The 1990s have been a chaotic period for consultants and public sector and airport operator personnel involved with the preservation, improvement, and development of the nation’s airports. During this decade, the nation has experienced a significant and enduring trend of increases in commercial airline passengers, freight, and aircraft operations. Commercial airports are generally straining to create more capacity through new construction, improved technology, larger aircraft, and more efficient use. At the same time, airports serving noncommercial aviation, our nation’s general aviation and business facilities, are struggling. Suburban development continues to encroach on operations and pressure private owners to sell facilities and property for nonaviation development, especially in high-density metropolitan areas. Business aviation use at noncommercial airports continues to grow, in some cases replacing general aviation demand as the principal function of the airport. The costs of flying or learning to fly, and time availability, among other factors, have generally caused a decrease in general aviation operations, a flattening of fleet growth, and consolidation of aircraft at airports with higher capacity, better location, more services, and public capital subsidy support. These factors have contributed, especially in more densely developed areas of the country, to airport closures that, in turn, reduce metropolitan reliever capacity and operational separation of aircraft, weakening the system’s ability to mitigate noise and congestion delay.

Given the need to expand commercial airports, as well as preserve and improve the safety and storage capacity of critical noncommercial airports, coordinated public sector involvement from numerous levels of government is necessary. Capital improvement funding from taxes collected at the federal and state levels in the various aviation trust funds flows through diverse channels to airports. National Congressional (political) support, with regard to fund availability and programmatic options, is unreliable. These political constraints limit Federal Aviation Administration (FAA) management options in the administration of development funds.

State Departments of Transportation (DOTs) are in the middle of the chain of intergovernmental communication and play an increasingly important role in development because of their responsibilities to maintain state plans and facilities with state funds and federal block grants. At the same time, states must address metropolitan, county, local planning, and project and facility selection priorities. Local governments, at the county and municipal levels, have assumed both positive and negative postures regarding airports. Some actually take legal responsibility directly or through authorities for operation and development, whereas other local governments take the position that, for the sake of local politics, airports can be closed down by not providing zoning and land use protection or by leaving airport capital development to the resources of private owners.
It is also of concern that intergovernmental relations vary in role, tone, and responsibilities from state to state, district to district, and federal region to region. These variations, unfortunately, are not always based on the needs of the specific area or the need to maintain adequate and consistent airport systems throughout the country, but sometimes on political expediency or unrelated economic factors.

In this changing environment of public and private sector airport development, effective intergovernmental communication has become the critical factor in the maintenance of the aviation system needed to provide safe service and economic stimulus in the future. This intergovernmental coordination is also the most vulnerable link in a development process, which can be easily derailed by lack of communication and compromise.

Members of this committee have been canvassed, and specific issues and future research directions have been identified, regarding intergovernmental coordination in aviation development. The following discussions are grouped by the governmental level principally involved, although the interrelationship of governmental layers will be evident throughout.

**FEDERAL ROLE—OPPORTUNITIES AND PROBLEMS**

During the 1990s, annual levels of federal capital support for the public use airport system provided by the Airport Improvement Program (AIP) have reached about $2 billion. Annual levels then dropped to $1.3 billion, a 35 percent reduction before inflation, and have since leveled off in the $1.6 to $1.8 billion per year range. Congressional actions have not supported general aviation or business facilities, but do recognize the growing need for more commercial capacity, providing local airport operators the authority to collect passengers facility charge taxes and offering AIP formula and discretionary funds. Funding for smaller, noncommercial airports, traditionally provided by FAA on a percentage basis of AIP through the state apportionment, is being assigned to states in increasing numbers as block grants, allowing more state discretion to select recipients and priority projects. AIP authorization levels, proposed by recent presidential administrations, have repeatedly been lower than authorized Congressional levels and lower than independently estimated system needs. This trend has raised numerous questions about FAA leadership in the aviation sector. Simultaneously, FAA senior staff attrition and agency downsizing are providing less direct oversight into state and local aviation projects, which is consistent with the shift of authority created by block grants.

Airline economics are healthy, with some domestic fallout of weaker operations and massive international alliances creating three or four major cartels of providers operating to and within the U.S. aviation system. Within this scenario, some specific directions of study and research are indicated.

**Consistency of State and Regional Systems in an Atmosphere of Downsizing**

As federal responsibility for capital support for all but primary commercial airport shifts to state and local governments, consistency must be maintained regarding the capacity of reliever and suburban airports for storage and operation of general aviation and business aircraft. Without this, the capacities of certain commercial airports will be affected, and delays throughout the national system can result. FAA contractual relations with states and FAA priorities for distributing discretionary funding to small airports should contain criteria that encourage states to provide standard levels of support for private and public use, and publicly owned airports. This approach will result in reasonably standardized levels of
noncommercial facilities in metropolitan areas, despite diversity in population density, infrastructure development and age, type of economic activity, and local political issues.

