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AIRPORT IMPROVEMENT PROGRAM

Opportunity to Consider FAA's Role in Meeting Airport System Needs

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GAO/T-RCED-93-43

Mr. Chairman and Members of the Subcommittee:

We are pleased to testify today on the Federal Aviation Administration's (FAA) Airport Improvement Program (AIP). Since 1982, almost $13 billion in AIP funds has been spent on a variety of airport improvements, including runway construction, terminal development, as well as noise, safety, and security projects. The Congress appropriated $1.8 billion for AIP in fiscal year 1992.

Today, we will address FAA's progress in developing goals and performance measures for airport development, implications of FAA's actions, and offer observations on FAA's role and its capacity to manage the AIP. The information presented here is based on our past work in the area and ongoing assignments we are performing for the Senate Appropriations Committee, Subcommittee on Transportation and Related Agencies. Appended to this testimony is a list of related GAO reports and testimonies.

Our testimony today will make three major points:

-- First, FAA has not made substantial progress in developing goals and performance measures for the AIP as the Congress requested in 1987. FAA officials question whether the agency should set goals for improving the nation's airport system or be held accountable for achieving such goals because they believe FAA has a limited role in directing airport development. Reasons cited by FAA officials for the limited role are: (1) the program's formula specifies how most of the funds will be allocated; (2) airport sponsors play a significant role in selecting AIP projects; and (3) locally assessed Passenger Facility Charges (PFCs) have emerged as a significant financing source in airport development.[1] Although these reasons have some merit, they are not, in our view, persuasive. Because FAA has substantial discretion in allocating some AIP funds and approving projects, we believe the agency may be underestimating its potential control and influence over the AIP.

-- Second, a more proactive role for FAA in administering the AIP could have far-reaching implications. With goals and performance measures, FAA would have information on the needs of the national airport system and the effects of AIP projects on meeting those needs. FAA could use this

[1]The PFC program was created in 1990 to allow larger airports the option of imposing a per passenger fee by which to generate revenues that could be used on eligible airport development projects. About 100 large, medium, and small passenger and service airports have imposed a PFC, and FAA estimates that PFCs could generate about $1 billion by 1995.

information to advise the Congress on needed program changes and overall AIP financial requirements. FAA could also better target resources to areas of greatest need. We have found cases where FAA has not been proactive in resolving concerns about the AIP. For example, FAA officials are concerned that FAA may have used the AIP to fund some projects prematurely, such as runway resurfacing at small commercial airports, and to implement airport security systems without adequate guidance. Also, FAA officials allowed the new Chicago-area airport project to progress to site selection based on AIP funding assumptions that they viewed as probably unrealistic.

-- Third, the occasion of reauthorization offers the Congress an opportunity to establish expectations for FAA in managing the AIP. However, for FAA to be more proactive in administering the program, much more is involved than just setting goals and allowing the agency greater discretion over funding. FAA would need to develop a set of management tools, including models to project outcomes, determine if intended outcomes are met, and target funds in the most cost-beneficial manner. Absent such tools, FAA will not be in a position to be more proactive in identifying systemwide needs and targeting AIP funds to meet those needs. In addition to setting expectations for FAA, the Congress has numerous ways to facilitate the agency's use of these tools without affecting the basic framework of AIP entitlements and set-asides. These approaches could include allowing FAA to reprogram funds among specific set-aside categories in certain circumstances and providing FAA with greater discretion over the use of entitlement funds withheld from airports imposing PFCs.

