

# **CBO TESTIMONY**

**Statement of  
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Director**

## **The Status of the Airport and Airway Trust Fund**

**before the  
Committee on Finance  
United States Senate**

**July 12, 2007**

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SECOND AND D STREETS, S.W.  
WASHINGTON, D.C. 20515**



Mr. Chairman, Senator Grassley, and Members of the Committee, I am pleased to appear before you today to discuss issues related to the Airport and Airway Trust Fund, as well as ways to expand the capacity of the air traffic control system to meet future demands.

My testimony today makes the following main points:

- By the end of fiscal year 2007, the Airport and Airway Trust Fund is expected to have an uncommitted balance—that is, sums that the Federal Aviation Administration (FAA) is not yet authorized to obligate—of \$1.6 billion. The size of future balances in the fund will depend on future spending decisions and the amount of revenues generated by various taxes and fees. Under current law, the number of passengers and average airfares largely determine the revenue inflows to the fund.
- Under assumptions, included in the Congressional Budget Office's (CBO's) baseline projections, that current law remains in place and that appropriations grow at the rate of inflation, total annual spending by the FAA would increase from \$15 billion in 2007 to \$19 billion in 2017. Trust fund receipts (including interest earnings) would grow from about \$12 billion in 2007 to nearly \$20 billion in 2017, CBO estimates. If the Congress continued to provide about one-fifth of the FAA's funding from the general fund of the Treasury, the uncommitted balance in the fund would grow to nearly \$22 billion by the end of 2017.
- Congestion has increased and delays have reached record levels, as the number of passengers has grown in recent years and as airlines have chosen to meet consumer demand by flying smaller aircraft more frequently on some routes. Those trends result in part from how the air traffic system is financed: Although congestion and delays typically depend on the number of flights, the system of financing air traffic control services is linked more closely to the number of passengers.
- The FAA's proposal for substantial investments in a new air traffic control system to meet the rising demand for air travel has two important components. First, the agency proposes to develop and build substantial new facilities and equipment that it estimates could cost between \$15 billion and \$22 billion by 2025. Second, the FAA proposes to finance new investments in air traffic control by replacing the current system of taxes and fees largely based on passenger volume and fares with fees based on aircraft operations and taxes on fuel and international departures.
- The Congress currently faces decisions about how best to link the mechanisms for financing air traffic control services to the cost of providing those services, including the cost of congestion and delays incurred by airlines and their passengers. A related issue is how to allocate costs among taxpayers and various

types of users. How those issues are addressed will have important consequences for how efficiently the national airspace is used. For example, the financing system could help to reduce congestion and delays by creating a meaningful link between the number of aircraft operations and the resultant costs in terms of congestion and delays.

## **Funding for Activities of the Federal Aviation Administration**

The Vision 100–Century of Aviation Reauthorization Act or “Vision 100” is the most recent authorization law governing spending for aviation programs.<sup>1</sup> Through September 30, 2007, Vision 100 provides contract authority (a mandatory form of budget authority) for grants-in-aid to airports and authorizes the appropriation of specific amounts from the Airport and Airway Trust Fund for air transportation research and for the FAA’s facilities and equipment—primarily infrastructure and systems for communication, navigation, and radar surveillance related to air travel. The law specifies that amounts in the trust fund should be used first to fully fund those activities; it authorizes appropriation of the remaining funds to support the FAA’s operations. The law also authorizes additional appropriations from the general fund of the U.S. Treasury for the balance of the FAA’s operating costs.

The FAA receives funding for most activities, including those related to air traffic control, in annual appropriation acts. For 2007, the agency received about \$14.5 billion in discretionary resources, including appropriated budget authority and limitations on obligations of contract authority (see Table 1).<sup>2</sup> That amount included \$2.5 billion for air traffic control facilities and equipment, \$8.3 billion for the FAA’s operations (used primarily to operate the air traffic control system), and \$3.7 billion for the agency’s other major programs.

Appropriations for the FAA’s facilities and equipment have declined in recent years. From 2002 through 2004, they averaged about \$2.9 billion annually. Between 2005 and 2007, annual appropriations averaged about \$2.5 billion.

