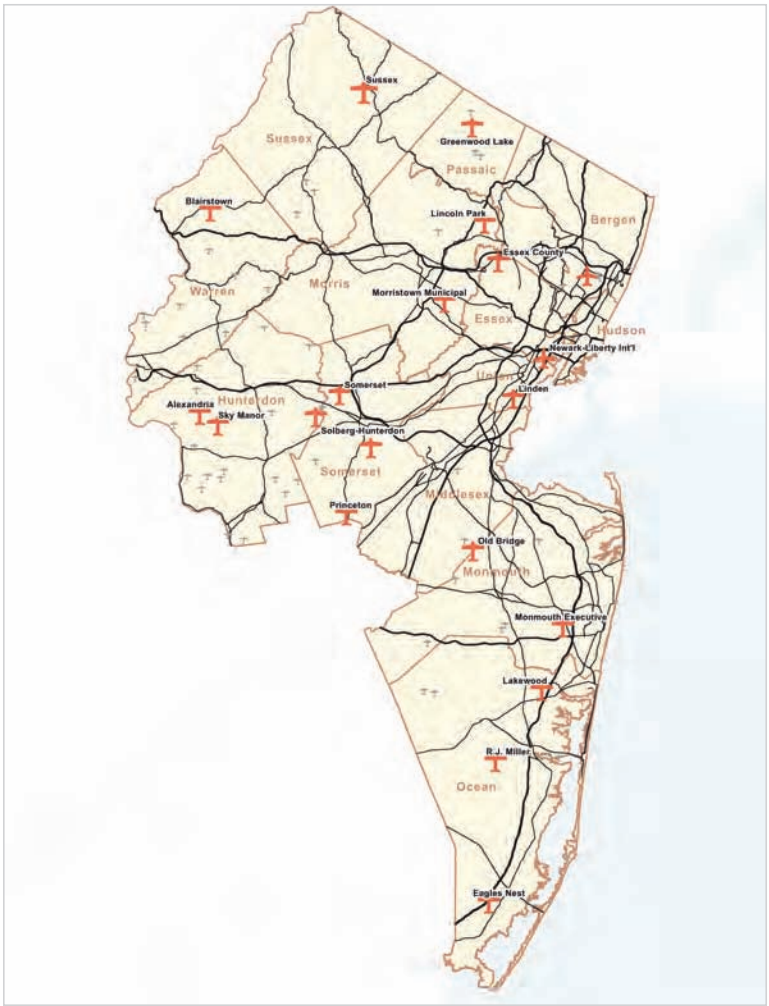
North Jersey
Transportation
Planning
Authority, Inc.

OVERVIEW OF THE REGION'S

General Aviation Airports

Final Report

JUNE 2008



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NJTPA compiled this report from a number of sources. While an effort has been made to assure accuracy, it cannot be guaranteed. This report should not be used for flight planning or aerial navigation purposes.

The NJTPA

The North Jersey Transportation Planning Authority is the federally authorized Metropolitan Planning Organization (MPO) for the 6.5 million people in the 13-county northern New Jersey region. Each year, the NJTPA oversees over $2 billion in transportation investments. The NJTPA evaluates and approves proposed transportation improvement projects and provides a forum for interagency cooperation and public input into funding decisions. It also sponsors and conducts studies, assists county planning agencies and monitors compliance with national air quality goals. The NJTPA serves the fifth most populous MPO region in the country. The NJTPA Board consists of one elected official from each of the region's 13 counties and two largest cities, Newark and Jersey City. The Board also includes a Governor's Representative, the Commissioner of the NJ Department of Transportation, the Executive Directors of NJ Transit and the Port Authority of NY & NJ and a Citizens' Representative appointed by the Governor. NJTPA Board meetings are held bi-monthly and are open to the public. For more information: www.njtpa.org

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Report on NJTPA Region's Airports

Summary

There are 27 general aviation airports in the NJTPA Region. In preparing this report, visits were made to each of the 19 “Core” airports in the region. Core airports are those designated by the NJDOT as being essential to the continuance and preservation of general aviation in New Jersey. Newark-Liberty International, as a major commercial hub, was not included. Nor were the five privately-owned non-Core facilities in the region. The primary purpose of these visits was to interview the owners /operators of these airports for general information, signage (wayfinding) needs and access issues, if any. With very few exceptions, lack of signage leading to the airports was a major issue. This report will serve as a basis for further investigation and collaboration with NJDOT and county and municipal officials looking to establish uniform signage placement.