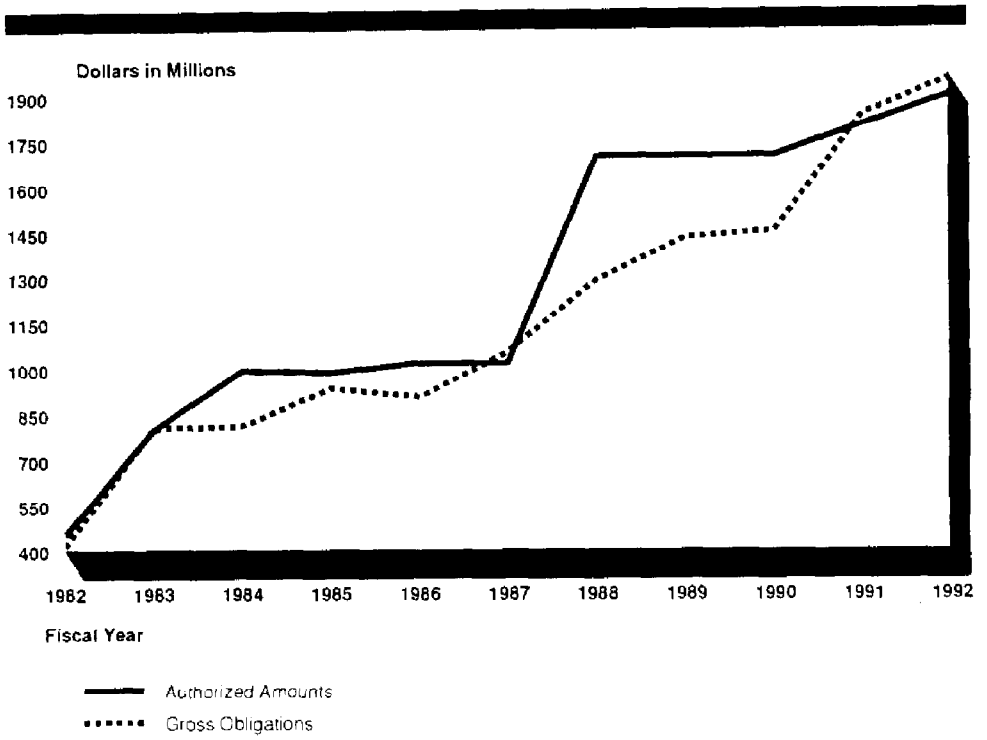
Before I go into more detail on these three points, I want to provide some background on the overall process for allocating AIP funds.

AIP FUNDING PROFILE AND ALLOCATION REQUIREMENTS

From 1982 to 1992, FAA provided about $13 billion in AIP grants to help airports sustain or increase their safety and capacity. Of this amount, 59 percent has gone for paving landing areas and roads; 15 percent for land acquisition; 6 percent for lighting and navigational equipment; 5 percent for work on terminals and other buildings; and the remaining 15 percent for other projects including noise control, safety, and security projects.

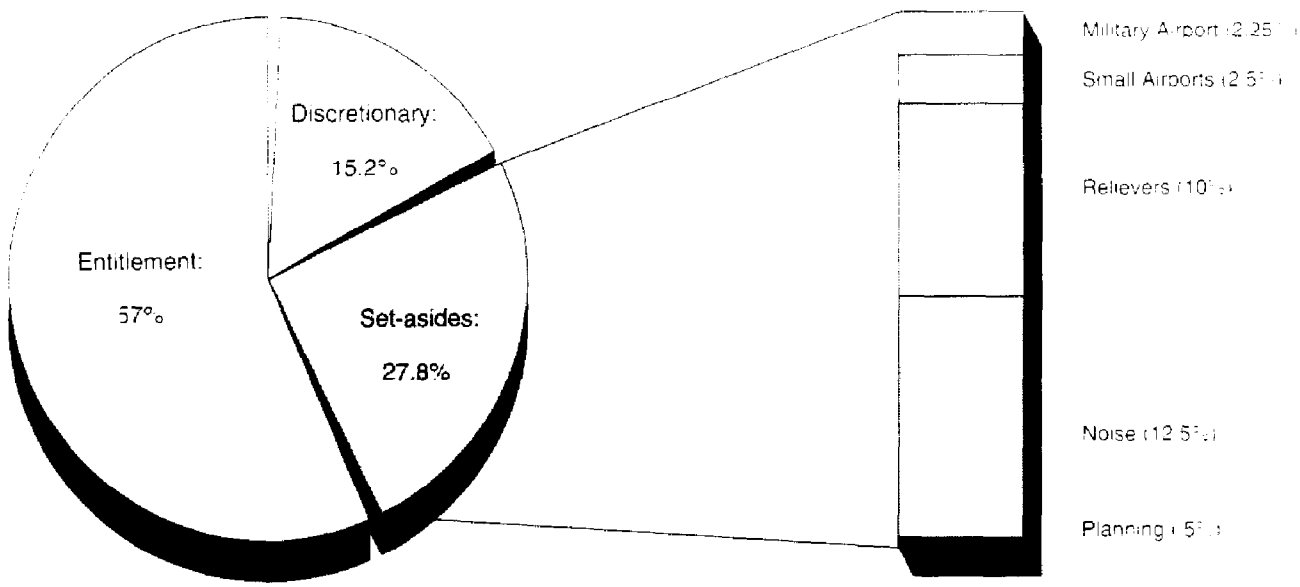
As shown in figure 1, since the program's inception, the funding authorized for the AIP has quadrupled from $450 million in 1982 to $1.8 billion in 1992.

