

## SUMMARY OF AIRPORT DEVELOPMENT NEEDS

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*Paul Aussendorf and Charles Chambers  
U.S. General Accounting Office*

### Background

Today the Federal Government and the aviation community are at a crossroads in deciding how to meet airport development needs and fund airport development. We can continue the current method of funding airport projects through the Airport Improvement Plan (AIP) which is fed by the airline ticket tax and other levies on aviation activity. Outlays of AIP funds, however, have declined in recent years due to Federal Government budgetary restrictions, and it may be necessary to seek other financing.

In February-March 1996, there was a series of hearings in the House of Representatives and the Senate, at which various airline and airport groups presented estimates of airport capital needs for the coming years. These estimates varied widely, ranging from \$4 billion per year by the Air Transport Association (ATA) to \$10 billion per year by the Airports Council International (ACI) and the American Association of Airport Executives (AAAE).

At the same time, the passenger ticket tax authorization expired, and there was considerable discussion about whether the ticket tax should be reinstated at all or whether some other financing mechanism should be put into place. As the Congress considered continuing the AIP program in the fall of 1996 as part of the FAA reauthorization act, it became clear that additional information would be needed on the magnitude of airport development needs, funding needs, and revenue sources.

Three major steps were taken to acquire this information. The National Civil Aviation Review Commission was created in late 1996. The accounting firm of Coopers and Lybrand was asked to make a financial assessment of FAA. GAO was directed to perform a study of airport development needs. The findings of the GAO study are the subject of the presentation.

### GAO Approach

The GAO study just released had three objectives. The first was to understand the various estimates made in 1996 and to reconcile their differences. Second, GAO made its

own estimate of need for the period 1997-2001. Note that we did not collect new data; we used existing data bases. We did not audit or verify the needs listed in the ATA, ACI/AAAE, and FAA data bases. However, we did look carefully at how the data were collected and how each organization interpreted it. From this we were able to provide our own range of estimates.

Finally, GAO sought to identify the factors that affect core capital needs. At the outset, the hope was to develop some kind of forecast model that could be used as a predictor of future capital needs. We soon discovered that existing data would not allow us to do this. Neither time series data nor capital stock data could be used to forecast future needs.

### Needs Estimates

Table 1 is a comparison of the three needs estimates. ACI and AAAE estimated the need to be \$60 billion over six years, \$10 billion a year. The ATA estimate was just short of \$20 billion over five years. FAA's estimate was \$32.7 billion over five years. It is evident that the mix of airport needs, the categories of airports included, and projects considered in each of these estimates differ widely.

A major factor contributing to the disparity of estimates was the source of information used. The ACI estimate is dependent on a survey conducted of 140 hub airports, supplemented by the NPIAS, which is FAA's catalog of airport needs. ATA used a private data source, the Airport Marketing Information System (AMIS). The version used to make their initial estimate was based largely on a 1994 NPIAS data base supplemented by some individual airport capital improvement plans. FAA's need estimate was based on 1996 NPIAS data (See the (following) presentation by Mr. Browne of ATA for further remarks about the ATA needs estimate).

GAO closely examined each of these databases (ATA, ACI/AAAE, and FAA). FAA furnished a copy of the current NPIAS data base and provided help along the way in understanding it. ACI did the same and provided copies of all their data and helped in piecing it together. The AMIS data base had to be purchased. Using these data bases, GAO was able to reconstruct how each of these estimates was derived.

TABLE 1 AIRPORT DEVELOPMENT NEEDS: COMPARISON OF ESTIMATES

	ACI/AAAE	ATA	FAA
Estimated need	\$60 billion	\$19.8 billion	\$32.7 billion
Period	1997-2002	1996-2000	1996-2000
Annual avg.	\$10 billion	\$4 billion	\$6.5 billion
Number of airports	3,300 NPIAS	421 primary	3,300 NPIAS
Types of projects	AIP-eligible and ineligible	AIP-eligible	AIP-eligible
Source information	Survey and NPIAS	AMIS	1996 NPIAS

TABLE 1 (Cont.) AIRPORT DEVELOPMENT NEEDS: COMPARISON OF ESTIMATES

Annual Average (\$ in mil.)	ACI/AAAE	ATA	FAA
Primary airports (AIP eligible)	\$4,450	\$3,965	\$5,187
All NPIAS Airports (AIP eligible)	\$5,583	n/a	\$6,534
All NPIAS Airports	\$10,000	n/a	n/a

Table 1 shows that the estimates, when examined for the same type of airport category or project, are more comparable than they may seem at first blush. For example, the ATA estimate of annual funding needed for the 421 primary airports, differs by \$1.2 billion from FAA's estimate. For all NPIAS airports, the FAA estimate is actually \$951 million larger than the ACI estimate for the same group of airports.

