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Testimony

Before the Subcommittee on Aviation,  
Committee on Transportation and  
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# FEDERAL AVIATION ADMINISTRATION

## OBSERVATIONS ON SELECTED CHANGES TO FAA'S FUNDING AND BUDGET STRUCTURE IN THE ADMINISTRATION'S REAUTHORIZATION PROPOSAL

Statement of Gerald L. Dillingham, Ph.D.  
Director, Physical Infrastructure Issues



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## Highlights

Highlights of GAO—07-625T, a testimony before the Subcommittee on Aviation, Committee on Transportation and Infrastructure, House of Representatives

### Why GAO Did This Study

Recently, the administration submitted a proposal for reauthorizing the Federal Aviation Administration (FAA) and the excise taxes that fund most of its budget. FAA's current authorization expires in 6 months. The proposal calls for major changes to FAA's funding and budget structure that are intended to address concerns about the long-term revenue adequacy, equity, and efficiency of FAA's current funding structure and to provide a more stable, reliable basis for funding a new air traffic control system that FAA is developing (at an estimated cost of \$15 billion to 22 billion through 2025) to meet forecasted increases in air travel demand. The proposal would introduce cost-based charges for commercial users of air traffic control services, eliminate many current taxes, substantially raise fuel taxes for general aviation users, charge commercial and general aviation users a fuel tax to pay primarily for airport capital improvements, modify FAA's budget accounts to align with specific FAA activities, and link the portion of FAA's budget that comes from the Treasury's General Fund with public benefits FAA provides.

This statement offers GAO's observations on the proposed changes in FAA's (1) funding and (2) budget structure and is based on GAO's analysis of FAA's proposal and a recent GAO report on FAA funding options.

[www.gao.gov/cgi-bin/getrpt.GAO-07-625T](http://www.gao.gov/cgi-bin/getrpt.GAO-07-625T)

To view the full product, including the scope and methodology, click on the link above. For more information, contact Gerald L. Dillingham at (202) 512-2834 or [dillinghamg@gao.gov](mailto:dillinghamg@gao.gov).

## FEDERAL AVIATION ADMINISTRATION

# Observations on Selected Changes to FAA's Funding and Budget Structure in the Administration's Reauthorization Proposal

### What GAO Found

**Funding Structure:** The current funding structure has supported FAA as FAA's budget has grown, and it can continue to do so to fund planned modernization. Excise tax revenues are forecasted to increase if the current taxes are reauthorized without change and thus could support additional spending. If necessary, Congress can obtain more revenue by increasing the excise tax rates or the General Fund contribution to FAA's budget, although the nation's fiscal imbalance could make such an increase difficult. FAA is concerned because revenues from the current funding structure depend primarily on ticket prices and passenger numbers, which are not well linked to FAA's workload and costs. The proposed new funding structure would link revenues more closely with costs to ensure that revenues rise with increases in FAA's air traffic control and safety activities. According to FAA, cost-based user charges would also be more equitable and could create incentives for more efficient use of the system by aircraft operators. How well FAA's proposed funding structure, if enacted, would achieve these goals is uncertain because it depends on two unknowns—the soundness of a new FAA cost allocation methodology and the extent to which the proposed structure links revenues to costs. Also uncertain are the adequacy of FAA's proposed fuel tax rate to collect anticipated revenues, the implications of a proposed advisory board, and the impact of a proposal to give FAA limited debt-financing authority. Furthermore, GAO notes, user charges would reduce Congress's role in setting revenues.

**Budget Structure:** Modifying FAA's budget accounts is consistent with FAA's emphasis on aligning revenues and costs, but may present implementation issues, in that some FAA activities may be difficult to categorize. More specifically, the proposed restructuring could allow FAA to better identify funding options that link revenues and costs and may improve transparency by showing how much is being spent on specific FAA activities. However, some activities, such as those related to safety, may not lend themselves to placement in discrete categories. Linking the General Fund contribution to public benefits is appropriate, but since some activities may provide both public and private benefits, judgment rather than a precise calculation may determine the contribution.

**Concluding Observations:** The administration has introduced a complex proposal for funding FAA that GAO believes deserves thoughtful consideration. While not necessary to provide more money for FAA, the proposed structure may address some of the concerns raised by the current structure if its cost allocation is sound. Because FAA's cost allocation model is new, further analysis and more time may be needed to determine whether it can adequately support a cost-based funding structure for FAA. Timely reauthorization of funding for FAA for at least the next year is, however, critical to prevent a lapse in funding for most FAA activities, regardless of the action taken on the proposed changes.

Mr. Chairman and Members of the Subcommittee:

We appreciate the opportunity to participate in this hearing today to present GAO's observations on major changes to the Federal Aviation Administration's (FAA) funding and budget structure that are included in the administration's recently submitted reauthorization proposal. FAA operates one of the safest air transportation systems in the world. This system is, however, under growing strain as the skies over America become more crowded. Demand for air travel has increased in recent years, with over 740 million passengers flying in fiscal year 2006 and 1 billion passengers expected to fly in 2015, according to FAA estimates. Already, this increasing demand for air travel has led to an increase in flight arrival delays, which are now approaching the record levels set in 2000, when one in four flights reached its destination behind schedule. The system is also expected to absorb a growing variety of aircraft, from the jumbo Airbus A380, which can hold more than 500 passengers, to very light jets, which might greatly increase the number of aircraft in the sky while transporting six or fewer passengers on any given flight. FAA is therefore developing a modernized air traffic control system, called the Next Generation Air Transportation System (NextGen), to meet the forecasted increases in air travel demand. The administration's reauthorization proposal serves as a blueprint for funding FAA as it begins its transformation to NextGen.