Figure 1: AIP Funding, 1982 to 1992



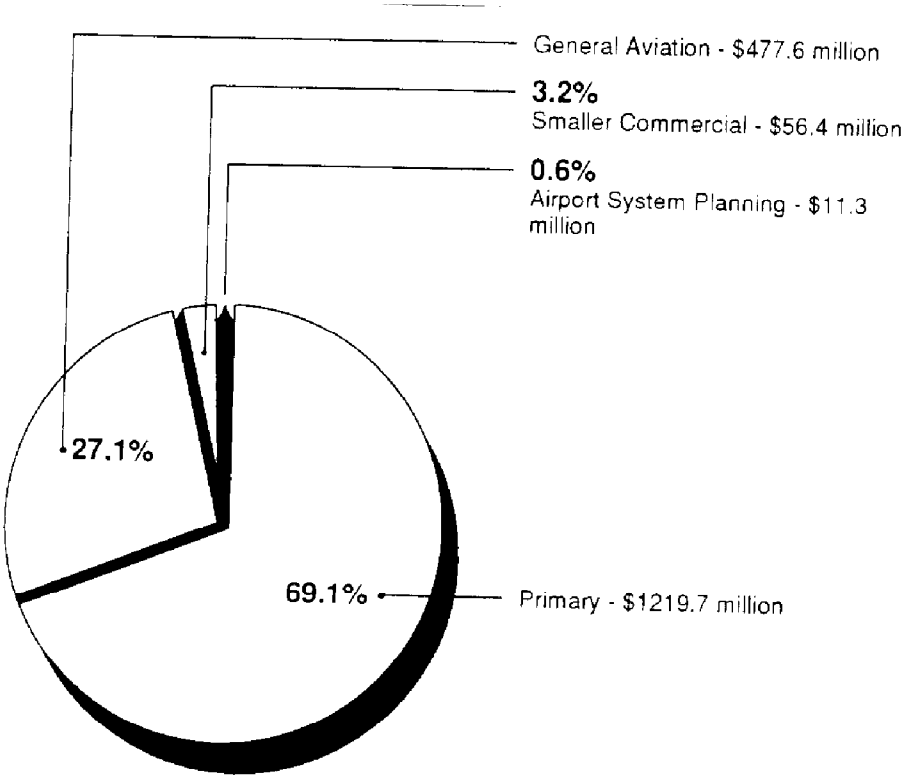
Airports receive AIP grants through three basic types of funding arrangements: (1) entitlements, which account for 57 percent of all AIP funds; (2) legislatively established projects- and airport-specific set-asides, which account for about 28 percent; and (3) discretionary, which account for the remaining 15 percent, as shown in figure 2.