Section 1. The NJTPA General Aviation Task

The NJTPA, as the Metropolitan Planning Organization for the 13 northern and central New Jersey counties, focuses its planning activities on "surface" transportation -- principally involving roads, bridges, trains, walking and biking. Air transportation has been the purview of state government (the Division of Aeronautics in the New Jersey Department of Transportation) and the Port Authority of New York and New Jersey (which owns and operates the region's four largest airports). However, surface and air transportation are integrated into the larger multi-modal transportation system. In particular, people and businesses use the road network to access airports. But there are also economic connections: airports play a role in commerce that affects the health of the state's economy and as such influences the demand for travel in all forms. Airports, by their nature, occupy large tracts of land, affecting patterns of land use and development that have implications for the transportation system.

This report represents the initial efforts of the NJTPA staff to explore these connections in the NJTPA region and to identify the issues they raise for improving the overall transportation network. The report focuses on the region's "General Aviation" airports, as these have received relatively little attention and are the least well understood by many in the transportation planning community.

This overview provides a summary description of the region's airports and issues affecting them. The concluding section profiles each of the region's General Aviation airports based on field visits performed by NJTPA staff during the fall of 2006 and winter of 2007. Airport managers and operators of the region’s core airports were interviewed for their views on aviation in general and issues confronting their airports in particular.

Aviation in the NJTPA Region

This report focuses on the region's 19 Core General Aviation (GA) airports which host some 2,900 aircraft or about 66 percent of the state's total. In addition, there are five privately-owned, public use non-Core airports with 155 based aircraft. The term "General Aviation" encompasses all aircraft operations other than scheduled airline or military flights. General aviation uses are many and varied. They include private and business flying, sport aviation, aerial photography and surveying, agricultural uses, medical emergencies and transport of donor organs, flight training and use by police and firefighters. Types of general aviation aircraft also vary, from small single-engine aircraft to multi-million dollar corporate aircraft with intercontinental capabilities. The region's GA airports range in size from 73 to 850 acres. Of the region's 19 Core airports, seven are publicly owned (by municipal, county and state entities). The remaining 12 are privately owned. Statewide there are 46 GA airports and 15,000 licensed pilots.

While these GA airports often are actively used and play an important transportation role for the state, activity is low in comparison to the region's largest airport -- Newark-Liberty International Airport (EWR), which is owned by the Port Authority of NY & NJ. In the 12-month period ending June 2007, the Port Authority reported that EWR hosted 35.9 million passengers and managed 443,622 scheduled operations including 14,414 general aviation flights. Cargo handled, not including mail, amounted to 961,466 tons, making EWR the 7th largest in the U.S. in terms of air freight tonnage, and 15th in passenger traffic.

Among the region's GA airports, Teterboro Airport is in a class by itself in terms of flight activity. Located in Bergen County, Teterboro, also owned by the Port Authority of NY & NJ, is a key reliever for non-commercial aircraft in the New York City metropolitan area, primarily corporate aircraft. It has a 100,000-pound operating weight restriction, precluding operations by many of the larger commercial and some corporate aircraft. Teterboro recorded more than 200,000 movements in 2006. It is a center for the emergency movement of donor organs, U.S. mail and packages, and for decreasing but still significant traffic in Federal Reserve Bank documents.

The state's other GA airports supplement the services at Newark-Liberty and Teterboro, providing a base for both business and personal travel. As discussed below, new aircraft technology may enhance this role. Among the other uses of GA airports cited above (recreation, flight training, etc.), a potentially important - and often unappreciated - role involves their use in national or local emergencies. They are available for use by first responders for staging and delivery of medical and relief supplies. They also can serve as the bases for firefighting, including the use by "airtankers" in fighting forest and other large scale fires. Aerial fire suppression was crucial in fighting the wild fires in southern California last summer.