According to FAA, the changes to its funding and budget accounts that the administration has proposed are intended to provide a more stable and reliable funding structure to pay for NextGen. FAA also says that the proposed changes would improve the revenue adequacy, equity, and efficiency of its funding and better link revenues with the costs that users of the National Airspace System (NAS) impose on the system. These funding changes include introducing user charges for commercial aircraft based on the cost of the air traffic control services they receive; eliminating many current taxes; substantially increasing the fuel taxes general aviation operators pay; charging both commercial and general aviation a fuel tax to pay for airport capital improvements, the Essential Air

Service (EAS) program,<sup>1</sup> and air traffic system research and development; modifying FAA's budget accounts to align with FAA's activities or lines of business; and linking the contribution to FAA's budget from the General Fund of the U.S. Treasury to the public benefits FAA provides.<sup>2</sup> These changes would begin in fiscal year 2009. If implemented, the changes would alter the basis for funding FAA, in part by recovering the costs of services provided by FAA's Air Traffic Organization (ATO) in accordance with the cost assignments in a recently issued FAA cost allocation study. These changes would also redistribute the funding burden among user groups, increasing the share general aviation would contribute. FAA has stated that currently general aviation is not paying its fair share of the costs for services that it uses. Some stakeholders, such as general aviation, question whether all of the proposed changes are necessary, or even desirable, saying that the current funding structure has supported FAA adequately in the past and can generate more revenue in the future if Congress chooses to increase appropriations for aviation. These stakeholders also state that the current distribution of funding for FAA costs among aviation users is reasonable.

The current authorization for FAA and for the excise taxes that fund most of FAA's budget expires at the end of September of this year. Regardless of the action taken on the proposed changes, timely reauthorization of funding for FAA for at least the next year is critical, because the uncommitted balance<sup>3</sup> in FAA's principal funding source, the Airport and Airway Trust Fund (Trust Fund),<sup>4</sup> is low relative to recent levels.<sup>5</sup>

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<sup>1</sup>The EAS program, established after airline deregulation in 1978, is designed to ensure that small communities that received passenger air service before deregulation continue to have access to the nation's air transportation system.

<sup>2</sup>Appropriations from the General Fund supplement appropriations from the Airport and Airway Trust Fund as necessary to pay for budgeted FAA programs.

<sup>3</sup>The uncommitted balance represents money against which there is no outstanding budget commitment or budget authority to spend.

<sup>4</sup>Excise tax revenues are deposited in the Trust Fund, from which they can be appropriated by Congress to fund FAA.

<sup>5</sup>The Trust Fund's uncommitted balance at the end of fiscal year 2006 was less than \$2 billion. At the end of fiscal year 2001 it was \$7.3 billion.

In my statement today, I will present GAO's observations on the proposed changes in FAA's (1) funding and (2) budget structure, including the proposed method of determining the General Fund contribution to FAA's budget.

My remarks are based in part on work we did for a report we issued last year that analyzed (1) FAA's current funding structure—both its advantages and the concerns that FAA and others had identified about its long-term revenue adequacy, equity, and efficiency—and (2) several funding options to assess how those options might address those concerns.<sup>6</sup> For that report, we reviewed relevant literature, examined FAA data and forecasts, and interviewed officials from FAA and other government agencies, representatives of aviation industry groups, and academic and financial experts. In addition, for this statement, we analyzed selected funding and budget elements of the administration's reauthorization proposal and FAA's newly released cost allocation study, focusing on their implications for revenue adequacy, equity, and efficiency, and discussed them with FAA officials and representatives of aviation industry groups. We conducted our work from February to March 2007 in accordance with generally accepted government auditing standards.

### **Summary**

- **Funding Structure:** The current funding structure has supported FAA as FAA's budget has grown, and it can continue to fund planned modernization. Trust Fund revenues are forecasted to increase if the current excise taxes are extended without change and therefore could support additional congressional spending on aviation. If necessary, Congress can obtain more revenue by increasing excise tax rates or the General Fund contribution, although the nation's fiscal imbalance could make such an increase difficult. Nonetheless, FAA is concerned about the long-term revenue adequacy, equity, and efficiency of its current funding structure, and its proposed new funding structure is intended to address these concerns by linking revenues more closely with costs. By more closely linking revenues with workload and

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<sup>6</sup>GAO, *Aviation Finance: Observations on Potential FAA Funding Options*, GAO-06-973 (Washington, D.C.: September 29, 2006).

costs, FAA states that it will be better able to pay for future air traffic demands, for example the transition to NextGen, which is estimated to cost between \$15 billion to \$22 billion through 2025.<sup>7</sup> It is uncertain how effective FAA's proposed cost-based funding approach, if enacted, will be in addressing these concerns. Its effectiveness depends on how accurately FAA's new cost allocation methodology assigns costs and on how closely the proposed approach adheres to the principle that there should be a direct link between a user's revenue contribution to funding FAA and the costs the user imposes. Stakeholders have raised questions about both of these considerations. Also uncertain are the equity of the tax burden commercial and general aviation would incur for airport capital improvements, the adequacy of FAA's proposed fuel tax rate to collect anticipated revenues, the implications of a proposed advisory board, and the impact of a proposal to give FAA limited debt financing authority. In addition, FAA has not taken into account a potential reduction in demand that could result from a fuel tax increase and could lead, in turn, to less fuel tax revenue than anticipated. The implications of an advisory board that has some influence but limited authority in setting user fees and the advantages of debt financing are unclear.