## **The Airport and Airway Trust Fund**

About 81 percent of the FAA’s funding for 2007 was provided from the Airport and Airway Trust Fund (see Figure 1); the remaining 19 percent was appropriated from the general fund. The trust fund is an accounting mechanism in the federal budget that records specific cash inflows from revenues related to air transportation—primarily excise taxes on commercial airline tickets—and cash outflows for

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1. Public Law 108-176, 117 Stat. 2490 (2003).
  2. Obligations for grants-in-aid for airports are governed by limitations set in appropriation acts. The outlays are therefore considered discretionary. (The budget authority, in the form of contract authority, was established in Vision 100.)

**Table 1.**

## Discretionary Budgetary Resources for the FAA and Cash Flows and Balances of the Airport and Airway Trust Fund

(Billions of dollars)

	Actual					Baseline Projections <sup>a</sup>			
						Est.	Total,		Total,
	2002	2003	2004	2005	2006	2007	2008	2008-2012	2008-2017
<b>Discretionary Budgetary Resources for the FAA<sup>b</sup></b>									
Appropriations from the General Fund for FAA Operations	1.1	3.2	3.0	2.8	2.6	2.7	2.8	15.0	32.7
Discretionary Budgetary Resources from the Airport and Airway Trust Fund									
FAA operations									
(Share from the trust fund)	6.0	3.8	4.5	4.9	5.5	5.6	5.8	31.2	68.0
Grants-in-aid for airports	3.5	3.4	3.4	3.5	3.5	3.5	3.6	18.6	38.9
Facilities and equipment	3.0	2.9	2.9	2.5	2.6	2.5	2.6	13.4	28.3
Research, engineering, development, and other	0.3	0.2	0.2	0.2	0.2	0.2	0.2	1.0	2.1
Subtotal	12.8	10.3	10.9	11.1	11.8	11.8	12.2	64.2	137.5
<b>Total</b>	<b>13.9</b>	<b>13.5</b>	<b>13.9</b>	<b>13.9</b>	<b>14.4</b>	<b>14.5</b>	<b>15.0</b>	<b>79.2</b>	<b>170.1</b>
<b>Cash Flows and Balances of the Airport and Airway Trust Fund</b>									
Trust Fund Deposits (Revenues and interest earnings)	9.9	9.3	9.7	10.7	10.4	11.7	12.4	68.8	157.8
Trust Fund Outlays	11.7	9.5	10.3	11.1	12.1	12.3	12.1	63.2	134.7
End-of-Year Uncommitted Balances <sup>c</sup>	4.6	3.9	2.5	1.9	1.8	1.6	1.8	6.2 <sup>d</sup>	22.0 <sup>e</sup>

Source: Congressional Budget Office based on data from the Office of Management and Budget.

Notes: Numbers in the table may not add up to totals because of rounding.

FAA = Federal Aviation Administration.

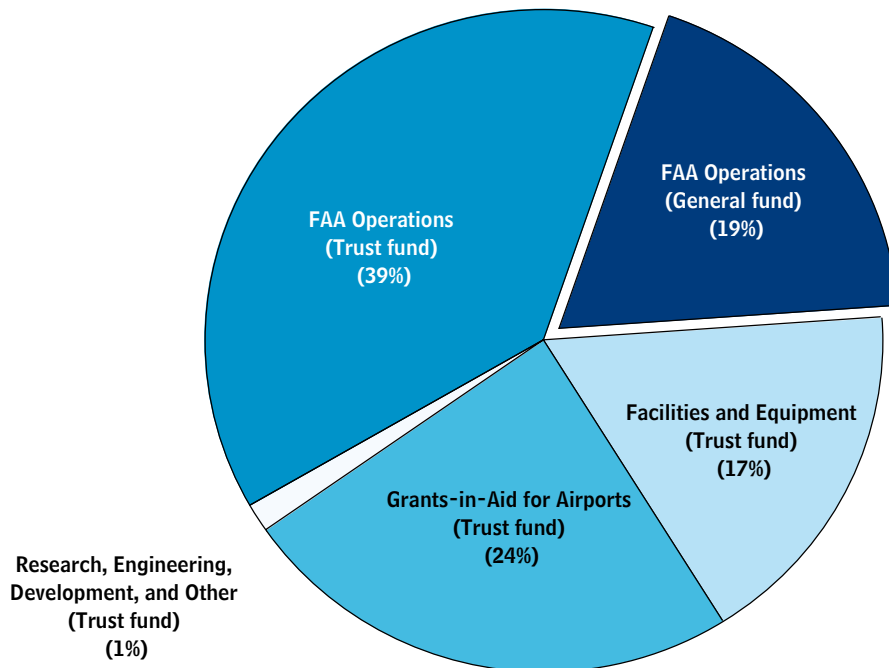
- a. Projections for 2008 to 2017 reflect CBO's March 2007 baseline and incorporate the assumption that discretionary resources from the trust fund will total \$11.8 billion in 2007 and then grow at the anticipated rate of inflation.
- b. Annual appropriation acts provide budget authority for the FAA's activities as well as limitations on the obligations of contract authority for grants-in-aid for airports.
- c. Uncommitted balances represent amounts in the trust fund that are not yet authorized for obligation.
- d. Balance at the end of 2012.
- e. Balance at the end of 2017.

