Statement of
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before the
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Committee on Commerce, Science
and Transportation
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NOTICE

This statement is not available for public release until it is delivered at 9:30 am (EDT), Thursday, March 26, 1987.

Mr. Chairman, I am pleased to appear before this Subcommittee to discuss the status of the Airport and Airway Trust Fund and the resulting implications for reauthorizing the fund. My testimony today will review:

- The current financial status of the trust fund and, in particular, how the large and growing uncommitted balances in the fund can be interpreted;

- CBO's baseline projections for the trust fund and alternative projections incorporating higher spending under the National Airspace System Plan, different spending patterns for the operations of the Federal Aviation Administration (FAA), and an updated method of accounting for interest income; and

- Policy options for increasing the effective capacity in the airway and airport systems.

## STATUS OF THE AIRPORT AND AIRWAY TRUST FUND

The Airport and Airway Trust Fund was established in 1970 and authorized for 10 years. Between fiscal year 1974 and fiscal year 1980--when trust fund authorization lapsed--the uncommitted balance in the fund grew con-

tinuously, from $284 million in 1974 to $3.7 billion in 1980, as revenues from taxes and fees outpaced commitments from the fund. This balance declined by nearly $2 billion over the next three years to $1.9 billion in 1983, when taxes and fees again accrued to the trust fund as a result of its reauthorization in 1982. Until 1986, the uncommitted balance in the trust fund remained fairly stable at about $2 billion. But as commitments from the fund have again lagged behind revenues in fiscal years 1986 and 1987, the balance is growing once more and is estimated to reach $5.2 billion at the end of this fiscal year.

Several factors have caused the growth in the trust fund balance. On the revenue side, tax rates for both the passenger ticket tax and general aviation fuel taxes were raised in the 1982 reauthorization. The ticket tax was reauthorized at 8 percent, up from the 5 percent collected between 1980, when the legislation lapsed, and 1982. Fuel taxes were raised from 7 cents per gallon before the authorization lapsed to 12 cents per gallon for gasoline and 14 cents per gallon for jet fuel. In addition, passenger traffic has increased by 63 percent since 1978, increasing the base to which the ticket tax is applied. Finally, interest income to the trust fund has benefited from the obsolete method used to calculate the interest rate applied to trust fund balances. This interest rate is an average coupon rate for all government securities rather than the current market rate which is used for

other trust funds such as Social Security and Medicare. This rate tends to lag behind changes in market rates so that, in periods of falling rates, as have occured for the last few years, both the interest rate and the interest income earned by the trust fund are overstated. (Conversely, in periods of rising rates, the interest rate and the interest income would tend to be understated.)

Three conditions have affected the outlay side of the fund. First, spending for the modernization of the air traffic control system--the National Airspace System (NAS) Plan--has fallen behind initial projections because of both program and budgetary constraints. Second, while annual outlays for airport grants-in-aid increased 45 percent from 1980 through 1986, trust fund receipts grew 57 percent in the same period. Finally, spending from the trust fund to support the FAA operations account has varied widely--from a low of 10 percent of air traffic control costs in 1984 to a high of 40 percent in 1983, for an average of 26 percent over the last eight years. These spending levels, in conjunction with restrained spending for both facilities and airport grants, have fallen short of growth in revenues. Table 1 shows the growth in outlays, receipts, and the uncommitted balance in the trust fund from fiscal years 1980 through 1986.

TABLE 1. HISTORY OF THE AIRPORT AND AIRWAY TRUST FUND, FISCAL YEARS 1980-1986 (In millions of current dollars)

| | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 |
|---|---|---|---|---|---|---|---|
| Uncommitted Balance a/ | 3,686 | 3,021 | 2,156 | 1,882 | 2,234 | 2,039 | 3,889 |
| Receipts | | | | | | | |
| Tax revenues | 1,874 | 21 | 133 | 2,165 | 2,499 | 2,851 | 2,736 |
| Interest income | 400 | 561 | 542 | 533 | 546 | 746 | 829 |
| Total, Receipts | 2,274 | 582 | 674 | 2,698 | 3,045 | 3,598 | 3,565 |
| Outlays | | | | | | | |
| FAA operations | 325 | 495 | 810 | 1,020 | 257 | 1,110 | 435 |
| Airport grants-in-aid | 590 | 469 | 339 | 453 | 694 | 789 | 853 |
| Facilities and equipment b/ | 230 | 252 | 292 | 248 | 268 | 425 | 758 |
| Research, engineering, and development b/ | 78 | 89 | 72 | 71 | 146 | 262 | 293 |
| Aviation weather service c/ | 0 | 0 | 0 | 0 | 27 | 27 | 27 |
| Total, Outlays | 1,224 | 1,306 | 1,512 | 1,792 | 1,392 | 2,613 | 2,365 |

SOURCE: Congressional Budget Office.

a. The uncommitted balance is for the end of each fiscal year. The uncommitted balance is the cash balance in the trust fund less obligated and unobligated balances.

b. These two accounts encompass NAS Plan spending.

c. Since fiscal year 1984, the aviation weather services program of the National Oceanic and Atmospheric Administration has been supported by the trust fund.

## CBO BASELINE AND ALTERNATIVE PROJECTIONS FOR THE TRUST FUND

CBO's baseline projections for the uncommitted balance in the trust fund for the next five years are presented in Table 2. This balance will grow from over $5 billion at the end of this fiscal year to nearly $16 billion by the end of 1992, assuming all trust fund taxes and fees are reauthorized at their current levels. While this balance is large and growing rapidly, the surplus might not actually materialize. CBO's baseline is constructed under a number of assumptions that are likely to be altered in reauthorization of the trust fund. Under the various alternative projections shown in Table 2, the balance in the trust fund could decline in 1992 from the baseline level by as little as $1 billion or by as much as $13 billion.

The constraints on CBO's projections are related to the reasons underlying the current large surplus in the fund. First, the baseline estimates do not include the acceleration in facilities and equipment spending for the NAS Plan that the Administration has proposed for 1988 and beyond. The increase in NAS Plan outlays proposed by the Administration would provide funding that was deferred by the development and budgetary delays of the last several years. If these higher funding levels are included in our projections, NAS Plan outlays would increase by an average of $300 million per year and the uncommitted balance in the trust fund would fall by about $2.5 billion, to $13.2 billion in 1992.

TABLE 2. PROJECTIONS FOR UNCOMMITTED BALANCE IN THE AIRPORT AND AIRWAY TRUST FUND, FISCAL YEARS 1987-1992
(In millions of current dollars)

| Projection Method | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 |
|---|---|---|---|---|---|---|
| CBO Baseline a/ | 5,196 | 6,735 | 8,501 | 10,566 | 12,969 | 15,731 |
| CBO Baseline Adjusted for Increased NAS Plan Funding b/ | 5,196 | 6,222 | 7,354 | 8,807 | 10,761 | 13,187 |
| CBO Baseline Adjusted for 75 Percent Funding of FAA Operations Account b/ | 5,196 | 5,066 | 4,998 | 5,061 | 5,307 | 5,759 |
| CBO Baseline Adjusted for Market Interest Rate | 5,196 | 6,631 | 8,261 | 10,140 | 12,324 | 14,826 |
| CBO Baseline Adjusted for NAS Plan, FAA Operations, and Market Rate b/ | 5,196 | 4,457 | 3,648 | 2,974 | 2,644 | 2,629 |

SOURCE: Congressional Budget Office.

NOTE: All amounts are for the end of each fiscal year.

a. The baseline projection assumes that all trust fund taxes and fees are reauthorized at their current levels.

b. While each of these adjustments alters outlays from the trust fund and the uncommitted balances in the fund, only the increase in NAS Plan spending results in increased government outlays in the federal budget.

Second, under the CBO baseline, spending from the trust fund for FAA operations is maintained at the relatively low rate of 23 percent that is estimated for this fiscal year. In other words, 77 percent of the operating costs of the air traffic control system are attributed to general revenues. Many proposals have been made to use trust fund revenues to fund the entire nonmilitary portion of the services provided by the FAA. If, in conjunction with other trust fund spending, 75 percent of FAA operations were paid for from the trust fund, the fund would support 85 percent of the FAA budget, equal to the civilian use of the airway system. By increasing trust fund support for the FAA operations account to 75 percent in our projections, the balance in the trust fund in 1992 would decline by about $10 billion to $5.8 billion. This change from general revenue to trust fund spending would neither increase or decrease government outlays, but merely change the accounting for those outlays.