- **Budget Structure:** FAA's proposal to modify its budget accounts is consistent with its emphasis on aligning revenues and costs but may present implementation issues in that some FAA activities may be difficult to categorize. More specifically, the proposed restructuring could allow FAA to better identify funding options that link revenues and costs and may improve transparency by showing how much is being spent on each line of business. However, some activities, such as those related to safety, may not lend themselves to placement in discrete categories. Linking the General Fund contribution to public benefits is an appropriate way to recognize that users are not the only beneficiaries of a safe air transportation system. Judgments, however, will still be necessary, since many activities that create public benefits, such as safety, also benefit users.

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<sup>7</sup>FAA is working through the Joint Planning and Development Office with other government agencies to design NextGen. The Joint Planning and Development Office is responsible for NextGen cost estimates.

## Background

Although there have been fluctuations in its funding sources, FAA is primarily supported by the Trust Fund (82 percent), which receives revenues from a series of excise taxes paid by users of the NAS. These excise taxes are associated with purchases of airline tickets and aviation fuel, as well as the shipment of cargo. These Trust Fund revenues are then available for use subject to appropriations. In addition to these revenues, in most years, General Fund revenues have been used to fund FAA. About \$2.6 billion was appropriated for fiscal year 2006 from the General Fund for FAA's operations. This amount represents about 18 percent of FAA's total appropriation.

The Trust Fund was established by the Airport and Airway Revenue Act of 1970 (P.L. 91-258) to help fund the development of a nationwide airport and airway system. The Trust Fund provides funding for FAA's two capital accounts—the Airport Improvement Program (AIP) and the Facilities and Equipment (F&E) account—which provide grants to airports and funds for modernizing the air traffic control system, respectively. The Trust Fund also provides funding for the Research, Engineering, and Development (RE&D) account and supports part of FAA's Operations account. To fund these accounts, the Trust Fund is credited with revenues collected from system users through the dedicated excise taxes. In fiscal year 2005,<sup>8</sup> the ticket tax was the largest single source of Trust Fund revenue, followed by the international departure and arrival tax, the passenger segment tax, and fuel taxes (see table 1 for a description of current taxes).

The administration's reauthorization proposal would change FAA's financing system from one based mainly on excise taxes to one based more on cost-based charges. Under the proposed system, funding for ATO would come primarily from user charges on commercial aircraft and fuel taxes on general aviation aircraft.<sup>9</sup> In addition, contributions from the General Fund would be appropriated to FAA to cover ATO costs of providing services to military and other public aircraft, flight service stations, and a few other

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<sup>8</sup>Fiscal year 2005 is the last year for which complete tax data are available.

<sup>9</sup>FAA would also receive authority to impose a fee for use of congested major airports that would apply to both commercial and general aviation aircraft.

services.<sup>10</sup> Funding for AIP, EAS, and part of RE&D would come from an equal fuel tax on both general and commercial aviation and a tax on arriving international passengers. Funding for Safety and Operations would include some fees, but mostly General Fund contributions. The reauthorization proposal would also create an advisory board and give FAA limited borrowing authority.<sup>11</sup> Table 1 compares elements of the current and proposed funding structure for FAA.

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<sup>10</sup>Military and public aircraft include flights for government purposes, such as those used by the Departments of Defense, State, and the Interior. These aircraft are internationally defined as state aircraft that are exempt from paying fees and taxes. A flight service station is an air traffic facility that provides weather briefings and flight planning services, largely to general aviation pilots. Other services that FAA proposes to exempt from fees include, but are not limited to, air ambulances, aviation safety regulation and oversight, and the operation of air traffic control towers at airports with fewer than 100,000 passenger boardings per year.

<sup>11</sup>Other provisions in the reauthorization proposal address funding during the transition to a user-based funding structure and the creation of a reserve fund to be available in case future revenues fall short of expectations.

**Table 1: Elements of the Current and Proposed FAA Funding Structure**

<b>Current FAA funding structure</b>	<b>Proposed FAA funding structure</b>
7.5 percent tax on ticket price of domestic airline tickets.	Eliminated.
\$3.30 per-passenger tax on domestic passenger flight segment.	Eliminated.
Not applicable.	User fee for jet and turboprop commercial aircraft. Fees for en route and oceanic air traffic services may be based on distance traveled or other factors consistent with U.S. treaties and international agreements. A user fee for (1) operations conducted in terminal airspace may be based on aircraft weight and (2) takeoffs and landings at airports with more than 100,000 passenger boardings annually.
Not applicable.	Congestion fee for landings and takeoffs by all aircraft at congested large-hub airports based on time of day and day of week. Daytime fees could differ from nighttime fees.
6.25 percent tax on shipping price for transportation of domestic cargo or mail.	Eliminated.
\$0.043 per-gallon tax on domestic commercial aviation fuel.	\$0.136 per gallon tax on domestic commercial aviation fuel to fund AIP, EAS, and RE&D account.
\$0.193 per-gallon tax on domestic general aviation gasoline.	\$0.70 per-gallon tax on both domestic general aviation gasoline and jet fuel, with \$0.564 per gallon to fund air traffic control services and \$0.136 per gallon to fund AIP, EAS, and RE&D account.
\$0.218 per-gallon tax on domestic general aviation jet fuel.	
\$14.50 per-passenger tax for international passenger arrivals and departures.	\$6.39 per-passenger tax on international passenger arrivals and departures to fund AIP, EAS, and RE&D account.
7.5 percent tax on award value of frequent flyer awards.	Eliminated.
\$7.30 per-passenger fee for passenger service between the continental United States and Alaska or Hawaii or between Alaska and Hawaii.	Eliminated.
Minimal aircraft certification and registration fees set below the cost of providing the service.	Aircraft certification and registration fees to fund additional activities and tied to the cost of providing service.
General Fund contribution.	General Fund contribution.
No debt financing authority.	\$5 billion in Treasury debt financing authority for NextGen-related capital needs for fiscal years 2013-2017.
Management Advisory Council reviews and makes recommendations on FAA management, policy, spending, funding and regulatory matters affecting the aviation industry.	Air Transportation System Advisory Board established to make recommendations on setting of user fees.