### Reconciling Estimates

The second objective of the GAO study was to put together a range of estimates for airport capital needs for the next five years. In doing so we allowed for different points of view and interests. Every user comes at the

question of airport needs from a different perspective in terms of the types of categories of airports considered and the types of projects to be undertaken.

The range of estimates is basically a menu that makes it possible to consider airport needs both broadly and specifically. The data sources for this analysis were the 1997 preliminary NPIAS data base supplemented by ACI data and NASAO survey information that was very helpful in pulling together information on state-funded airports not included in the NPIAS. (Table 2)

### GAO Estimates of Future Needs

The range of estimates is shown in Table 3. The first line is the narrowest band of capital needs, which consists of

TABLE 2 AIRPORT DEVELOPMENT NEEDS: RECONCILING ESTIMATES

ATA	Primary Airports	(\$ in millions)
		<b>\$19,824</b>
	Update from '94 to '96 NPIAS	6,460
	Other CS airports	692
	Reliever airports	2,238
	GA airports	3,808
	AIP ineligible projects	(193)
	All other differences	(115)
<b>FAA</b>	<b>All airports, AIP-eligible only</b>	<b>\$32,671</b>
	AIP ineligible projects	20,600
	ACI/AAAE overstatement	3,116
	ACI/AAAE inflation adjustment	5,900
	All other differences	(2,287)
<b>ACI/AAAE</b>	<b>All airports, all projects</b>	<b>\$60,000</b>

TABLE 3 AIRPORT DEVELOPMENT NEEDS: GAO ESTIMATES OF FUTURE NEEDS

Scope of projects and airports included in estimate	Total 1997-2001 (\$ in millions)	Annual Average (\$ in millions)
Safety, security, and environmental projects; maintain infrastructure	\$7,069	\$1,414
High-priority, AIP-eligible projects at NPIAS airports	13,873	2,775
All AIP-eligible projects at existing NPIAS airports	30,550	6,110
All AIP-eligible and most ineligible projects at existing and proposed NPIAS and state system airports	50,646	10,129

safety, security, and environmental projects as well as maintaining current infrastructure. These needs amount to about \$1.4 billion per year over the period 1997-2001. Mandated safety and security projects and environmental programs (largely aircraft noise) are Federal Government projects that amount to about \$600 million annually. The balance (\$800 million) is for maintaining current infrastructure. Note that none of the 1997-2001 needs estimate is for capital improvement. \$800 million is needed just to maintain what we have.

The estimated needs for high-priority AIP-eligible airport projects are \$2.8 billion annually through 2001. To fund all AIP-eligible projects for the next five years would require four times this amount—\$6.1 billion per year.

The highest estimate (\$6.1 billion per year) is the amount that would be necessary to fund all AIP-eligible and most ineligible projects at existing and proposed NPIAS and state system airports.