Third, interest income to the fund continues to be computed at the average coupon rate instead of an appropriate market rate (which overstates both the interest rate and income). If the projections are calculated using CBO forecasts for the market rates on medium-term government bonds, the surplus in the fund would drop by $1 billion to $14.8 billion in 1992.

While each of these adjustments alters the projections for uncommitted balances in the trust fund, only the change in accounting for FAA operations and NAS Plan spending would change outlays from the trust fund. Of these two, only the increased funding of the NAS Plan would result in higher government outlays in the federal budget.

Finally, if all these changes were incorporated into our projections for the trust fund, the uncommitted balance would drop by over $13 billion, to $2.6 billion in 1992. This balance is equal in real terms to $1.8 billion, or less than the average real balance of $2 billion that existed in the account over the 1982-1985 period, before the recent growth in the surplus. Therefore, through only two changes in current financial transactions--accounting for interest rates and FAA operations--and through holding all outlays constant in 1987 dollars except for the rise in NAS Plan spending, the projected surplus in the account would be halved by 1992 to $2.6 billion and would be less, in real terms, than its level of a decade earlier.

## POLICY OPTIONS FOR INCREASING CAPACITY IN THE AIRWAY SYSTEM

The level of resources available to the airport trust fund is particularly significant considering the Congress's concern over capacity in the airport

and airway systems and their ability to handle safely both the increase in traffic and the shift in traffic patterns that have occurred since the passage of the Airline Deregulation Act of 1978. Capacity and safety in the airway system are integrally linked. Given the level of physical capacity in the airway system, each level of operations, or number of planes handled, embodies a certain level of safety in the system. Alternatively, given the physical capacity, each possible level of safety in the system implies a maximum level of operations.

Physical capacity in the airway system depends on three factors: (1) facilities and equipment, such as radars, computers, communications systems, and airport facilities; (2) labor, including controllers, flight service specialists, maintenance workers, and airport personnel; and (3) operating procedures and flight rules. When in normal working order and in good weather, the elements of the system, taken together, provide a certain peak (or "design") capacity for each airport and segment of the airway system and for each operational time slot. Current capacity is still affected by the 1981 controller strike and dismissals. If, in addition, the weather deteriorates or equipment fails in part of the system, the effective operating capacity must suffer--either the number of planes handled must depart from design capacity or safety margins will decline. Departure from design capacity results in increased delays and a shift of operations among time slots.

The alternative is to maintain the number of planes moving through the system and to permit the safety margins that are built into operating procedures and design capacity to suffer.

While the FAA maintains that the latter has not occurred, the Congress has expressed concern that just such pressure on capacity is affecting safety margins. Although CBO cannot address the issue of safety, we can note that budget options for improving capacity would improve system safety as well.

Many proposals have been put forth to increase capacity in the airway system and to improve safety margins. Each addresses one or more of the elements that constitute system capacity--for example, hiring more controllers, accelerating modernization of air traffic control equipment, or increasing airport grants for capacity improvements. In the balance of my testimony, I will discuss three alternative approaches, the first of which principally addresses increasing design capacity in the system to reduce peak-period congestion. The second and third options, while also addressing peak capacity, attempt to use idle, off-peak capacity to substitute for some new investments in the airport and airway systems.

Option I; Enhanced Current Policy

Option I is a variation on the combined, adjusted baseline presented in the last line of Table 2. In this option, as in Table 2, NAS Plan spending would be increased in line with the FAA's request, 85 percent of FAA spending would be financed by user taxes collected into the trust fund rather than by general revenues, and a market interest rate would be used. These changes would allow annual airport funding to be increased by about $500 million after inflation and would provide the FAA with funds to hire an additional 500 controllers by 1989 and 1,000 controllers by 1991. If these spending increases were made, the trust fund surplus would be consumed at the end of the five-year period. Projections for the effects of this option on the trust fund can be seen on the third line of Table 3.