Source: GAO analysis.

The administration’s proposal also calls for changing FAA’s budget structure by establishing two new budget accounts—(1) Air Traffic Organization and (2) Safety and Operations—to align with FAA’s lines of business and proposed funding. These two new accounts would replace the Operations and F&E accounts. The proposal retains the AIP and RE&D accounts. See table 2 for a comparison of the current and proposed FAA budget structure.

**Table 2: Current and Proposed FAA Budget Accounts**

	<b>Current budget account</b>	<b>Proposed budget account</b>
<b>Account name</b>	<b>Operations</b>	<b>Safety and Operations</b>
Activity funded	Aviation safety Commercial space transportation FAA overhead ATO salaries and expenses	Aviation safety Commercial space transportation FAA overhead
Funding source	Trust Fund (about 68 percent) General Fund (about 32 percent)	User fees (about 32 percent) Trust Fund (about 4 percent) General Fund (about 64 percent)
<b>Account name</b>	<b>Facilities and Equipment</b>	<b>Air Traffic Organization (ATO)</b>
Activity funded	Air traffic modernization	Air traffic modernization ATO salaries and expenses
Funding source	Trust Fund (100 percent)	Trust Fund (11 percent) User fees (74 percent) General Fund (15 percent)
<b>Account name</b>	<b>Airport Improvement Program</b>	<b>Airport Improvement Program</b>
Activity funded	Airport capital development	Airport capital development
Funding source	Trust Fund (100 percent)	Trust Fund (100 percent)
<b>Account name</b>	<b>Research, Engineering, and Development</b>	<b>Research, Engineering, and Development</b>
Activity funded	Research on aviation safety, capacity, and environmental issues	Research on aviation safety, capacity, and environmental issues
Funding source	Trust Fund (100 percent)	Trust Fund (about 88 percent) General Fund (about 12 percent)

Source: GAO analysis of data from the *Budget of the United States Government Fiscal Year 2008* (Washington, D.C.: Feb. 5, 2007).

In January 2007, FAA released a new cost allocation study.<sup>12</sup> This report sets forth a methodology for assigning air traffic costs to user groups on the basis of aircraft type. The two principal user groups are the high-performance group, which includes all fixed-wing turbine engine aircraft operations, and the piston aircraft group, which includes piston engine fixed-wing aircraft operations and helicopters. According to FAA, this cost allocation methodology is based on the assumption that high-performance users generally

<sup>12</sup>Federal Aviation Administration, *FY2005 Cost Allocation Report* (Washington, D.C.: Jan. 31, 2007).

compete for the same air traffic control resources and their operations are more time-sensitive than piston aircraft operations, requiring more complex air traffic equipment and procedures. Piston aircraft operations, on the other hand, tend to be less time-sensitive and typically rely on less complex equipment. Differences in the speed and cruising altitudes of the two aircraft types also affect their en route costs.

### **Observations on Proposed Changes to FAA's Funding Structure**

The current funding structure, with some modifications to the excise taxes and tax rates and changes in the levels of General Fund contributions, has successfully funded a growing FAA budget. Trust Fund revenues are projected to increase substantially at current excise tax rates. If, to fund the additional costs of NextGen or for other reasons, Congress chooses to increase spending on aviation beyond what can be paid for at current excise tax rates, it can obtain additional revenue through the current funding structure by increasing excise tax rates, the General Fund contribution, or both, although the nation's fiscal imbalance could make such an increase difficult. Nonetheless, because some factors that drive tax revenues, such as ticket prices, are not well linked to FAA's workload and costs, FAA has been concerned about the long-run revenue adequacy, equity, and efficiency of its funding.<sup>13</sup>

Some of the administration's proposed changes for funding FAA, such as establishing direct user charges for commercial aviation and substantially increasing fuel taxes for general aviation are intended to link FAA's revenues more closely with its costs. For other elements of FAA's budget, however, it is not possible to establish a direct link between revenues and costs. For example, because AIP expenditures are not the direct result of costs imposed by users of the NAS, the proposal to fund AIP through equal fuel taxes on all aircraft operators can best be evaluated on equity grounds. Better alignment of FAA's revenues and costs can address some of the concerns about the current funding system that derive from the lack of connection between some key drivers of current FAA

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<sup>13</sup>Revenue adequacy refers to the ability of FAA's funding system to produce revenues commensurate with workload changes over time. Equity refers to the fairness of the distribution of costs to aviation users. Efficiency refers to incentives that encourage the efficient use of the NAS.

revenues, such as ticket prices, and FAA's workload and costs. However, the effectiveness of the proposed funding structure in linking costs with revenues depends critically on how well FAA's new cost allocation method assigns costs to users and on how closely the proposed funding structure adheres to the principle of cost-based funding, and questions remain about both considerations.<sup>14</sup> Furthermore, FAA's method for estimating the fuel tax rates needed to collect its intended level of fuel tax revenue may have underestimated the tax rates needed by not accounting for possible reductions in fuel consumption due to the higher tax rates. The implications of some of the other proposed changes, including one creating an advisory board that can make recommendations on fee setting and another authorizing limited authority for FAA to use debt financing, are uncertain.