**Figure 1.**

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## **Discretionary Budgetary Resources Provided to the Federal Aviation Administration for 2007**

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Source: Congressional Budget Office based on data from the Office of Management and Budget.

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programs that receive resources from the fund. Annual spending from the fund is not automatically triggered by the collection of tax revenues but is controlled by budget authority and obligation limitations established in annual appropriation acts.

### **Trust Fund Balances**

The status of the trust fund is generally assessed by projecting its uncommitted balances—which represent the amounts credited to the fund that the FAA is not yet authorized to obligate. CBO has estimated the trust fund’s future uncommitted balances under certain assumptions, projecting budgetary resources, revenues, and outlays through 2017. Outlays and revenues are estimated separately because they have different bases: Outlays depend on the amount of budgetary resources provided in appropriation acts, and revenues depend on the collection of various excise taxes.

CBO’s baseline assumptions, which are consistent with the provisions of the Balanced Budget and Emergency Deficit Control Act of 1985, provide one basis for projecting the trust fund’s balances. CBO calculates the baseline for discretionary spending by inflating enacted levels of discretionary budgetary resources for future years and estimating the outlays that would result. It projects revenues

under the assumption that current law remains in place but that expiring excise taxes dedicated to trust funds will be extended at current rates. Thus, in its baseline projections, CBO assumes that the Airport and Airway Trust Fund taxes that are now scheduled to expire after September 30, 2007, will be extended through 2017.

Under CBO's March 2007 baseline assumptions, over the 2008–2017 period, the Airport and Airway Trust Fund would have a total of \$158 billion (including interest) credited to it, and outlays from it would total \$135 billion. Spending related to the infrastructure of the air traffic control system would account for about one-fifth of that amount under an assumption that funding for facilities and equipment totals \$2.5 billion in 2007 and grows to \$3.1 billion in 2017 to keep pace with anticipated inflation. In contrast, CBO estimates, revenues would grow more quickly—roughly with the rate of growth of gross domestic product (GDP).

As a result, in CBO's baseline projections, uncommitted balances in the trust fund increase modestly at first, but annual additions to those balances total nearly \$1 billion in 2010 and increase to about \$4 billion by 2017. Assuming that the general fund continues to provide about 19 percent of total funding for the FAA's operations, CBO estimates that during the next 10 years, the trust fund can support about \$22 billion in additional spending over the baseline level (the 2007 funding level growing with inflation), provided that most of that spending occurs after 2010.

It is important to note that those estimates are based on a set of specified baseline assumptions and may not reflect what will actually happen in the future. Whether significant balances materialize in the Airport and Airway Trust Fund will depend in part on future Congressional actions—particularly about the FAA's funding. For example, if future appropriation acts closely follow provisions of authorizing law specifying that the full amount of budgetary resources deposited to the trust fund be provided to the FAA, balances will not grow beyond current levels. Future balances will also depend on the future course of trust fund revenues.

### **Revenue History**

The Airport and Airways Trust Fund receives revenues from taxes levied on the transportation of persons and cargo by air and on jet fuel and gasoline used in both commercial and general aviation. Since 1998, tax revenues to the trust fund have grown at an average annual rate of about 3.5 percent, compared with a comparable growth rate of almost 2 percent for total excise tax revenues and of 5.3 percent for nominal GDP over the same time period. Receipts have been growing steadily except in 2001 and 2002, when they fell as a result of economic weakness and the September 11 terrorist strikes. Since 2003, receipts have grown at an average rate of about 7 percent annually, slightly above the 6.5 percent average annual gain in GDP over the same period.

