicable to the management challenge facing FTA, but they do not address similar concerns about the oversight of highway projects. Moreover, they do not address our overall concern about how FTA and the Federal Highway Administration oversee the management of large-dollar projects, which have had cost, schedule, and

		financing problems.
Amtrak's financial condition is tenuous	The report states that Amtrak did not	The plan includes a performance goal
and will require sustained attention by	meet the fiscal year 1999 goals	to increase intercity ridership. While
DOT and the Congress.	concerning (1) the trip time between	this goal can indicate progress toward
	New York and Boston, (2) the	increasing Amtrak's revenues, it is not
(The IG also identified this area as a	percentage of Amtrak trains arriving on	directly applicable to our specific
management issue.)	time, and (3) customer satisfaction.	concerns with Amtrak's continuing net
		losses and its ability to reach
	The performance report also indicates	operational self-sufficiency by the end
	that in fiscal year 1999, Amtrak invested	of 2002.
	\$150 million in the rehabilitation of	
	coaches and locomotives and the	In addition, the plan identifies Amtrak's
	purchase of new equipment. The report	financial viability as a management
	further states that these investments	challenge and describes actions to
	will help to make train operations more	address it. However, these actions,
	reliable on the Northeast Corridor, which connects Washington, D.C., and	such as evaluating and supporting
	Boston, and reduce the frequency of	Amtrak's expanded intercity passenger rail service initiative, are too vague to
	equipment failures throughout Amtrak's	allow future assessment of whether
	network. Such investments are aimed	they have been completed.
	at enabling Amtrak to increase ridership	they have been completed.
	and revenues.	
DOT's lack of accountability for its	The report states that all of DOT's fiscal	The plan describes activities to
financial activities impairs its ability to	year 1999 financial statements,	enhance financial management
manage programs and exposes the	including FAA's, received unqualified	throughout DOT, including replacing its
Department to potential waste, fraud,	(clean) audit opinions from the IG. In	core accounting system by June 2001.
mismanagement, and abuse. From	fact, the IG actually issued clean audit	
fiscal years 1993 through 1998, the IG	opinions for FAA, the Highway Trust	The plan also includes goals for FAA to
was unable to express an opinion on	Fund, and DOT's consolidated financial	 achieve clean audits in fiscal years
the reliability of the financial	statements for fiscal year 1999.	2000 and 2001,
statements of certain agencies within		 implement cost accounting
DOT, including FAA. DOT also lacks a	To achieve a clean opinion, DOT had to	throughout FAA by fiscal year 2002,
cost accounting system or alternative	obtain sufficient evidence to support	and
means of accumulating the full costs of	the cost of FAA's property and plant	establish user fees for providing air
specific projects or activities.	and equipment. However, this required	traffic control services to

(The IG also identified this area as a management issue.)

FAA to use alternative procedures and labor-intensive measures, including hiring additional contractors, detailing employees, and using extensive overtime and compensatory time. The IG's fiscal year 1999 audit report on DOT's consolidated financial statement identified seven control weaknesses that will require corrective action. These include the lack of systems to accurately account for FAA's property costs and to compute depreciation, compute environmental and disposal liabilities, allocate costs by major programs, and link major programs to the Statement of Net Cost.

During fiscal year 1999, FAA implemented the portion of a cost accounting system related to the costs of providing enroute and oceanic air traffic control services, which are used for determining overflight user fees. This system will be in addition to the cost accounting features being included in the new DOT accounting system currently being implemented.

overflights.

These goals are directly applicable to the management issue.

Other areas identified by DOT's IG^f

DOT needs to address major surface transportation safety issues, such as

- improving its motor carrier safety program and taking prompt and meaningful enforcement actions for noncompliance,
- increasing the level of safety of

The fiscal year 1999 performance report describes progress on many of the surface transportation safety issues.

• For large trucks, the report indicated that DOT conducted more compliance reviews and

The plan includes performance goals to

- reduce the number of fatalities and injuries involving large trucks,
- increase seat-belt use.
- reduce the number of serious hazardous materials incidents in transportation,

commercial trucks and drivers entering the United States from Mexico,

- increasing seat-belt use,
- increasing compliance with safety regulations by entities responsible for transporting hazardous materials, and
- enhancing the effectiveness of the Federal Railroad Administration's Safety Assurance and Compliance Program.

- enforcement actions and reduced its enforcement backlog.
- The fiscal year 1999 plan did not include a goal for truck safety, but the report described trends for fatalities and injuries associated with large-truck accidents. The trend data indicate that fatalities decreased and injuries remained steady in fiscal year 1999.
- The report did not discuss the safety of commercial trucks and drivers entering the United States from Mexico.
- The fiscal year 1999 goal for increasing seat-belt use was not achieved.
- The goals for reducing the number of serious hazardous materials incidents in transportation and for reducing the number of pipeline failures were achieved.
- According to preliminary information, the goal for train accidents was not achieved, but the goal for reducing fatalities associated with the accidents was. The goal for reducing the number of rail-highway grade crossing accidents was also achieved.