#### FAA's Current Funding Structure Has Kept Up with Demand for Many Years and Can Provide Funding to Cover the Development and Implementation of NextGen

Congress has used the current funding structure—excise taxes plus a General Fund contribution—to fund FAA for many years. As the number of air travelers has grown, so have excise tax revenues. Even though revenues fell during the early years of this decade as the demand for air travel fell, they began to rise again in fiscal year 2004, and FAA estimates that if the current taxes remain in effect at their current rates, revenues will continue to increase. While retaining the basic structure for funding FAA, Congress has at times changed the mix of excise taxes and some of the tax rates. For example, when the taxes were most recently reauthorized in 1997, Congress added the passenger segment tax while reducing the passenger ticket tax rate from 10 percent to 7.5 percent.<sup>15</sup> Congress has also appropriated varying amounts of General Fund revenues for FAA during the past 25 years, ranging from 0 to 59 percent of FAA's budget and averaging around 20 percent since fiscal year 1997. The fluctuation in the amount of the General Fund contribution occurs because the contribution is based on the incoming Trust Fund

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<sup>14</sup>Cost-based funding attempts to establish a more direct link between a user's payment for services and the costs the user imposes on a system.

<sup>15</sup>At that time, Congress also increased the international departure tax from \$6 to \$12 per person, applied this tax to international arrivals, and added the frequent flyer tax and the Hawaii/Alaska passenger taxes.

revenues that are available to fund the Operations account after revenues have been allocated to fund the F&E, AIP, RE&D accounts. Therefore, fluctuations in the Trust Fund revenues and FAA expenditures require different levels of General Fund contributions.

As air traffic grows and FAA embarks on modernization through NextGen, Congress may appropriate additional funds to FAA to fund new investment and to maintain a safe and efficient airspace system, although there is considerable uncertainty about how much NextGen will cost. FAA estimates that NextGen will cost between \$15 billion to \$22 billion through 2025. However, funding NextGen does not mean that the current funding structure needs to be changed. According to projections prepared by the Congressional Budget Office (CBO),<sup>16</sup> revenues obtained from the existing funding structure are projected to increase substantially. Assuming that the General Fund provides about 19 percent of FAA's budget, CBO estimates that through 2016 the Trust Fund can support about \$19 billion in additional spending over the baseline FAA spending levels CBO has calculated for FAA (the 2006 funding level, growing with inflation) provided that most of that spending occurs after 2010. How far this money will go to fund modernization is subject to a number of uncertainties—including the future cost of NextGen investments, the volume of air traffic, the future costs of operating the NAS, and the levels of future appropriations for AIP, all of which may influence funding for FAA.

However, if the desired level of spending exceeded what was likely to be available from the Trust Fund at current tax rates, Congress could make further changes within the current structure that would provide FAA with additional revenue if Congress believed that larger FAA appropriations were appropriate—for example, if FAA experienced increased workload demands as a result of increased demand for air traffic services. Congress could raise more revenue from airspace system users for NAS modernization or for other purposes by raising the rates on one or more of the current excise taxes. Congress could also provide more General Fund revenues for FAA, although the nation's

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<sup>16</sup>Congressional Budget Office, *Financing Investment in the Air Traffic Control System* (Washington, D.C.: Sept. 27, 2006).

fiscal imbalance may make a larger contribution from this source difficult. Thus, it is necessary to look at factors other than a need for more revenues to justify a major change in FAA's funding structure.

Funding Changes in Reauthorization Proposal Are Intended to Address Concerns about Long-term Revenue Adequacy, Equity, and Efficiency of Current Funding Structure

FAA has expressed concern that revenues from the current funding structure depend heavily on factors, such as ticket prices, that are not connected to FAA's workload and costs. According to FAA, under the current structure, increases in the agency's workload may not be accompanied by revenue increases because users are not directly charged for the costs that they impose on FAA for their use of the NAS. Revenues collected from excise taxes are primarily dependent on the price of tickets and the number of passengers on planes, while workload is driven by flight control and safety activities. This disconnect raises three key concerns about the current funding structure—its long-term revenue adequacy, equity, and efficiency. Moreover, these three concerns are supported by long-term industry trends and FAA forecasts of declines in inflation-adjusted air fares, the growing use of smaller aircraft, and FAA's 2007 cost allocation study. The administration has used these concerns as its rationale for proposing major changes in FAA's funding.

Many of the proposed changes for funding FAA contained in the administration's reauthorization proposal are intended to address the concerns about revenue adequacy, equity, and efficiency by linking FAA's revenues more closely with its costs. The proposal calls for a combination of methods for funding FAA, which we previously reported might best address concerns with the current system by providing a better link between revenues and costs than any option used separately.<sup>17</sup> For example, the proposal would eliminate all the excise taxes except the taxes on fuel and the tax on international passengers. The ATO, the largest part of FAA's budget, would then be funded by direct user charges on commercial aircraft—including air taxis, fractionally owned aircraft, and

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<sup>17</sup>GAO-06-973.

aircraft providing charter service—that use the NAS, fuel taxes paid by general aviation users of the NAS (both turbine and piston), and General Fund revenues to cover the costs of exempt aircraft such as military and other state aircraft and flight service stations.

The proposal would also allow FAA to establish a fee for all aircraft using the nation's most congested airports. Based on the time of day or day of the week, the fee would be designed to increase efficient use of the NAS by discouraging peak-period traffic at congested airports and, thus, reducing delays. Under such a fee, cargo carriers could pay lower fees by operating at night than they would pay by operating at peak periods of the day, creating an incentive for some cargo carriers to switch daytime operations to nighttime. The fee could also create incentives for general aviation aircraft flying to and from metropolitan areas with congested airports to use other nearby airports instead.