Figure 2: AIP's Allocation Formula



In fiscal year 1992, FAA issued nearly $1.8 billion in new grants to airports included in the National Plan of Integrated Airport Systems (NPIAS).[2] Primary airports (those enplaning over 10,000 passengers per year) received about $1.2 billion, or 69.1 percent, smaller commercial service airports received $56.4 million, or 3.2 percent, general aviation airports[3] received about $477.6 million or 27.1 percent. About $11.3 million, or 0.6 percent, was directed to local airport planning projects (see figure 3).

Figure 3: AIP Allocations by Airport Category, Fiscal Year 1992



[2]The NPIAS is FAA's 10-year planning document intended to identify airports and projects critical to the national system. The NPIAS describes the types and cost estimates for airport development necessary for over 3,300 public-use airports eligible for federal aid. The estimated costs of projects contained in the NPIAS exceeds $40 billion for these airports.

[3]This category includes general aviation airports, reliever airports (airports intended to draw smaller aircraft away from major airports to relieve congestion), and State Block Grant Program Funds.

For setting priorities among AIP projects at airports, FAA has developed some criteria that consider the type of project and the airport's size and activity levels but does not consider systemwide needs. Using these criteria, FAA regions develop and submit funding plans to FAA headquarters for review. FAA headquarters ensures that required funding minimums are met.

FAA HAS NOT SET GOALS AND PERFORMANCE MEASURES FOR THE PROGRAM

In 1987, the Congress asked FAA to develop goals and performance measures to provide direction for funding AIP projects and to determine what added value or outcomes AIP funds were providing to the national airport system. FAA officials acknowledge that progress has been slow in developing goals and performance measures. However, FAA officials question whether the agency should set goals or be held accountable for achieving them because they believe FAA has limited control over the use of airport improvement funds. While this argument has some merit, we believe the agency may be overstating the difficulty involved in setting program goals and performance measures and understating its potential influence and control over the AIP.

FAA's Efforts to Develop AIP Goals and Performance Measures

Subsequent to the 1987 Congressional directive, FAA stated in the 1990 NPIAS its intent to develop goals and performance measures to determine the benefits of improvements at individual airports. However, FAA has made little progress in achieving this. FAA stated again its intent to develop goals in 1992 and provided similar assurances in its testimony before this Subcommittee last week. Notwithstanding these expressions of intent, goals and performance measures do not yet exist for the AIP. Further, we found that FAA officials responsible for developing the NPIAS are attempting to formulate goals, but are not coordinating their efforts with FAA officials in other programs, including those responsible for administering the AIP. Hence, it is unlikely that the current effort will adequately reflect the needs of the airport system or be linked to AIP spending. We are concerned that if FAA continues in this manner, it is unlikely that the agency will develop any meaningful program goals.

In 1990, the Congress directed FAA to develop goals for its Capital Investment Plan (CIP), the $33 billion air traffic control (ATC) modernization program that provides funds for a variety of airport and airspace technology and projects. In recent years, we have issued several reports on this program which cite major problems with cost escalation and delays in project timelines. In recommending actions needed to correct these problems, we cited the importance of FAA setting measurable goals as a basis for

determining the extent that modernization is improving the air traffic control system. In the past, FAA measured progress based on the number of contracts awarded for projects or completed projects. These are not sufficient indicators of benefits to the aviation system.

FAA has now set goals in its 1992 draft CIP. For example, FAA set a goal of increasing airspace and airport capacity by 20 percent by 1999. Also, the CIP establishes a goal to reduce runway incursions by 80 percent by 2000 by improving airports' surface surveillance, communications, and automation. Because the CIP establishes goals that affect airport development, linking applicable CIP goals with AIP goals would be logical. However, until the AIP goals and performance measures are developed, this obviously cannot occur.