This approach would provide modest short-term relief until the capacity and reliability benefits of the NAS Plan can be achieved. The major advantage of this option is that most of the programs are already in place so that few additional uncertainties or delays would be introduced into the system. Some earmarking of the additional airport grant money or retargeting of existing grants might be desirable. This option also has two major disadvantages. First, major capacity improvements would not occur until the mid-1990s. Second, since this alternative would eliminate trust fund

TABLE 3. PROJECTIONS FOR UNCOMMITTED BALANCE IN THE AIRPORT AND AIRWAY TRUST FUND, FISCAL YEARS 1987-1992, UNDER ALTERNATIVE POLICY OPTIONS (In millions of current dollars)

| Option | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 |
|---|---|---|---|---|---|---|
| CBO Baseline a/ | 5,196 | 6,735 | 8,501 | 10,566 | 12,969 | 15,731 |
| Accounting Adjusted Baseline Plus Capital Expansion b/ | 5,196 | 4,457 | 3,648 | 2,974 | 2,644 | 2,629 |
| Option One: Enhanced Current Policy c/ | 5,196 | 3,968 | 2,631 | 1,380 | 420 | -262 |
| Option Two: Airport Pricing d/ | 5,196 | 4,433 | 3,593 | 2,903 | 2,555 | 2,520 |
| Option Three: Airway and Airport Pricing e/ | 5,196 | 4,457 | 3,648 | 2,974 | 2,644 | 2,629 |

SOURCE: Congressional Budget Office.

NOTE: All amounts are for the end of each fiscal year.

a. The baseline projection assumes that all trust fund taxes and fees are reauthorized at their current levels.

b. This adjusted baseline is the same as the final entry in Table 2.

c. This option would add 1,000 controllers and higher airport spending ($500 million annually) to the CBO adjusted baseline.

d. This option would add 500 controllers to the CBO adjusted baseline and require large airports to finance their own capital requirements through independent pricing.

e. This option would require the FAA to add a surcharge for air traffic control services during peak periods and require large airports to finance their own capital requirements.

balances by the end of the five-year projection period, additional taxes or fees might be required. It should be noted that this option would not change the kind of taxes now imposed; that is, taxes would play no role in allocating flight capacity over time periods with varying levels of congestion.

Option II; Airport Pricing

This alternative is similar to Option I in that it begins with the combined, adjusted CBO baseline and adds funding for 500 additional controllers by 1989. The adjusted projections for this option appear in the fourth line of Table 3. In addition, this option would make the largest airports ineligible for airport grants and require them to provide all funds for their capacity improvements. Under this option, the current baseline funding levels in the airport grant program would be maintained and would be available to improve facilities at reliever, medium-sized, and smaller commercial airports. Expansion of these airports might relieve congestion experienced at the larger hubs in the system.

Capacity improvements at the larger, more capacity constrained airports would be funded by the airports themselves through landing-right pricing, rents, and other fees. A 1984 CBO study, *Financing U.S. Airports in the 1980s,* showed that, in fact, larger airports are currently funding or

are capable of funding their own investment requirements through a combination of bonds and retained earnings.

Besides providing the income necessary to support capacity improvements, permitting large airports to price their landing rights by time of day might reduce delays and the costs they impose on airlines and travelers. To the extent that flights were rescheduled, fewer new controllers would be needed (since traffic flow peaks would be reduced and excess controller capacity at off-peak hours would substitute). Indeed, those flights and passengers still wishing to use the airport at peak times could do so by continuing to patronize more expensive peak-hour flights. This option would reduce the trust fund balance somewhat, but would not require an increase in existing passenger taxes. Since the large commercial airports would institute new fees, total taxes and fees in the system would increase.

A disadvantage of this approach would be the uncertainty about how the system would work. Before the system could begin to provide the correct market signals to both passengers, airlines, and airport operators, a shake-out period could be required, during which fees and prices would be adjusted.