**Regulatory and Operating Agency**
Currently, several federal and state regulatory agencies directly influence aviation development and operations. FAA environmental review preempts state Departments of Environmental Resources and federal Environmental Protection Agency determinations regarding environmental and noise impacts of airport projects. Federal Communications Commission regulation and approval of electronic communications towers is not coordinated with local and federal airport airspace needs. In an environment of needed expansion at commercial airports and preservation of critical suburban airports, lack of cross-regulatory priorities and goal-setting decreases safety and impairs the provision of adequate capacity. Better coordination is a necessity in the future.

For air traffic control, civilian aircraft operate in controlled airspace through contact with FAA-operated, FAA-contracted, locally contracted, and military towers. Currently, no surcharges are applied to users of these services. The balance of responsibility among these facilities in the high-traffic metropolitan areas, and the method of continuing payment for the services, will be subject to modification in the future as traffic grows and shifts and technology for air traffic control advances.

**Intermodalism Issues**
According to some perspectives, insufficient coordination exists between development of aviation facilities and other transportation modes when funding decisions are made. This is, in part, due to the separate federal trust funds for aviation and highway/transit, where funds cannot be cross-assigned in most instances (except as a low priority for improvements in airport ground access). In certain settings, it may be appropriate to incorporate a multimodal decision-making process to decisions affecting a broader definition of the transportation systems. A further example of intermodal issues is the process of selecting either land or air transportation investments to better service travel corridors in which improvement would occur. This is especially true when travel distances are relatively short (e.g., for New York to Washington, D.C., fund rail instead of air).

**Essential Air Service**
With the continued and deepening trend of deregulating commercial aviation, the subject of providing adequate commercial service, at reasonable prices, in low-volume markets and city pairs, remains an issue. Federal policy leadership is necessary and must evolve to ensure relatively fair access to the aviation system for all citizens, without creating unfair financial burdens in some markets over others. The degree and context of state roles in this determination of essential air service must be defined.

**Incorporating New Technology for Efficiency, Capacity, and Safety**
From the perspective of development and capital subsidy, the responsibility for implementing new technology generally lies with FAA, which, however, is not fully aware of the needs and priorities of local facilities. Interactive communication at the federal, state, and facility level is necessary to generate sufficient initiative for technology to be installed locally.
Building Consensus on Airport Development Needs

At the federal level, the National Plan of Integrated Airport Systems (NPIAS), with its five-year plans, seems to be the control device for airport development. Specifically, the NPIAS controls who can participate, and each airport layout/master plan controls the eligibility of specific projects at individual airports. State airports system plans (SASPs) are as diverse as the number of states. Moving forward requires an integration of SASPs to redefine the NPIAS, with SASPs having similarity from state to state to provide uniformity in their input to the NPIAS. This should be an FAA task, and committee members have suggested that the National Association of States Airport Officials (NASAO) would be an ideal organization to study this problem. Furthermore, where appropriate, airport layout plans should include an update of an airport’s portion of economic impact studies and applicable pages of the SASP as part of the master planning report process.

There also needs to be an integration between regional airport systems plans (RASPs) with political options and opportunities in large metropolitan areas, where the majority of the aviation demand occurs, and where SASPs generally do not focus sufficiently. To provide efficient (cost-restrained) input to the NPIAS, both RASPs and SASPs must be standardized and identify, through a triage-type selection process, only those facilities and improvements absolutely necessary to satisfy future demand. Traditionally, system plans have a tendency to include all operating facilities, independent of system market area need and available or projected capital support. Further FAA guidelines are required.

Coordination between lobbying groups representing state, national, and regional interests, such as NASAO, the Airports Council International (ACI), the Aircraft Owners and Pilots Association (AOPA), and the National Association of Regional Councils (NARC), must be ongoing and noncompetitive.

STATE ROLE—OPPORTUNITIES AND PROBLEMS

Although the state role in development of commercial aviation facilities has traditionally been minor in comparison to that of FAA or of local funding through bond issues and airlines, the states are often the major funders of general aviation and business airports, as well as of small commercial facilities. With the advent of block grants for FAA state apportionment funds (currently existing in nine states), the role of state DOTs in keeping critical general aviation/business airports healthy is increasing. The SASPs and resulting capital grant programs must be coordinated with the national commercial infrastructure system to ensure sufficient reliever capacity to avoid delays and airspace conflict between commercial, business, and general aviation aircraft.