Receipts to the trust fund have been growing at rates similar to that for nominal GDP largely because passenger air travel, the primary source of the revenue

stream, tends to increase in line with overall economic activity. Furthermore, receipts to the fund have outpaced overall receipts from excise taxes because the bulk of the trust fund's revenues accrue from taxes levied as a percentage of a transaction's value, or ad valorem—whereas most excise taxes are levied as unit taxes, that is, per unit. Although unit tax receipts increase only as the number of items sold (gallons of gas, packs of cigarettes, and so forth) increases, ad valorem tax receipts also increase along with the price of the taxed items. Therefore, ad valorem taxes are linked to nominal sales levels, which tend to track general economic activity. Other major taxes providing revenues for the trust fund are levied as unit taxes but are set at rates that are indexed to inflation, which maintains a connection to both prices and economic activity.

Some of the taxes that finance the trust fund have been in place since at least 1970 when the trust fund was first established. A 1988 CBO report noted that, at that time, aviation excise taxes included an annual aircraft registration tax of \$25 plus 2 cents per pound for each pound over 2,500 for piston-powered aircraft and 3.5 cents per pound for turbine-powered aircraft; a tax of 10 cents per pound on inner tubes, and a tax of 5 cents per pound on tires.<sup>3</sup> New taxes—on commercial fuel use and on passengers per flight segment—were added later.

CBO forecasts that revenues for the Airport and Airways Trust Fund will continue to grow at rates similar to that for nominal GDP. According to the agency's projections, those revenues will grow by an average of 5.0 percent annually from 2008 to 2017, slightly faster than nominal GDP, which is forecast to grow at a 4.5 percent average annual rate.

## **Congestion and Delays**

Congestion and delays in air travel have been steadily increasing and are surpassing the record levels experienced before the slowdown in such travel that started with the economic downturn of 2001 and was exacerbated by the terrorism of September 11, 2001. Increases in passenger traffic, changes in the types of aircraft in airlines' fleets, and more-frequent flights have combined to increase demand for air traffic control services, for space at airports, and for use of the national airspace. The resulting congestion and delays impose real economic costs in terms of lost time, decreased productivity, and increased operating costs for airlines and others.

In 2006, more than 658 million passengers boarded domestic flights in the United States. The numbers exceed their highs from before September 2001, with growth continuing into the first quarter of 2007 (see Figure 2). The number of aircraft departures (that is, flights) has increased even more rapidly—up 29 percent

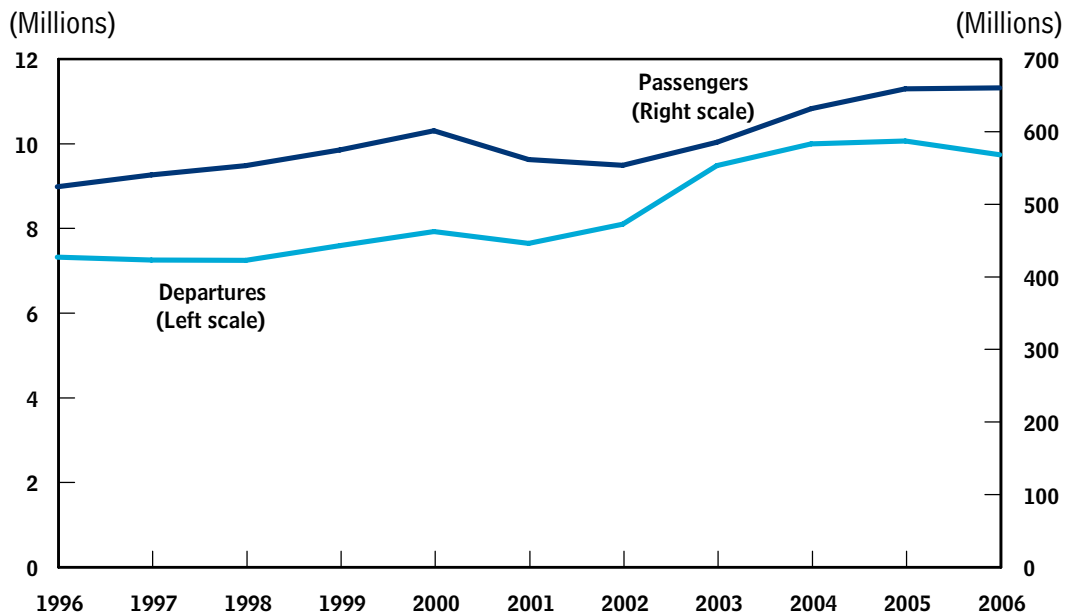
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3. Congressional Budget Office, *The Status of the Airport and Airway Trust Fund* (December 1988).