Option III: Airway and Airport Pricing

Option III is the same as Option II without the addition of air traffic controllers but with the addition of time-of-day pricing for FAA air traffic control services. This option would maximize substituting existing capacity for new capacity by shifting flights to off-peak hours. To the extent that passengers were willing to pay higher prices for the opportunity to fly in peak flight times, the income from slot fees could be used by both the airports and the FAA to increase capacity. This option would keep in place all existing taxes and fees and merely add peak-hour charges by the FAA for the use of the air traffic control system. If, in the face of high peak-hour fees, passengers continued to demand peak-hour service, than the FAA could be authorized to use the fee income to hire additional controllers and take whatever other steps were needed to increase short-term capacity.

A variation on this proposal could include rebates of a portion of the ticket tax to induce off-peak use of the air traffic control system. Eventually, the flat fees and taxes currently in use could be replaced by a system of prices determined by available FAA capacity and passenger and airline demands for services. The last line in Table 3 shows the projected trust fund balance for Option III as unchanged from the last line in Table 2. The net effect on the trust fund balance from the additional fees to the FAA and

potential expenses from additional controllers and other spending is uncertain. It is, however, likely to balance out or to increase uncommitted balances in the fund. After the fees had been used for a period, the Congress could reexamine revenues and spending levels to determine if adjustments were required.

A disadvantage of this approach is that such a system might take time to develop and institute. On the other hand, the airlines are already pricing their peak and off-peak flights through the use of discount fares. Because airlines offer fewer discount seats during peak hours and thus receive higher revenues, the market is already providing some effective pricing signals (although not for the air traffic control system). A full-blown system of capacity pricing for both airports and the air traffic control system, therefore, might be no more than an extention of existing pricing practices.

In both Options II and III, the charges based on time-of-day for landing rights at airports and for use of the air traffic control system would apply to general aviation as well as to commercial air carriers. Since 1984, general aviation users have accounted for about 47 percent of the annual, nonmilitary instrument operations at airports with FAA air traffic control. Over the same period, general aviation, through fuel taxes, has supplied only 4 percent of trust fund tax revenues. These users of air traffic control

services impose the same burden on the system as do commercial flights. Therefore, requiring them to pay peak-period charges either will cause them to shift their use of air traffic control and airport capacity to other times of the day and to less congested airports, or force them to pay the true cost of the burden they impose on the airport and airway systems.

Using pricing to allocate scarcer peak-time airport and air traffic control capacity has the additional advantage of subjecting the demands for additional capacity in both of these systems to an economic test. So long as take-off and landing rights and air traffic services during peak times of the day are sold for less than the cost of providing new, comparable capacity, the demand for them will exceed the supply. We have no way, therefore, of gauging the "true" level of congestion in the airport and airways systems, since these services are provided at less than their true costs. Using prices to allocate peak-time capacity would permit us to observe what air carriers are willing to pay for it, and, in turn, the extent to which new airport and airway capacity is economically justifiable.

## CONCLUSION

The Airport and Airway Trust Fund will accrue large and growing balances by 1992 if all taxes and fees are reauthorized at their current levels and if

spending from the trust fund continues at the same real level as in this fiscal year. While part of this $10 billion growth in the trust fund surplus is illusory, congestion in the airport and airway systems is not. My testimony has suggested several options for reducing this congestion and increasing capacity as well. The modest, real balances in the trust fund could be used to increase funding for the NAS Plan, to authorize additional air traffic controllers, and to increase federal grants-in-aid to airports. In addition to increasing the supply of airport and airway facilities and capacity, the demand for these services could be shifted. Airport and airway pricing of peak-period operating and landing rights could provide incentives for users of the system to reschedule flights and/or increase the funding for expansion that would be available to both airports and the air traffic control system.

Mr. Chairman, I would be happy to answer any question at this time.