Economic Role & Trends

An economic impact study done in 2003 for the State Airport System Plan estimated that the state's GA airports generated statewide employment totaling more than 18,000 full-time positions with an annual payroll of more than $625 million. The report also indicated, using broader definitions, that directly related employment involving aircraft, airport and heliport operations was as high as 70,000 jobs, with annual economic impacts of almost $14.0 billion.[1]

This economic role for GA airports has grown steadily in recent decades, despite the closure of a number of airports. Indeed, the number of GA airports has been halved since World War II. The last new public use airport was constructed in 1983; since then, 13 public use airports in the state have closed. The closures were the result of business decisions as well as the reality of rising real estate values in the state. Like many farmers in the New Jersey, some airport owners have received lucrative offers from housing and commercial developers for the wide expanses of land under their control. In addition, as the state's population has grown, airport owners have often faced community opposition to their operations and limits on their expansion plans.

The fact that the number of aircraft and flights in the state did not drop off with the reduction in airports is attributable, in part, to greater efficiency in the use of land and in operations at the remaining airports. It also reflects the fact that older aircraft are being replaced with more capable and complex aircraft with more range and capacity. A final and important factor in recent years is the emergence of fractional ownership. This "time share" option allows smaller companies or individuals to own a fraction of an aircraft and receive management and pilot services associated with the aircraft's operation. Fractional ownership allows companies that have never before used business aircraft to experience many of the advantages of business aviation without the startup and maintenance costs typically associated with traditional flight departments.

Taking advantage of these new ownership options, the strong base of corporate offices and headquarters in the state has generated significant increases in corporate operations by both based and transient aircraft, especially at the larger GA airports. Many major corporations now use general aviation in an effort to avoid air carrier delays and to provide a greater degree of flexibility and security for their executives. Teterboro, in particular, has become a base for corporate aircraft and a hub for transient business aircraft with a significant jump in traffic post-9/11. Significant increases have also taken place at Morristown, Essex County and Monmouth Executive airports.

There has been a ripple effect of this increasing traffic: as a result of the larger airports catering to more executive travel, smaller aircraft (and flight schools) are moving to the region's smaller airports. For instance, a tie-down for a basic single-engine four-place aircraft at Teterboro is now $500 per month, compared with $140 to $150 per month at nearby airports, and under $100 per month at others—a function of distance from the metropolitan core.

The use of smaller GA airports for business and other travel is likely to accelerate as a result of the newest aircraft technology. The Very Light Jet (VLJ or micro-jet) is a potential replacement for older twin engine and turbo prop aircraft which began to disappear from the market in the mid-1980s. This new breed of business aircraft costs 50 percent less than the existing turbine business aircraft, has a ceiling in excess of 40,000 feet, is fuel efficient, and requires significantly less runway. They are quieter than conventional jet aircraft and more of the state's existing runways will be able to accommodate them compared to existing jet aircraft. The VLJ is being touted as perfect for air taxi service. There are currently 15 manufacturers including Eclipse, Cessna and Piper. Honda is gearing up to produce their own version of the VLJ. The aircraft are just starting to enter the marketplace and many airport owners are still unfamiliar with their operational requirements and how to accommodate them

Challenges to Preservation/Expansion

Many of New Jersey's GA airports remain under the threat of closure, despite being a vital component of the state's integrated multi-modal transportation system. The most vulnerable are the state's 30 privately owned airports. There has been a 50-year history of these airports being converted to non-aviation uses. New Jersey has the highest percentage (60 percent) of privately owned public use airports in the nation.