The shares of ATO costs to be recovered from commercial and general aviation aircraft, respectively, and the General Fund contribution to cover the costs of exempt aircraft would be based on the results of FAA's cost allocation study. In addition, the proposal would authorize FAA to impose fees to pay for costs related to certain aircraft certification and registration activities that it conducts.<sup>18</sup>

Basing cost recovery for ATO only on cost allocation is a policy choice. In many other countries, cost recovery is based in part on cost allocation and in part on other principles, such as ability to pay.<sup>19</sup> For example, some countries charge a fee for en route services based on weight and distance; weight is included as a factor in charging formulas because many believe that it reflects an aircraft operator's ability to pay. Using additional principles for cost recovery could result in different distributions of the funding burden among user groups.

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<sup>18</sup>FAA issues certificates and registrations to aircraft owners as well as certifications of domestic and foreign repair stations that are authorized to perform maintenance on U.S. registered aircraft. Other certification fees include charges to flight schools, training centers, and maintenance technical schools and fees for training provided to foreign aviation authorities, among others.

<sup>19</sup>The ability-to-pay principle is a concept of tax fairness that states that those individuals with a greater financial capacity—measured by wealth, income, or other levels of well-being—to bear a tax burden should pay more in taxes than those individuals with a lesser financial capacity.

For one large area of FAA's budget, AIP, it is not possible to establish a direct link between revenues and costs because AIP expenditures are not the direct result of costs imposed by users of the NAS. FAA distributes AIP grants on the basis of congressional priorities established in authorizations and appropriations. Accordingly, equity would appear to be the best criterion to use in evaluating the administration's proposal to fund AIP through a fuel tax of 13.6 cents per gallon on commercial and general aviation operators and a tax of \$6.39 per passenger on the use of international travel facilities.<sup>20</sup>

According to an FAA official, the decision to establish equal tax rates for commercial and general aviation operators was made to achieve fairness and simplicity. One way to evaluate the fairness or equity of funding AIP in this way would be to compare the distribution of the funding burden among user groups with the distribution of the grants funded by AIP.<sup>21</sup> With all aircraft being charged the same fuel tax rate, according to FAA forecasts for fiscal year 2009, commercial aircraft operators would pay about 88 percent of the fuel tax revenues collected primarily to fund AIP, while general aviation operators would pay 12 percent. However, under the current AIP program, about one-third of AIP grants would go to airports with no commercial service, and some additional grants would go to airports where general aviation traffic makes up a substantial share of the aircraft operations.<sup>22</sup> Thus, under the administration's proposal, commercial aviation users would appear to be paying for a large share of the benefits that come from capital spending at general aviation airports. This result is no different from what happens today; commercial aviation users currently pay for a large share of these benefits, since the largest share of the Trust Fund comes from passenger ticket taxes.

Some portion of these benefits may accrue to commercial aviation users if capital spending at general aviation airports keeps general aviation traffic from using congested commercial airports. However, most of the benefits from capital spending at general aviation airports would likely go to users of those airports or their surrounding

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<sup>20</sup>The fuel tax and the international passenger tax would also pay for EAS and for part of the RE&D account.

<sup>21</sup>Other ways to evaluate the equity of funding AIP in this way might lead to different findings.

<sup>22</sup>This allocation of AIP grants among airport types might change if the AIP provisions of the reauthorization bill are adopted.

communities—or to the general public to the extent a national system of airports that includes general aviation airports creates public benefits. In that case, funding those benefits by fuel taxes paid by commercial aircraft may raise equity issues. An alternative approach that would be consistent with a policy choice to charge general aviation users less than the cost of the benefits they receive from AIP grants would be to use General Fund revenues to fund part of AIP.

Concerns about the Soundness of the Cost Allocation Methodology and Adherence to Principle of Cost-Based Funding May Limit Proposal’s Ability to Address FAA’s Key Concerns

A better alignment of FAA’s revenues and costs can address revenue adequacy, equity and efficiency concerns, but the ability of the proposed funding structure to link revenues and costs to address these concerns depends critically on two things—first, the soundness of FAA’s cost allocation system in allocating costs to users and, second, how closely the proposed funding structure adheres to the principle of cost-based funding.

FAA’s new cost allocation study was released at the end of January, so we and others have had only a short time to review it. However, we, as well as industry stakeholders, have raised a number of concerns about the study and its cost allocation methodology. For example, FAA divides NAS users into two groups: high-performance aircraft, such as jets and turboprop aircraft, and piston aircraft. According to FAA, dividing users this way creates two principal groups whose flights impose substantially different costs on FAA. High-performance aircraft which fly at higher altitudes and speeds, and normally use Instrument Flight Rules, are “controlled” through en route airspace and for landings and takeoffs by air traffic controllers. Therefore, they impose higher costs on FAA than piston aircraft which fly at lower altitudes and often use Visual Flight Rules, under which they are not “controlled” through en route airspace but can use air traffic control services for landings and takeoffs.

However, FAA did not conduct a statistical cost analysis to determine whether high-performance aircraft of different types might impose sufficiently different costs on the system to warrant dividing NAS users into more than two groups. For example, differences in aircraft weight<sup>23</sup> could affect terminal airspace costs even though they may not affect en route costs. Although there may be no effect of aircraft weight on en route costs, FAA officials told us that the administration's reauthorization proposal requests authority to set terminal airspace user fees based in part on weight because they believe that larger aircraft require greater separation, thus imposing greater terminal airspace costs. Under FAA's cost allocation methodology, fixed costs<sup>24</sup> are assigned to the group that is the primary user of the air traffic control services that generate those costs. Accordingly, it might be more consistent to divide high-performance aircraft into subgroups before FAA allocated the fixed costs of air traffic control services used by aircraft in all groups to the group that is the primary user of that service.<sup>25</sup>

Creating only two principal groups resulted in the allocation of some portion of the fixed costs to general aviation jet aircraft, because the high-performance group, which FAA defines to include general aviation jet aircraft, is the primary user of services that are responsible for most fixed costs. If instead, for example, FAA had created three principal aircraft groups—piston, heavy high-performance, and light high-performance—and if the heavy high-performance group was the primary user of services that are responsible for most fixed costs, then the fixed costs would have been allocated only to that group. The effect of this change in methodology would likely have been that general aviation turbine users would have been allocated a smaller share of total ATO costs and a lower fuel tax rate would have been needed to collect their share of FAA's revenues.