Factors Influencing How FAA Views Its Role

Several factors weigh heavily in shaping FAA's view that it has limited control over the uses of AIP funds. FAA officials believe that the funding formula governing the AIP provides little discretion over what types of projects and airports receive AIP funds, in what amounts, and for what purposes. About 57 percent of all AIP funds are distributed as entitlements to airports, and airports can use these funds for any eligible projects regardless of need or priority. Also, in allocating the remaining 43 percent of discretionary and set-aside funds, FAA relies heavily on local airport sponsors to determine their own needs for development and create local plans to reflect those needs. While FAA is involved with sponsors in this process, the agency does not perform cost-benefit assessments or require that airports perform them.

FAA officials view the agency's role as being further limited with the advent of PFCs. PFCs have the potential to become as important a factor in airport development as the AIP. Revenues generated by PFCs--with the potential to reach about $1 billion per year as early as 1995--will become a major force in future airport development. These locally-assessed charges were established to provide another funding source for airport development projects. By design, FAA's role in the program was limited to two basic functions. First, FAA is responsible for reviewing the PFC project proposals to determine if the projects meet legal requirements. Second, by law, FAA must withhold a percentage of each participating airport's AIP entitlements on the basis of the expected revenues from PFCs. These "entitlement savings" are redistributed through a formula to support smaller airports.[4]

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[4]The PFC formula requires FAA to direct 75 percent of entitlement savings to projects at general aviation airports (25 percent) and nonhub commercial airports (50 percent). Of the remaining 25 percent of entitlement savings, half (12.5 percent of the total

However, some smaller airports receiving a portion of the entitlement savings are also eligible and, in some cases, have received the approval to collect PFCs for airport projects. Approximately 70 of the 100 airports that have received the approval to collect PFCs are smaller airports eligible for entitlement savings.

There is some merit to the three reasons FAA officials give for not being more proactive--formula restrictions, reliance on airport sponsors, and local assessment of PFCs. However, these are not persuasive, in our view. We believe that FAA may be overstating the difficulty in establishing goals and performance measures and underestimating its potential control and influence over the AIP. In testimony before this Subcommittee last year, we provided examples of possible AIP goals.[5] Also, as noted above, FAA recently established goals for its ATC modernization program as directed by the Congress. As for performance measures, we see no persuasive reason why the program funding formula would constrain FAA from meeting congressional directives to measure the effects of AIP investments at individual airports or systemwide. Further, although airport sponsors determine their development needs, they could do so within the framework of national goals. Moreover, FAA has substantial ability to leverage at least 43 percent of program funds--the 15 percent that is discretionary and the 28 percent under set-aside categories--because it sets project funding priorities and approves projects.

MORE PROACTIVE ROLE FOR FAA WOULD HAVE FAR-REACHING IMPLICATIONS

A more proactive role for FAA could have far-reaching implications for the AIP. With goals and performance measures, FAA could more effectively determine needed program changes and funding requirements and better administer the program. Measurable goals and feedback mechanisms to measure performance against these goals are essential to determine the effect of improvements at each individual airport on the total system. Goals and measures are also important to analyze whether investment in various project categories or at certain types of airports has paid off as expected. Without accurate analyses and data on the benefits of specific projects on the airport system, FAA is not in a good

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funds) must be directed to projects at small hub airports and the other half is available for use at the discretion of the Secretary of Transportation.

[5]In our 1992 testimony on NPIAS before this Subcommittee we offered hypothetical goals, such as increasing capacity at medium hubs by 30 percent over the next 10 years, or decreasing by 30 percent the people affected by a given level of aircraft noise within 3 years.

position to advise the Congress on possible AIP program changes and funding levels necessary to meet national airport system needs. For example, FAA has not determined the extent to which specified funding levels for AIP entitlements and set-asides are adequate for critical projects in these categories.