**Figure 2.**

## Domestic Scheduled Air Carrier Departures and Passenger Traffic



Source: Congressional Budget Office based on Department of Transportation, Bureau of Transportation Statistics, *U.S. Air Carrier Traffic Statistics* (various years).

between the first quarters of 2002 and 2007, compared with a 25 percent increase in the number of passengers.

The increasing stress on the air traffic control system resulting from rising demand for air travel has been exacerbated by a decline in the average size of aircraft. Airline carriers, which do not face the full cost of additional delays that result from additional flights in congested areas, have generally switched to more-frequent service with smaller aircraft in order to meet the demand by high-revenue business travelers. The average domestic passenger aircraft had 10 fewer seats in 2006 than in 1998 (see Figure 3). A similar trend is occurring in aircraft used for international flights, though those aircraft are larger to accommodate the larger distances they travel.

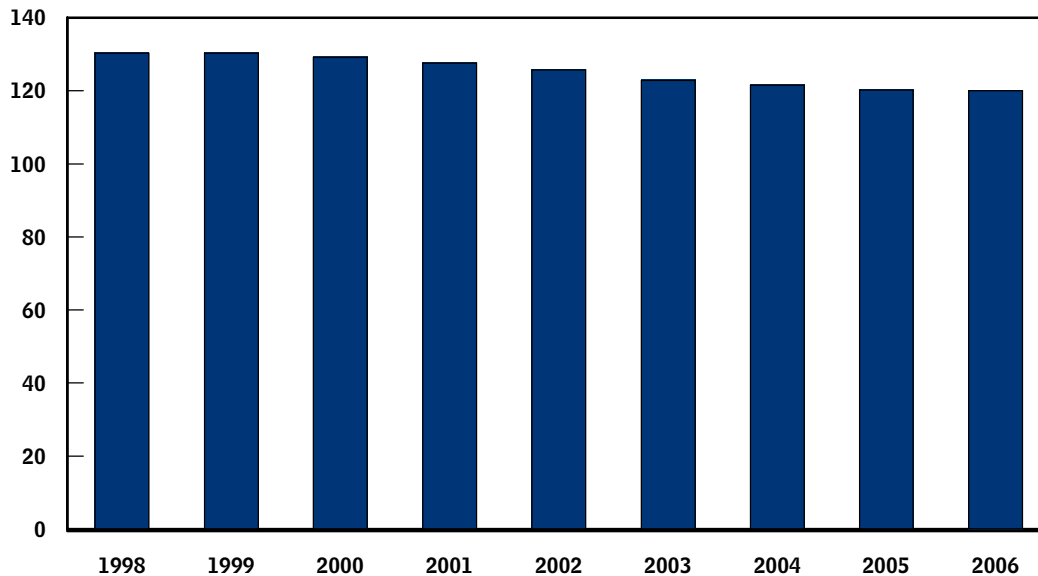
The growth of demand by passengers and the corresponding demand by air carriers for air traffic control services and airport capacity have not been matched by increases in capacity. Delays are the result. They have been increasing since 2003 and have now reached or exceeded the levels that existed before September 2001. In the most recent data, for the first five months of 2007, more than 25 percent of flights arrived more than 15 minutes late, and of those flights, 65 percent were more than 30 minutes late. Passengers bear a large portion of the resulting economic costs, in the time lost to those delays—nearly 81 million hours in 2006

**Figure 3.**

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## Average Seats per Aircraft in the U.S. Commercial Domestic Fleet

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Source: Congressional Budget Office based on Department of Transportation, Federal Aviation Administration, *FAA Aerospace Forecasts, Fiscal Years 2004–2015* (March 2004) and *FAA Aerospace Forecasts, Fiscal Years 2007–2020* (March 2007).