ATTACHMENT PROJECTIONS FOR THE AIRPORT AND AIRWAY TRUST FUND, FISCAL YEARS 1987-1992
(In millions of current dollars)

| | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 |
|---|---|---|---|---|---|---|
| CBO Baseline | | | | | | |
| Uncommitted balance | 5,196 | 6,735 | 8,501 | 10,566 | 12,969 | 15,731 |
| Receipts | | | | | | |
| Tax revenues | 3,120 | 3,388 | 3,625 | 3,935 | 4,272 | 4,625 |
| Interest income | 801 | 876 | 970 | 1.072 | 1.188 | 1,315 |
| Total, Receipts | 3,921 | 4,264 | 4,595 | 5,007 | 5,460 | 5,940 |
| Outlays | | | | | | |
| FAA operations | 621 | 652 | 674 | 698 | 722 | 746 |
| Airport grants-in-aid | 876 | 942 | 999 | 1,039 | 1,084 | 1,129 |
| Facilities and equipment a/ | 820 | 925 | 951 | 952 | 990 | 1,114 |
| Research, engineering, and development a/ | 204 | 166 | 156 | 160 | 168 | 176 |
| Aviation weather service b/ | 29 | 30 | 31 | 33 | 34 | 35 |
| Total, Outlays | 2,550 | 2,716 | 2,811 | 2,882 | 2,998 | 3,201 |
| CBO Baseline Adjusted for Increased NAS Plan Funding | | | | | | |
| Uncommitted balance | 5,196 | 6,222 | 7,354 | 8,807 | 10,761 | 13,187 |
| Receipts | | | | | | |
| Tax revenues | 3,120 | 3,388 | 3,625 | 3,935 | 4,272 | 4,625 |
| Interest income | 801 | 874 | 959 | 1.042 | 1.129 | 1.224 |
| Total, Receipts | 3,921 | 4,262 | 4,584 | 4,977 | 5,401 | 5,849 |
| Outlays | 2,550 | 2,757 | 2,985 | 3,204 | 3,422 | 3,652 |
| CBO Baseline Adjusted for 75 Percent Funding of FAA Operations | | | | | | |
| Uncommitted balance | 5,196 | 5,066 | 4,998 | 5,061 | 5,307 | 5,759 |
| Receipts | | | | | | |
| Tax revenues | 3,120 | 3,388 | 3,625 | 3,935 | 4,272 | 4,625 |
| Interest income | 801 | 807 | 767 | 735 | 718 | 713 |
| Total, Receipts | 3,921 | 4,195 | 4,392 | 4,670 | 4,990 | 5,338 |
| Outlays | 2,550 | 4,340 | 4,437 | 4,542 | 4,681 | 4,905 |

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| | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 |
|---|---|---|---|---|---|---|
| CBO Baseline Adjusted for Market Interest Rate | | | | | | |
| Uncommitted balance | 5,196 | 6,631 | 8,261 | 10,140 | 12,324 | 14,826 |
| Receipts | | | | | | |
| Tax revenues | 3,120 | 3,388 | 3,625 | 3,935 | 4,272 | 4,625 |
| Interest income | 801 | 772 | 834 | 886 | 969 | 1,055 |
| Total, Receipts | 3,921 | 4,160 | 4,459 | 4,821 | 5,241 | 5,680 |
| Outlays | 2,550 | 2,716 | 2,811 | 2,882 | 2,998 | 3,201 |
| CBO Baseline Adjusted for NAS Plan, FAA Operations, and Interest Rate | | | | | | |
| Uncommitted balance | 5,196 | 4,457 | 3,648 | 2,974 | 2,644 | 2,629 |
| Receipts | | | | | | |
| Tax revenues | 3,120 | 3,388 | 3,625 | 3,935 | 4,272 | 4,625 |
| Interest income | 801 | 709 | 649 | 580 | 533 | 490 |
| Total, Receipts | 3,921 | 4,097 | 4,274 | 4,515 | 4,805 | 5,115 |
| Outlays | 2,550 | 4,381 | 4,611 | 4,864 | 5,105 | 5,356 |

SOURCE: Congressional Budget Office.

NOTES: All uncommitted balances are for the end of each fiscal year. The baseline and adjusted baseline projections assume that all trust fund taxes and fees are reauthorized at their current levels.

a. These two accounts encompass NAS Plan spending.

b. Since fiscal year 1984, the aviation weather services program of the National Oceanic and Atmospheric Administration has been supported by the trust fund.