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<sup>23</sup>We cite weight only as an example. Statistical cost analysis might identify other factors that could be relevant in dividing aircraft into principal groups that impose different costs on the NAS.

<sup>24</sup>Fixed costs refer to the costs associated with a product or service that remain constant when the level of output changes.

<sup>25</sup>According to FAA, one potential concern with dividing the high-performance group into smaller groups by weight is that the dividing point would be arbitrary and could result in large differences in costs assigned to aircraft that do not differ much by weight but do fall near the dividing line, yet on opposite sides.

Because a sound cost allocation methodology is central to the successful application of cost-based funding, more time may be needed for FAA to further analyze the differences among aircraft types that lead to differences in the costs they impose on the NAS. More time may also be needed for a fuller analysis and discussion of FAA's cost allocation methodology, after which, perhaps, a wider consensus might be reached on FAA's cost allocation methodology. At the request of this Committee, we are continuing to review FAA's cost allocation methodology.

In addition to our concerns about the cost allocation methodology, we have identified some instances in which the reauthorization proposal does not strictly adhere to the principle of cost-based funding. For example, FAA has made what it terms a policy decision to not apply the congestion charge for using terminal airspace near large, busy airports to all aircraft that fly through that airspace. Aircraft flying near busy airports and using the same airspace but not taking off or landing at these airports would not be charged, even though such flights would use air traffic control services provided by the same approach control centers. FAA officials told us that they made this decision because the approach control centers would not exist if they were not serving traffic at the busy airports. In addition, they said, FAA wanted to create incentives for general aviation aircraft to avoid flying to or from the busy airports and to use other nearby airports instead. Although that rationale could provide a justification for allocating the fixed costs of such centers to users of the busy airports, allocating all of the variable costs to users at those airports is a deviation from a cost-based approach. While such policy decisions on pricing may be appropriate in some instances for various reasons, they create deviations from the principle of cost-based funding that may limit the ability of the administration's proposal to address concerns about the disconnect between revenues and costs associated with the current funding structure.

## Proposed Fuel Tax Rates May Not Yield the Revenue to Produce Anticipated Fuel Tax Revenues

The proposed fuel tax rates, although much higher than current rates, may not yield the revenue that FAA expects to collect from fuel taxes. FAA estimated the tax rates necessary to collect from general aviation operators the share of ATO costs allocated to them and from both commercial and general aviation operators the revenue needed to fund the proposed level of \$2.75 billion for AIP, EAS, and the portion of the RE&D account to be funded through fuel taxes (less the share paid by international passengers). FAA officials confirmed for us that in performing these estimates they did not take into account possible reductions in fuel purchases due to the increase in the tax rates.

Although we do not know by how much such purchases would decline, conventional economic reasoning, supported by the opinions of industry stakeholders, suggests that some decline would take place.<sup>26</sup> Therefore, the tax rate should be set taking into consideration effects on use and the resulting impact on revenue. FAA officials told us that they believe that these effects would be small because the increased tax burden is a small share of aircraft operating costs and therefore there was no need to take its impact into account. Representatives of general aviation, however, have said that the impact could be more substantial.

Even if there is no change in fuel purchases due to higher tax rates, FAA's forecasts suggest that fuel tax revenues might be less than the proposed spending to be funded by those tax revenues.<sup>27</sup> Furthermore, we observe that the administration's proposed spending for AIP is substantially below the levels at which Congress funded the program in recent years. If Congress were to adopt the proposed funding structure but fund AIP at

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<sup>26</sup>FAA could use variations in fuel prices over time, such as the big increase in 2005 due to crude oil price increases, to estimate the decline in fuel purchases likely to result from fuel tax increases of the magnitude proposed. We recognize that in making such estimates FAA would need to take into account the effect that other factors such as the state of the economy that can have on fuel purchases.

<sup>27</sup>For example, FAA's fuel consumption forecasts for fiscal year 2009 imply fuel tax revenues for the Trust Fund of about \$2.2 billion, and about \$0.5 billion is forecasted to be collected in tax revenue from international passengers, for a total of about \$2.8 billion (differs from components because of rounding). However, proposed AIP obligations for that year are about \$2.9 billion and spending for EAS and RE&D to be funded from these revenues will increase that amount.

the same level as this year, fuel tax rates would need to be raised above the proposed level to obtain enough revenue to fully fund AIP without resorting to alternative funding sources, such as the General Fund or drawing down the Trust Fund balance.

Proposal to Create an Advisory Board Has Uncertain Implications While Proposal Authorizing Limited Borrowing Authority Is Unlikely to Have a Major Impact

The proposed creation of an advisory board raises questions about the influence that NAS users would have on fee setting and the impact that such a board would have on congressional oversight. According to the reauthorization proposal, the advisory board would be able to recommend user fee amounts to the FAA Administrator, who would have the final decision in setting fees. If the advisory board objected to the fee, the Administrator would be required to publish a written explanation in the Federal Register. Aviation stakeholders could appeal the fee to the Secretary of Transportation but there would be no judicial review of the Secretary's appeal decision.<sup>28</sup> According to a recent report by the Congressional Research Service, the FAA Administrator would have substantial discretion in how much to use the advisory board's expertise.<sup>29</sup> Congress would have no role in setting fees, whereas under the current system, Congress sets the tax rates. The combination of these elements raises the issue of how to ensure the appropriate level of congressional oversight.