State Coordination with FAA on Grant Decisions and Project Design

For noncommercial airports, funding originating with the state, or FAA block grants spent through the state, or discretionary grants from FAA, priorities should be decided through state, regional, and federal ranking systems and system plans identification. In many states, system plans are not current and listings of project/airports are merely an inventory. Lack of coordinated ranking systems and the inability of an FAA discretionary priority system to have a local perspective result in funding limitations and a need for better communication.
Memos of Understanding
Memos of understanding (MOUs) between FAA and the states, defining procedures for spending block grants, need to be refined, with the objective of ensuring that state apportionment funds are spent in a nonpolitical manner, with equal opportunity for qualifying airport sponsors. With the block grant, states have almost sole responsibility to provide a suburban general aviation/reliever system adequate to reduce congestion from general aviation demand at national system commercial airports. If state funds are not spent from this objective position, national efficiency and safety will be compromised. If the number of states receiving block grants increases, effective MOUs become more critical. In addition, state spending of apportionment funds as block grants can be more vulnerable to local and state politics than funds that have been apportioned by FAA. Specific MOU criteria and language must be designed to ensure that decisions are based on aviation and public needs and current system planning objectives.

Integration of Planning Levels
Currently, in those urbanized areas with RASP posture and continued funding from FAA sources, the basic building block of system planning is the regional or metropolitan system plan. As it stands, the output of RASP activities may, or may not, be incorporated into SASPs and may, or may not, affect federal discretionary and state block grant or capital project selection. FAA controls system planning grants and the states control noncommercial airport funding decisions, a situation that helps establish an independent planning function but that does not facilitate independent capital grant decisions based on combined local/state judgment, wisdom, and political sensitivities. It is proposed that for those metropolitan planning organization (MPO) regions with RASPs, regional fair share capital project distributions should be distributed to airports based on regional plans, and for regions without earmarked state funds, the RASP capital project recommendations should be integrated into the state funding decision-making process. This regional authority would only control or obligate a percentage of the statewide funds available, based on operations, based aircraft, population, or other criteria representing each urbanized area as a portion of total state activity. To do this, states and MPO systems plans must be kept current and highly coordinated. In turn, state programs must be coordinated with the NPIAS and standardized through FAA with MOUs.

The process of coordinating development plans for airports with system goals and facility needs at the regional and state levels must become more effective. FAA funding allocation decisions can, perhaps, positively influence this outcome.

LOCAL ROLE—OPPORTUNITIES AND PROBLEMS
Local Zoning and Land Use
Almost universally, airport owners, pilots, and aviation development interests are concerned with the negative effects of local/municipal land use and zoning decisions on the operation, expandability, and preservation of general aviation and business airports. In states with home rule, courts have decided that municipalities control land use decisions for projects, which affect only that municipality. Given a system of airports with local, statewide, and national impacts, how are the broad-based interests of the public protected when it comes to preserving and improving airports? The jurisdictions of several larger airports have empowered multijurisdictional zoning boards to oversee airport development and protect
residents and businesses. State airport zoning laws often require municipal zoning protection of airspace, but some states do not enforce these laws. Although FAA uses federal regulation to prevent obstruction construction at the local level, enforcement is inconsistent. Land use restrictions and use of public funds to control land by purchase or easement works sometimes, but more needs to be done because airport operations and expansions continue to be constrained. Test cases with innovative approaches are essential.

**Alternative Airport Funding Sources and Scenarios**

Aviation development interests universally believe, as does the General Accounting Office and aviation alphabet groups, that the AIP must be fully funded with systematic increases to reflect full system needs, inflation, and increasing commercial traffic. History shows that Congress and state legislatures cannot be relied on to provide the levels of capital needed as defined by capacity and demand trends, nor can they be counted on to provide needed safety improvements. Alternative funding sources have emerged locally in several jurisdictions to provide the capital necessary to help preserve general and business aviation infrastructure. Existing resources include multijurisdictional government operating agencies, such as bridge authorities and private-public capital agreements, to provide either capital or operating support. State funds not earmarked for aviation, such as economic development allocations, may also be applicable. Federal funds also can cross definitional boundaries with political endorsement. Greater creativity in locally based capital alternatives may be necessary in the future.

**Nonaviation Use and Business Flexibility in Airport Development**

Local and federal constraints on use of aviation-related land for nonaviation purposes, which have the potential to increase revenues of the airport, must be relaxed. Especially in the cases of general aviation and business airports where passenger facility charges and airline support are not available for capital projects, cash flow constraints are driving privately owned airports out of business due to their inability to improve facilities and stay competitive. Alternate uses that do not interfere with aviation should be allowed even at federally supported airports. Operating restrictions, such as bans on runway access from adjoining properties, also limit airport function and economic viability. Federal, state, and local guidelines must be tested with creative prototype operations and then modified in accordance with new learning.