NJDOT and its Division of Aeronautics have been very active since the 1990s in working to preserve public use airports**.** This has been accomplished by outright purchase, the purchase of development rights, and by stipulations in Federal Aviation Administration (FAA) grants obligating airports to remain open for public use. In all, eight airports, home base to over 800 aircraft, have been preserved through these efforts. In addition there are nine airports in various stages of negotiation with the state. This latter group serves as base to nearly 900 aircraft.[2] In recognition of the state's work in this area, the national Aircraft Owners and Pilots Association (AOPA) have stated, "New Jersey has become, far and away, the national model for developing and implementing policies and practices to help preserve and protect the general aviation infrastructure."

Beyond the threat of closure, airports face difficulties in expanding their operations to meet demands. Many airports are hemmed in by development. The NJDOT publication New Jersey Flight Log discussed the problem in 2004:

> "The aircraft parking congestion results from a chronic system-wide shortage of T-hangar [low cost aircraft storage buildings], hangar and high quality paved aircraft tie-down spaces for based aircraft. There are no vacant T-hangars in New Jersey. Shared hangar space is sometimes available, but expensive. High quality taxi-in / taxi-out paved outside tie-down space is increasingly difficult to find. While good transient parking is generally available, there are some New Jersey public use airports where the only available space for new based aircraft is on grass or gravel. A few airports have no available space, of any kind, at any price."

Community opposition, particularly over noise issues, can present difficult challenges. The airport operators interviewed for this report all expressed the need to act as good neighbors and listed airport noise control as their first priority.

Under these constraints, airports must maximize the use of usable land within airport boundaries, including by efficient placement of tie down areas and hangars. They must also insure efficiency in operations by adopting a policy of "fix-it-first" for repairs and modifications within their boundaries, and they must adjust operations to minimize noise.

Still, to meet rising demand there is a need for new runways, airport clear zone expansion and runway extensions. How and where such capacity expansions can be accomplished, while meeting community concerns, is a difficult public policy issue.

Lasting solutions will likely require action by state agencies and the legislature. A number of airport owners and operators say that they would like to see the state buy land around all threatened general aviation airports, outside of the airport boundaries, to insure the preservation of these airports and prevent encroachment by incompatible development. Furthermore, they would like to see the state take a proactive roll in protection of airport lands through zoning and land use. The cost of defending against increasing pressures can be crippling to small airports.

The General Aviation Study Commission Report of 1997 [3] offered seven recommendations:

- **Revisions of New Jersey's Property Tax Laws**. Such revisions would look to alleviate the inequitable tax burdens placed on private owners of public use airports.
- **Establishment of Airport Zones**. The Commission recommended the creation of an "airport zone" under Municipal Land Use Law. Such a zone would operate in the manner of a hospital, commercial, or residential zone but would provide the opportunity for NJDOT to regulate development within these zones.
- **Establishing Programs Enabling Airport Owners to Sell Development Rights.** The Commission recommended that the state establish a program which would allow private airport owners to sell their development rights to other private parties or to the state. The state would stand ready to purchase development rights if they were offered.
- **Expand Capital Improvement Funding.** The Commission recommended that the state offer an aggressive expansion of capital improvement funding for airports for land acquisition, airport lighting, and Automated Weather Observation Systems (AWOS).
- **Establish the NJDOT as the Exclusive Agency to Determine Airport Improvement and Environmental Issues.** The NJDOT would be empowered to administer all laws and regulations regarding land use and environmental protection within "airport zones." Safety considerations would supersede environmental protection where NJDOT finds that the two are in conflict.
- **Secure a Right of Refusal Exercisable in the Event an Airport Seeks to**

Change Its Use. The Commission recommended that any grant of State Aid given to a GA facility be on the condition that (1) the airport have an airport committee (a committee made up of airport owners, users, and members of the community in which it lies); and (2) the airport has agreed to give the State first right of refusal to purchase the airport at the same price that a bona-fide third party purchaser has agreed to pay.

- **Standardization of Rules and Regulations**. The Commission recommended that the NJDOT define in detail the facilities of a model airport for the state in accord with the foregoing recommendations and give notice that the NJDOT alone will regulate activities and standards at New Jersey airports. The model would incorporate all appropriate standards for safety, noise containment and for economic viability of the airport.