- reduce the number of failures of natural gas transmission pipelines,
- reduce the rate of train accidents and rail-related fatalities, and
- reduce the rate of grade-crossing accidents.

These goals are directly applicable to the IG's issues, but they do not address the IG's concerns about the safety of commercial trucks and drivers entering the United States from Mexico.^g

The plan also describes several activities regarding large-truck safety, including implementing improved inspection technology in 2001 and an information system to target high-risk trucks and drivers in 26 states by 2003.

DOT needs to provide leadership to maintain, improve, and develop the port, waterway, and intermodal infrastructure to meet current and future needs. There is also a need to According to the report, DOT met its fiscal year 1999 goals concerning (1) impediments to port commerce, (2) the availability of St. Lawrence Seaway locks, and (3) winter navigation on the

The plan includes performance goals to

 reduce the percentage of ports reporting landside and waterside impediments to the flow of commerce,

identify funding mechanisms to maintain and improve the harbor infrastructure of the United States.	Great Lakes.	 maintain the percentage of days in the shipping season that St. Lawrence Seaway locks are available, and maintain the number of days that critical waterways on the Great Lakes are closed because of ice. These goals are directly applicable to the IG's concerns but do not address such issues as funding mechanisms for harbor infrastructure.
DOT faces several challenges in	According to the report, the	None. However, the plan identifies the
implementing the Government	Department improved the number of	implementation of the Results Act as a
Performance and Results Act. In its	measures for which it was able to	management challenge and explains
December 1999 report, the IG	provide current data in the fiscal year	improvements in (1) data and (2)
reoriented this management challenge	1999 report to 90 percent as a result of	descriptions of data quality.
to focus on improving the reliability	doing a "dry run" of its performance	
and timeliness of the performance data	report in 1998.	
in DOT's performance plans developed		
under the Results Act.	Appendix I of the report describes how	
	data for each performance measure is	
	gathered, how they are verified and	
	validated, and their limitations.	

^aA runway incursion occurs when an aircraft, ground vehicle, or person enters or crosses a runway that is in active use for takeoffs or landings without adequate separation from aircraft cleared to use the runway.

'Uncontained engine failure occurs when a heavy engine part that is rotating at high speed cracks and breaks out of the engine housing. "Controlled flight into terrain" is flying an otherwise controllable aircraft into the ground or water.

^bPilots using instrument procedures rely on air traffic controllers' instructions to guide them. When aircraft are allowed to violate separation standards, an operational error occurs. When aircraft are allowed to penetrate airspace that has not been precoordinated for that aircraft's use, an operational deviation occurs.

^dDOT's performance goals pertain only to communities outside Alaska. According to DOT, service needs in Alaskan communities are unique, are determined on a case-by-case basis, include cargo as well as passengers, and, thus, are difficult to measure.

"Overflights" occur when aircraft fly in U.S.-controlled air space but do not take off from or land in the United States.

^fDOT's IG revised its list of major management challenges in 1999 and identified two new issues—the Coast Guard's Deepwater Project and the Maritime Administration's ship disposal program. The Deepwater Project is discussed in the table. DOT's fiscal year 2001 plan includes a goal to reduce the Maritime Administration's inventory of obsolete vessels. See *Top 12 Management Issues: Department of Transportation* (CE-2000-026, Dec. 22, 1999).

⁸We have raised similar concerns. See *Commercial Trucking: Safety and Infrastructure Issues Under the North American Free Trade Agreement* (GAO/RCED-96-61, Feb. 29, 1996) and *Commercial Trucking: Safety Concerns About Mexican Trucks Remain Even as Inspection Activity Increases* (GAO/RCED-97-68, Apr. 9, 1997).

Comments From the Department of Transportation



Assistant Secretary for Administration

400 Seventh St., S.W. Washington, D.C. 20590

June 13, 2000

Ms. Phyllis F. Scheinberg Associate Director, Transportation Issues U.S. General Accounting Office 441 G Street N.W. Washington, D.C. 20548

Dear Ms. Scheinberg:

Thank you for the opportunity to review the General Accounting Office (GAO) draft report, "Observations on the Department of Transportation's FY 1999 Performance Report and FY 2000 Performance Plan," RCED-2000-201R. The Department is pleased with the favorable results of GAO's review. GAO found that the performance report clearly states the target levels and the actual performance for most of the measures included. In particular, we are pleased GAO found that, "for the most part, DOT provides a clear and comprehensive discussion of the performance information. For each performance measure, DOT's report provides a definition of the measure, data limitations and their implications for assessing performance, procedures to verify and validate the data, and the source database."

Overall the Department met, or achieved a positive trend, in 77 percent of the rigorous performance standards established for 1999. The Department met, or saw positive trends, in all but one of our highway safety goals, as well as the safety goals set for transit, pipelines, hazardous materials, and at sea. Highway fatality and injury rates fell to all time lows. Similar positive results were achieved in achieving our goals set for the environment, economic growth, and national security.

Thank you for the opportunity to offer comments on the draft report. Please contact Martin Gertel on 202-366-5145 with any questions.

Sincerely,

Melissa J. Allen

Melissa J. aven

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