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(see Figure 4). And that estimate is probably low because the data do not capture the total increase in travel time for passengers whose flights are cancelled or who miss a connecting flight following a delay on an earlier leg of their trip.

### Reauthorization and the Current Debate

In response to the growing demands on the United States' management of its air traffic—both from increasing air travel and the need for greater security—the Congress established an office to develop and implement a plan for improving the capacity, safety, and security of the nation's air travel. Vision 100 created the Joint Planning Development Office (JPDO), managed by the FAA and the National Aeronautics and Space Administration (NASA). Its main task is to manage the transition to the Next Generation Air Transportation System (NGATS).

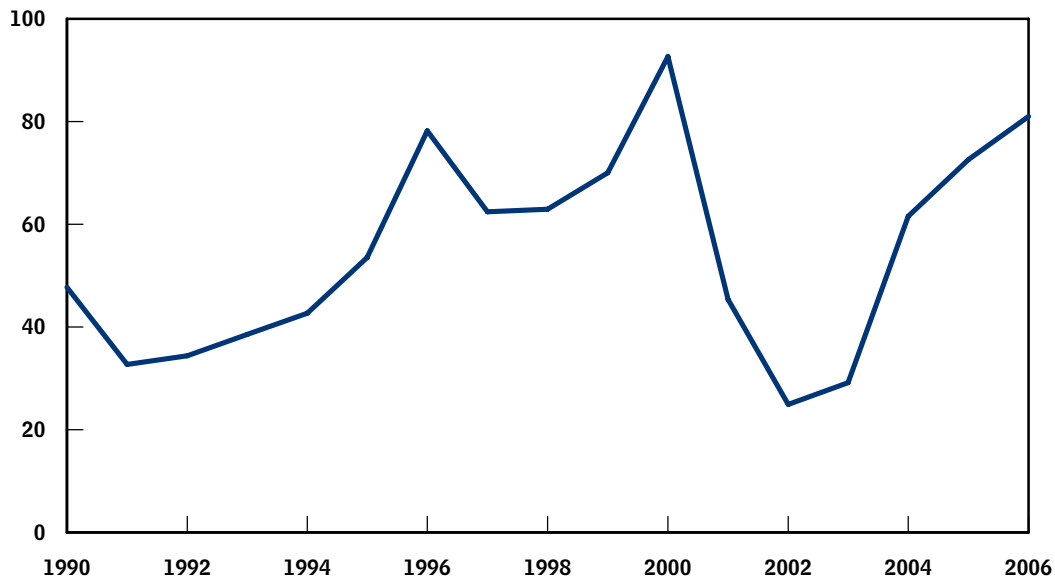
**Figure 4.**

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## Delays in Arrivals

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(Millions of passenger hours)



Source: Congressional Budget Office based on Department of Transportation, Bureau of Transportation Statistics, Airline On-Time Performance Data and Air Carrier Statistics (Form 41 Traffic)—U.S. Carriers (various years).

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### New Facilities and Equipment

According to the most recent planning materials from the JPDO, the new system is designed to accommodate up to three times the volume of current air traffic by making more efficient use of both the national airspace and airport facilities.<sup>4</sup> The new air traffic control system would be more decentralized than the one currently in place in the United States. Guidance systems on planes would work in conjunction with satellites of the Global Positioning System (GPS) to supplement direct supervision by ground-based controllers and radar stations. As a result, each plane would depend less on instructions from an air traffic controller and more on its own resources for maintaining a safe flight pattern and would be better able to adjust to the particular air traffic conditions in its vicinity.