Of the above, only the recommendation that a program be established to enable private airport owners to sell their development rights to the state has been enacted. Three airports have taken advantage of this program to date.

Financing

Both publicly and privately owned airports can receive aid for improvements**.** Annual general aviation airport capital aid funding comes from two sources, the FAA and the New Jersey Airport Safety Fund, a line item within the Transportation Trust Fund. Statewide, FAA-apportioned GA funding for infrastructure is currently about $5 million annually. State funding for general aviation airport infrastructure has been averaging about $7 million per year.

In general, the state's investment priorities are safety, runway/taxiway improvements, airport preservation, airport planning and aviation promotion. Discretionary funding also is available from the federal government on a competitive basis. These funds can total millions of dollars and are used for the same type of expenditure as the FAA-apportioned funds. In 2003, the Governor's Blue Ribbon Transportation Commission estimated that, over the next ten years, the total federal and state investments needed to preserve and rehabilitate New Jersey's system of GA airports would approach $340 million. This far outstrips current revenue streams.

In the last few years, airports have faced additional costs to meet new security requirements as a result of 9/11. The Transportation Security Administration (TSA) has required tighter controls and background checks for flight training schools and charter operations. It has issued "Security Guidelines for General Aviation Airports." As a cornerstone to the guidelines, the TSA recommends use of the AOPA's Airport Watch program and provides additional security recommendations for general aviation airport operators.

Infrastructure / Access Issues

Many of the issues discussed above are beyond the jurisdiction of the NJTPA in its role as a transportation planning agency primarily concerned with roads, bridges and railroads. However, in interviews conducted for this report (the findings of which are highlighted in the next section) the NJTPA found that several airports in the region are affected by the condition of transportation infrastructure, particularly the road network, serving their facilities. Like many businesses in the state, they face access problems due to traffic congestion in peak periods as well as the need to upgrade outmoded infrastructure (narrow bridges, lack of turn lanes, etc.). However, a particular issue affecting airports was found to involve "wayfinding" -- the lack of adequate signage to direct users to their facilities.

Recommendations

While this report is not meant to supplant federal or state regulations or policy concerning general aviation airport operations or on-airport activities, it recommends that the NJTPA, working with NJDOT Bureau of Aeronautics, county and municipal planners, and airport owners/operators consider the following:

- Incorporate findings from this report into the update of the NJTPA long-range transportation plan scheduled for 2009.
- Advance signage issues through state and county planners. Issues include location of placement, wayfinding, conformity of signage appearance, responsibility for sign placement and upkeep, penalties for defacement and unauthorized removal.
- Cooperate and collaborate with NJDOT Bureau of Aeronautics on developing a regional general aviation airport signage program.
- In cooperation with NJDOT, consider the findings of this report in the NJTPA's planning and annual decisions regarding capital improvement projects around the region.