The authorization of limited borrowing authority (up to \$5 billion) for FAA in the administration's proposal seems unlikely to have a major effect on FAA's ability to pay for capital investment associated with moving to NextGen, because the payback period is relatively short. With a maximum payback period of 5 years, the advantage of matching the time period for paying for a capital investment with the time period in which the benefits of that investment are realized is unlikely to be achieved. As a result, the advantage of this type of borrowing compared to appropriations also funded by Treasury

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<sup>28</sup> Appeals would need to be based on evidence that the fees (1) are not based on appropriate costs, or (2) do not fairly allocate costs among users or (3) are unreasonably discriminatory to a particular category of users or (4) are not in accordance with the agency's strategic business plan.

<sup>29</sup> Congressional Research Service, *Federal Aviation Administration Reauthorization: An Overview of Selected Provisions in Proposed Legislation* (Washington, D.C.: Mar. 14, 2007).

debt is less clear. In either case, user fee collections could offset the borrowing. However, it is possible that having FAA borrow from the Treasury with a relatively short time period for repayment could serve as a way to tighten and make more explicit the link between the borrowing and the fees that are the source of repayment—and could ensure that the fees were set at a level sufficient to provide the needed funds.

Limiting FAA's authority to borrow from the Treasury and collecting revenue from user fees, as proposed, is preferable to giving FAA direct access to capital markets or repaying debt with appropriations or new borrowing. The Treasury can borrow at lower interest rates than FAA could achieve by going to the capital markets because Treasury securities are considered risk-free, since they are backed by the federal government. We have recommended that only those agencies that would be able to repay their borrowing through revenue collections be granted authority to borrow. In addition, we have reported that debt financing raises issues about borrowing costs that are particularly important in light of the federal government's long-term structural fiscal imbalance. Mandatory federal commitments to health and retirement programs will consume an ever-increasing share of the nation's gross domestic product and federal budgetary resources. Accordingly, any program or policy change that may increase costs requires sound justification and careful consideration before adoption.

### **Observations on Proposed Changes to the Budget Structure and on the Method for Determining the General Fund Contribution**

The reauthorization proposal to align FAA's budget accounts with FAA's lines of business has advantages and disadvantages. Such a restructuring is consistent with FAA's emphasis on aligning revenues and costs and could allow FAA to more specifically distinguish those funding options that provide a better links between costs and revenues. For example, an ATO account dedicated to the operation, maintenance, and upgrade of the NAS could better enable the agency to charge for direct usage of the NAS. In addition, such a system could show the costs attributable to each line of business, thereby supporting the agency's internal financial management. However,

some FAA activities may not be clearly divisible into discrete categories. For example, one new account—the Safety and Operations account—includes safety-related activities. Nonetheless, there could be some ambiguity in how safety activities are defined and in how their costs should be allocated between aviation users which benefit directly from a safe air traffic control system and the public which receives general safety benefits.

Linking the General Fund contribution to FAA’s budget, as the administration is proposing, would explicitly recognize that users of the system are not the only beneficiaries of it. Such an approach allows for a “bottom up” calculation of the General Fund contribution that is based on the different public benefits that FAA provides, such as safety and use of the NAS by federal agencies. This approach is different from the current one, which bases the General Fund contribution on how much money is left in the Trust Fund to fund the Operations account after Trust Fund revenues for that particular year have been allocated to fund the F&E, AIP, and RE&D accounts. An approach that links a General Fund contribution to public benefits is consistent with the principle of public finance that public benefits should come from the General Fund and not from user contributions. This should not, however, be viewed as a precise determination. Some aviation activities, such as safety, benefit both users and the nonuser public. Others, such as a national airport system that includes small airports that receive federal grants, may be seen as a benefit solely to the users of those airports, to their communities, or to the broader public. In addition, such a change in the method of determining the General Fund contribution may result in an increase or a decrease in that contribution, which would have implications for how aviation activities are funded.

### **Concluding Observations**

The administration has introduced a complex proposal for funding FAA, and we believe that it deserves thoughtful consideration. Adopting this proposal is not necessary to provide more money to FAA if Congress thinks that additional spending on aviation is needed to address air traffic increases and new investment demands, including NextGen, because additional funding can be provided within the current structure. However, given

the current federal fiscal imbalance, appropriating additional funds to aviation may be difficult. Furthermore, the proposal may address some of the concerns that FAA and other stakeholders have raised with the current funding structure, such as equity, but only if the cost allocation from which the cost-based funding is derived is sound. FAA's cost allocation methodology is new and has raised issues, suggesting that further analysis and more time may be needed to reach a consensus as to whether it is sufficiently sound to support a cost-based funding structure for FAA.

In the meantime, the taxes that currently provide most of the revenue for FAA are scheduled to expire at the end of the current fiscal year. Given the relatively low uncommitted balance in the Trust Fund, a lapse in tax revenues could affect the funding of most FAA activities. Thus, timely reauthorization of the current tax revenues to avoid a tax lapse is critical even if Congress chooses to continue its consideration of the administration's proposal or other alternatives for funding FAA beyond this fiscal year.

Mr. Chairman, this concludes my prepared statement. I would be pleased to respond to any questions that you or other Members of the subcommittee might have.

### **Contacts and Acknowledgments**

For further information about this testimony, please contact Gerald L. Dillingham at (202) 512-2834. Other key contributors to this testimony include Jay Cherlow, Ed Laughlin, Maureen Luna-Long, Maren McAvoy, Jennifer Kim, and Elizabeth Eisenstadt.