There are indications that in administering the AIP, FAA has not proactively resolved some known problems or issues. While FAA recognizes that problems exist in the AIP, it has not assessed the extent of the problems, taken internal corrective actions, or suggested appropriate program changes to address them. Some examples we found of these potential problem areas are:

-- Small Commercial Service Airports. In performing our ongoing work, FAA officials in four regions told us that the number of airports qualifying for this funding is decreasing, making it difficult to find enough good projects to use the money set-aside for these airports. As a result, officials stated that FAA may be funding some projects, such as resurfacing runways or taxiways, before they are needed. Nevertheless, FAA officials stated that they feel obliged to spend about $45 million each year on projects at small commercial service airports. Despite its concerns, FAA has not developed data to support the extent of the problem or apprised Congress of potential changes that it feels are needed in the set-aside.

-- Evaluation of Systemwide Impacts of Major Projects. Our completed work on major airport development projects shows that although FAA is in the best position to provide a national perspective on how such projects impact the national airport system, it has not always done so. For example, our work found shortfalls in FAA's ability to model the impact of the new Denver airport and proposed new Chicago-area airport on systemwide capacity and delays. We also found that FAA used about $7 million in AIP funds to study the best site for a supplemental Chicago-area airport. The study--which considered 5 sites--assumed that the AIP would fund 20 percent of eligible construction costs. AIP funding for this project would range from $440 million to $3.1 billion, depending on the site selected. By comparison, the AIP's share of costs for the new Denver airport is about $430 million. Funding the proposed Chicago-area airport with about $3 billion in AIP funds could preclude funding many other airport projects, both within the region and systemwide. According to FAA officials, the funding assumption was probably unrealistic. We believe that FAA could have provided better input on financing constraints for decisionmakers.

-- Automated Security Systems. Our ongoing work found that although FAA officials question their ability to implement

a program for automated security systems at airports, the agency has spent over $600 million in AIP funds. According to FAA officials, when the program requirements were developed in 1988, there was only limited information on which to base airport security guidelines and technology standards, little effort was made to coordinate with other FAA program officials experienced in acquiring advanced technology, and models to test security equipment were not developed. Moreover, some FAA officials stated that self-imposed deadlines to implement airport security systems may have been unrealistic. As a result, several airports used AIP funds to install systems and equipment that did not work as intended, and many systems are still not fully operational. FAA expects the AIP share of total program costs over a 10-year period (1989 to 1998) to escalate from its original estimate of $119 million to over $2 billion.

OBSERVATIONS ON FAA'S ROLE IN MEETING AIRPORT SYSTEM NEEDS

The future direction of the AIP will be strongly influenced by how FAA views its role in administering the program and the expectations set by the Congress. The occasion of reauthorization provides an opportunity to consider FAA's role in guiding airport development and to make any necessary adjustments in the AIP. Mr. Chairman, as the committee proceeds with reauthorization, there are two dimensions that the committee could consider. One deals with the FAA's capacity for more proactively managing the AIP and the other deals with the funding provisions of the AIP that govern where funds are directed and in what amounts. Based on our work, we have some thoughts on each of these dimensions.

Management Tools Needed

FAA is not positioned to immediately assume a more proactive role in managing the AIP because it lacks the set of management tools necessary to make sound funding decisions among competing projects. For example, FAA would need to:

-- Establish program goals and measures to provide focus and direction for the AIP and form a basis for later feedback. If goals were established for the AIP, FAA officials and airport planners would have a clearer overview of the development needed to best improve the overall airport system. Accurate performance measures would help both the Congress and FAA review AIP projects and revise national funding priorities as necessary to achieve national goals. Such measures also would provide the Congress with a basis for considering changes in the program's funding structure and would enable FAA to better target funds. The need for such goals and measures has been recognized since 1987.

-- Develop sophisticated modeling capabilities to project the impact of AIP investments on specific airports and the airport system and to assess whether specific investments have paid off as expected. While FAA has several computer models to simulate conditions and variables and thereby measure the outcomes of projects, these models have been of limited usefulness in providing cost-benefit analyses before committing AIP funds. Thus, FAA has neither consistent data nor a dependable model to accurately measure the benefits of projects that enhance capacity and reduce delays.