Figure 1. NJTPA Region Airports Specifics

County	Municipality	Name	Ownership Type	Owners/Operators	Based A/C (EST.)	Acreage	Runway 1	Runway 2	Surface	Ops/day
Bergen-2		Little Ferry Seaplane Base					5500x150		Water	
	Teterboro	Teterboro *	Public	PANYNJ	143	830	7000x150	6013x150	Asphalt	593
Essex-2	Fairfield	Essex County Airport *	Public	Essex Cty. Improv. Auth.	393	275	4553x80	3721x75	Asphalt	673
			Public Use							
Essex-Union-1	Newark	Newark Liberty Int'l Airport*	Public-Major Hub	PANYNJ		2,027	Tot. 27,780	3 runways	Asphalt	1193
Hudson-0										
Hunterdon-5	Pittston	Alexandria Field *	Private	Alexandria Airpark LLC	86	75	2550x50	1810x100	Asphalt	82
	Pittston	Sky Manor *	Private	Kent Lynn	90	73	2439x50		Asphalt	90
		Coach and Paddock H'Port	Public Use							
		Ryland Inn H'Port & Balloon	Public Use							
	Readington Township	Solberg-Hunterdon *	Private	Solberg Aviation Co.	78	721	3735x50	3440x200	1-asphalt/2-turf	102
Middlesex-1	Oldbridge	Old Bridge *	Private	Madison, Inc.	112	120	3594x50		Asphalt	70
Monmouth-1	Wall Township	Monmouth Executive Airport *	Private		220	850	7300x80	3707x50	Asphalt	157
Morris-2	Morristown	Morristown Municipal *	Public	Town of Morristown	325	638	5999x150	3998x150	Asphalt	600
	Lincoln Park Borough	Lincoln Park *	Private	Geo. Peck/Peter DeRosa	100	168	2942x40		Asphalt	200
Ocean--3	Toms River	Robert J. Miller Airpark *	Public	Ocean County	116	450**	5949x100		Asphalt	102
	Lakewood Township	Lakewood *	Public	Lakewood Township Authority	75	192	3457x50			75
	Eagleswood Township	Eagles Nest *	Private	Kummings Eagles Inc.	1	82	2200x60		Asphalt	
Passaic-1	Greenwood Lake	Greenwood Lake *	Public	NJDOT- Airport Mgr. Tim Wagner	45		4000x60		Asphalt	81
Somerset-3	Hillsborough Township	Central Jersey Regional *	Private	Central Jersey SVCS	120	126	3509x50		Asphalt	103
	Montgomery Township	Princeton *	Private	Princeton Aero Corp.	120	100	3100x75			156
	Bedminster Township	Somerset *	Private	Somerset Air Service	205	197	2733x65	2200x100	1-asphalt/2-turf	112
Sussex-4	Sussex	Sussex *	Private	Sussex Airport, Inc.	145	96	3499x75		Asphalt	93
		Aeroflex-Andover Field	Public	NJ Forest Fire Serv.	68		1981x50		Asphalt	68
		Newton	Private	RRL Group	6		2546x45		Asphalt	39
		Trinca	Public	Green Township	22		1924x135		Turf	31
Union-1	Linden	Linden Municipal *	Public	City of Linden	129	188	4137x100		Asphalt	118
Warren-2	Blairstownn Township	Blairstown *	Private	J.D. Air, Inc.	159	151	3100x70		Asphalt	64
		Hackettstown	Private	Donald Schwanda	62		2200x50		Asphalt	52
Airports-27										4261
***Core Airports -20**						** On 856 county owned lands				
Core Airport based Aircraft		**2,635**								
Core Airport Acreage		**6,909**								
Core Acreage less EWR		**4,882**								
Core Acreage Avg		**271**								

Source: New Jersey State Airport System Plan
Ownership/Acreage/Based Aircraft - AirportIQ 5010 website
New Jersey Airport Directory 2003-2004

Section 2. Profiles of NJTPA Region Core Airports

An integral task of this report was to profile the core airports in the NJTPA region. The following information and data was gathered through staff visits to the 19 airports in the region and conducting on-site interviews with their owners and/or managers. Newark-Liberty Airport, predominantly a commercial service airport, was not profiled. The purpose of these site visits was to establish an understanding of the role of general aviation in the NJTPA region. As part of this understanding, it became apparent in discussions with the NJDOT Bureau of Aeronautics and airport managers, that wayfinding to these airports was an area where the NJTPA could contribute to NJDOT, county and municipal efforts. Along with a narrative on each core airport, an aerial photograph of the airport property is provided, as is a locational map and a map depicting traffic volumes on adjacent major roadways.

This report is not meant to supplant either federal or state regulations or policy concerning general aviation airport operations, or on-airport activities. The NJTPA will look to assist the state in airport preservation through its ongoing planning activities and the consideration of general access improvements as well as signage to the region's GA airports.

[Files containing profiles of airports posted separately on www.njtpa.org]

End Notes

[1] The Economic Impact of NEW Jersey Airports State Airport System Plan, Wilbur Smith Assocs. October 2003

[2] NJDOT document "Airport Preservation Progress Benchmarks"

[3] Report of the New Jersey General Aviation Study Commission-Commissioned Public Law 93 Chapter 336