The NGATS would be based on more-precise guidance techniques. If they worked as intended, the distance required between aircraft for safe flight would be smaller. Underlying the system generally would be more effective use of information about the air traffic in a particular plane's vicinity, the prevailing or impending weather

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4. See Federal Aviation Administration, Joint Planning and Development Office, "Concept of Operations for the Next Generation Air Transportation System" (draft version 0.2, July 24, 2006), pp. 1–7, available at [http://techhangar.jpdo.aero/index.php?option=com\\_content&task=view&id=39&Itemid=112](http://techhangar.jpdo.aero/index.php?option=com_content&task=view&id=39&Itemid=112).

conditions affecting the plane's flight, and the constraints at airports. The FAA envisions that the information available to each plane will also be available to other aircraft and to ground control units. As a result, the new system should allow ground-based air traffic controllers to establish and maintain contact with planes nationwide, regardless of where a particular aircraft or air traffic control facility is located. In addition, the new system could allow airspace to be used less rigidly than it is today; aircraft might be able to fly more-direct routes because of the system's capacity to manage the airspace more efficiently. All of those changes would enable more flights to be airborne safely—and could also mean that greater capacity would be required at airports.

Implementation of the NGATS is likely to require substantial capital investments by both the federal government and private-sector entities. For example, outfitting aircraft with the Automatic Dependent Surveillance–Broadcast (ADS–B) system (which enables a plane to determine its location through GPS satellites and automatically broadcast its position to other aircraft) would be expensive. Allowing seamless connections between individual planes and ground-based air traffic control units nationwide, which the FAA plans to carry out through its systemwide information management technology, would require substantial expenditures for communications hardware and software.

Projections of costs for the new system are still very preliminary. The ultimate costs will depend on a number of factors, including advances in key technologies and the ability of a number of government agencies—such as NASA and the National Oceanic and Atmospheric Administration—to coordinate their efforts. In March 2007, the FAA reported that key investments in NGATS would require an estimated \$4.6 billion through 2012; the agency's total spending on the system was expected to range from \$8 billion to \$10 billion over the first 10 years and from \$15 billion to \$22 billion through 2025.<sup>5</sup>

## **Alternative Financing Mechanisms**

The FAA's proposal also includes a substantial change to the funding of air traffic control services. In an effort to make each user's tax burden correspond more closely with the costs imposed on the air traffic control system, the FAA proposes to extend some taxes at new rates and replace other taxes with a system of user fees collected from commercial airlines.

The tax on international departures would be approximately half its current value. Commercial and general aviation fuels would be taxed at around three times their current rate.

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5. See Federal Aviation Administration, "Next Generation Air Transportation System 2006 Progress Report" (fact sheet, March 14, 2007), available at [http://www.faa.gov/news/fact\\_sheets/news\\_story.cfm?newsId=8336](http://www.faa.gov/news/fact_sheets/news_story.cfm?newsId=8336)

The remainder of the revenues, currently accruing from taxes on domestic passenger and cargo transportation, would be from user fees levied on commercial air passenger and cargo carriers. Those taxes accounted for about 90 percent of the revenues to the trust fund in 2006. Under the proposal, user fees would be set by a 13-member advisory board (including the FAA administrator, airline industry and general aviation representatives, and various other parties) and would be based on the FAA's costs to provide air traffic control services and various factors affecting airport congestion.

Under the FAA's proposal, the current excise-tax funding system would last until the end of fiscal year 2008 and then give way to the new tax rates and user fees.

## **Paying for Air Traffic Control Services**

Broadly speaking, either taxpayers or users of air traffic control services will pay for the air traffic control system. Users include providers that carry passengers or cargo, their customers, general aviation users (business and recreational), and the government.

Although some benefits of air traffic control services accrue to the economy as a whole, most accrue to users of aviation services. Therefore, a strong case can be made that users of air traffic control services should pay a substantial portion of those costs. In 2007, CBO estimates, fees or taxes paid by users will cover about 70 percent of the FAA's operating costs. Such collections will provide about \$5.6 billion of the agency's overall operating budget of about \$8.3 billion, the bulk of which is used to manage the air traffic control system.<sup>6</sup>

In general, efficient use of a system is most likely if users of a service pay for it so that the choices they make will take into account the costs of providing the service. Allocating costs efficiently and fairly among different types of users, however, presents challenges—especially for systems that are capital intensive, like the air traffic control system.

Aligning revenues and costs would have two significant implications in the context of the air traffic control system. First, users of the system rather than taxpayers as a whole would bear most of the costs of providing air traffic control services. Second, because costs are generated in large part by moving aircraft through the system, taxes and fees would generally be more aligned with that activity than with enplanements or airfares.