Also, FAA could coordinate AIP goals and funding decisions with other funding programs such as the $33 billion ATC modernization program, to ensure consistency. For example, both the AIP and the modernization program recognize the need to increase capacity and reduce delays. A coordinated approach in setting specific goals and targeting resources to address these factors would likely allow FAA to better leverage activities of both programs to provide maximum benefit to the national airport system. Similarly, if the AIP was better coordinated with other FAA funding programs, it is likely that FAA would have a more comprehensive approach to systemwide airport development.

Potential Approaches to Encourage A More Proactive FAA

It was recognized in 1987 that FAA needed goals and performance measures, but very little has been done since then to develop them. We recognize that changes like these cannot be achieved quickly or easily, but it seems reasonable to expect that FAA should have made significantly more progress in developing goals and performance measures than it has in the last six years. FAA officials said that progress in developing goals and measures would be enhanced if FAA could use AIP funds to support systemwide airport development planning. The AIP has a set-aside category for local airport planning but none for nationwide planning efforts. If the Congress wanted to speed the progress of FAA's goal-setting efforts, one option would be to establish a specific national planning set-aside for FAA's use. This could provide a strong signal to FAA and the aviation community regarding the emphasis placed on systemwide goal-setting and planning.

Once FAA has the management tools in place, there are additional complementary approaches that may assist the agency to better target AIP funds and identify system needs. These approaches are not all-inclusive or necessarily cumulative, and for the most part would represent only modest adjustments to the basic framework of entitlements and set-asides. Potential approaches include the following:

-- FAA could be given more discretion over the use of entitlement savings from PFCs rather than distributing those savings by formula. If FAA had more discretion over the PFC savings, it could target funds to specific projects at airports or could use them to meet unanticipated system needs; and

-- FAA could be given some flexibility to transfer funds among AIP set-aside categories when FAA determines there is a shortage of meritorious projects in one category and a surplus of such projects in another category.

It would be possible to phase in the above approaches over the period of reauthorization. Depending on the role FAA is expected to assume, any additional flexibility in managing the AIP could be linked to measurable progress by FAA in establishing goals, measures, and modeling capability. Expectations for FAA could be outlined in the reauthorization legislation.

This concludes our prepared statement. At this time, we would be happy to respond to any questions that the Subcommittee might have for us.

RELATED GAO PRODUCTS

FAA Budget: Important Challenges Affecting Aviation Safety, Capacity, and Efficiency (GAO/T-RCED-93-33, Apr. 26, 1993).

State of the Airline Industry: Strategies for Addressing Financial and Competition Problems (GAO/T-RCED-93-21, Mar. 10, 1993).

New Chicago-Area Airport: Site Comparison, Selection Process, and Federal Funding (GAO/RCED-93-105, Feb. 22, 1993).

Air Traffic Control: Justifications for Capital Investments Need Strengthening (GAO/RCED-93-55, Jan. 14, 1993).

Transportation Issues (GAO Transition Series) (GAO/OCG-93-14TR, Dec. 1992).

New Denver Airport Followup (GAO/RCED-92-285R, Sep. 14, 1992).

Detroit City Airport (GAO/RCED-92-169R, Apr. 30, 1992).

FAA Budget: Key Issues Need to Be Addressed (GAO/T-RCED-92-51, Apr. 6, 1992 and GAO/T-RCED-92-67, May 21, 1992).

Airport Development: Improvement Needed in Federal Planning (GAO/T-RCED-92-30, Feb. 19, 1992).

New Denver Airport: Safety, Construction, Capacity, and Financing Considerations (GAO/RCED-91-240, Sep. 17, 1991).

Airline Competition: Passenger Facility Charges Represent a New Funding Source for Airports (GAO/RCED-91-39, Dec. 13, 1990).

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