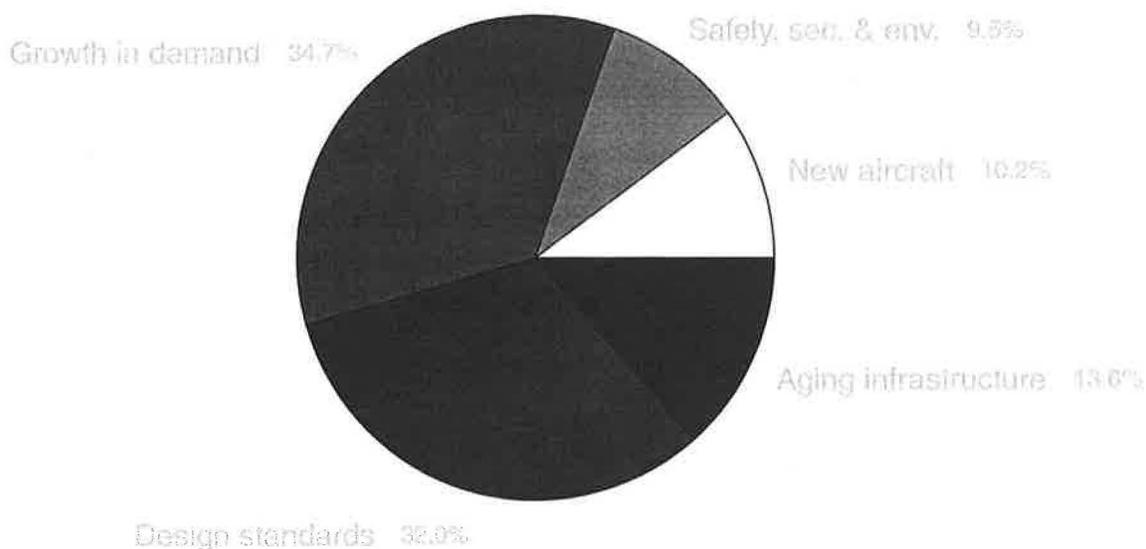


FIGURE 1 Airport development needs: factors affecting needs.

### Factors Affecting Airport Development Needs

GAO's third objective in this study was to identify the factors that will influence airport capital needs—both the level of funds needed and the distribution among project categories

#### *Anticipated Growth*

The growth of demand for airport capacity represents about 35 percent of the total \$31 billion in AIP-eligible needs certified by FAA over the period 1997-2001. The goal is to reduce congestion and delay, primarily at large commercial service airports. Most of these projects are to expand airfield capacity, but some are for the purpose of enlarging or rebuilding.

#### *Meeting Design Standards*

The next largest category of expenditure is for projects intended to bring airports up to FAA-recommended design standards. If an airport is not up to full standards, it cannot be fully productive. Most of those projects are for runways and taxiways, but they also include terminal improvements and purchase of land for airfield expansion.

#### *Aging Infrastructure*

GAO discussed questions of maintaining and updating infrastructure. Everyone—airports, airlines, consultants, and FAA field officials—said this is a significant part of airport capital needs. They also indicated that there is a backlog in meeting these needs. The goal is to reconstruct deteriorated infrastructure to serviceable condition. Ninety percent or more of those projects are for airfield pavement.

#### *New Aircraft*

New aircraft models under design or about to enter service could have important effects on airport capacity and productivity. This will require up-grade of existing facilities. About half of the \$3.1 billion needed for such projects over the coming five years will be for runways. Access roads will account for an additional one-third. The remainder (about \$500,000) will be used for projects related to airport-aircraft compatibility.

#### *Safety, Security and Environment*

These are high-priority items, particularly safety and security, that make up a relatively small percentage of

airport development needs, about 10 percent. Safety and security programs are mandated, and Congress is concerned about how to help airports fund mandated programs. The environmental programs are primarily for noise mitigation. While noise-related projects are voluntary, they are high-priority items.

### *Funding and Financing*

One of the issues raised in the GAO report just released is how to meet development needs and how they are to be financed. Estimates are very helpful, but there are limitations. First is the question of accuracy. One cannot look at an estimate and assume that this is exactly what the project will cost. Discussion with consultants and studies reviewed by GAO indicate that preliminary estimates tend to be about 30 percent under the actual cost. Unanticipated needs are an important consideration. Everybody involved in airports and aviation knows there are many unplanned things that can come up. Many are related to safety and security. These items are not confined to large airports. Smaller airports, many of which have limited financial resources, find it particularly difficult to adjust their planned spending to meet unanticipated needs and mandated projects.

A third factor is the complexity of the decision-making process. Plans for development may have been laid out and the airport master plan completed; but there are other influences that may determine what actually gets done, or when it gets done. This complexity comes from many sources—airlines' unwillingness to

support certain projects, community opposition, lack of AIP funding, etc.

An especially important concern at this time is the availability of funding. Many projects are planned, but where is the money to come from, and what will be the mix of that money (AIP, PFCS, revenue bonds, etc.)?

Ample data are available for the larger airports. At smaller airports the information is harder to find. At the large group of general aviation airports, information may be hard to find, incomplete, or altogether unavailable. This makes it very difficult to understand what their needs are and the mix of funding required.

The proposed AIP budget for FY 1998 is \$1 billion. This is roughly half of the 1992 level of \$1.9 billion. Now is an appropriate time to make decisions because reauthorization of AIP is coming up in FY 1998. Many changes and adjustments can be looked at and considered. As we move forward to the next century this is an opportunity to look at airports, the relationship with the federal government and the private sector in funding airports, and where the financing will be coming from.

Phase two of the GAO study will assess capital spending in the aggregate from all sources, for all airports. It will be very difficult to get information. GAO would welcome any suggestions you might have on how to obtain information that we could use.

Comprehensive data to track airport needs and investment are not available. Such data are indispensable if we are to understand what has happened and where we are going. It is vital to obtain improved financial reporting by airports.