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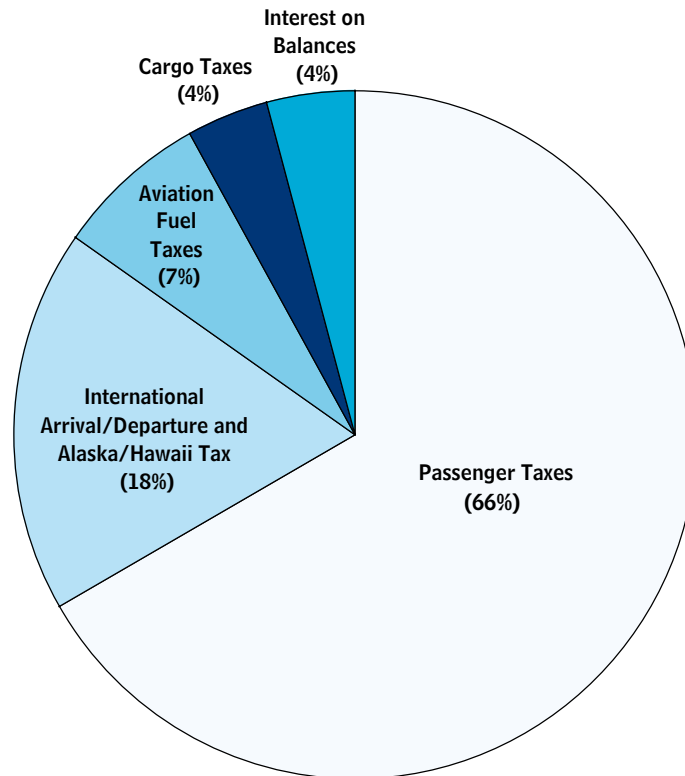
6. Other operating costs include those for air safety programs and the activities of various management and administrative offices. Operations of the FAA that are not funded by the Airport and Airway Trust Fund are paid for out of the general fund. In addition to covering some of the FAA's operating costs, the trust fund's income is also currently sufficient to pay for capital investments in air traffic control, projects to improve infrastructure at airports, and research programs, such as the program carried out by the JPDO.

**Figure 5.**

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## Sources of Receipts Credited to the Airport and Airway Trust Fund in 2006

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Source: Congressional Budget Office based on Federal Aviation Administration, *Airport and Airway Trust Fund Receipts* (February 8, 2007).

Notes: The total amount credited in 2006 was \$11.1 billion.

Shares do not add up to 100 percent because of rounding.

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By contrast, most of the current taxes are based on the number of passengers and the fares they pay. About two-thirds of the trust fund's collections come from taxes imposed on all passengers of commercial airlines (see Figure 5). The remaining one-third comes from taxes on specific types of travel, such as international arrivals and departures; cargo shipment taxes; and fuel taxes. During 2006, nearly 85 percent of the \$11 billion in revenues that accrued to the trust fund came from taxes levied on individual passengers: the ticket tax, the flight segment tax, and the international arrival and departure tax.

That approach to financing based largely on the number passengers is not closely linked to the costs imposed on the air traffic control system. For example, two smaller regional jets impose roughly double the cost of a single larger jet, but the revenue collected is roughly the same if the number of passengers carried is. Similarly, larger business jets impose costs on the system that are similar to those for

commercial aircraft, but they generally pay lower taxes and fees. The FAA's cost allocation model suggests that costs are much more closely linked to the movement of an aircraft through the system, regardless of the number of passengers on the aircraft or the fares that those passengers paid. Although CBO has no basis to judge whether the FAA's model correctly allocates costs between types of operations—those of commercial air carriers and general aviation—there is sound economic justification for imposing costs on aircraft operations rather than passenger enplanements.

Forecasts of rapid growth in commercial and general aviation from their already congested levels reinforce the importance of an efficiently and fairly priced air traffic control system in the future. The proliferation of smaller jets also puts more pressure on the air traffic control system and adds to congestion at busy airports and in heavily traveled airspace. That trend may continue, according to the FAA. In addition, the introduction of relatively inexpensive very light jets may expand the demand for air traffic control services further. Pricing the air traffic control system so as to provide the appropriate economic incentives to the various sectors of the aviation industry may enable the system to better accommodate the growing demand for air travel.

